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Alleviating Working Poverty in Postindustrial Economies

Eric Crettaz

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IMPRIMATUR

Le Directeur de l'Institut de hautes études en administration publique, sur proposition d'un jury formé des professeurs Giuliano Bonoli (rapporteur), Yves Flückiger, François-Xavier Merrien et Nils Soguel, sans se prononcer sur les opinions du candidat, autorise l'impression de la thèse de Monsieur Eric Crettaz, intitulée:

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Le Directeur de l'Institut

A handwritten signature in black ink, which appears to read 'Jean-Loup Chappelet'.

Prof. Jean-Loup Chappelet

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“To say who is poor is to use all sorts of value judgments. The concept has to be limited by the purpose which is to be served by the definition. There is no particular reason to count the poor unless you are going to do something about them.”

Orshansky Mollie (1969), *How Poverty is Measured*, Monthly Labor Review, 92(2): 37.

1 Introduction: Analyzing Working Poverty

Why do we need to study working poverty in postindustrial countries? It would certainly make sense to worry about the situation of those who work in developing countries' informal economy and who are never sure to “make it until the next day”. Similarly, it makes obvious sense to analyze the most severe forms of deprivation, especially homelessness, in high-income countries. But in today's advanced economies we may find puzzling the fact that a person holding a job – sometimes a full-time job – has to endure poverty. The puzzle is particularly striking given the development of dual earnership and the expansion of the welfare state in recent decades; yet, working poverty has been “rediscovered” in recent years and is perceived as a growing problem. The present work deals with the apparent paradox of the re-emergence of working poverty in postindustrial economies and contributes to the identification of potential solutions.

As will be shown below, low wages and income poverty follow partly independent logics, which are mainly due to the two above mentioned phenomena, namely the development of the welfare state, on one hand, and the increasing share of dual-earner families, on the other hand. In countries in which this household type is widespread and set the norm in terms of consumption and living standards, living in a single-earner family becomes a disadvantage. As a result, there is no compelling reason why workers, even full-time year-round workers, should escape (relative) poverty. Moreover, the effectiveness of work as an antidote to poverty depends on the amount of work performed. Working only few hours a week cannot be expected to protect someone from poverty.

Working poverty constitutes a puzzle worth studying in the sense that work, nonetheless, constitutes for most of us a guarantee of a poverty-free existence. In addition, the metamorphoses of the labor market in postindustrial economies have led to a growing relative disadvantage for certain subgroups of the labor force, and it is fundamental to understand them.

1.1 Research problems and questions

Tradeoffs and tensions are at the heart of the present work. This is, indeed, one of the most striking features of the fight against poverty among the working-age population. On one hand, by imposing strong labor market protections and high labor costs in the form of nonwage costs (mainly social security contributions to finance “generous” social programs), some policies may increase the difficulty disadvantaged adults have in finding a job or workers in keeping theirs, thereby replacing working poverty by unemployment and inactivity. On the other hand, maximizing labor force participation by reducing employment protection and

lowering benefits is a risky business that can lead to skyrocketing inequalities, with many unemployed persons and welfare recipients thrown into poverty, which is not a desirable outcome either. As a matter of fact, it could be said that poor workers, as well as policymakers, are held hostage by the situation.

The central goal of the present work is to identify policy mixes that both limit the incidence of poverty among the workforce and enable an employment-friendly environment. Put differently, my objective is to identify social-policy interventions that support low-income workers and largely limit collateral damages in terms of employment, taking into account the fact that there are many tensions at the household level too, between labor market participation, earnings levels, family formation, and fertility.

The specific questions derived from this general objective are the following:

- what are the main economic and sociodemographic factors that produce poverty among workers in postindustrial societies?
- are there different types of working poverty, depending on its causes?
- what specific policy tools have a positive antipoverty impact? What is their impact on employment? In which context do they work?
- how are these policy tools organized in real welfare states and what is their impact?
- to what extent do working poverty mechanisms differ across welfare regimes, and how do they translate into differences in terms of the size and composition of the working poor population?

1.2 Analytical approach and methodology

How is it possible to identify policy mixes that can ease the tension between working poverty and unemployment, that is, between the quality and the quantity of jobs available?

To start with, it is necessary to review the literature on working poverty and neighboring topics (low-wage employment, income inequality, and the like) in order to **identify the main causes of working poverty**. There are economic determinants, such as globalization, deindustrialization and the transition to a service economy, as well as endogenous changes such as technological developments and evolutions of the production model, and also the impact of business cycles and unemployment on working poverty. There are also macrosocial and demographic determinants, such as the increase in divorce rates and the growing number of lone-parent families, the increased impact of social endogamy in societies characterized by growing female employment rates, changes in the social structure, and the fact that poverty increasingly affects young adults. Public policy factors are also fundamental; hence, in a second step, it is fundamental to review the social policy literature in order to **identify public policy instruments that seem to be promising** and to work in a specific socioeconomic context. The main instruments I was able to identify are minimum wages, tax credits for workers, family cash benefits, and childcare policies.

Moreover, after having analyzed the main macrolevel causes of working poverty, I also identify three mechanisms through which economic, sociodemographic and public policy factors have a direct bearing on households, namely low wage rates, low labor force

attachment expressed as a percentage of full participation (achieved if all working-age household members work full-time) and high needs given the household's earnings potential (mainly the number of children per working-age adult, as well as the increase in needs after a divorce). This allows understanding why the size and composition of the working poor population differs across countries, and shows that there are various groups of poor workers who are in different situations. At this stage, I will be able to answer the following questions: **Why do many workers in postindustrial economies endure relative poverty and what are the mechanisms leading to it? Which are the various types of working poverty that can be identified?** Failing to acknowledge these contrasting situations can only obscure the debates on how to fight these problems.

The chapter devoted to public policy factors is concluded by a reflection on welfare regimes. Researchers argue about the best typology of welfare regimes, and Esping-Andersen's (1990) famous triptych – Social-democratic, liberal and conservative corporatist welfare regimes – has been criticized on many grounds. Feminist authors blame it for failing to account for gender issues, as countries that promote a dual-earner model and those who promote single earnership are classified in the same cluster. Other authors propose typologies based on other indicators, specific social policies for instance; finally, other scholars have advocated the addition of further clusters of countries, mainly Mediterranean countries and the Antipodes.

In the present work, I show that the social policy literature allows identifying three approaches to the fight against working poverty, namely minimum wages, social transfers, and an employment-maximizing strategy. Each approach can be broken down into two subcategories: Minimum wages can be either legally enforced or collectively bargained, social transfers can either constitute a substitution income for persons who cannot earn a living or a complementing income for working households, and the employment-maximization strategy can be either based on incentives and productivity-enhancing measures or on coercion. This allows me to conclude that a four-cluster typology is the most appropriate for the analysis of policies that aim at combating working poverty: **Social-democratic, “liberal”¹, corporatist conservative, and Mediterranean welfare regimes.**

After the identification of promising social policy instruments and the definition of a welfare regime typology, the first prong of my empirical strategy consists in a research synthesis that goes beyond traditional literature reviews, namely a meta-analysis - in the form of a weighted vote-counting procedure accompanied by statistical tests - of particular social policy tools in their “natural” social, political and institutional environment in a recent past (namely articles published in the 21st century). The main objective is to assess both antipoverty and employment effects. After a systematic selection of articles through scientific search engines allowing the collection of regression and simulation results, I assess whether researchers were able to reach a consensus as to the efficiency or inefficiency of a measure, and if not, if the majority of articles conclude that a given policy has positive or negative effects and if these

¹ The word “liberal” is polysemantic: Its meaning depends on the context and on which side of the Atlantic it is used. Esping-Andersen's use is very different from that of American conservatives who blame the “liberal” welfare state for the behaviors it generates, and the “liberal” politicians who implemented it. Esping-Andersen's use of the term refers to a welfare regime that mainly relies on market mechanisms, whereas public policies compensate for market failures and provide help to the poorest members of society. In what follows, the expression “liberal welfare regime” refers to Esping-Andersen's phraseology, while “neoliberal” refers to the belief that free-operating markets and the leanest possible welfare state is the only way to achieve wellbeing for all.

effects are significant, depending on the methodology used and the population studied. In addition to general conclusions, in order to take the “real world” of social policy into account, results are broken down by welfare regimes. This first empirical contribution allows answering the following question: **What policy tools are effective in which context, and for whom?**

In the real world of social policies, however, single policy tools are intertwined in a complex set of other social policies and labor market regulations, and their efficiency also depends on the sociodemographic composition of the labor force, and on the state of the economy (for instance, the American Earned Income Tax Credit was strongly expanded at a time when the US experienced one of the most prosperous decades of its history). Hence, the second prong of my empirical strategy consists in an analysis of existing welfare regimes, by using the above mentioned typology (liberal, social-democratic, conservative corporatist, and Southern European), which is based on the main social policy tools and labor market regulations that have an impact on the extent of working poverty and the relative size of various risks group. The US, Sweden, Germany, and Spain epitomize these four welfare state clusters.

This approach accounts for the fact that various social policy instruments do not work independently, but covary; it also includes a reflection on recent shocks to these welfare systems and the ways in which welfare regimes reacted to these exogenous shocks. Empirically, the relative weight of each working poverty mechanism in each welfare regime is assessed, as well as the composition of the working poor population, the latter being a consequence of the former. Robustness checks are carried out based on various poverty indicators and thresholds. This second empirical contribution allows answering the following questions: **What kind(s) of working poverty are generated in which welfare regime? What factors weigh the most in each regime?**

The combination of the two prongs of the empirical provides indications as to the question: **Which policy mix works in which welfare regime, and why?** At the very end of the present work, I analyze the ability of each welfare regime to overcome the tradeoff between working poverty and employment performance, based on the empirical results provided throughout this document. Most countries do not seem to be in a situation to overcome the tension between the quality and the quantity of jobs. However, Scandinavian countries combine low working poor rates, low unemployment and high employment rates. The present work provides explanations as to why this welfare regime appears to be better equipped to face the challenges posed by postindustrial mutations in general and working poverty in particular, as well as the very specific conditions under which this model functions that make it difficult to export. I also provide some elements as to the main characteristics this tradeoff has in the other three welfare regimes.

However, it is not possible to do what is described in the previous paragraphs right away, because there is a big problem with the definition of working poverty in postindustrial economies. Until recently, there was a definitional “chaos” characterized by arbitrariness, which is probably attributable to the fact that conceptual reflections were largely missing. Not only is it difficult to set a poverty line, a task that has kept social scientists busy ever since the first poverty reports were published at the end of the nineteenth century. Usually, social policy research is based on a monetary poverty line and the headcount ratio (the number of poor persons divided by the size of the population), but other monetary thresholds, other poverty indicators, and different approaches (nonmonetary and subjective indicators) have been proposed. There is no consensus among poverty researchers; however, for national studies, I advocate the use of thresholds derived from social policy entitlement thresholds; for

comparative studies, it can be useful to rely on official definitions, in order to increase the comparability of different studies. More problematic in my view is the fact of setting an arbitrary threshold in terms of number of hours a week or months a year to define who is “working”. I advocate the use of a very encompassing definition, combined with a typological approach to the definition, rather than excluding groups of disadvantaged workers from the outset.

Regarding the empirical part of the present work, other approaches would have been conceivable, in particular meta-regression techniques in order to quantify the employment and antipoverty impact of each policy, as well as microsimulation methods that allow checking the impact the introduction of a new policy mix, or the reform of an existing one, would have in a given country.

Developing meta-regression models would indeed be the next step to take after the meta-analysis carried out in the present work, once a particular set of policies is deemed to be a potentially efficient in a given context, in order to further the understanding of its impact. In this case, it would be necessary to enlarge the pool of estimates at disposal, for instance by extending the period of time considered for the selection process; indeed, meta-regression, as any other econometric technique, requires a minimum number of observations in order to carry out reliable analyses. It is probably advisable to have at least 100 estimates to be able to draw reliable conclusions. Moreover, meta-regression requires the use of a common metric for all results, which is far from evident when generalized linear models are used (logit, probit, etc.). This approach necessitates a considerable amount of empirical work; hence, this kind of approach usually focuses on a specific policy in a specific subset of countries (with comparable institutional and economic environments), whereas my perspective is broader in scope as I aim to identify various policy mixes that seem to work in various institutional contexts, without attempting to accurately assess the magnitude of their effect.

As regards microsimulation, this method necessitates to focus on one country and to know in great detail its fiscal system, labor market regulations and welfare state. In the case of countries with federal institutions, a microsimulation at the national level can become extremely tricky. This type of empirical work should only come after a careful examination of the interplay of the national context and social policy instruments, a stage that is sometimes skipped in the literature, with authors directly assessing whether a specific social policy measure would reduce working poverty without any adjustment of the parameters of this measure to the socio-demographic reality of the country in which the simulation is carried out. This methodological device should, indeed, represent the final step to take in a comprehensive approach of the analysis of policies that allow combating working poverty in a specific country.

1.3 The main arguments in a nutshell

Throughout this work, I have developed an understanding of the problematic of working poverty in postindustrial economies that is structured by three main theses. These arguments were not determined from the outset; they progressively emerged as the conceptual and the empirical work went forward.

- **There is no such thing as “the working poor”;** there are (at least) three types of working poverty. Conceptual reflections about the definition of the “working poor phenomenon” and estimations of the size of various risk groups led to an analysis of working poverty mechanisms, which in turn led to the conclusion that there are at least three types of working poverty: Some workers are poor because they are badly paid, others could escape poverty should they work more but they cannot, while a third group of poor workers are in a difficult situation because of their household’s needs.
- **Different welfare regimes generate different types of working poverty.** After having identified different types of working poverty, and because it is a well-known finding that the socioeconomic composition of the working poor population varies across welfare regimes, I investigated the impact of welfare regimes on the three working poverty mechanisms I had identified and came to the conclusion that welfare regimes have, indeed, a pervasive impact on these mechanisms.
- **There is no “one-size-fits-all” policy mix. Each regime must find its own combination of policies.** As the relative weight of the three mechanisms leading to working poverty varies widely across welfare regimes, a logical consequence is that it is impossible to determine a single policy mix that would have the same efficiency in each regime. This logical conclusion was confirmed by the meta-analyses I carried out, especially when results were broken down by welfare regime.

1.4 Analytical limits

In what follows, two important potential solutions to the working poverty problem are not dealt with. A first option would be to combat in-work poverty by promoting a general upskilling, as low-skilled workers have experienced an increasing disadvantage in postindustrial labor markets characterized by the growing importance of computerized processes and of interactions with other persons (in the service sector), requiring a higher educational level and better “social skills”. This goal, however noble and advisable it may be, pertains to a completely different field of public policy, as well as a different type of knowledge and strand of literature, than the policies analyzed in the present work. Another option would be to put more emphasis on active labor market policies targeted at nonworking partners of poor workers, in order to enhance households’ earnings and financial autonomy. This would go, however, far beyond the scope of the present work, and would constitute a research topic of its own.

Another limitation needs to be put to the fore. In the empirical part of the present work, monetary definitions of poverty have been used. In fact, it has proved impossible to find any evaluation using nonmonetary poverty indicators for the meta-analysis. However, as will be analyzed below, some researchers have advocated the use of nonmonetary indicators to measure poverty as they perceive them as more revealing and more accurate depictions of the living conditions of disadvantaged families (Ferro Luzzi, Flückiger, Weber, 2008, Suter and Paris 2002). These indicators usually take the form of direct measures of living conditions (whether or not respondents possess certain goods) combined with “subjective” indicators, e.g. asking respondents why they do not possess a specific good (is it due to lacking financial resources or is it a choice?). Other scholars have proposed to use purely subjective indicators

such as the degree of satisfaction with family income or the level of income deemed absolutely necessary to “make ends meet” (van Praag, Goedhart, Kapteyn, 1980). Whereas I fully agree with the idea that nonmonetary indicators may provide a more accurate account of living conditions than income, especially for some subgroups of the population whose financial situation is very difficult to assess (Antille, El May, Miceli, Silber, 1997), it also needs to be said that for the social policy objectives outlined above, monetary indicators appear to be more useful, as the vast majority of social and labor market-related benefits are monetary (minimum wages, tax credits and allowances, child allowances, family benefits, as well as all “passive” benefits related to disability, old age, sickness, unemployment, widowhood, etc.) or consist in near-cash benefits (food stamps, housing subsidies, childcare vouchers, etc.). This is the reason why a monetary definition of poverty is used in the present work, and the robustness of findings is checked by using various indicators of the financial situation and various poverty indicators.

Last but not least, only the formal labor market and legally-earned incomes will be analyzed in the present work. Bourgois, an American anthropologist, lived during his fieldwork in an East Harlem neighborhood dubbed “El Barrio” and noted that, according to official statistics, his neighbors should have been homeless and starving, but the majority was not, which indicated the presence of an underground economy that had a major impact on living conditions. A part of this economy consists in informal but noncriminal activities, such as curbside car repairing and baby-sitting, but the cocaine, crack and heroin-related activities seemed to be the only equal-opportunity activities in this neighborhood (Bourgois, 2003). Interestingly, all drug dealers working in the crack selling network Bourgois observed had had legal jobs in the formal labor market (messenger or mail room clerk, janitor assistant, photocopiers and other service-sector entry-level occupations) and started working at very young ages. More surprisingly, some of them had not completely withdrawn from the legal, just-above-minimum-wage labor market. Bourgois met a female drug dealer who, in order to nurture her children, had to cumulate legal low-wage employment, welfare benefits (welfare gave this lone mother at the time of the interview \$53 a week only) and drug selling. According to Bourgois, “[street dealers’] income is almost never as consistently high as they report it to be...According to my calculations, [the dealers Bourgois befriended], for example, averaged slightly less than double the minimum wage – between seven and eight dollars an hour...it took me several years to realize how inconsistent and meager crack income can be’ (Bourgois, 2003: 92).

The situation of disadvantaged people earning meager incomes from legal jobs as well as from underground, illegal activities is certainly very interesting and of paramount importance. Probably, workers holding undeclared jobs are disproportionately affected by poverty. More generally, the underground economy is a non-negligible reality in social policy analysis, as it allows some employers and employees to circumvent labor market regulations and taxes. Nonetheless, I focus in the present work on the situation of legally-employed persons, in order to avoid confusions between various important social phenomena, each one requiring different social (as well as educational, housing, and judicial) policies.

2 Defining Working Poverty

When defining working poverty, obviously, two definitional issues need to be dealt with:

- how to define poverty
- how to define work and where to set a threshold in terms of the amount of work performed

2.1 What is “poverty” in rich countries?

Ongoing controversies and hard-fought debates have taken place ever since the founding fathers of applied poverty research released their first reports (Rowntree, 1901). Mollie Orshansky, who developed the American Federal poverty line in the mid-1960s, once wrote that ‘poverty, like beauty, lies in the eye of the beholder’ (quoted in Sen, 1983). However, Sen thinks that the measurement of poverty is primarily a factual act rather than an ethical one (Sen, 1983).

Some think that poverty does not exist anymore in postindustrial economies, whereas this opinion is probably not dominant. In 1989, former British Prime Minister Margaret Thatcher said to *The Guardian* that ‘Poverty no longer exists in Britain, only inequality’ (Quoted in Atkinson 1998: 45), in line with her conception of the very restricted role of the state in redistributing income.

Shall we study poverty in rich countries, then? A.B. Atkinson gave a convincing answer: ‘I would certainly agree that the problems of the Sahel are more pressing than those addressed in [his book *Poverty in Europe*]... What I am suggesting [is that] ...world poverty has priority, but poverty within rich countries may legitimately come next on our list of concerns’ (Atkinson, 1998: 1).

Atkinson has summarized the main questions poverty researchers have to answer:

- « (...) are we concerned with income rather than standards of living?
- How is the poverty standard defined? (...)
- How should we treat families with different composition? (...)
- How does the duration of poverty enter our considerations? (...)
- How should we measure the extent of poverty? » (Atkinson, 1989: 9).

It should be noted that the definition and the measurement of poverty will not be my main focus. A vast literature already exists and I do not wish to review it extensively; however, the main debates and indicators will be presented.

2.1.1 Absolute vs. relative poverty

Seebohm Rowntree’s seminal work, which was carried out in the city of York (England), is the most famous example of an absolute poverty measurement method (Rowntree, 1901). He collected data pertaining to the basic diet of working class families and determined a bundle of absolutely necessary goods that allowed people to satisfy their basic needs; if these were

not met, people faced “primary poverty”. Rowntree’s original poverty line was based on the following diet:

Table 1: Basic diet for a man, 1899

	Breakfast	Dinner	Supper
Sunday	Bread, 8 oz Margarine, ½ oz Tea, 1 pt	Boiled bacon, 3 oz Pease pudding, 12 oz	Bread, 8 oz Margarine, ½ oz Cocoa, 1 pt
Monday	Bread, 8 oz Porridge, 1 ½ pts	Potatoes with milk, 24 oz Bread, 2 oz Cheese, 2 oz	Bread, 8 oz Vegetable broth, 1 pt Cheese, 2 oz
Tuesday	Porridge, 1 ½ pts Skim milk, 1 pt	Vegetable broth, 1 pt Bread, 4 oz Cheese, 2 oz Dumpling, 8 oz	Bread, 4 oz Porridge, 1 ½ pts

Source: Glennerster, Hills, Piachaud and Webb, 2004, Box 2: 34.

The cost of clothing, light and fuel was added to these prices. All in all, the poverty line for a couple and three children aged 3, 6 and 8 was, at 2000 prices, £53.10 in 1899.

Rowntree carried out two more studies in York in 1936 and 1950, which showed that “primary” poverty amounted to 9.9 percent at the end of the nineteenth century, 3.9 percent in the 1930s, despite of the Great Recession, and had virtually disappeared in the postwar period (Atkinson, 1989). Indeed, 'His third survey in 1950...found that poverty had been virtually abolished largely as a result of the welfare state...This was the last of the old style local poverty surveys' (Piachaud and Webb, 2004: 31).

Hence, many researchers who analyze the situation in high-income countries define a “sociocultural” subsistence level which encompasses more than basic goods. The idea is that an individual is poor compared to the average living standard of the society he or she lives in. A certain bundle of goods and services is necessary so that people can live a socially integrated life. This is a *relative* definition of poverty: ‘Needs arise by virtue of the kind of society to which individuals belong. Society imposes expectations, through its occupational, educational, economic and other systems and it also creates wants, through its organisation and customs’ (Townsend, 1974: 27). Put differently, human needs are socially and historically constructed.

Nobel laureate Amartya Sen summarizes this central problem: ‘Should poverty be estimated by a cut-off line that reflects a level below which people are... “absolutely impoverished”, or a level that reflects standards of living “common to that country” in particular.’ His view is that ‘*absolute* deprivation in terms of a person’s *capabilities* relates to *relative* deprivation in terms of commodities, incomes and resources’ (Sen, 1983). Moreover, there is an ‘irreducible core of *absolute* deprivation in our idea of poverty, which translates reports of starvation, malnutrition and visible hardship into a diagnosis of poverty without having to ascertain first the relative picture’ (Sen, 1981: 17).

British sociologist Townsend insisted on what he called “relative deprivation” and sometimes squared off with Sen. From his point of view, the lifestyle and living standard of deprived people is always compared to the entire population of a country or a region. Townsend’s approach mainly focuses on the social construction of needs: ‘Relative deprivation [is] the

absence or inadequacy of those diets, amenities, standards, services and activities which are common or customary in society' (Townsend, 1979: 915). Townsend has played a central role in the British tradition of poverty research. Based on the Family Expenditure Survey data, in the 1970s, Townsend and other researchers "rediscovered" poverty in Britain. The worst forms of poverty had been eradicated, but many households were still experiencing financial hardship (Piachaud and Webb, 2004).

The most satisfying answer to this conceptual problem is, in my view, Sen's assertion that 'poverty is an absolute notion in the space of capabilities but very often it will take a relative form in the space of commodities' (Sen, 1983). Jäntti and Danziger underscore that, 'The idea of well-being and poverty as capability suggests that in comparing the well-being of individuals, we should analyze not only what they *have*...but also what they *do*, and what they *can* do...According to Sen, poverty is a state characterized by levels of capabilities that are, in the view of society, unacceptably low' (Jäntti and Danziger, 2000: 314).

Pierre Bourdieu notes that the modern form of poverty seems very relative compared to the worst forms of material hardship, but can hurt people inasmuch as it is a "misery of position" (*misère de position*): Being at the bottom of society, living in a stigmatized neighborhood, being a long-term unemployed, or belonging to a socially declining population group. Industrialized societies have been very good at reducing extreme poverty, but through a process of differentiation, multiplied social spaces, which favored the development of this "relative misery" or "ordinary suffering" (*petite misère* - Bourdieu, 1993).

It is extremely important to underline the fact that relative and absolute poverty are not synonymous of relative and absolute poverty lines. It is conceivable to define a level of poverty related to the customary living standard in a given society at a given time by using an absolute poverty line; that is, fixed in real terms in order to observe the evolution of a given living standard throughout a certain period. Some authors have used official welfare entitlement thresholds as poverty lines (Atkinson, 1989, Leu, Burri, Priester, 1997). These thresholds have a relative component since they usually define needs that go beyond mere physical survival. On the other hand, they might have an absolute aspect inasmuch as they are not directly derived from an average income or consumption level. According to Jäntti and Danziger, 'An "absolute" notion of poverty is fixed in terms of the relevant spaces at some point in time and, from that time on fixed in "absolute" terms in some space. If the relevant space is real income, then an absolute view implies a poverty line that is fixed in real terms' (Jäntti and Danziger, 2000: 313). It is perfectly conceivable to define a relative threshold at a given point in time and then hold it constant in real terms, for instance Eurostat's at-risk-of poverty rate anchored at a moment in time.

2.1.2 Monetary vs. non-monetary poverty, resources vs. living conditions

According to the United Nations Development Program, 'Poverty has many faces and represents more than a low income. It reflects bad health, deprivation of knowledge and communication, incapacity to exercise human and political rights and the lack of dignity, trust and self-respect' (Quoted in Budowski, Tillmann, Bergman, 2002: 298). This kind of poverty concepts relies mainly on Sen's capabilities and functionings theory. Moreover, Sen has defined, within his theoretical framework of development and freedom, five instrumental liberties: political (civic rights, democracy), economic (access to resources and financing, distribution), social opportunities (access to education and health care), transparency (free press) and protection (mainly social security) (Sen, 1999). Sen demonstrates that it is fundamental to understand the interplay of these five liberties in order to analyze development and poverty. Hence, in societies in which political liberty, social opportunities, transparency

and social security are ensured, it makes sense to focus on economic liberty, whereas the question of access to health care is problematic in the United States (social opportunities). At the time of writing, however, a reform of health care is being implemented in the US under the auspices of the Obama administration.

Many scholars have doubted the relevance of income or consumption levels to account for someone's well-being. Hence, they advocate a direct (and mostly multidimensional) measure of poverty, which consists in assessing actual living conditions through the possession of consumption goods and the access to services. Some nonmaterial aspects may also be taken into account. Townsend was one of first sociologists to promote this direct approach of poverty based on a predefined array of goods and services. The main aim is to define central dimensions of life in society, e.g. work, education, housing, health, and participation in social, political and cultural life. *An individual is deemed poor if he or she has not achieved a minimum level on these dimensions.*

Mack and Lansley have improved Townsend's method by using opinion polls to determine what goods and services are deemed to be absolutely necessary by a majority of respondents (Mack and Lansley, 1985, Leu, Burri, Priester, 1997). In addition, these authors asked respondents who did not possess a given item whether this was so because they did not want this item or because they could not afford it (Mack and Lansley, 1985, Halleröd, 2006). Recently, social scientists have further developed this approach, using various weighting patterns for various items lists (Halleröd, 1994, Andress and Lipsmeier 1995). Others have advocated the use of factor analysis to identify subgroups of items corresponding to various dimensions of poverty and cluster analysis to determine who must be classified as "poor" in a non-arbitrary fashion (Ferro Luzzi, Flückiger, Weber, 2008). This kind of approach allows a more detailed and more subtle understanding of the nature of relative deprivation or poverty.

As Mayer put it: 'previous research suggests that within countries income is not a very good proxy for the conditions in which people live...Social scientists in other countries [than the US] also find a surprisingly weak relationship between income and a variety of measures of living conditions' (Mayer, 1995: 110). Likewise, Halleröd notes that many studies have identified this mismatch between monetary poverty and low living conditions (Halleröd, 2006). For instance, Nolan analyzed Irish data and concluded that, 'Only about half the sample households falling below the relative income lines are in fact seen to be experiencing basic deprivation' (Nolan, 1998: 102). Among others things, income measures usually do not take into account disparities in wealth and credit, which can lead to a distorted picture of living conditions. Moreover, it is very difficult to adjust income for family size, and there is no agreement among researchers as to which equivalence scale is the most appropriate, as will be discussed below. Finally, it should be noted that 'the greater the adjustment for household size the weaker the relationship between income and a living condition' (Mayer, 1995: 134).

The correlation between deprivation and low income may be weak; however, Andress, assessing the situation in Germany, states that deprivation increases strongly in the bottom income quintile (Andress and Lipsmeier, 1995). Similarly, the share of respondents who state they have problems in making ends meet in Switzerland is much larger in the bottom decile; this is even the case for subjective problems such as fear, loneliness, and overall lack of satisfaction (Niklowitz and Suter, 2002). Halleröd has suggested that only those who experience both a low income level *and* deprivation of various items are "truly poor" (Halleröd, 1995).

It should be noted that the direct measurement of living conditions also has drawbacks: International comparisons of living conditions are extremely difficult to carry out, because

there is no such thing as a consensus regarding the items that should be included in questionnaires and the ones that should be used to compare living standards. Moreover, the approach advocated by Mack and Lansley (1985) postulates that it is possible to distinguish when people choose not to have a good from when they cannot afford it. This is indeed much more complex than it can appear on first thought (Halleröd, 2006), as disadvantaged social groups tend to adjust their preferences to their monetary resources (Halleröd, 2006). Indeed, Pierre Bourdieu demonstrated more than 30 years ago, with both survey-based and qualitative evidence, that one of the main characteristics of the members of the working class was the tendency to make a virtue of necessity, by adjusting their expectations and their judgments to their material, social and cultural situation (Bourdieu, 1979).

Moreover, survey respondents tend to “exaggerate” their satisfaction level, and to say they are “quite satisfied” with virtually everything (Fowler, 1995, Erens and Bruster, 1994), including their household income, unless they are in a very difficult situation. I get back to these issues in the section devoted to equivalence scales.

However important and useful nonmonetary indicators may be, with some notable exceptions, most authors examine only income (Jäntti and Danziger, 2000). As indicated in the introduction, among all the social policy evaluations I have identified and meta-analyzed in the empirical part of the present work, none contains nonmonetary poverty indicators. The reason is probably that social benefits and labor market-related benefits overwhelmingly consists in cash transfers and near-cash benefits, for instance tax credits for workers, minimum wages, childcare tax credits, child allowances, etc.

Regardless of the drawbacks for social policy evaluations, nonmonetary indicators can be very valuable to analyze social problems. They appear as particularly useful in the case of subgroups of the population for which it is difficult to calculate disposable income, such as self-employed workers in general and farmers in particular (The Canberra Group, 2001, Crettaz and Forney, forthcoming), or in the case of social groups for which wealth and home ownership may play as important a role as income, for instance pensioners in countries in which capitalization pension systems are important components of the social security system. In the case of self-employed workers, monetary indicators may well lead to an overestimation of their financial difficulties: Based on monetary indicators, they appear to be strongly overrepresented among the working poor in Switzerland (Swiss Federal Statistical Office, 2008), while an analysis of the goods they own and services they have access to leads to more nuanced conclusions (Antille, El May, Miceli, Silber, 1997).

Last but not least, whereas the overwhelming majority of poverty studies use disposable income as a poverty yardstick, other monetary indicators are conceivable, such as consumption levels. It is noteworthy that the correlation between income and consumption levels is not necessarily very high (Headey, Krause, Wagner, 2009). Debts and indebtedness can also be interesting for poverty and social exclusion analysis, and Eurostat has included debt indicators in its Survey on Income and Living Conditions as indicators of social exclusion (European Commission, 2006); however, the primary cause of debts is not necessarily income poverty. Wealth is also an important monetary indicator, especially for inactive persons of working age and for retirees; the problem is, however, that the vast majority of surveys do not include questions pertaining to wealth.

2.1.3 Subjective and objective poverty

The subjective poverty approach mainly consists in considering the poor as the true poverty experts. Respondents are asked to indicate a minimum level of income they deem necessary to “make ends meet”, if their household income is sufficient in order to meet certain needs, or if

they are satisfied with their income/consumption level. Put differently, an individual categorized as poor by a poverty expert, may well think that he or she is not poor, and vice versa. The economists of the “Leyden School” have advocated the use of such indicators to define utility functions and poverty lines (van Praag and Ferrer-i-Carbonell, 2008, van Praag, Goedhardt, Kapteyn, 1980, Strengmann-Kuhn, 2003, Falter, 2006).

Actually, a review of the literature on working poverty reveals that subjective indicators have hardly ever been used. It should be noted that these subjective thresholds may “overestimate” poverty, as it seems that they yield high poverty rates (Citro and Michael, 1995). Strengmann-Kuhn e.g. notices that the working poor rate amounts to 3.6 percent with a poverty line set at 50 percent of the average income (average of 14 European Union member states²), whereas it is four times higher with a subjective poverty line (16.8 percent). He concludes that using a subjective poverty line yields plausible poverty rates in a few countries only (Strengmann-Kuhn, 2003).

In addition, whereas this kind of indicators combined with factual questions pertaining to living conditions can be useful for the analysis of deprivation in a given country, or even across countries (Suter and Paris, 2002), this approach may overestimate the well-being of specific subgroups who have lived on below-average income for a long time, for instance independent farmers. As indicated above, in order to reduce the subjective feeling of deprivation, long-term disadvantaged persons tend to, subconsciously, lower their expectations and adjust their satisfaction to their income level (Halleröd, 2006, Crettaz and Forney, forthcoming), which is confirmed by ethnographic evidence in the case of farmers (Droz, 1998).

2.1.4 Statistical / microeconomic vs. “microsociological” definition

Serge Paugam, deriving his thinking from Georg Simmel’s work, insists on the arbitrariness of setting a poverty line and criticizes the idea of poverty as an ontological characteristic. Those who are poor are people who are *socially defined as such*, and it is fundamental to know how they perceive their situation. They are labeled as “poor” because society as a whole has to take care of them and acknowledges their poverty status. Hence, Paugam in his research on “social disqualification” has mainly focused on welfare recipients, not only as an administrative category, but rather as a sociological one (Simmel, 1908, Paugam, 1991).

According to this conception, “hidden” poverty does not exist; there are no households not receiving welfare benefits that can be labeled “poor”. This is problematic in the field of social policy analysis, as it is well-known that many households are entitled to welfare benefits because they have low income levels, but do not apply for them – a problem known as the non-take-up of social benefits - and this for various reasons, mainly lacking information about social benefits, administrative errors and feelings of shame due to the stigma attached to welfare benefits receipt (van Oorschott, 1991, Leu, Burri, Priester, 1997).

2.1.5 The changing nature of poverty

As indicated, it is obvious that the most severe forms of poverty deserve urgently needed solutions which go light-years beyond the scope of the present work. The work of some Nobel Prize winners in economics (Amartya Sen and Joseph Stiglitz, notably) have shed a new light on the urgency and necessity of new conceptions of economic development. In fact, the nature and implications of “poverty” have changed in advanced economies. Serge Paugam has

²Germany, Denmark, the Netherlands, Belgium, Luxembourg, France, the UK, Ireland, Italy, Greece, Spain, Portugal, Austria, and Finland.

recently developed a typology of the elementary forms of poverty found in Europe (Paugam, 2005) that provides an interesting perspective:

Integrated poverty (*pauvreté intégrée*)

A large number of poor people share a common identity and live in a poor country or region. They do not differ much from the rest of the population and lead a normally integrated life, with an expanded kinship and a solid neighborhood network. These societies have predominantly pre-industrial features and an underdeveloped system of social protection, if any. This absence is compensated by solid family networks which provide support in the event of severe hardship. The poor are not stigmatized in their community. This description fits the accounts of poverty until the eighteenth century, and corresponds to the situation in some southern European regions today: On the Island of Madeira, for instance, the official poverty rate can be as high as 40 percent, but “subjective” poverty is very low. The catholic religion plays a very important role, too.

Marginal poverty (*pauvreté marginale*)

The poor are a small minority of the population and represent a residual category. They are taken care of by specialized institutions. They live in a society that has reached a high level of economic development with low levels of unemployment. The residual unemployment is combated by the unemployment insurance. The degree of stigmatization of the poor is very high, as they are perceived as misfits. One of the first authors who described this phenomenon in the US was Michael Harrington in 1962. This kind of poverty is typical of the “golden age” of Western European economies, and of today’s Scandinavia (low poverty rates and low long-term unemployment levels).

Excluding poverty (*pauvreté disqualifiante*)

This third elementary form of poverty is found in highly developed economies that experience a major industrial restructuring and even a crisis. Long-term unemployment is particularly problematic. The accumulation of social disadvantages and the often accompanying degradation of family and friendship ties can lead to social isolation and “social exclusion”. The exclusion from mainstream lifestyle and stigmatization are the main outcomes of this socioeconomic process. The nonpoor majority is scared by the perspective of being hit by this problem, and tends to avoid those who are on a downward spiral. Put differently, middle classes avoid rubbing elbows with this group characterized by an accumulation of social handicaps, notably the long-term unemployed and immigrants. Today’s France and Germany typically correspond to this third type.

Paugam’s typology can be criticized, among other things, for downplaying working poverty. This conception of poverty as a phenomenon mainly associated with unemployment is found in many European scholars’ work. Working poverty is not marginal, as it affects a non-negligible share of workers in postindustrial economies. Of course, their poverty may not be as disqualifying as that experienced by jobless persons; it prevents them, nonetheless, from leading a socially integrated life and can have a detrimental effect on their children’s academic achievement and future in a broader sense, as will be analyzed in following chapters.

Moreover, it should be noted that Scandinavian countries have experienced a deep recession in the early 1990s with high unemployment levels (more than 8 percent in Sweden, for instance), which has generated, among other things, an increase in the share of the population

benefiting from means-tested benefits; moreover, short-term employment has been on the increase, as will be analyzed at greater length in chapter 5 and 7.

Despite these shortcomings, Paugam's perspective is an interesting reflection about the fact that poverty not only evolves over time, but that the same notion can describe different realities in different postindustrial countries. I also interpret it as follows: The poverty problem is redefined and reframed in each social context, which implies that a more "constructivist" approach of poverty analysis can be a useful complement to the kind of social policy analysis carried out in the present work.

Another important finding must be put to the fore. The sociological tradition has tackled the issue of suicide for more than a century now; it has been shown that macrosocial factors affect suicide rates (Baudelot and Establet, 2006). Emile Durkheim found out, at the end of the nineteenth century, that the poor had a lower likelihood to commit suicide than the rest of society, due to their socially integrated life – in line with Durkheim's assumption that a higher degree of social integration is an antidote to suicide (Durkheim's *Le Suicide* mentioned in Baudelot and Establet, 2006). Today, the suicide rate is higher in richer countries - the notable outliers being former Warsaw's Pact countries – however, within rich countries, those who are hit by poverty have a higher likelihood to commit suicide (Baudelot and Establet, 2006).

Given all these considerations regarding the definition and the nature of poverty, I can now have a closer look at existing poverty indicators (mainly poverty lines).

2.2 Poverty lines

The most widely used poverty lines are presented in the following section. As Jean Olson Lanjouw put it, 'Poverty lines are widely perceived as occupying a central role in poverty analysis. In fact, setting a poverty line often receives the bulk of attention and intellectual effort in studies of poverty' (Lanjouw and McKinley, 1997: 7).

2.2.1 Absolute poverty thresholds

The US official poverty threshold is the best-known example of an absolute poverty threshold. Since the mid-1960s, the US Census Bureau has been publishing poverty rates based on the following approach:

$$\text{Poverty line} = H \cdot \vec{P}^T \cdot \vec{X}$$

Where \vec{P}^T is a vector of prices, \vec{X} is an array of foods and H a multiplier.

Orshansky's multiplier equals 3, because consumption surveys carried out in the 1960s by the US Department of Agriculture had established that low-income households spent about one third of their income to meet their alimentary needs.

This kind of indicator should not necessarily be an indicator of extreme poverty, depending on the multiplier, i.e. the extra income necessary to buy nonfood products and services. As already indicated, a threshold kept constant in real terms can measure relative poverty in a country where the poor's survival is not at stake. The "Orshansky indicator" has been subject to criticism in recent years (Citro and Michael, 1995) because it is not in line with today's American average living standards anymore: The US Federal poverty line for a couple with two children in 2008 amounts to about \$60/day.

Extreme poverty lines are absolute, consisting either in a fixed amount of money (e.g. \$1/day per person), calories intake levels, or anthropometric measures such as the mid-arm-muscle circumference to assess undernourishment. Even these indicators can be arbitrary: ‘There is difficulty in drawing a line somewhere, and the so-called ‘minimum nutritional requirements’ have an inherent arbitrariness that goes well beyond variations between groups and regions’ (Sen, 1981: 12).

2.2.2 Relative poverty lines and relative deprivation

Relative poverty lines rest upon measures of central tendency, namely median or mean income. In order to compare households of different size and composition, an equivalence scale is used to transform the household disposable income into a theoretical one called “equivalized” income.

2.3 Equivalence scales

These scales provide a value by which the household income should be divided in order to be comparable with that of a one-person household. Usually, equivalence scales are either derived from econometric studies resting upon household consumption surveys or are social security experts’ scales. They can also be derived from nutritional and physiological studies, as well as from population judgments in opinion surveys, i.e. subjective scales (Jäntti and Danziger, 2000, Atkinson, 1998).

Any equivalence scale can be subsumed to the following expression (Atkinson, 1998):

$$n^s, \quad s \in]0;1].$$

If $s = 0.5$, household income is divided by the square root of the number of household members.

Equivalized income, y_e , equals y/s^e , where s is family size and e is the elasticity of equivalent income, and can also be described as follows:

$$y_e = \frac{y}{1 + \beta(a-1) + \gamma c}, \quad \text{with } 0 < \gamma < \beta < 1,$$

with a the number of additional adults and c the number of children (Jäntti and Danziger, 2000).

The arguably most widely used equivalence scale in comparative social policy research is the so-called “OECD modified scale”, with $\beta=0.5$ and $\gamma = 0.3$. For instance, a couple with two children under 14 needs 2.1 times ($=1+0.5+0.3+0.3$) the income of a single person to achieve the same living standards.

There is no agreement among researchers as to the choice of an equivalence scale, and this choice has an impact on the poverty rate of various household types: 'In theory, an equivalence scale simply accounts for economies of scale, e.g., a family with ten members does not need five times as many kitchens and bathrooms as a family of two persons. However, there is much dispute about the extent of economies of scale' (Jäntti and Danziger,

2000: 316). The following table shows that equivalence scales used in mainstream research can vary notably:

Table 2: Various equivalence scales found in the literature

	Square root	Modified OECD	Mc Clements	Orshansky	Canadian LICOs	SKOS
Single adult	1	1	1	1	1	1
Lone parent, one child	1.41	1.3-1.5	1.33-1.52	1.33	1.22	1.53
Lone parent, two children	1.73	1.6-2	1.66-2.05	1.55	1.52	1.86
Couple, no children	1.41	1.5	1.64	1.29	1.22	1.53
Couple, one child	1.73	1.8-2	1.97-2.16	1.55	1.52	1.86
Couple, two children	2	2.1-2.5	2.3-2.69	1.95	1.89	2.14

Source: Whiteford and Adema, 2007 and SKOS 2003

The McClements scale is used in the UK in the annual publication on “Households Below Average Income”, *inter alia*, whereas the Orshansky scale is the one used in US official poverty statistics and mainstream poverty research; the LICOs are the low-income cutoffs established by Statistics Canada, and the SKOS is the Swiss Conference of Welfare Institutions.

It should be underscored that the choice of an equivalence scale can, obviously, have an impact on the identification of risk groups, as each equivalence scale ascribes a different weight to adults and children. Most of the above mentioned scales are quite similar; however, they are not the only existing scales. Some researchers advocate the use of subjective indicators, for instance the use of income satisfaction questions (Falter, 2006). In the case of Switzerland, for instance, Falter uses both the “minimum income question” and the income satisfaction question to estimate equivalence scales. The results he gets are at odds with the equivalence scales used in poverty research, as they are far less steep; put differently having children hardly increases households’ needs. The “Leyden approach”, based on the minimum income question, yields an equivalence scale showing that a couple with one child hardly has higher needs than a single person without children, as this family corresponds to 1.161 consumption units. Larger families do not have much higher needs either, e.g. couples with three children correspond to 1.407 units (model IV). The equivalence scale based on the income satisfaction question leads to even more surprising results: Families with one child (1.757 units) have virtually the same needs as families with four children (1.919 units). The latter finding appears at complete odds with the cost of having children in Switzerland as measured by econometric techniques applied to consumption data (Gerfin, Stutz, Oesch, Strub, 2009, Gerfin, Wanzenried, 2001).

Even though consumption partly reflects preferences and not only needs, this huge gap remains to be explained, as it is quite unlikely that parents develop luxury tastes once they have a second or a third child. These surprising findings could largely reflect the “satisfaction bias” generated by survey questions (Fowler, 1995, Erens and Bruster, 1994), i.e. survey respondents’ tendency to declare themselves “rather satisfied” with virtually everything, as well as the adaptive preferences phenomenon analyzed by Halleröd (2006). Indeed, answers to the income satisfaction question and the minimum income question may rather reflect the fact that parents have lowered their expectations rather than the well-being of children. In addition, it appears rather unlikely that having three children or more has nearly zero impact on needs, which the comparison between couples with one child and couples with four children seems to suggest.

However surprising and at odds with consumption patterns these findings might be (a rising number of children hardly increasing needs), they raise important scientific questions: How can the extra needs associated with the birth of a child be measured in various countries, as consumption patterns reflect, at least in part, parents’ preferences? The corollary question is: How large is the bias created by the use of the same equivalence scale in different countries in comparative research, as it is very unlikely that economies of scale and the cost of having children are identical across countries? Until now, no satisfying answer has been provided, and the use of standard equivalence scales in comparative social policy research remains one of the main weaknesses of this approach. In this context, nonmonetary poverty indicators, such as those analyzed above, could prove helpful, as they do not require, obviously, the use of an equivalence scale.

These findings also raise interesting political and normative questions: To what extent should a welfare state compensate parents who have made the decision to have a large number of children? If parents could not afford to have many children at the time they decide to, should the welfare state let these children live in poverty, as children cannot be held responsible for their parents’ decisions? Does the fact of having, say, four children reflect a conscious choice and to what extent do all women have an easy and informed access to contraception, especially among minorities stemming from poorer countries?

2.4 Main relative poverty lines used in empirical research

The most common poverty lines are 50 and 60 percent of median (sometimes mean) income. This choice is completely arbitrary and has a pervasive impact on poverty rates, 60 percent yielding rates that are approximately twice as high in most OECD countries (Förster and Mira d’Ercole, 2005). American researchers sometimes use 40 percent of median income, as this roughly corresponds to the level of the official poverty line (Kamerman, 1995, Smeeding, 2005). The main advantages of this kind of indicators are their transparency and simplicity, contrary to the definition of a basket of basic goods and services which implies many arbitrary decisions as to which products and services belong to a “typical” basket and the costs associated to them.

Interestingly, 'In the first half of the [twentieth] century, [Rowntree’s] poverty lines for a single man were 30-35 percent of weekly personal disposable income per capita, while in the second half they were around 40 percent...At the end of the twentieth century, poverty lines were far higher in absolute (real) terms than ever before, but in relative terms they had changed rather little' (Piachaud and Webb, 2004: 37).

Relative poverty indicators should only be used to compare countries with *similar* levels of living. The comparison of high income countries and middle income countries might lead to surprising results. Eurostat states that some of the lowest at-risk-of-poverty rates in the European Union are found in the Czech Republic and Hungary, whereas median income in these countries (adjusted for the cost of living) is significantly lower than the UE 25 median income (Eurostat, 2005). Jäntti and Danziger express similar concerns, even in the case of a comparison between countries with a similar level of economic development: 'Even though the US has a much higher poverty rate than, say, Norway, relative to the median standard of living in each country, some of the poor in the US may be better off than some of the poor in Norway because of the higher median standard of living in the US' (Jäntti and Danziger, 2000: 338).

In addition, relative thresholds are sometimes criticized for being mainly inequality indicators (Ravallion, 2003); indeed, they are strongly correlated to income inequality indicators such as the Gini coefficient. Comparing inequality and poverty measured with an absolute threshold, Danziger and Gottschalk conclude that 'if every family's income doubled, there would be no change in income inequality, but poverty would decline' (Danziger and Gottschalk, 1996: 56). The case of Ireland between 1998 and 2001 is very revealing: 'its combination of rapid growth and average living standards combined with a smaller but still significant increase in real incomes for the poorest meant that it had both the fastest *growth* in relative poverty, and fastest *fall* against an absolute standard' (Hills, 2004: 138-139).

Moreover, relative poverty lines lead to different conclusions than poverty lines held constant in real terms, expressed as a percentage of median income in an "anchor" year: "Generally speaking, [an absolute] approach shows declines in overall poverty rates in OECD countries between the mid-1980s and 2000, while trends in relative poverty have tended to rise in most OECD countries' (Whiteford and Adema, 2007: 10).

The advantage of relative poverty lines is that they facilitate international comparisons. Hence, these thresholds are used by Eurostat, the OECD and other international organizations. It should be noted here that Eurostat does not consider 60 percent of equivalent disposable income as a poverty line: It is an "at-risk-of-poverty" line.

Another way to proceed to international comparisons would be to set an "absolute" line by defining a basket of goods and services and by calculating its cost in a given country, and to use purchasing power parities to account for differences in the cost of living and exchange rates. However, 'the commonly-used PPP adjustments are not designed for comparisons of real disposable income (as opposed to real *national* incomes)...These PPP results should be viewed with caution, as there are large differences in the extent to which household in different countries actually need to purchase certain items...PPPs, developed for national accounts purposes rather than for comparisons of household well-being, do not take this into account' (Jäntti and Danziger, 2000: 341 to 343).

In chapter 5, some figures stemming from studies using absolute poverty lines are presented, and the country ranking is affected. The comparison of these figures with those found in mainstream comparative research, based on relative poverty lines, leads to the following conclusions: The use of relative poverty lines "disadvantages" countries with high median incomes, such as the US, whereas the use of absolute poverty lines adjusted with PPPs tends to "disadvantage" countries in which many services are provided for free or at a very low cost by the state, and, hence, need not be bought in the market, such as Sweden.

Finally, another relative approach of poverty is conceivable, namely setting a distributional threshold, usually quantiles of the income distribution, especially deciles and quintiles. The obvious shortcoming is that the poverty rate is constant by definition. These thresholds are, however, useful to investigate income mobility by means of a transition matrix (Asplund, Sloane, Theodossiou, 1998); it can also be interesting to compare the living conditions and income levels, say, in the bottom decile of the income distribution across countries (Kenworthy, 2004), as well as its sociodemographic composition.

2.5 Poverty indicators

2.5.1 The headcount ratio

The headcount ratio is by far the most widely used poverty indicator; it measures the incidence of poverty, that is, the number of poor persons divided by the size of the population. It is usually called “poverty rate”. The main shortcoming is that it does not take into account neither the severity of poverty nor the income distribution among the poor (Sen, 1981). Put differently, the headcount ratio is not sensitive to the average income among the poor nor is it sensitive to the distribution of income among the poor (Jäntti and Danziger, 2000).

2.5.2 The income gap and the poverty gap

The poverty gap aims at measuring the *intensity or depth* of poverty, i.e. how poor disadvantaged households are. It is based on the difference between the poverty line and each household income:

$$pg = \frac{1}{N_p} \sum_{i=1}^{N_p} \frac{(pl - x_i)}{pl}$$

where N_p is the number of poor people, pl the poverty line and x_i the i -th observation of disposable income among the poor population. It is usually expressed as a percentage of the poverty line, as in the above formula (Jäntti and Danziger, 2000). This is the case, e.g., for Eurostat’s “at-risk-of-poverty gap” (Eurostat website, Living conditions and welfare indicators).

However, some consider that this indicator is the *income gap*, whereas the poverty gap takes into account the entire population and is the mean distance below the poverty line as a proportion of the poverty line where the mean is taken over the whole population, counting the nonpoor as having zero poverty gap. According to this conception, the poverty gap is defined as:

$$\frac{1}{N} \sum_{x_i}^{Np} \frac{(pl - x_i)}{pl}$$

with N the population size.

This definition means that the poverty gap (ratio) is the product of the headcount ratio and the income gap (World Bank website, Millenium Development Goals).

The squared poverty gap is an indicator of the *severity* of poverty and is defined as follows:

$$spg = \frac{1}{N} \sum_{x_i}^{Np} \left[\frac{(pl - x_i)}{pl} \right]^2$$

(World Bank website, Millenium Development Goals).

In chapter 7, the poverty gap is calculated as the product of the poverty rate and the income gap, the latter being the average distance between poor households' income and the poverty line, expressed in percent of the poverty line.

2.5.3 Other poverty indicators

Some indicators have been proposed to take account of the intensity of poverty and/or the severity of poverty.

Foster, Greer, Thorbecke (FGT)

The FGT allows taking into account various aspects of poverty and is defined as follows (Foster, Greer, Thorbecke, 1984):

$$FGT = \frac{1}{N_p} \sum_{i=1}^{N_p} \left(\frac{pl - x_i}{pl} \right)^\alpha$$

There are similarities with the poverty gap formula. The higher the α , the bigger the weight that is ascribed to the poorest people; it is an aversion coefficient. If $\alpha=0$, the FGT index is the headcount ratio, if $\alpha=1$, it is the poverty gap (Heinrich, 2003), and if $\alpha=2$, the FGT index measures the severity of poverty. Clearly, the main shortcoming of this indicator is that it is more difficult to interpret and has no immediate meaning.

In the chapter synthesizing evaluations of existing policies that may contribute to the alleviation of working poverty, especially the minimum wage and tax credit for workers, some evaluations are based on the FGT indicator with various values of α .

Sen's indicator

Sen's indicator (Sen, 1976) takes into account the headcount ratio (pr), the poverty gap (pg) and the Gini index (G) among the poor population:

$$Sen = pr (pg + (1-pg)G)$$

The interpretation of the obtained value is also quite unintuitive. But international comparisons make sense, as well as pretax/pretransfer versus posttax/posttransfer comparisons.

2.6 Poverty indicators used in the present work

Empirical results and estimates found in the present work rely exclusively on monetary indicators, as they are directly useful for social policy purposes, as benefits tend to be monetary, and also because they allow estimating the cost of "filling the income gap". Many empirical analyses hereafter are based on the headcount ratio and on income poverty

thresholds; this is, by far, the most common approach in empirical social policy research, as can be seen in the various meta-analyses below. However, the fact that an indicator is common does not mean that it is the best indicator available. In the chapter in which a typology of welfare regimes is developed, based on their ability to fight working poverty, consumption poverty lines are also defined, and both the headcount ratio and the poverty gap are calculated. Moreover, two types of relative poverty lines are used, namely 50 and 60 percent of median disposable income. These variations allow drawing robust conclusions regarding the extent of working poverty and the socio-economic composition of the working poor population, as well as to the main mechanisms leading to working poverty across welfare regimes.

Whereas direct (and usually multidimensional) poverty measurements are scientifically very relevant tools that allow a more subtle understanding of deprivation in postindustrial societies (Ferro Luzzi, Flückiger, Weber, 2008), they are rarely found in the social policy literature, for reasons already mentioned. It is probably advisable for future research on social policy topics to use these indicators more systematically, in order to get a less abstract picture of the situation of disadvantaged social groups. As to subjective indicators in general, it is probably fair to say that they seem to be of little use for most social policy analyses, as welfare benefits are not attributed to families or individuals because they feel poor but because their income is too low (Halleröd, 2006). However, subjective factors are necessary to understand specific phenomena; they are decisive, for instance, to explain the non-take-up of welfare benefits, as feelings of shame and stigma appear to play a significant role (Van Oorschot, 1991, Strengmann-Kuhn, 2003, Leu, Burri, Priester, 2007).

Finally, I make use of the dominant type of equivalence scales, i.e. consumption based and expert scales, which are overwhelmingly found in the social policy literature. In my view, the fact that expert equivalence scales may reflect normative and political values about children needs is not a fundamental problem, as the fight against child poverty appears to be a priority, especially in a social investment perspective. Moreover, the fact that parents are able to lower their expectations after having chosen to have many children does not say much about the well-being of their children.

2.7 Defining labor market participation: Who is “working”?

Regarding labor market participation, I can rely on existing scholarship to a much lesser extent, as most of the literature on working poverty uses an arbitrarily set minimum number of hours or months worked, ranging from one hour of work in a reference week (usually the week prior to the interview) to full-time year-round labor market participation. As a consequence, there may be a group of persons who hold a job at the time of the interview but are not considered to be “working”.

The following table shows the absence of consensus among researchers and in official statistics, as well as the systematic use of arbitrary thresholds:

Table 3: Definitions of “working poor”

Country	Source	Work definition	Poverty threshold
EU	Eurostat	Employed at least 15 hours / Most frequent activity status in the last year New indicator: in-work at-risk-of-poverty rate → individuals classified as employed (according to their most frequent activity status)	Low-income threshold: less than 60% of the median equivalised household income (relative monetary poverty) At risk of poverty: individuals living in a household with an equivalised disposable income below 60% of the median
France	Institut National de la Statistique et de l'Economie (INSEE) / Academics / National action plan for Social Inclusion 2001-2003/2003-2005	Individuals who have spent at least six month of the year on the labour market (working or searching for a job) / Working at least six months / Have had a job for at least one moth during a year	Low-income threshold: less than 50% (60%-70% occasionally) of the median equivalised household income (relative monetary poverty)
Belgium	National Action Plan for Social Inclusion	Individuals who have spent at least six month of the year on the labour market (working or searching for a job) / Working at least six months	Low-income threshold: less than 60% of the median equivalised household income (relative monetary poverty)
Switzerland	Swiss Federal Statistical Office / Academics	All 'active' individuals, regardless of the number of hours they work / all individuals working full-time (i.e. 36 hours or more weekly / at least one individual having a lucrative activity for at least 40 hours a week (one full-time job) - new indicator: individuals who work and live in a household in which the overall volume of work (of all members) amounts to at least 36 hours a week	Administrative flat rates of social security modified (Monetary administrative poverty)
US	US Census Bureau (USCB)	Total hours worked by family members greater than or equal to 1,750 hours (44 weeks)	Federal Poverty Line (Absolute monetary poverty)

	US Bureau of Labor Statistics (USBLS)	Individuals who have spent at least six months (27 weeks) of the year on the labour market (working or searching for a job)	Federal Poverty Line (Absolute monetary poverty)
	US researchers in general	Adults working, on average, at least half time (approximately 1,000 hours) / Definition of USCB and USBLS (see above)	Less than 125%-150%-200% of Federal poverty line (Absolute monetary poverty)
Canada	National Council of Welfare (NCW)	More than 50% of total family income come from wages, salaries or self-employment	Statistics Canada's Low-income cut-offs (LICOs) (Absolute monetary poverty)
	Canadian Council on Social Development (CCSD)	Adult members have, between them, at least 49 weeks of either full-time (at least 30 hours a week) or part-time work	CCSD relative low-income threshold (Relative monetary poverty)
	Canadian Policy Research Networks (CPRN)	Full time full year	Relative low-income threshold; less than \$20,000 per year (Relative monetary poverty)
Australia	Social Policy Research Centre	All 'active' individuals, regardless of the number of hours they work	Henderson absolute poverty line (Absolute monetary poverty)

Source: Peña-Casas and Latta, 2004, modified and completed for the present work.

I feel that setting an arbitrary threshold is unsatisfactory, and would like to propose an alternative solution. My conception rests upon the International Labor Organization's definition of employment: Those who work at least an hour during a reference week are deemed to be in employment.

Contrary to many authors, I suggest that *there is no such thing as THE working poor*, as this label characterizes various groups of disadvantaged workers who are in different situations that require different policy interventions. The approach I advocate relies, as already indicated, on a very encompassing conception of "working", so that no poor adult who participates in the labor market is left out of the analysis, whatever her or his degree of labor force attachment.

The goal is, then, to identify multiple types of working poverty according to the main mechanisms that have caused it, as will be analyzed in depth in subsequent chapters: low labor force attachment, low earnings per unit of time, and higher needs due to household size and composition. This classification, which I develop in chapter 5, appears to provide useful information for social policy purposes, as it allows answering the following question: Which types of poor workers are mostly found in which welfare regime?

Apart from its use for comparative social policy analysis, my approach can also be useful for national analyses. If large datasets are available, which is more likely to be the case in

national than in international datasets, it is possible to draw detailed typologies of poor workers, by defining various levels of labor force attachment, child-per-working age adult ratios, and earnings levels, which are, as will be analyzed at great length below, the three immediate causes of working poverty. At that stage, setting arbitrary thresholds is not anymore a problem, as no group of disadvantaged workers has been ignored from the outset. Moreover, it is also possible to use cluster analysis in order to identify subgroups of poor workers without setting arbitrary thresholds: In so doing, it is possible to let “the case define the concept” (Becker, 1998). This kind of approach may allow a “fine tuning” of social policy intervention and a more appropriate allocation of resources, by defining various categories of poor workers who are characterized by the separate “treatment” their poverty requires. I get back to this point in the conclusion of this document.

The approach I advocate, based on a very encompassing definition of work, however, also has some drawbacks. First, the situation of poor workers who have a very loose connection to the labor market, either because they are unemployed most of the time or not able to work more than a few hours, probably requires policy interventions that differ fundamentally from those analyzed in the present work. For instance, for this subgroup of poor workers, vocational training, counseling, and in some instances health-related interventions if these workers have a condition preventing them from increasing their labor force participation, could prove much more useful than, say, minimum wages or tax credits. Second, a researcher is always dependent, one way or another, on the indicators and findings other researchers produce, especially in the field of comparative social policy analysis. In this regard, official definitions appear to play a decisive role: As will become obvious in the following chapters, many American scholars use the US official poverty definition and European researchers increasingly use Eurostat’s definition of “in-work poverty”. I have shown above that any definition of working poverty implies a certain degree of arbitrariness; hence, using an official definition has the advantage of limiting each researcher’s subjectivity and facilitates comparisons.

All in all, even if I think that my approach might be more relevant by not excluding subgroups of workers from the outset, in order to obtain more accurate and detailed results - an approach I use in Chapter 7 - I also think that comparative analyses using official indicators have important advantages.

3 The Socioeconomic Determinants of Poverty among Workers

Thanks to the conceptual reflections of the previous chapter, I am able to propose a definitional approach to working poverty that can be useful for social policy analysis. I have underlined that there is no such thing as THE working poor, but subgroups of poor workers who experience very different situations. I will get back to this typological approach of working poverty in chapters 7 and 8, in order to systemize it. After having dealt with definitional aspects, I can now turn to the main driving factors of poverty among workers in postindustrial economies, in order to understand the roots of the problem. The present chapter regards socioeconomic factors - after a short historical introduction - whereas chapter 4 will analyze public policy factors.

The contribution of this chapter is to present, in an organized and selective fashion, findings derived from a large body of literature in the fields of economic sciences, sociology, and other social sciences, analyzing a broad spectrum of topics such as low-wage employment, overall poverty, income inequality and unemployment, in order to identify the main working poverty factors.

Perhaps more importantly, whereas the poverty literature identifies a myriad of risk factors and of risk groups, I have been able to single out three immediate causes of working poverty, which are the channels through which all poverty factors identified in the literature have a direct bearing on working households. The existence of these three mechanisms confirms the necessity to distinguish various groups of working poor who experience different types of disadvantage.

3.1 A brief historical outlook

As far as we can look back into history, we find evidence of severe poverty in Europe, as early as the Middle Ages (Castel, 1995, Geremek, 1980). According to Castel, about half of the population experienced stringent deprivation at that time. In pre-industrial Europe, the main social issue was the situation of able-bodied nonworking adults, vagrants and vagabonds, who often faced very harsh punishments. In the nineteenth century poverty among workers became the central source for concern, which is reflected in texts that range from Pope Leo XIII's encyclical *Rerum Novarum* to Marx' *Communist Manifesto* (Castel, 1995, Geremek, 1980, Gans, 1995). As Hecló put it, 'Before there were modern social policies, there existed what was widely referred to as "the social question" or "worker problem" in Europe and North America...From roughly the last third of the nineteenth century onward, politicians, social agitators, civic leaders, pioneers in the young social sciences, and many others were preoccupied with the problem of what to do about a rapidly emerging industrial workforce and its accompanying economic and social changes' (Hecló, 1995: 666).

After World War II, high expectations regarding the seemingly possible end of poverty in industrialized countries were fuelled by massive improvements in real wages and living conditions for most citizens, mainly due to a stunning productivity growth (Krugman, 1990, Esping-Andersen, 1999). This "fordist" configuration was based on three main principles: First, the main goal was to reduce the time necessary for each assembly operation, second, there was a strict separation between conception, production and marketing, and third, the central goal was to reduce production prices (Boyer and Durand, 1998). Indeed, 'If any period

can be called the “good old days”, 1949-1973 was it in respect to family income' (Danziger and Gottschalk, 1996: 41). High growth rates, full-employment and sharp increases in real wages were the main features of this golden age of welfare capitalism. The main goal of the fordist system was that those who produced consumption goods should be able to buy them too, which in turn would lead to mass consumption; this was the virtuous circle of the mass production system (Boyer and Durand, 1998). This era was also characterized by an increasing share of wage-earners in the labor force (Castel, 1995). As labor demand exceeded supply, immigration was necessary to fill the gap.

Even unskilled workers were able to hold “well-paid” jobs, which led working class women to leave the workforce for housewifery, contrary to the early industrial era where they made up a significant share of the labor force. ‘From 1949 to 1969, the average American factory worker saw his real annual earnings increase by 65 percent. In Europe, the rise in prosperity began a little later but was even more phenomenal; from 1960 to 1973, average real manufacturing wages in Europe rose by 76 percent’ (Esping-Andersen, 1999: 30). In sum, ‘Mass consumption, growth, and modest unemployment brought middle-class living standards to workers...The other side was that families were stable and the economy dynamic. Even low-skilled workers could count on well-paid and secure jobs’ (Esping-Andersen, 1999: 15).

A global trend toward upward mobility took place, caused mainly by structural changes: ‘the tendency is for the proportion of the work-force in professional, administrative, and managerial occupations to rise, while the proportion in occupations at the lowest skill levels, both manual and non-manual, either remains stable or falls’ (Erikson and Goldthorpe, 1992: 11). Total upward mobility was 1.8 (Scotland) to 4.5 (Poland) times higher than downward mobility in the 1970s. However, though there was much more upward mobility than downward in absolute terms, there was a considerable degree of stability in relative rates for men aged 20-64 in the 1970s, hence the title of Erikson and Goldthorpe’s book, “the constant flux”: ‘we have found no evidence of...trends towards higher levels of total mobility or of social fluidity’ (Erikson and Goldthorpe, 1992). The vast majority of the population saw its situation improve, hence, mobility remained fairly constant in relative terms.

Another major feature of this era was the very significant development of the welfare state in industrialized countries. As Esping-Andersen put it, ‘the post-war welfare state [was] the child of the 1930s Depression and the ‘workers question’ (Esping-Andersen, 1999: 33). Moreover, the trauma caused by the horrors of World War II, including the worst genocide in human history, generated an enormous concern about inequalities and political stability. Heclo stresses that ‘social citizenship was a concept that emerged from a cauldron of Euro-American history involving domestic turmoil, economic depression, and total war’ (Heclo, 1995: 673). This context led to ever increasing social expenditures that allowed expanding the spectrum of covered risks: unemployment, old age, disability, child poverty, work-related injuries, widowhood, and so on.

However, massive changes have occurred since the first oil shock: ‘The oil shock of 1973 plus slower growth in productivity brought an end to this remarkable quarter-century of rising living standards’ (Danziger and Gottschalk, 1996: 42). Growth rates decreased, unemployment rates increased and ‘wages have everywhere stopped growing at the kinds of rates that prevailed in the Golden Age’ (Esping-Andersen, 1999: 127) and the welfare state found itself under pressure, due to a less favorable labor market and to problematic demographical changes. Low-skilled workers were particularly hit by these changes, which had stringent effects, for instance, on American inner-city neighborhoods, with a

concentration of poverty and joblessness in metropolitan areas, but also on European disadvantaged social groups, notably low-skilled workers and immigrants (Wilson, 1996). It is this significant difference between the postwar years and today's postindustrial societies that allows us to conclude that working poverty has become a "new social risk" (Armingeon and Bonoli, 2006).

In fact, the declining demand for low-skilled labor, sluggish and uneven growth, an aging population, rising unemployment among a more ethnically and culturally diverse workforce and a growing number of households headed by single individuals, are the main features of these socioeconomic changes that took place after the mid-1970s (Armingeon and Bonoli, 2006, McFate, 1995, Standing, 1995).

In the USA in the 1980s, it became obvious that working poverty would not be eradicated: 'In 1985, 2 million adults – 50 percent more than in 1978 - worked full time throughout the year, yet they and their families remained in poverty' (Levitan and Shapiro, 1988: 3); between 1978 and 1991 the number of full-time year-round workers who lived in a poor household increased by 59 percent (Morel, 1996). This observation of a quite stunning increase in poverty among workers was made possible by the existence, since the 1960s, of official poverty statistics.

It should be noted that American scholars also expressed a strong concern about the expansion of an "underclass" – nonworking welfare recipients, mostly African-American and Latino residents of inner-city neighborhoods, who are supposed not to share the values of mainstream society (Gans, 1995, Wilson, 1996, Bourgois, 2003). At the same time, European economists and sociologists were focusing on high, sometimes two-digit, unemployment rates. In fact, on both sides of the Atlantic, researchers and policymakers witnessed 'changes in the size and composition of economically marginal groups, the crystallization of racial cleavages among them, a downward turn in their life chances, and an increase in their social and political isolation' (Lawson and Wilson, 1995: 693).

In Europe, the concern about widespread "social exclusion" led researchers and policymakers to neglect the issue of working households' income, as they tended to think that working poverty was an essentially Anglo-Saxon phenomenon, especially a North American one (Andress and Seeck, 2007). In recent years, however, European researchers (see e.g. Deutsch, Flückiger, Silber, 1999, Bonoli, 2003b, Falter and Flückiger, 2004) and official bodies such as Eurostat, the European Foundation for the Improvement of Living and Working Conditions, and the Swiss Federal Statistical Office, have realized that this was an incorrect assumption, and published analyses and figures on working poverty in Europe.

3.2 Economic factors

Most of the explanations provided below pertain to low-wage workers, on one hand, and overall poverty on the other hand, as the working poverty literature was quite restricted until recently. I hereafter present a wide variety of factors, which range from business-cycle related factors, structural transitions in the labor market, to macrosocial changes.

3.2.1 General framework

According to Nobel laureate Krugman, there are three roots of welfare:

- productivity growth,
- income distribution,
- and unemployment.

‘If these things are satisfactory, not much else can go wrong, while if they are not, nothing can go right’ (Krugman, 1990: 7). In addition, ‘Productivity isn’t everything, but in the long run it is almost everything. A country’s ability to improve its standard of living over time depends almost entirely on its ability to raise its output per worker...Productivity is the single most important factor affecting our economic well-being’ (Krugman, 1990: 9 and 17). There are, obviously, other factors which are of paramount importance for economic development, such as trade balance, budget deficit, or inflation. But these factors ‘only have an indirect bearing on the nation’s well-being’ (Krugman, 1990: 7). Obviously, working poverty is directly linked to the first two roots of welfare.

Likewise, Wood (1994) underscores the importance of productivity through the following formula:

$$w_r = (1 - \pi)Y,$$

with w_r the average real wage, Y the average output per worker and π the share of profits and other nonwage income in aggregate output. ‘Because π varies only within a rather narrow range, Y , which may be loosely called average labour productivity, is by far the more important cause of international and intertemporal differences in real wages’ (Wood, 1994: 58). Esping-Andersen likewise thinks that productivity growth is the central element of the evolution of well-being in postindustrial economies (Esping-Andersen, 1999).

Iversen and Wren, however, underscore the fact that the demand for manufactures (or services) should be price and income elastic so that productivity growth can translate into increased real wages; otherwise, this productivity growth might have a labor-saving effect rather than an income-enhancing one (Iversen and Wren, 1998).

I should also underscore that the first root of welfare has an impact on individual wages, whereas the second root pertains to household income and, hence, is more directly linked to poverty (the mainstream definition of poverty pertains to household income and needs).

Hence, in order to explain working poverty, the main factors found in the literature that can affect these two “roots of welfare”, namely productivity and income distribution³, must be accounted for:

³As will be discussed below, the third root of welfare, namely the unemployment rate, also has a non negligible on workers, because it exerts downward pressure on wages.

- the transition from an industrial to a postindustrial economy, in which service employment becomes overwhelmingly important,
- the impact of business cycles and economic growth,
- technological changes, which might improve productivity but also affect the labor demand, especially if these changes are skill-biased,
- globalization and the imports of manufactured goods from developing countries.

The interplay of these factors with changing family patterns will be dealt with in the section devoted to sociodemographic factors.

Of course, there are further working poverty factors that belong to the realm of public policy, such as welfare state benefits and labor market institutions, especially minimum wage legislations and collective bargaining. These factors are dealt with in chapter 4.

3.2.2 The interplay of economic growth, unemployment, and poverty

It is noteworthy that findings regarding the impact of economic growth on working poverty seem to depend on the kind of poverty measure used: ‘Roughly speaking, the more “relative” your poverty measure, the less impact economic growth will have on its value. Those who say globalization is good for the world’s poor tend to be undisguised “absolutists”...If the poverty line is proportional to mean income then it behaves a lot like a measure of inequality...This method can show rising poverty even when the levels of living of the poor have in fact risen’ (Ravallion, 2003: 4). Indeed, the correlation coefficients between poverty defined as an income lower than 60 percent of median equivalized income and the Gini coefficient, on one hand, and the top-to-bottom-quintile ratio, on the other, amount to $r = 0.847$ and 0.909 respectively (own calculations based on figures for the EU 25 in 2007, source: Eurostat’s website).

Nonetheless, economic growth seems to be a necessary prerequisite to fight poverty (Stiglitz, 2002) even though not sufficient. But once a certain level of economic development has been achieved, the relationship between poverty and economic growth might be more complex and blurred. In the US, an inequality upswing despite positive economic growth took place, a fact sometimes dubbed the “great U-turn” (Moller, Huber, Stephens, Bradley, Nielsen, 2003, Nielsen and Alderson, 2002). During the period 1983-1990 there was a recovery which led to an increase in average wages in the USA; however, the increase in inequality kept poverty rates above the levels achieved during the 1970s (Gottschalk and Joyce, 1995). However, the 1990s in the US told another story; as Blank put it, ‘the first and most important lesson for anti-poverty warriors from the 1990s is that sustained economic growth is a wonderful thing’ (Blank, 2000).

Levitan and Shapiro note that not only did the working poor rate increase by 50 percent, but ‘the unemployment rate in the 1980s has exceeded the rate in every decade since the Great Depression’ (Levitan and Shapiro, 1988: 27) and that the best remedy for labor market problems is a healthy economy, because unemployment, involuntary part-time employment and the number of working poor fall. According to McFate, temporary and contingent work increased rapidly in America and Europe, especially during the generalized downturn in the 1980s (McFate, 1995). Mayer notes that ‘The poverty rate increases during recessions, but much of this increase is attributable to people who are poor for only a short period’ (Mayer, 1995: 112).

Standing notices that unemployment can have an impact on workers too: ‘Although the long-term unemployed search less intensively for jobs, they may still exert downward pressure on wages even if they themselves may be perceived by employers as less employable’ (Standing, 1995: 161). Hence, unemployment can have an indirect impact on working poverty, on one hand, if fixed-term contracts become more prevalent and, on the other hand, because unemployment exerts downward pressures on wages. Levitan and Shapiro come to similar conclusions, ‘In loose labor markets [i.e. when unemployment increases], low-wage workers are bound to have a difficult time. Not only are they more likely to be forced into unemployment or part-time work, but their already low wages are likely to stagnate’ (Levitan and Shapiro, 1988: 6).

In sum, economic growth seems to be a necessary prerequisite to fight poverty, even though economic growth alone is only a partial solution to unemployment, involuntary part-time employment and low wages (Levitan and Shapiro, 1988). Moreover, it appears that there is not a unique answer to the question: “is economic growth good for poor workers?”, as it had a very positive impact in some periods, but in other periods of positive growth the evolution of poverty and inequality was far less favorable.

Danziger and Gottschalk (1996) provide decisive evidence on the interplay of economic growth, income inequality, and poverty. A long-term perspective is possible in their work because the US has collected income data for about 60 years now (especially census data and Current Population Survey data) and implemented an official poverty line in the mid-sixties (for previous years the poverty threshold can be deflated with a price index). The postwar boom had a tremendous impact: The poverty rate was cut in half between the late forties and the early sixties, and cut in half again by the early seventies. 'Between 1949 and 1969 the poverty rate declined dramatically for every group. It fell by about 26 percentage points for persons living in families headed by nonelderly men...about 40 points for families headed by blacks and Hispanics, and about 24 points for those headed by whites' (Danziger and Gottschalk, 1996: 88-89). At the end of the sixties James Tobin forecasted the elimination of poverty by 1980.

However, 'the decade 1973-1982 [was labeled] the “quiet depression”. During that period, median family income fell and poverty increased' (Danziger and Gottschalk, 1996: 7). Since then, the evolution of these phenomena has become less predictable. At the beginning of the 1980s, the unemployment rate exceeded 10 percent for the first time since the Great Depression due to a severe recession that ended in November 1982, and 'Starting from this low base in November 1982, the economy entered a long a relatively strong recovery that lasted until July 1990: the second-longest recovery on record' (Danziger and Gottschalk, 1996: 43); nonetheless, the poverty rate did not decrease by much, namely a 1.7 percentage point reduction, from 12.9 to 11.2 percent.

In sum, 'The experience of the 1980s provided a “pseudo-social experiment” for evaluating whether policies designed to promote economic growth were sufficient to reduce poverty. Average living standards did increase, but the poor gained little during this period of modest growth' (Danziger and Gottschalk, 1996: 36). Indeed, 'Economic growth does matter, but it matters less to the trend in poverty now than it did in the past...It is not a question of whether poverty rates decline during a recovery, but of whether the declines are commensurate with the economy's growth' (Danziger and Gottschalk, 1996: 59-60).

Simulating various situations if each factor had remained unchanged (counterfactuals), Danziger and Gottschalk were able to decompose the impact of various factors on the poverty rate:

Table 4: Decomposition of percentage-point change in the poverty rate for all persons, 1949-1969 and 1973-1991

	1949-1969	1973-1991
(1) Actual change in poverty rate	-25.7	1.8
<i>% point change owing to:</i>		
(2) Economic changes	-26.9	-0.1
(a) Growth in mean adjusted income	-21.4	-2.1
(b) Change in income inequality	-5.5	2.0
(3) Demographic changes	1.2	2.0
(a) Race/ethnic composition	0.6	0.7
(b) Family structure composition	0.7	1.6
(c) Interaction	-0.1	-0.3

Source: Danziger and Gottschalk, 1996, Table 5.3: 102.

What can be seen in table 4 is that economic growth massively reduced poverty between 1949 and 1969, but only contributed to a small decline in the next period. Demographic changes have had a negative impact ever since the war ended, as growing minorities have been more affected by poverty, and because of the decline of the traditional family and the resulting growth of single-parent families: The impact of single parenthood has become bigger, as this household type has become more widespread. Last but not least, it is very striking that the inequality upswing that took place in the eighties nearly canceled the positive impact of economic growth.

Hence, 'stimulating economic growth and avoiding recessions are necessary, but not sufficient solutions to America's poverty problem. Of course, the problems of poverty and income inequality cannot be remedied in the absence of economic growth' (Danziger and Gottschalk, 1996: 10-11), but public interventions may also be needed.

Heinrich notes that 'in theory as well as in practice, very little is known about the underlying mechanisms that transforms economic growth at the aggregate level into better living conditions at the individual level...The fact that economic growth has a positive impact on incomes, which in turn reduces poverty, while at the same time it is also likely to exacerbate income inequality and thus increase poverty inevitably raises the specter of the existence of a tradeoff between inequality and growth' (Heinrich, 2003: 2).

Heinrich defines an inequality-growth tradeoff index (IGTI) defined as:

$$IGTI = \frac{\delta \mu}{\delta G} \frac{G}{\mu}, \text{ with } \mu \text{ the mean income and } G \text{ the Gini coefficient.}$$

E.g. if $IGTI = 3$, an increase in mean income of 3 percent is necessary in order to offset a 1 percent increase in income inequality. The fact that the US exhibits an IGTI of 2.63 in the mid-eighties explains why economic growth was largely offset by the inequality upswing. Interestingly, in the mid-nineties Sweden had virtually the same IGTI as the US, whereas Sweden is known for its low relative poverty rate. As Heinrich put it, 'Some of the...high-IGTI countries – e.g. the Nordic countries and the Netherlands – already heed this advice [i.e.,

if the IGTI is large, an appropriate anti-poverty strategy must focus on redistributing income to the poor] and therefore deliver fairly low poverty coupled with fairly low inequality' (Heinrich, 2003: 12). His conclusion is straightforward: 'There can be no sustained reduction of poverty without income distribution' (Heinrich, 2003: 1). It should be noted, however, that the poverty measure used in Heinrich's article is relative, namely 50 percent of median income, which is likely to be strongly correlated to income inequality: This could be a methodological flaw. It would be interesting to measure the impact of the tradeoff index on poverty measured with an absolute threshold.

In summary, the interplay of economic growth, unemployment, and (working) poverty is complex. First, the above considerations depend on the degree of economic development of the society under analysis. Second, conclusions may depend on the kind of poverty indicators used, absolute poverty rates being more responsive to economic growth. Third, the antipoverty impact of economic growth can be offset, at least partly, by increases in income inequality, a phenomenon observed in the US, for instance. Hence, the welfare state's redistribution mechanisms play an important mediating role between economic growth and labor market performance on one hand, and income levels on the other.

Obviously, the causal links between business cycles, unemployment and poverty would deserve a more in-depth analysis, but this goes far beyond the scope of the present work; however, I think it is safe to conclude that economic growth is a necessary but not sufficient condition in the fight against working poverty.

3.2.3 Productivity and the cost-disease problem of postindustrial societies

William J. Wilson stated in 1996 that we were witnessing 'the decline of the mass production system in the United States. The traditional American economy featured rapid growth in productivity and living standards...In this system plenty of blue-collar jobs were available to workers with little formal education. Today, most of the new jobs for workers with limited education and experience are in the service sector' (Wilson, 1996: 26-27). In the US, 'In popular terms, auto workers were being forced to become "hamburgers flippers"' (Gottschalk and Joyce, 1995: 204). In New York City, 'Between 1950 and 1990, the proportion of factory jobs in NYC decreased approximately threefold at the same time that service sector jobs doubled...while the total number of jobs of all categories remained more or less constant at 3.5 millions' (Bourgois, 2003: 114). In fact, in the Finance, Insurance and Real Estate (FIRE) sector, 'High school dropouts can no longer find secure jobs in NYC that would allow them to maintain conjugal households on a single income in traditional, patriarchal style. This is clearly revealed at the national level with a 50 percent increase of working poor families between 1979 and 1982, from 12 percent to 18 percent' (Bourgois, 2003: 287).

Pahl and Wallace state that, in the UK, 'it was thought that the transition might be painful...as it seemed unlikely that displaced male industrial workers could be readily retrained as office workers or computer programmers' (Pahl and Wallace, 1985: 189). In Britain, 1.5 million jobs were lost in the manufacturing sector between September 1979 and December 1982, a fall of 22 percent (Pahl and Wallace, 1985).

This decline in industrial employment went hand in hand with productivity declines: 'following two decades of steady improvements in productivity, Western industrialized countries experienced a precipitous decline in the real rates of growth in gross domestic product (GDP) after the first oil crisis of 1973' (McFate, 1995). In fact, there is a "cost-disease" problem in postindustrial economies, because for some service jobs, it is hardly possible to improve productivity. 'Many services, like hairdressing, psychoanalysis, child-minding, teaching, or massage, are inherently incapable of raising productivity by much'

(Esping-Andersen, 1999: 56). As prices rise, even at a reasonable rate, workers in the service sector will ask for pay rises in order to maintain their purchasing power. In the long run, these workers could be priced out of the market or earn declining real wages.

This cost-disease problem was first put to the fore by William Baumol, who noted that no other factor has a stronger impact on the living standards of a community (Baumol, Blinder, Scarth, 1986). As Nielsen and Alderson put it, 'Deindustrialization has...produced rising inequality because it has entailed the movement of a proportion of the labor force from the industrial sector, typified internally by higher average wages and a comparatively flat distribution of income, to the service sector, typified internally by lower average wages and a higher level of inequality' (Nielsen and Alderson, 2002: 1251). Likewise, Gershuny noted in 1985 that in the UK, Belgium, France, West Germany, the Netherlands, and Italy, productivity growth for market and nonmarket services were below average (Gershuny, 1985). For instance, 'Carework is typically low paid in market economies because it is highly labour intensive with limited scope for productivity gains, which perhaps helps to explain why, despite the proliferation of work-life balance policies, gender inequality in the labour market continues' (Perrons, Fagan, McDowell, Ray, Ward, 2006: 3).

It is noteworthy that 'The lower end of servicing society is where we must pin our hopes for mass-employment. Unfortunately, because of their sluggish productivity, low-end service jobs are threatened by a long term 'cost-disease' problem' (Esping-Andersen, 1999: 96).

In addition, a whole range of services has developed, notably nonmarket services such as education, health, and welfare, which pose a budgetary problem to governments: 'Low productivity growth in non-marketed services mean that extra taxes go disproportionately to pay for higher real wages for unchanged jobs...So given levels of non-marketed service provision become increasingly expensive as times passes' (Gershuny, 1985: 146). In addition, the increased female participation rate in the labor market has generated an increased demand in final services. In fact, 'Services are...cost-sensitive because...households have budget constraints and the choice of self-servicing...Labour-intensive household services are in the long run potentially inflationary, since productivity growth is modest compared to manufacturing – the Baumol's 'cost disease' '(Esping-Andersen, 2000: 102-103).

Boyer relativizes the cost-disease problem, however, as some service sector industries are able to keep on improving their productivity (e.g. transportation and health services). Likewise, Merrien is skeptical regarding the impact of the cost-disease problem; indeed, many service sectors are able to strongly increase productivity, most notably the computer and telecom sectors (Merrien, 2002). Moreover, some industrial sectors also experienced declining productivity levels, which can be attributed to the very principles of the rationalization of industrial production in the taylorian-fordist system. The rationalization had been pushed too far, which led to an underutilization of an increasingly blocked capital, slow reactions to market fluctuations, difficulties to diversify production and meet consumers' expectations, neglect of quality in order to have the lowest costs per unit, and a decreasing interest of workers in their job, which became very repetitive and supervised. Actually, the growing share of supervisors among the personnel also slowed down productivity growth (Boyer and Durand, 1998). Boyer concludes that there is a generalized productivity problem, whereas its roots lie in structural aspects of the fordist system (Boyer and Durand, 1998).

Moreover, as McFate notices, 'Recent trends suggest that the standard assertion that "increased industrial productivity will lead to increased national prosperity" may no longer hold. Automation and technological advance may increase the productivity of each industrial

worker and through this leave a larger number and proportion of the workforce in lower-paid service and retail jobs' (McFate, 1995: 7).

Moreover, Wood himself relativizes the impact of deindustrialization on earnings inequality. Shifts in the sectoral composition of the labor market have played an important role, but most of the rise occurred *within* industries and occupations: 'the widening of skill differentials has apparently arisen more from intra-sectoral than from inter-sectoral pressures' (Wood, 1994: 272). Actually, the scope and the causes of the productivity slowdown are controversial, but according to Wood, it does not simply reflect the shift of employment from manufacturing to lower-productivity services.

3.2.4 The evolution of the occupational composition of the labor force and of social mobility

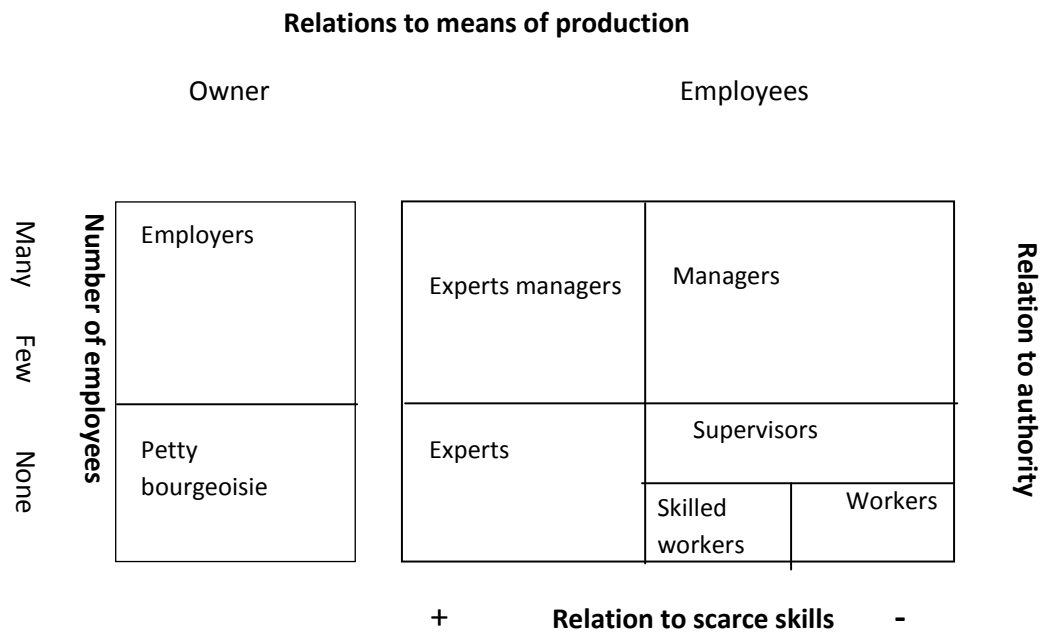
Switching to a sociological approach of these topics, based on socio-occupational categories and social mobility, it appears that the fordist manual worker had a very predictable, stable and flat career profile. With the decline of the fordist model, there has been an increase in the share of professionals, on one hand, and of lower-end service occupations, on the other hand (Esping-Andersen, 1993).

The absence of mobility at the bottom of the postindustrial society would indicate the existence of a "service proletariat"; however, the analysis of mobility patterns in six countries leads to the conclusion that the postindustrial society is more open and less polarized than the industrial economy. Moreover, three postindustrial paths (Anglo-Saxon countries, Continental Europe and Scandinavia) can be identified, as shown by a comparison of the US, Germany and Sweden: First, the share of unskilled service jobs varies much across countries, namely from 5 (Germany) to 15 percent (Sweden) of the labor force in the early 1990s. Second, in North America and Scandinavia, there is an important fluidity; workers are not "stuck" in low-wage employment, even though their potential career prospects are modest in the US and mostly within the welfare state hierarchy in Scandinavia. In Germany mobility for low-end service sector workers is weak and mainly horizontal, especially for those who have not followed an apprenticeship training, as Germany has a highly regulated system of vocational training (Blossfeld, Gianelli and Mayer, 1993). Britain seems to be some sort of worst-case scenario for unskilled service workers, combining the negative aspects of the German and the American model, that is, a low mobility for a relatively large share of the workforce. Finally, Scandinavia is a special case, with most of mobility taking place in the welfare state hierarchy, as many jobs are in the social services and overwhelmingly held by women. In this case, the cost-disease problem is solved by "subsidized" wages, as many low-skilled service workers are civil servants (Esping-Andersen, 1993).

In summary, in most postindustrial countries, the bottom is not hermetically closed, contrary to the situation of the industrial worker who was usually condemned to a predetermined "class destiny".

Let us now have a closer look at the evolution of the labor force using the most widespread "class schemes" found in the sociological literature. First, I briefly comment results based on Erik Wright's stratification model, then findings based on John Goldthorpe's:

Figure 1: Wright's class scheme



Source: Wright (1997)

Based on this stratification scheme, Wright analyzes the changes that took place in America since the 1960s. The expansion of class locations involving significant credentials and expertise is pervasive and took place in most economic sectors (Wright, 1997), as shown in table 5 below. Esping-Andersen shares Wright's conclusion: 'Today's growth is indisputably dominated by professionals and semi-professionals' (Esping-Andersen, 1999: 108).

Table 5: the evolution of the class structure in the US, in percent

	Trend	1960	1970	1980	1990
Nonowners					
Managers	↑↑	7.5	7.57	7.95	8.25
Supervisors	↑	13.66	14.86	15.23	14.82
Expert managers	↑↑	3.87	4.41	5.06	5.99
Experts	↑↑	3.53	4.53	5.49	6.90
Skilled workers	↓	13.46	14.08	12.92	12.77
Workers	↓	44.59	45.13	44.05	41.38
All Workers	↓	58.05	59.21	56.97	54.15
Owners					
Petty bourgeoisie	↓	5.54	4.09	4.53	5.19
Employers	↓↓	7.86	5.33	4.77	4.71

A double arrow means that the change amounts to at least ± 10 percent between 1960 and 1990.

Source: Wright (1997), modified for the present work.

Goldthorpe and Erikson come to similar conclusions regarding the evolution of the “class structure” in industrialized countries, based on Goldthorpe’s class scheme:

Table 6: Goldthorpe's class scheme

<p>I + II Service class: professionals, administrators and managers, higher-grade technicians, supervisors of non-manual workers.</p> <p>III Routine non-manual workers: routine non-manual employees in administration and commerce, sales personnel, other rank-and-file service workers.</p> <p>IVa+b Petty bourgeoisie: small proprietors and artisans, etc., with and without employees.</p> <p>IVc Farmers: farmers and smallholders and other self-employed workers in primary production.</p> <p>V+VI Skilled workers: lower-grade technicians, supervisors of manual workers, skilled manual workers.</p> <p>VIIa Non-skilled workers: semi- and unskilled manual workers (not in agriculture).</p> <p>VIIb Agricultural labourers: agricultural and other workers in primary production.</p>

Source: Erikson and Goldthorpe, 1992

Erikson and Goldthorpe's analysis focuses on nine European countries⁴ between the 1900s and the 1970s. The share of the service class had become much larger and the share of farmers much smaller in the 1970s. In all non-socialist states, the category of routine non-manual workers had slightly grown, while the picture for skilled and unskilled workers was blurred, as the transition to a postindustrial society was still underway in the mid-seventies (Erikson and Goldthorpe, 1992). Like Esping-Andersen, they conclude that economic and industrial development is not the only factor underpinning these changes; various policies play a role in shaping mobility patterns. In addition, the bottom of the labor market is not hermetically closed, as unskilled workers and agricultural laborers are not immobile. No proletarianization of the labor force is underway, contrary to Marxist claims (Erikson and Goldthorpe, 1992).

Beside low-skilled service sector employees, another category situated at the bottom of postindustrial societies has drawn researchers' attention, namely the "outsider" surplus population durably excluded from the labor force, as already mentioned above (Castel, 1995, Paugam, 1996, Wilson, 1996). In fact, there may be a tradeoff between 'accepting a larger outsider population or, alternatively, a large service proletariat' (Esping-Andersen, 1993: 28). In the present work, however, I focus on disadvantaged workers, even though this topic cannot be completely disconnected from the "underclass" problem – many members of the underclass being former low-wage workers (Bourgois, 2003) – but this marginalized group of the population probably requires social policy interventions that are very different from those aiming at alleviating poverty among workers.

From previous sections it has become obvious that education and social skills (Esping-Andersen, 1993, Bourgois, 2003) have an increasing impact on class outcomes. Actually, in recent decades, productivity growth was mainly favored by technology and human capital (Wilson, 1996), which means that unskilled workers are more disadvantaged in today's postindustrial economies than they were in the fordist era of assembly-line, mass production.

⁴ England, France, Federal Republic of Germany, Hungary, Ireland, Northern Ireland, Poland, Scotland and Sweden

Esping-Andersen underscores that ‘human capital will evolve as the hegemonic determinant of life-chances’ (Esping-Andersen, 1993: 234); likewise, Wilson states that, ‘education and training are considered more important than ever in the new global economy’ (Wilson, 1996: 28). For instance, in the European Union, high-skill jobs account for two-thirds of net employment creation since the mid-1990s (Hemerijck, 2002).

The next section identifies the main factors that explain this growing disadvantage of unskilled workers, furthering the reflection on productivity presented above; more precisely, the question is whether the growing disadvantage of low-skilled workers in postindustrial economies is mainly due to endogenous or exogenous economic mutations.

3.2.5 Globalization vs. skill-biased technological changes: Which factor explains the plight of unskilled workers?

Many developing countries have become major producers of manufactured goods and experienced significant economic growth in recent years. Wright highlights the fact that high-income countries might well have postindustrial economies, but the worldwide labor market seems to be more industrial than ever (Wright, 1997: 109). The share of manufacturing in total employment roughly doubled in developing countries between the 1950s and the end of the 1980s (Wood, 1994). In new industrializing countries, there has been a massive increase in productivity in low-skilled manufacturing activities, and the basic and secondary educations have been massively expanded. The latter point is vital for developing economies: When I talk about “unskilled” workers in advanced economies, I mean workers with no post-compulsory education, but in developing countries, this category encompasses two very distinct groups, namely those who have a basic education and those who are illiterate. The latter usually cannot be employed in manufacturing and work, mostly, in agriculture (Wood, 1994).

While the imports of manufactures from the South were negligible in the 1950s, they had risen to \$250 billion by 1990. The share of manufacturing in total employment in the South (including China) increased from 6 percent in 1950 to 13 percent in 1990, with a particularly sharp increase in the 1980s. Conversely, in the North, this share declined from almost 30 percent at the end of the 1960s to 21 percent by 1990. The cause of these massive changes lies in the fact that ‘International transport and telecommunications have become much cheaper, quicker, and of better quality...shrinking the world...Northern import restrictions and exchange controls were liberalized and tariffs drastically reduced, in the 1950s and the 1960s.’ Moreover, ‘Northern companies have learned how to manage globally dispersed production and procurement activities’ (Wood, 1994: 7). Put differently, low-skilled jobs can be easily transferred to emergent countries and goods can be produced anywhere in the world and then shipped elsewhere (Levitan and Shapiro, 1988). The unskilled have suffered disproportionately from structural changes, as the least skill-intensive manufactures have been replaced by imports from the South (Glyn and Salverda, 2000).

But as Wood put it, ‘although there is little dispute about the *pattern* of the impact on the composition of labour demand, there is a lot of disagreement about its *magnitude*’ (Wood: 1994: 8). The major impact these changes have had, according to his estimations, is that trade with the South reduced the demand for unskilled workers relative to skilled workers in the North by approximately 20 per cent (Wood, 1994). At first, this growing trade had an impact on the profit rates of manufacturing activities. Then the relative labor demand for unskilled workers declined, this trend being reinforced by defensive innovation; that is, the tendency to replace unskilled workers by robots in labor-intensive sectors, when possible. Then, the skill differentials in relative wages widened and were strongest in the UK and the US. Where

institutional forces resisted this widening in wage differentials, they generated shortages of skilled labor and surpluses of unskilled labor. The rise in wage dispersion and/or in unemployment contributed to greater income inequality in most developed countries. Wood demonstrates that this was mainly due to the increase in North-South trade, but also to the spread of new technology based on microprocessors, and these changes had an impact on poverty: 'The widening of skill differentials appears to have raised the proportion of poor households in most Northern countries' (Wood: 1994: 255).

Many economists have doubted the importance Wood attributes to international trade and capital flows; again, they do not question the pattern, but the magnitude. Krugman thinks that the American trade deficit does not have a decisive influence on the well-being of American workers (Krugman, 1990), and so does the OECD: Imports from developing countries only amount to a small share of OECD countries' GDP; furthermore, OECD exports to these emerging economies have grown in line with imports (OECD, 1997). The bulk of trade occurs between OECD countries. In 1994, EU countries imported 7.4 percent of their manufacturing from emerging economies, while the US imported one quarter (OECD, 1997). According to Esping-Andersen, the share of the European Union trade with non-EU countries is less than 10 percent, most of which is with North America and the Antipodes (Esping-Andersen, 1999).

Other factors have been put to the fore, for instance macroeconomic policies in the 1980s aiming to stop inflation (Wood, 1994, Krugman, 1990). This deflation has led to a further increase in unemployment among unskilled workers. More importantly, Gregory and Machin state that 'the effects [of trade on the demand for low-skilled workers are] small, sometimes indiscernible...other suspects have been put forward. The most prominent of these is skill-bias in technological change' (Gregory and Machin, 2000:178). Likewise, Esping-Andersen concludes that: 'the facts point to technological change as the more potent source of falling demand for less-qualified workers' (Esping-Andersen, 1999: 102). Wilson stresses that the 'creation of a new set of computer-operated machine tools...eliminate jobs for those trained only for manual, assembly line work' (Wilson, 1996: 29). He concludes that 'the workplace has been revolutionized by technological changes that range from the development of robotics to the creation of information highways...demand by employers for less-skilled workers, even those who are willing to work at low wages, has declined' (Wilson, 1996: 152 and 225). Likewise, McFate stresses that 'technological advances have automated many low-skilled jobs out of existence and/or allowed companies to move labor-intensive production to cheaper labor markets' (McFate, 1995: 5). For instance, by the mid-1990s 46.8 percent of the EU's workforce was in jobs involving the use of a computer or automated equipment (Gallie, 2002).

Gottschalk and Joyce conclude that the "smoking gun" that fully explains the inequality upswing and the degrading conditions of unskilled workers has not been found yet; however, they 'argue that this increase in demand for skilled workers in the face of rising relative prices cannot be explained solely by changes in industrial structure. Technological change must have increased the relative productivity of skilled workers since more of them were hired in spite of their increased cost to the firm' (Gottschalk and Joyce, 1995: 199).

In addition, it is important to underscore that a new production system has been developed, based on the following principles: Just-in-time production, in order to avoid blocking a significant share of the capital and to adjust quickly to market fluctuations, and increasing quality at a constant price, instead of reducing the price at the expense of quality. This system requires more polyvalent, more devoted, and usually more skilled workers than traditional mass production, and, thus, lessens the demand for unskilled workers in manufacturing

(Boyer and Durand, 1998). In fact, ‘Both post-Fordist manufacturing and the organization of services require far more labour flexibility than does traditional mass-production industry’ (Regini, 2000: 15). Indeed, ‘a significant development in labour markets has been the trend towards people with higher levels of education, notably college graduates, holding jobs previously held by people with lower levels of education’ (Borghans and De Grip, 2000: 198). A reinforcing problem is the pattern of in-career training provided by employers: It is mainly young and highly educated people who benefit from it. Many low-skilled workers are, hence, caught in a “skills trap” (Gallie, 2002).

Nevertheless, some support for Wood’s view can be found: Nielsen and Alderson state that while ‘much of the literature on international trade and investment has tended to downplay the distributional consequences of such factors [growing capital flows, trade and migration], the findings presented... establish empirically that direct investment and North-South trade have played a role in the determination of income inequality in the contemporary period’ (Nielsen and Alderson, 2002: 1284). In addition, part of the impact of technological changes may have been caused by North-South trade, due to “defensive innovation”. Industrial sectors under pressure may choose to invest in technology to counter the import of manufactures from the South and to diversify their products (Wood, 1994).

In summary, most unskilled workers in high-income countries are facing more difficult times today than they did 40 years ago. The “golden age” of the fordist model provided these workers with relatively well-paid jobs in the manufacturing industry, while today they face a higher risk of being low-paid, poor, and unemployed. To a certain extent, this might be due to the rise of emerging economies, notably the dragons of South (East) Asia, because low-skilled jobs are being exported; however, endogenous changes within Western economies, especially skill-biased technological changes, are more likely to be the main culprits. In fact, as Merrien put it, two strands of research square off, namely an “externalist” approach along Wood’s lines, emphasizing world trade and globalization, as opposed to an “internalist” strand that underlines changes that took place within developed economies’ labor markets (Merrien, 2002).

I share Gottschalk and Joyce’s conclusion, ‘While there is still no “smoking gun” to explain the rise in inequality in...industrialized countries...both international competition and technological change played a role’ (Gottschalk and Joyce, 1995: 217).

Regarding the earnings inequality upswing, Anthony Atkinson found that complementary explanations are conceivable. First, a shift in behavioral pay norms occurred, from a traditional model with relatively low wage differentials for equally qualified workers to a model in which many more workers are paid on the basis of their productivity. The second factor can be dubbed the “superstar theory” underlining an increase in superstar wages resulting from the expansion of technology and trade, with a switch from a hierarchical pay to rent-sharing, with employees paid like “salesmen” rather than on fixed-salary scales: Some employees perform much better and get much better earnings (mentioned in Gutiérrez Palacios, Guillén Rodríguez, Peña-Casas, 2009).

Now that the main economic factors that have an impact on working poverty have been identified, sociodemographic factors need to be analyzed, as they may have played a very important role. As shown in table 4 above, from the 1970s onwards in the US, demographic changes had the same impact on poverty as the income inequality upswing (according to Gottschalk and Danziger’s (1996) counterfactuals).

3.3 Sociodemographic factors

3.3.1 Changing families: Declining stability and single parenthood

Virtually all poverty researchers think that changing family patterns are one of the main social and cultural changes that took place in industrialized countries; these changes are linked to growing female economic independence. Families have become less stable, whereas the traditional welfare state expanded in postwar years and was based on the male breadwinner-housewife model; put differently, it was not conceived to support lone mothers (Esping-Andersen, 1999, Hecló, 1995). From the 1960s onwards, women have become economically more independent and the adult population in general less devoted to the traditional model of an everlasting relationship; in most countries divorces rates have doubled (Esping-Andersen, 1999). Kamerman states that ‘as women achieve some degree of economic independence, they are less willing to remain in unsatisfactory marriages’ (Kamerman, 1995: 234).

Actually, the rising labor force participation of married women has been the most dramatic change in gender roles during the last decades. Combined with the enormous increase in the divorce rate, this led to a massive increase in the share of female-headed single-parent households. ‘Mother-only families have more than doubled in number and as a proportion of all families with children in the United States since 1970. They are the major component of the “feminization of poverty”, are the heart of the welfare problem, and constitute a major factor in the pervasive problem of child poverty’ (Kamerman, 1995: 239). While the welfare problem of single mothers is particularly marked in the United States, the social problems associated with lone parenthood are systematically put forth by poverty researchers in all postindustrial countries

Single-parent families are very much exposed to (working) poverty, due to the fact that in the aftermath of a divorce there is a strong increase in needs, which can be illustrated with values derived from some equivalence scales that take into account economies of scale couples can make, and which are often derived from household budget surveys. As already mentioned in chapter 2, equivalence scales raise tricky questions, as researchers are still arguing about the best equivalence scales to use; this problem mainly concerns, however, the comparison of childless households with large families with children. Here, I compare the situation of couples with children before and after a breakup, so that using official equivalence scales should not be a major problem.

Usually, then, after a divorce, there is a strong increase in needs, while parents’ earnings remain rather stable in the short run, which leads to a problematic situation:

Table 7: Needs before and after a divorce, for a couple with two children, as measured by two official equivalence scales (Eurostat and Swiss Federal Statistical Office)

Household	Needs according to the OECD modified scale	Needs according to the Swiss Conference of Welfare Institutions
Before divorce: 2 adults, 2 children	2.1 consumption units (CU) ⁵	2.14 C.U
After divorce: one adult + one adult living with 2 children	2.6 C.U.	2.86 C.U.
Difference	+23.8 percent	+33.6 percent

Source: SKOS (2003), Eurostat (2002)

This means that needs increase “overnight” by one quarter to one third following a divorce. For instance, in the US, ‘Divorced mothers are at risk because 30 percent more income is required to maintain two households than one household at a pre-divorce standard of living’ (Kamerman, 1995: 244). Moreover, married fathers contribute to 20 to 25 percent of their income to support their children, while this share amounts to less than 10 percent for divorced fathers (McLanahan and Garfinkel, 1995).

Hence, a growing number of children live in lone-parent households and experience poverty. In fact, according to Sawhill and Thomas, the increase in single-parent families explains all of the increase in child poverty since the 1970s in the US (Sawhill and Thomas, 2001). Moreover, single-headed households also suffer longer poverty spells (Oxley, Dang and Antolin, 2000). It is fundamental to note that the most dramatic difference in terms of poverty among all groups of non-elderly households across countries is among lone-parents families (McFate, Smeeding and Rainwater, 1995).

As will be shown in chapter 7, single-parent families run a much higher risk of working poverty in the US, Germany and Spain, whereas their overrepresentation among the working poor is more limited in Sweden. There are significant differences, too, in the labor force participation rate of single mothers across countries and poverty is lowest in countries with a high maternal employment rate. In Sweden, a very high proportion of lone mothers are in the labor force, which is usually attributed to generous childcare policies. Likewise, in France in 1992, 82 percent of lone mothers worked; this high participation rate can be attributed, at least partly, to the very good childcare services provided by the state (Martin, 1996). In other countries too, such as the US and the UK, single mothers’ employment rate has been a central policy concern in a recent past, which led to far-reaching reforms that aim at promoting work and decreasing poverty among single-mothers, based on employment-conditional benefits and other “make work pay” policies (McLanahan and Garfinkel, 1995). I get back to this very important topic in chapters 6 and 7.

Kamerman summarizes these facts in terms of policy implications: ‘the ultimate question for all industrialized countries is: What policy package reduces the risk of poverty for mother-only families and their children and simultaneously provides working mothers with assistance

⁵A couple with two children would need to earn 2.1 times more money than a single person who lives alone in order to have a similar living standard

in easing the time pressures and stresses that labor force participation generates?’ (Kamerman, 1995: 253).

It appears, then, that single mothers’ labor force participation is an important working poverty factor. But perhaps even more important, in quantitative terms, is the employment rate of mothers in two-parent families, as the latter represent a higher share of households. All in all, one of the essential dimensions of the present work can be summarized as follows: Maternal employment matters a great deal in postindustrial societies.

3.3.2 Social endogamy and female labor force participation

“Assortative mating” (Becker, 1981) and “class homogamy”⁶ refer to the fact that individuals tend to marry people with similar social backgrounds and educational levels. Erikson and Goldthorpe note that: ‘If both respondent and spouse within a conjugal family are assigned class positions ‘individually’ – that is, by reference to their own employment – a significant association exists between these positions, typically reflecting a marked tendency towards class homogamy’ (Erikson and Goldthorpe, 1992: 250).

Various explanations exist as to the mechanisms leading to this phenomenon. From a neoclassical microeconomic perspective, Gary Becker attributes positive assortative mating to efficient marriage markets. First, men and women are better off married than single due to comparative advantages; moreover, ‘In an efficient marriage market superior persons tend to marry one another and are compensated for their higher productivity’ (Becker, 1981: 67). At the core of this theory lies the question of marginal productivities:

‘Assume that men and women differ only in the quantitative traits A_m and A_f respectively, and that each trait has a positive marginal productivity:

$$\frac{\delta Z(A_m, A_f)}{\delta A_m} > 0 \text{ and } \frac{\delta Z(A_m, A_f)}{\delta A_f} > 0, \text{ where } Z \text{ is the household's output.}$$

The major theorem on assortative mating is that positive sorting of large A_m with large A_f and small A_m with small A_f maximizes aggregate output if, and only if, increasing both A_m and A_f adds more to output than the sum of the effects of separate increases in A_m and A_f ... superior persons reinforce each other when traits are complements and offset each other when traits are substitute’ (Becker, 1981: 70 and 72). In Becker’s view, there is a rational and conscious choice, namely to marry the “best” possible mate and to behave differently than other social groups.

This approach is not unproblematic, however, notably because social norms and cultural values are completely ignored (a position Becker corrected in more recent work, see Becker and Murphy, 2000), though they seem to play a major role in marital behavior, especially in cross-country comparisons. In addition, positive assortative mating remains a widespread feature today, though male and female skills have been converging over the last decades, as

⁶ “Assortative mating” appears to have a biological connotation, which is unfortunate, as we are dealing with a social phenomenon. “Class homogamy” is also problematic, because it refers to an existing class structure, which is a contentious issue. I prefer the expression “social endogamy”.

women now invest much more on education and work-related human capital, while men are increasingly willing and able to assume household activities (Gershuny, 2000). Hence, Becker's statement according to which 'the time of men and the time of women have generally not been close substitutes because of women's investments in and other orientation toward child rearing and men's investments in and other orientation toward market activities' (Becker, 1981: 75) has lost its validity to a large extent.

From a sociological standpoint, Bourdieu developed a theory explaining why social groups distinguish themselves from other groups in terms of tastes and consumption, a theory known as the habitus theory, which provides us with convincing and empirically assessed explanations regarding social endogamy. Social agents incorporate many dispositions and attitudes during their childhood, due to their family's location within the social structure. This generates a set of predispositions, tastes, cultural judgments, language features (Trudgill, 2000), body attitudes, and role expectations. Once generated, this habitus restricts the range of possible choices an adult can make.

Bourdieu conducted both quantitative, survey-based analysis and qualitative fieldwork, and noticed that spontaneous criticism of other social groups' tastes is very common among respondents asked about their personal preferences (Bourdieu, 1979). The habitus leads social agents to prefer partners who have similar tastes, cultural predispositions, ways, and customs. In some cases, however, people prefer partners who are fundamentally different; these configurations are exceptions that confirm the rule; moreover, it appears that such phenomena are more common among people who have experienced a significant social mobility, as these people tend to display more "dissonant" tastes (Lahire, 2004). Bozon (1991) provides a more specific explanation: The places and circumstances in which people meet are of paramount importance; persons of lower social origins tend to meet their partners in public places, such as bars and clubs, while upper-class persons tend to meet their partners in private social contexts or in selective ones, such as occupational organizations, at the university/college, at specific cultural events, parties among friends, and so forth (Bozon, 1991). Due to their "in-between" social position, middle-class persons tend to display a less determined pattern.

But whatever the main causes of social endogamy may be, the fact that most couples are made up of persons with similar social position and status affects income inequality, work opportunities, as well as the transmission of cultural and economic inequalities to the next generation, as more and more women have entered the labor market in advanced economies and invested on human capital. 'Positive sorting increases inequality across marriages and...increases inequality of investments in the human capital and values of the children of these marriages. In recent years, economists have followed sociologists by becoming very interested in the transmission of inequality from parents to children' (Becker and Murphy, 2000: 33).

Social endogamy can, on one hand, reinforce "social exclusion" mechanisms (Esping-Andersen, Gallie, Hemerijck, Myles, 2002). People with low educational attainment are worse off today, in relative terms, than during the postwar boom. As they tend to marry persons with similar educational levels, and because they have a much higher likelihood of being unemployed or trapped in low-pay/no-pay cycles, the absence of work tends to be more and more concentrated: 'In some countries, the signs of household work polarization are strong. In the UK, for example, two-earner households grew from 54 to 62 per cent (1983-1994) while workless households grew from 6 to 19 per cent, and we detect similar trends in Belgium, France, and Germany' (Esping-Andersen, 2002b: 39).

Moreover, the same mechanism has a negative impact on household income. Lester Thurow suggested that the rise in female labor force participation and the phenomenon of assortative mating could be mutually reinforcing and contributing to an inequality upswing (mentioned in Nielsen and Alderson, 2002). Female labor participation has inflated the bottom of the earnings distribution, as women have lower average earnings; in addition, due to assortative mating, it has amplified the advantage of high-income households and the disadvantage of poor ones when both spouses work. The same argument is given by Esping-Andersen: 'The class-biased character of marriage will mean a greater income differentiation between upper- and lower-class household living standards' (Esping-Andersen, 1993: 22). Crompton and Brockmann come to identical conclusions: 'Indeed as [managerial and professional] women are likely to be in partnerships with similar men...the decrease in gender inequality in terms of labour-force participation is accompanied by an increase in social class inequalities' (Crompton and Brockmann, 2006: 104). For instance, between 1979 and 1997, marital homogamy accounts for 13 percent of the rise in household income inequality in the United States (Kenworthy, 2004).

3.3.3 Risks have shifted towards young adults

In societies in which skills and education have become hegemonic determinants of life-chances (Esping-Andersen, 1993), employment opportunities scarcer, jobless households and single-parent families more widespread, while pension systems efficiently fight poverty among elderly households, a logical consequence is that many risks have shifted towards young adults and especially towards young parents: 'the risks of unemployment and low incomes are clearly concentrating in young households...Youth and young families are being disproportionately bombarded from all sides with risks of poverty, low income, unemployment' (Esping-Andersen, 1999: 159 and 167). Lawson and Wilson, likewise, note that 'poverty rates...have grown disproportionately among the younger sections of society and the prime-age workforce' (Lawson and Wilson, 1995: 693). Chapter 7 will show that the median working poor is in his/her thirties in all countries analyzed. In this context, maternal labor market participation appears to be a decisive poverty factor, whereas not the only one (Whiteford and Adema, 2007).

In what follows, I analyze the interplay of economic and sociodemographic factors and the channels through which they have a direct impact on households. This will allow me to confirm my initial hunch: There are different groups of disadvantaged workers who ended up in relative poverty because of different mechanisms. This is the object of the next section.

3.4 The three immediate causes of working poverty

Apart from its ability to synthesize and organize findings stemming from a plethora of literature in the fields of social and economic sciences analyzing a broad spectrum of topics more or less related to working poverty, the main scientific contribution of the present chapter is the following: On the basis of what I know from the literature on the working poor and low-wage workers, I conclude that there are basically three mechanisms or immediate causes of working poor status than can be identified: low earnings, low labor force attachment, and high needs, especially a high number of dependants, relative to national averages.

Working poverty can only be the consequence of one or more of these three factors. Hence, while the poverty literature identifies a myriad of risk factors and of categories of disadvantaged workers, these three mechanisms are the channels through which economic,

sociodemographic and public policy factors have a direct bearing on working households. Public policy factors, the object of the next chapter, also have an impact on each working poverty mechanism, which I now describe:

- **Low hourly earnings.** The most intuitive mechanism leading to working poverty is the fact of being badly paid. However, several researchers have pointed out that low wages alone are seldom the cause of working poverty (Andress and Lohman, 2008, Nolan and Marx, 2000, Strengmann-Kuhn, 2003, Peña-Casas and Latta, 2004). However, few will object that being paid a low wage rate vastly increases the risk of ending up in working poverty.

- **Low labor force attachment.** This mechanism is proteiform and hits underemployed and intermittent workers, as well as persons - usually women - who cannot or are not willing to work more due the presence of children in the household. The rise in double earnership observed in most OECD countries puts families with a non-working spouse in a relatively more difficult situation that during the postwar years, when single-earnership was the norm.

- **Large needs, especially a large number of dependent children in the household.** Most studies show that having many children can lead to poverty. As already discussed in chapter 2, the conclusions drawn depend in part on the equivalence scale used; mainstream scales derived from household budget surveys lead to the conclusion that having children increases needs. Evidence derived from opinion questions must be interpreted with caution, as they may be a reflection of parents' adaptive preferences (Halleröd, 2006) and of a "satisfaction bias" associated to opinion questions in general (Erens and Bruster, 1994), rather than a reflection of children's living conditions. The same number of children is more likely to lead to poverty for one-parent families than for two-parent families. In fact, after a break-up or a divorce, even just two children may become problematic, because the needs of the two resulting households (the ex-husband who lives alone and the mother with the children, most of the time) increase significantly, as already discussed. What matters, as a result, is not the absolute number of children in a household, but rather the ratio of children to adults.

Each mechanism can be seen as a necessary but not sufficient condition; i.e. a working poor will have at least one of the features described above; however, none of these factors necessarily leads to working poverty. What is more plausible is to assume that the accumulation of these mechanisms will increase the likelihood of being a working poor.

Why focus on mechanisms? As will be shown in chapter 7, the relative weight of each mechanism or immediate cause varies across countries. This is the reason why the composition of the population of low-income workers varies significantly from one country to another. This will reinforce the first main conclusion drawn in chapter 2: Analyzing working poverty as a single category is not the best approach for social policy analysis; a typological approach is probably more useful. Moreover, focusing on the relative weight of the three working poverty mechanisms allows identifying policy mixes that appear to efficiently combat various forms of working poverty.

3.5 Conclusions

A review of the literature that analyzes the impact of economic factors on disadvantaged workers points us in an important direction: The impact of the transition to a service economy and the growing disadvantage of unskilled workers vary considerably across postindustrial

nations, because of institutional differences, as underlined by many authors (Wood, 1994, Esping-Andersen, 1999, Merrien, 2002). Similar conclusions apply to the review of the literature devoted to the sociodemographic changes that have characterized postindustrial countries: Everywhere have divorce rates skyrocketed and poverty risks increasingly hit younger persons; yet, outcomes vary largely from one country to another, which most authors attribute to public policy factors.

In summary, it appears that public policy factors play a very significant role in shaping the income distribution and labor market participation of various groups, especially labor market regulations and welfare state benefits and services. These factors are the object of the next chapter. Moreover, these policy factors affect the relative weight each of the three immediate causes of working poverty have in each welfare regime, and, as a consequence, the relative size of each subgroup of poor workers. This point will be clearly demonstrated in chapter 7.

4 The Role of Public Policy in Fighting Working Poverty

As indicated in chapter 3, pervasive socioeconomic factors have been affecting the living and working conditions in postindustrial economies; these structural changes vary in terms of degree and timing, but are broadly the same in all countries. Due to institutional factors, however, the practical challenges these countries face vary significantly. In some countries, these socioeconomic changes translated into a strong income inequality upswing, while in other countries unemployment rates shot up. In further nations, the main problem consisted in the explosion of public expenditure and deficit.

This “trilemma” of postindustrial societies – i.e. the impossibility to achieve income equality, employment growth, and budgetary restraint simultaneously – leads governments to choose among three alternatives: They can promote freely operating markets and budgetary restraint, which eventually leads to an increase in earnings inequality (in the US for instance, workers lacking college education had their real wages reduced by 15 percent during the 1980s, Hemerijck, 2002), whilst other, mostly Christian democratic, administrations promote budgetary restraint and income equality, at the expense of employment growth, by reducing labor supply (Germany and Austria being archetypes of this cluster of countries). A third option has been chosen by Social democratic governments in Nordic countries (Scandinavia): They tend to prefer a combination of jobs for all through public employment, and income equality, which leads to higher taxes or deficits, which in turn can lead to a growing division between private-sector and public-sector employees (Iversen and Wren, 1998).

Blank, Card and Robins, too, state that policymakers have long struggled to achieve these three goals, that is, raise the living standards, encourage work and keep government costs low. The conflict between these goals can be described as the “iron triangle” of welfare reform (Blank, Card, and Robins, 1999). Likewise, Esping-Andersen states that, ‘Since service sector productivity grows much slower than in manufacturing, the end-result is a cost-disease problem.... three outcomes are possible: first, the cost-disease may simply result in mass unemployment; the second possibility is that service jobs can be promoted via government-‘subsidized’ wages...and the third possibility is that service employment will expand because of low wages that correspond to productivity differentials’ (Esping-Andersen, 1993: 10).

In the present chapter, I first identify the main approaches that underpin the fight against working poverty in postindustrial countries – whether or not it was their primary objective when they were implemented - namely minimum wages, social transfers and policies aiming at the maximization of labor market participation. The role these policies play in each welfare regime reflect the approach to the “trilemma” policymakers have chosen. For each approach I present expected employment and antipoverty effects based on the literature; these hypotheses will be tested in the chapter devoted to the meta-analysis of various social policy instruments.

4.1 Minimum wages

Minimum wages are traditional tools in the fight against poverty, and are the first ones that come to mind when working poverty is discussed. Minimum wages are either set through collective agreements or legislation. The effects of the minimum wage will obviously depend on the level at which it is set, and large variations exist across countries.

Statutory or quasi-statutory minimum wages exist in 21 OECD countries. In order to compare the level of the minimum wage across countries, one can use purchasing power parities (PPP) in order to account for exchange rates and differences in the cost of living; it is also possible to express the minimum wage in relation to the average. In 2005, the *after-tax* value of legal minimum wages ranges from 60 percent of net average wage (for a full-time worker) in Ireland and France, to around 55 percent in the UK, slightly more than 50 percent in Australia, 50 percent in New Zealand, to about 40 percent in Spain and slightly less than 40 percent in the US and approximately 30 percent in Japan. In US\$ at 2005 PPPs, the country ranking is affected: The UK and Australia are on top of the ranking with slightly more than \$7, France at around \$7, and Japan, Spain and the US in the same ballpark, with an after-tax minimum wage slightly higher than \$4 (Immervoll, 2007).

Two of the four countries I analyze in chapters 5 and 7 have legal minimum wages, namely the US and Spain. In the US, the gross minimum wage has decreased between 2000 and 2005, from \$5.85 to \$5.15 at 2005 market exchange rates and constant prices (which represents a decline from 39 to 35 percent of gross average wages), but there has been an increase in a recent past, from \$5.85 in 2007 to \$7.25 in 2009. In addition, many states have their own wage floor set at a higher level; in addition, some metropolitan areas have enforced minimum wage ordinances that compel companies commissioned by local authorities to pay wages higher than the legal minimum, as described in chapter 7. In Spain, the minimum wage has increased between 2000 and 2005, from \$4.12 to \$4.27 at 2005 market exchange rates and constant prices, which represents a slight increase from 34 to 35 percent of gross average wages (Immervoll, 2007). In 2009, the *salario mínimo interprofesional* amounts to € 624 a month (source: OECD website, labour statistics).

The impact of minimum wages defined in collective agreements is expected to be different. Indeed, this process leads to different wage levels according to the industry, the occupation type, and the region, which allows a greater flexibility in order to reduce the tradeoff between employment and redistribution. Its effect also depends on the share of the workforce covered by collective agreements containing a wage convention. Whereas legal minimum wages cover the vast majority of workers, this is not necessarily the case for collective agreements.

In two of the countries analyzed in chapters 5 and 7, minimum wages are set through collective bargaining. In Sweden, minimum wages are industry-specific and nationwide (Skedinger, 2006), and about 90 per cent of the employees in Sweden are protected by collective agreements. In Germany, the coverage is not as high as in Sweden: Around two-thirds of workers are covered, as discussed in chapter 5, but wage levels are high in international comparison, as the German bargaining model has led to a “high skill equilibrium”: Workers are paid good wages, and in return, the level of conflictuality is very low, staff is relatively stable, and productivity is high (Eichhorst and Marx, 2009).

Expected employment effects

The neoclassical argument against the minimum wage is well-known: If the minimum wage is set above the productivity level of workers, firms will reduce their labor demand and will substitute unskilled workers for automated production processes or for higher skilled workers, while others may simply reduce their output. However, other reactions are possible: Firms could simply accept that their profit margins are squeezed, or they could invest in order to increase productivity, by investing in employees’ vocational training or innovative technologies, or try to develop better products that can be sold at a higher price. Moreover, the

fact that low-skilled workers earn more thanks to the minimum wage can stimulate consumption and reduce labor turnover.

It is noteworthy that, at the macro level, the relationship between the level of the statutory minimum wage and unemployment is far from obvious. For instance, Spain has one of the highest unemployment rates in Europe; yet, Spain has a low minimum wage. Bazen mentions the ‘lack of convincing evidence that minimum wages are responsible for the high unemployment rates in Europe’ (Bazen, 2000: 120). However, most analyses assess the minimum wage impact on employment, rather than on unemployment, as will be shown below.

Card and Krueger (1995) have caused a massive earthquake in the world of labor economics. Based on a “natural experiment approach”, they showed that a 19 percent increase in the minimum wage introduced in April 1992 in the State of New Jersey did not have the consequences neoclassical theory predicts. They used New Jersey’s fast-food industry (because it has a high share of unskilled and young workers) as the experimental group, and used the same industry in the neighboring state of Pennsylvania as the control group, as this state has a socioeconomic structure that is very similar but did not increase its minimum wage in 1992. This method seems more appropriate to the authors, because a regression model would certainly cause more problems as it is very difficult to control for all possible factors affecting the level of employment (demographic changes, economic changes, school system changes, and the like). Card and Krueger’s results are stunning: Employment fell by 9 percent in fast-food restaurants in Pennsylvania and rose by 2.8 percent in restaurants in New Jersey.

However, these findings have been subject to harsh criticism: It has been argued that the survey was carried out only 8 months after the increase in the minimum wage level and that this time span is insufficient to evaluate the impact of an increase of the minimum wage. Other researchers think that employers had started firing employees before April 1992 because they knew the level of the minimum wage would be raised (Neumark and Wascher, 2007).

Other explanations of these results are conceivable, among which the fact that price increases did not deter consumers. The monopsony model, based on the idea that employers have a certain power in the labor market, has been used to explain this pathbreaking finding. Before the introduction of the new minimum wage, employers manage to keep wages as low as possible, sometimes below the market value (which can happen when the former minimum wage was not adjusted for many years and declined in real terms). When employers’ scope in wage-setting is reduced, they can choose to expand their output and hire more workers to compensate the fact that their profit margins have been squeezed. Esping-Andersen underscores the fact that different economic models lead to different predictions regarding the impact of minimum wages, ‘In the standard competitive model, high minima should produce unemployment; in the monopsony model, however, the effect can be opposite’ (Esping-Andersen, 2000: 80).

Regarding the impact wages set by collective agreements may have, the corporatist approach states that either fragmented, decentralized and uncoordinated bargaining or highly centralized and coordinated bargaining systems can lead to satisfying economic performances (Calmfors and Drifill, 1988); there is a “hump-shaped” relationship between the kind of bargaining system (coverage, centralization, coordination) and the economic performance (mainly inflation and unemployment); that is, ‘feeble union power, as in the US, *or* broad consensual corporatism might actually diminish unemployment’ (Esping-Andersen, 2000:

82). In a review of 15 studies, the OECD concludes that the evidence is mixed as to the link between bargaining centralization and coordination and economic performance. The only statistically significant result is that centralized and coordinated countries have lower unemployment rates (OECD, 1997). As Esping-Andersen put it, 'Economies blessed with centralized, co-ordinated bargaining may permit themselves more 'equality' and social protection without adverse employment effects; while the worst off are those where unions are powerful but represent only the core workforce, thus creating an insider-outsider divide' (Esping-Andersen, 2000: 91). Some authors, however, have expressed their skepticism towards Calmfors and Drifill's "hump-shaped relationship" model (Merrien, 2002).

In sum, 'the purportedly negative impact of the minimum wage is highly disputed' (Esping-Andersen, 1999:126). There is a broad agreement that minimum wages set at "too high" a level would harm employment and that youth are most likely to be affected (OECD, 1998) and that, 'A minimum that does not really bite cannot do much damage' (Bazen, 2000: 129); however, what "too high" or "a minimum wage that bites" mean remains open to argument.

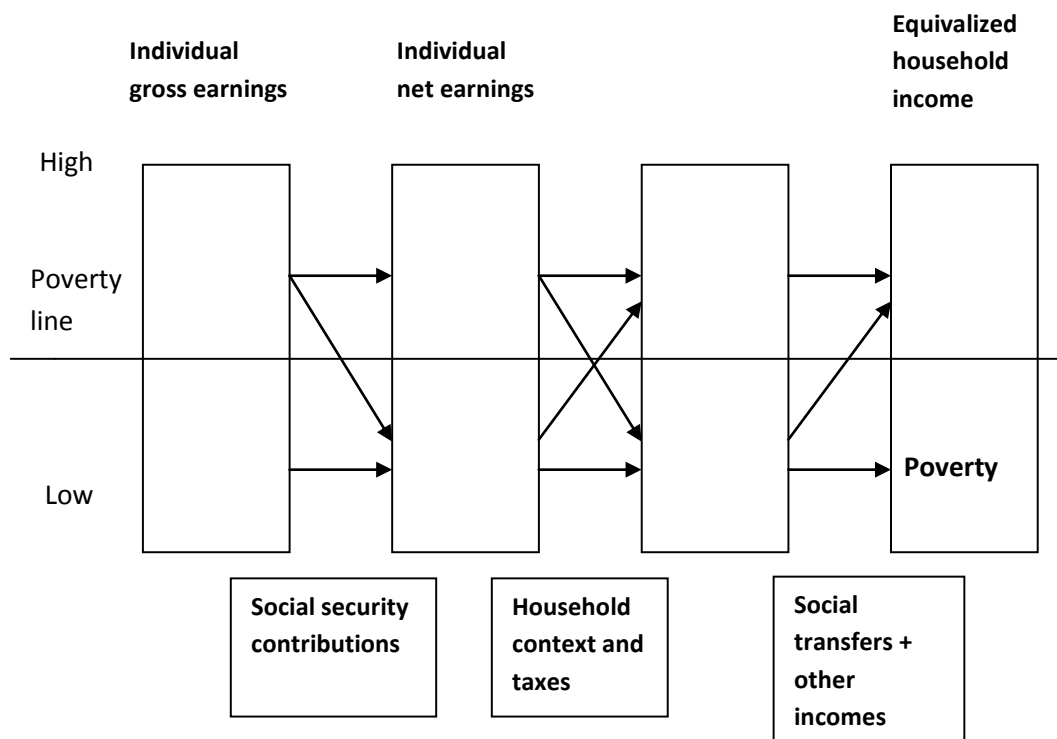
Expected antipoverty effects

Minimum wages have a significant impact on the wage distribution: They reduce earnings inequality in general and the gender pay gap in particular, because they "mechanically" create a spike at the minimum wage level (Bazen, 2000). In order to understand the impact changes in the earnings distribution may have on working poverty, I think that a conceptual and causal clarification is absolutely necessary, because, "working poor" and "low-wage workers" are sometimes used as synonyms; however, reality is much more complex.

Low-wage workers are not necessarily poor and the working poor do not necessarily have very low earnings, as poverty is measured at the household level, in contrast to low pay, which is an individual characteristic (Nolan and Marx, 2000, Welzmüller, 1990, Nolan, 1998). An important factor is that 'many households containing a low-paid individual are *not* depending on his/her earnings as the main income source. Many of the low paid are young adults living in the parental home or married women, and the household generally has other earners or is in receipt of social welfare transfers. A limited overlap between low pay and poverty is thus a common finding...The precise extent of the overlap depends on the way in which low pay and poverty are measured' (Nolan, 1998: 104). Levitan and Shapiro summarize these aspects as follows: 'workers escape poverty either because they live alone or in small families or, most important, because their income is supplemented by the income of other family members, welfare, or nonwage income' (Levitan and Shapiro, 1988: 31).

Strengmann-Kuhn has conceptualized this essential difference as follows (2003):

Figure 2: From individual earnings to household disposable income



Source: Strengmann-Kuhn (2003) translated and modified for the present work.

Indeed, a minority of low-paid workers is poor, and, in many cases, a minority of the working poor has very low earnings. Of course, conclusions depend on the indicators used. Strengmann-Kuhn uses 50 percent of the average wage as a low-wage threshold and 50 percent of the average household income as a poverty line. About 1 in 5 workers (18 percent) with a low pay (low remuneration rate) is poor in 14 European Union countries and low-wage workers represent one fourth of the working poor (Strengmann-Kuhn, 2003). The European Foundation for the Improvement of Living and Working Conditions defines being poor as living on an income lower than 60 percent of the median income and setting a low-wage threshold at 2/3 of the median wage; in the EU, one in five (20 percent) low-wage employees are poor and 37 percent of the working poor have a low pay (Peña-Casas and Latta, 2004). Hence, 'Generally speaking, there does not appear to be a very strong link between low pay and poverty' (Marx and Verbist, 1998: 76).

However, Nolan and Marx use two thirds of median wage as a low-pay threshold, and 50 percent of median income as a poverty line; that is, they define a relatively "generous" low-wage threshold, while they use a quite restrictive poverty line. In addition, they focus on full-time full-year workers, hence excluding a large share of the female labor force. They find, too, that a limited share of low-wage workers is poor, and that about 60 percent of the low paid are in the top 60 percent of the household income distribution. However, in the 13 countries considered, a majority of the working poor are low paid, ranging from 54 percent in

France to 92.5 percent in the United Kingdom (Nolan and Marx, 2000). This result is attributable to the fact that a large share of “secondary earners” is not taken into account.

The calculations presented in chapter 7 also yield a relatively high share of “low-wage workers” among the working poor; I use hypothetical earnings based on what respondents would earn should they work full-time all year around; that is, the number of weeks spent in the labor market is also included in the calculation. Moreover, the analysis focuses on heads of households and their spouse. Still, the link between low wages and poverty is loose, and in most countries low-wage employees do not represent more than half the working poor; however, a comparison of poor and nonpoor workers demonstrates that having low earnings is a significant working poverty factor.

It is noteworthy that the connection between low pay and working poverty is stronger for men and for prime-aged workers than for women and young people, due to the household context: 'The living standard of a typical household at working age increasingly depends on the *combined* labour market positions of household members rather than, as was typically the case two or three decades ago, on the labour market position of the male breadwinner...Double earnership has proliferated in most OECD countries, but single earnership remains quite widespread throughout Continental Europe, especially in the South' (Marx and Verbist, 1998: 67-68).

Most women in low-wage employment have a partner/husband who works too, which is less frequently the case for low-paid men (Nolan and Marx, 2000, Welzmüller, 1990). Indeed, numerous working households can make ends meet thanks to "supplementing earnings". This is particularly true for working-class households (Welzmüller, 1990). Levitan and Shapiro draw similar conclusions: 'Low-earning men are more likely than low-earning women to remain in poverty because their incomes are less likely to be supplemented from other sources' (Levitan and Shapiro, 1988: 29). Marx and Verbist similarly note that 'the association between low pay and poverty is stronger for men than for women...Most low-paid workers live in multi-earner households. This is certainly the case for low-paid women...Low-paid 'breadwinners' tend to face a substantial poverty risk' (Marx and Verbist, 1998: 74 and 81). This is a very important fact, as the incidence of low-wage employment is much higher among women.

As far as youth are concerned, a closer look at age-wage profiles shows that most of them are increasing, in line with the human capital theory; however, for some low-wage jobs, the age-wage profile is rather flat, and can even be declining, in line with the dual labor market theory, according to which some low-wage occupations can become “low-wage traps”, e.g. hotel and service work, cleaning work, shop assistants: ‘wage differentials observed across occupations cannot be explained entirely by occupation-specific differentials in individuals’ human capital, working conditions and industry affiliation...the incidence of low pay is concentrated in a limited number of occupations characterized by comparatively flat age-wage profiles’ (Arai, Asplund and Barth, 1998: 159).

Historically speaking, the link between low pay and working poverty has weakened, as female workforce participation has increased, as well as welfare state benefits. Danziger and Gottschalk provide us with a very revealing historical outlook on the situation in the US: 'men's earnings declined in importance over these four decades, accounting for 82.7 percent of family income in 1949, about 75 percent in 1969 and 1973, and 63.4 percent in 1991...The share of family income contributed by wives' earnings increased dramatically from 8.5 percent in 1959 to 13.1 percent in 1969, and to 21.5 percent in 1991' (Danziger and Gottschalk, 1996: 77).

The British case is also revealing. When Rowntree carried out his first study of poverty in the city of York, already mentioned above, he identified the main causes of “primary poverty”, which was a low wage in a majority of families. Almost a century later, this was the case in three out of ten poor households:

Table 8: Causes of poverty 1899 and 2001/2002

	1899 (primary poverty)	2001/2 (60% of median income)
Death of chief wage earner	15.6	5.8
Illness or old age of chief wage earner	5.1	25.7
Chief wage earner out of work / unemployed	2.3	8.6
Largeness of family	22.2	2.1
Irregularity of work	2.8	31.0
In regular work but at low wage	52.0	
Other	-	26.8
Total	100	100

Source: Glennerster, Hills, Piachaud and Webb, 2004, Table 2: 49.

Hence, in today’s postindustrial economies, it does not seem absurd to conclude that ‘A solution to the problem of the ‘working poor’ will clearly require much broader measures than those relating specifically to low pay [because] the majority of the low-paid are not ‘poor’”(Gallie, 2002: 104).

4.2 Social transfers

The second approach to the fight against poverty is based on cash benefits. Social transfers can be broken down into two functional categories. Some transfers are substitution incomes: If someone loses his or her job, gets sick or disabled, benefits are a substitute for lost earnings until this person re-enters the labor market (if possible); hence, they do not affect workers directly, but they may help nonworking members of disadvantaged households in which there is at least one worker. Other transfers provide a supplementing income: They increase working households’ disposable income. Employment-conditional tax credits are the best known example, child allowances for workers as well. It is noteworthy that means-tested social assistance benefits belong to both categories, as they can supplement the income of low-wage workers or constitute the main - or even the sole - income source of a nonworking person.

Substitution income transfers correspond to the traditional role of the welfare state as a “passive” institution (Esping-Andersen, Gallie, Hemerijck and Myles, 2002). Most of the “old social risks”, i.e. lost earnings due to illness, disability, old age, unemployment, and the death of the chief wage earner, are combated with cash transfers mainly; the old welfare state is transfer-heavy (Huber and Stephens, 2006, Bonoli, 2007). On the contrary, most of the “new” social risks - that is, risks that are typical of postindustrial societies - require an active intervention and an investment on the part of the welfare state in order to enable people to be

active members of society (Esping-Andersen, Gallie, Hemerijck and Myles, 2002, Armingeon and Bonoli, 2006); the postindustrial welfare state is service-heavy.

It is noteworthy that, in recent years, many employment-conditional social transfers have been implemented or greatly expanded, such as tax credits for workers (US, UK, France, Canada, Sweden, etc.) or child benefits for working mothers (Spain). These transfers correspond to a more recent conception of welfare state cash benefits, as they provide both an increase in disposable income and an incentive to work. Obviously, they are of no help if a person is not able to find a job.

Expected employment effects

After the oil shocks and the recession that occurred in OECD countries in the 1980s, welfare states found themselves under pressure. The influence of neoliberal theories grew, especially those stemming from the University Chicago in the field of economic sciences (Merrien, Parchet, Kernen, 2004). Means-tested benefits were subject to harsh criticism for their alleged work disincentive effects (Murray, 2000). Some Conservative critics also blamed them for allegedly generating “irresponsible” and “morally dubious” behaviors, such as out-of-wedlock births, teenage pregnancies, etc. Even though neoliberal administrations in Anglo-Saxon countries (Reagan and Thatcher administrations) were not able to implement a large-scale, across-the-board retrenchment (Pierson, 1994), the idea that means-tested benefits could do more harm than good has remained and has been adopted by many scholars who do not share the Chicago school’s ideology (Merrien, Parchet, Kernen, 2004).

In fact, no sound empirical evidence shows that the welfare state systematically has an adverse effect on employment; more specifically, neoconservative criticisms fail to explain the wide differences observed across European countries. Scandinavian countries, for instance, have generous social transfers and high employment levels. Moreover, countries with generous unemployment benefits often have lower long-term unemployment (Esping-Andersen and Regini, 2000).

This does not, by far, mean that welfare provisions have no impact at all on employment. A fundamental question concerns the effective marginal tax rates that persons face when they decide to re-enter the labor market, especially welfare recipients and women getting back into the labor market after a childrearing period: ‘In nearly all OECD countries, average effective tax rates on the low paid can be higher than on average earners or the high paid, primarily through the interaction of direct taxes with the withdrawal of benefits. However, while this factor is likely to provide a disincentive to paid work, it does not appear to explain variation in joblessness among families with children. Some countries such as Australia and New Zealand with high levels of joblessness have relatively low effective tax rates in these circumstances, while others such as Denmark, which has very high effective tax rates, have very low joblessness’ (Whiteford and Adema, 2007: 34).

In fact, conclusions appear to vary across countries. In the US, ‘Virtually all researchers who have investigated the effects of the existing scheme of transfer payments on labor supply have found statistically net negative impacts. Simultaneously, virtually all researchers have found the impact to be small’ (Darity and Myers, 1987: 218). Esping-Andersen, likewise, notes that, ‘American research has found that unemployment benefits – and also...AFDC – prolong employment re-entry...In a broader, comparative context, [some studies] provide evidence that replacement rates – and especially duration of benefits – push up unemployment...Such effects may be especially strong among low-wage workers’ However, ‘Several comparative studies conclude that the impact of social protection on unemployment is, at best, marginal’

(Esping-Andersen, 2000: 73-75). McFate draws identical conclusions: ‘New research has found the connection between poor job growth and the generosity of social protection programs in Europe to be tenuous’ (McFate, 1995b: 635).

It is noteworthy that, ‘On average, across OECD countries, there is a fairly strong correlation between the effectiveness of tax and benefit systems in reducing poverty and the level of family joblessness...In English-speaking countries the argument...appears to apply - more generous support to poor families is associated with higher levels of family joblessness [$r=0.92$]. However, among the Nordic countries the correlation between joblessness and redistribution is negative (-0.93). While further analysis would be required to verify this, this could reflect the pro-employment policy orientation of the Nordic welfare states’ (Whiteford and Adema, 2007: 37).

It is of paramount importance to distinguish benefits financed through payroll taxes and from those financed by general taxation. Social insurance benefits financed by payroll taxes have the disadvantage of increasing nonwage costs for employers, which in turn can create hurdles for workers with a low human capital. In fact, according to Hemerijck, ‘the low rates of employment in Continental Europe have less to do with the overall level of taxation and more to do with the heavy reliance on social security contributions’ (Hemerijck, 2002: 181). The impact of payroll taxes is discussed at greater length in chapter 5.

Expected antipoverty effects

It seems that redistributive policies and labor market institutions have a theoretically ambiguous effect on income inequality. Redistributive policies directly reduce inequality in terms of disposable income, in a static way. However, if dynamic aspects are taken into account, the same policies and institutions can reduce labor force participation, thereby increasing pretransfer poverty (Burniaux, Padrini, Brandt, 2006).

Descriptive studies clearly demonstrate that social transfers reduce the poverty rate: The lowest poverty rates are found in countries that have “generous” welfare states (McFate, Smeeding, Rainwater, 1995, Eurostat, 2002, Esping-Andersen, 1999): ‘There is no question that social welfare programs reduce poverty in a direct, static sense’ (Kenworthy, 1999: 1123). Whiteford and Adema (2007) have evaluated the impact of a benefit strategy (mainly cash transfers and tax breaks) on child poverty rates, but behavioral responses are not accounted for. The poverty rate of working single parents is reduced by 49.7 percent, that of two-adult households by 39.3 percent for double-earner households and by 43.0 percent for single-earner households (Whiteford and Adema, 2007).

Interestingly, targeting cash benefits to the poorest segments of the population is not necessarily the most efficient approach, as poverty rates are significantly lower in Scandinavian countries – where it is mainly universal benefits and services that contribute to the fight against poverty - than in Anglo-Saxon countries, where welfare state benefits are targeted at the poorest of the poor.

Indirect, longer-term effects also seem to be positive, as will be analyzed at greater length in chapter 8, even in models that predict pretax/pretransfer poverty and “absolute” poverty (Kenworthy, 1999), that is, poverty indicators that are directly affected by sluggish economic growth and employment declines. It is noteworthy that, ‘Among the working-age population, the incidence of pre-tax and transfer poverty is roughly similar across the three regime types...As one would expect, it is in the incidence of post-tax and transfer poverty that big differences between welfare state regime types emerge’ (Huber and Stephens, 2006: 148). At

the very end of the present work, I present some multiple regression models found in the literature. These models include labor market institutions and welfare state provisions in order to explain the level of poverty in a comparative perspective, controlling for both labor market and demographic variables. All regression models seem to indicate that public spending on social policy in general, and on social transfers in particular, play a central role in poverty reduction, even when dynamic aspects are accounted for.

However, these rather favorable conclusions do not rule out that “too generous” benefits can have a detrimental impact on labor market participation, by generating high reservation wages and marginal effective tax rates, which in turn can increase pretransfer poverty.

Another noteworthy aspect regards child poverty and the cost of combating it: Child poverty can be reduced through cash transfers or by increasing the labor force participation of parents and by reducing childcare costs (Whiteford and Adema, 2007). The difference is that, ‘the ‘servicing strategy’ is clearly more costly than the ‘transfer strategy’. But it is vital to note that the two are interdependent...The more generous [family benefits] are, the lower childcare subsidy will need to be. Conversely, the more that mothers work, the less subsidies will be needed’ (Esping-Andersen, 2002b: 61). In addition, if mothers work more, they will also pay more taxes, which reduces the net costs of childcare services. The servicing strategy is analyzed in the section devoted to childcare.

Apart from “traditional” social transfers, employment-conditional benefits are often put to the fore in the working poverty literature; these complex policy tools require a more elaborated treatment and are the subject of the following sections.

4.2.1 Tax Credits for working families/workers

Tax credits for working families have received a large amount of attention in recent years, and belong to the group of “make work pay” (MWP) policies (see e.g. Immervoll and Pearson, 2009, Pearson and Scarpetta, 2000). Their main aim is to enhance the labor market participation of disadvantaged groups and to increase the disposable income of poor workers. It should be emphasized that minimum wage legislations are often included in MWP policy mixes.

The main categories of MWP instruments that contribute to poverty reduction among working households are the following (OECD, 2003, Pearson and Scarpetta, 2000):

- tax credits for workers
- childcare tax credits for working parents
- tax allowances for work-related expenses
- employment-conditional child benefits

Other MWP policies exist; they aim at increasing the labor market participation of disadvantaged groups, such as decreases in employers’ payroll taxes. These MWP policies, however, do not mainly support poor workers; they rather help nonworking persons to enter the labor market, or to get back into it. These antipoverty strategies are not evaluated in the present work, as they do not directly aim at reducing poverty among those already in work.

I focus here on tax credits for workers that have existed for some time and for which a certain number of evaluations are available. The first of these programs is the Earned Income Tax Credit (EITC), which was introduced in the US in 1975. This is by far the most discussed employment-conditional benefit. In the UK, a tax credit for working families has also become an important anti-poverty tool. In 1971, the Family Income Supplement (FIS) was introduced,

replaced in 1988 by the Family Credit, then by the Working Family Tax Credit in October 1999 (Dilnot and McCrae, 2000), and eventually by the Working Tax Credit in 2003.

Over the 2000s, similar programs have been introduced in many OECD countries (Immervoll and Pearson, 2009), such as the “Employment Premium” (*Prime pour l’emploi*) in France in 2001, the Family Income Supplement and three other credits in Ireland, the Family Tax Credit and the In-Work Tax Credit in New Zealand, the Working Income Tax Benefit in Canada and additional programs at the provincial level (some of which existed before the 2000s), an Earned Income Allowance in Finland, and earned income tax credits at the local level in Sweden. Belgium used to have such a program, but it got replaced by a rebate on employee’s social security contributions in 2004. Other countries such as the Netherlands and Australia have employment-conditional benefits that are not completely comparable to earned income tax credits but have similar objectives.

The Earned Income Tax Credit (EITC) in the United States

The EITC was enacted in 1975 and was a footnote to an unremarkable tax bill (Howard, 1994), only supposed to offset payroll taxes paid by low-income families with children. Since then, it has become “the centerpiece of antipoverty efforts in the US” (Husby, 2000: 24). In the 1980s, the EITC survived welfare retrenchment during the Reagan era: While the Omnibus Budget and Reconciliation Act of 1981 slashed welfare expenditures by \$4 billion, increasing the poverty rate by 2 percentage points, the Tax Reform Act of 1986 indexed the EITC to inflation (Ventry, 2001). Between 1984 and 1996, real dollars received through the EITC increased more than tenfold (Meyer and Rosenbaum, 2001), far outdistancing expenditures on Temporary Assistance for Needy Families (TANF) and the Food Stamp Program (MaCurdy and McIntyre, 2004).

The EITC is an employment-conditional benefit based on Federal income tax returns and does not depend on the number of hours worked (MaCurdy and McIntyre, 2004). A first range, called the phase-in range, corresponds to a large earnings subsidy (Meyer and Holtz-Eakin, 2001, Nagle and Johnson, 2006, MaCurdy and McIntyre, 2004): As of 2007, the phase-in rate for families with two or more children amounts to 40 ¢ for each additional dollar up to the maximum credit, which is allowed over a range of income called the “plateau”, which represents the flat range of the credit. The end of the plateau corresponds to the beginning of the phase-out range. It is important to note that ‘the poverty line is about where the EITC starts phasing out’ (MaCurdy and McIntyre, 2004: 16). The phase-out range is meant to prevent so-called “threshold effects”, that is the sudden withdrawal of benefits due to a one-dollar increase in earnings. The phase-out rate of the credit is 21¢ on the dollar, and the breakeven point, that is the point above which households receive no EITC, is clearly above the poverty threshold (Scholz, 1994, Burkhauser, Couch and Glenn, 1995, Nagle and Johnson 2006, Greenstein, 2005). A very important feature of the EITC is the fact that it is refundable: If the amount of the credit exceeds what the taxpayer owes to the IRS, he or she will receive a payment from the US Treasury (Scholz, 1994, Nagle and Johnson, 2006).

Originally, the EITC was designed to support working families with children. However, there is also a modest EITC for childless workers between the ages of 25 and 65, enacted in 1994 (Scholz, 1994, Nagle and Johnson, 2006). In 2006, only 2 percent of the EITC goes to childless workers (Furman, 2006). A majority of EITC dollars go to single mothers (approximately two-thirds in the early 2000s), and more than two-thirds of payment go to families with two or more children (Meyer and Holtz-Eakin, 2001). The parameters of the EITC are adjusted for inflation every year by the Internal Revenue Service (IRS) (Levitis and Johnson, 2006, Okwuje and Johnson, 2006). However, the situation is less favorable in the

phase-in range, because the matching rate used to calculate the credit has been set at 40 ¢ per dollar earned for many years now, and the minimum wage is not adjusted for inflation. Indeed, for many households that have to live on a minimum wage, the EITC is not generous enough to lift a two-parent family with two children above the federal poverty line (Nagle and Johnson, 2006). Given that the EITC is administered by the IRS, the take-up rate is very high (80 to 86 percent according to Scholz, 1994). By contrast, fewer than half of eligible working families participate in the Food Stamps Program (Fishman and Beebout, 2001).

The EITC has enjoyed broad bipartisan support throughout the 1980s and the 1990s. In recent years, however, some conservative politicians are deeply disturbed by the fact that a majority of EITC recipients are nonpoor according to the official definition (Ventry, 2001, Husby, 2000). In 2001, the share of total benefits that accrue to poor families amounts to 38 percent (MaCurdy and McIntyre, 2004). More problematic is the fact that high error rates were found by the IRS; this has led some critics to name the program a “tax credit for crooks” (Ventry, 2001). In 1994, the IRS examined the returns of 2,046 randomly selected EITC claims, which led to the following conclusion: \$4.4 billion were claimed in excess, corresponding to an overclaim rate of 25.8 percent (the percentage of total dollars paid out in error). It is difficult, however, to identify cases where the misreporting is voluntary and cases of unintentional mistakes, due to the complexity of certain rules (McCubbin, 2001). The IRS has increased the number of EITC returns that are controlled since 2001 (Greenstein, 2005), and since 1998 it can also levy penalties against individuals who abuse the EITC (Ventry, 2001).

In addition to the federal program, a growing number of states have introduced their own EITC, set at a flat percentage of the federal credit: They “piggyback” directly on the federal EITC. As of 2006, the following 21 states had enacted an EITC, at a given flat percentage indicated below (Okwuje and Johnson, 2006, Levitis and Johnson, 2006):

Colorado	10% (in 2001)
Delaware*	20%
District of Columbia	35%
Illinois	5%
Indiana	6%
Iowa*	6.5%
Kansas	15%
Maine*	5%
Maryland	20%
Massachusetts	15%
Michigan	10% (effective in 2008, 20% in 2009)
Minnesota	average 33%
Nebraska	8%
New Jersey	20%
New York	30%
Oklahoma	5%
Oregon	5% (6% in 2008)
Rhode Island	25%
Vermont	32%
Virginia*	20%
Wisconsin	(1 child 4% / 2 children 14% / 3 children 43%)

States indicated by a star (*) have enacted a nonrefundable tax credit. All states but Maryland, New Jersey and Wisconsin, allow childless workers to claim a state EITC.

Regarding the **expected employment effects** of the EITC, the credit in the phase-in range has an ambiguous effect in terms of work incentives due to the offsetting impact of income and substitution effects (Hoynes, 2007). In the plateau, the theoretical effect is unambiguously negative (Hoynes, 2007, Burkhauser, Couch and Glenn, 1995), especially for women in married households with children (Scholz, 1994, Furman, 2006). In the phase-out range, the impact should be unambiguously negative, due to both negative income and substitution effect (Ventry, 2001). However, contrary to what microeconomic theory predicts, given that a majority of recipients are either in the plateau or the phase-out range (Meyer and Holtz-Eakin, 2001), the overall employment effects of the EITC appear to be positive, as will be shown in the meta-analysis of the EITC in chapter 6.

As far as its **expected antipoverty effect** is concerned, according to Census data, in 2003, 4.4 million people living in America were lifted out of poverty, including 2.4 million children (Greenstein, 2005); for 1999, Meyer and Hotz-Eakin estimate that 3.7 million people escaped poverty; these estimates, however, do not account for employment effects. It is noteworthy that the EITC combined with food stamps allow a family of four to escape poverty if there is one full-time minimum-wage worker in the household (Greenstein, 2005).

It is fundamental to underline that the expansions of the EITC took place in a very specific social and economic context: During the 1990s, ‘the United States has enjoyed the longest period of economic expansion in its history’ (Sawhill and Thomas, 2001: 1); moreover a major welfare reform took place in 1996, with the introduction of a lifetime limit of five years of benefits receipt, leading to a strong decrease in welfare caseloads (Sawhill and Thomas, 2001, Blank, 2000). By 1999, TANF caseloads had dropped by nearly half, and nearly two thirds of mothers who left TANF had a job (Loprest, 2001). Hence, most evaluation results are based on a rather exceptional period of time. As Sawhill and Thomas put it, ‘the employment effects discussed in this study will remain relevant only so long as there are jobs to be had...implicitly making the assumption that there is a strong demand for labor among employers. This assumption...will almost certainly prove problematic in a time of economic downturn’ (Sawhill and Thomas, 2001: 49).

The Working Family Tax Credit (WFTC) in the United Kingdom

Britain also has a long history of tax credits for workers. The Family Income Supplement (FIS) was introduced in 1971, a means-tested benefit for families with an adult working at least 24 hours a week. In 1988 the FIS was renamed Family Credit and its generosity increased. The WFTC was introduced in October 1999 and replaced the former Family Credit (FC). Within the WFTC, there was a Child Care Tax Credit that amounted to up to £150 a week (Blundell, 2006). The WFTC itself was replaced by an integrated children and employment tax credit in 2003, but the approach was not fundamentally altered; indeed, the new WTC is an extension of the WFTC (Marx and Verbist, 2008).

As of 2009, there is a Child Tax Credit for all parents, whether they work or not, and a Work Tax Credit for working households that includes a childcare element if “approved” or “registered” childcare services are used; the Child Tax Credit is paid on top of the Work Tax Credit, the latter being also paid to workers who do not have children. Childless workers need to work at least 30 hours a week to be entitled, with some exceptions, whereas working parents of children under 16 or of full-time students have a lower work requirement threshold, namely 16 hours a week. The childcare element is worth up to 80p in tax credit for every £1 a

week spent on approved childcare, with maximum amounts between £140 a week for one child and £240 a week for two or more children. Workers in dual-earner couples can choose who gets the WTC, while the childcare element and the Child Tax Credit are paid to the main carer of all children in the family (HM Revenue & Customs' website).

In what follows, the WFTC is the only program described, even though it does not exist under this label anymore and has been slightly modified, because virtually all available evaluations pertain to this program. The “third way” in welfare reform began when Tony Blair and the Labour Party won the general elections of May 1997 (Hills and Waldfogel, 2004) and the WFTC ‘was a flagship policy for New Labour’ (McLaughlin, Trewsdale, McCay, 2001: 164). The introduction of UK’s first national minimum wage was also a major reform in the New Labour’s agenda in 1998. Three goals were pursued: First, the very low level of labor force participation of specific demographic groups, both in the UK and the US, in the early 1990s, was a strong motivation (Blundell, 2006). In the UK the employment rate of single mothers was “stubbornly low” (Blundell, 2000: 426). There was also an increase in the share of workless couples in the UK. The second objective was to reduce child poverty, through significant real increases in the universal child allowance and other means-tested benefits, and the increase in the tax credit for working parents. The third prong of New Labour’s strategy was to reduce welfare dependency with programs that provide childcare or other services to pre-school-aged children, in order to break the intergenerational cycle of disadvantages. In addition, programs helping teenagers to stay in school were implemented, with allowances paid to those who choose to do so (Hills and Waldfogel, 2004).

The WFTC was notably more “generous” than its predecessor, the Family Credit: The maximum credit was higher and the rate at which the WFTC was withdrawn was less steep, namely 55p in the pound instead of 70p. The amount paid is dependent on the number and age of children, the earned and unearned income of parents and whether the parents have incurred approved substitute childcare expenses (McLaughlin, Trewsdale, McCay, 2001). One of the challenges posed by the increased generosity of tax credits for workers, however, was that many working families could lose all of their housing benefit as a result of the increased generosity (McLaughlin, Trewsdale, McCay, 2001).

Like its American counterpart, the WFTC is not administered by traditional welfare authorities, but by the UK’s Inland Revenue. Contrary to the EITC, the WFTC has a minimum workweek requirement, namely at least 16 hours a week; moreover the credit is boosted if the head of household works at least 30 hours a week (Blundell, 2006, Brewer, 2001, Sawhill and Thomas, 2001). Another major difference between the WFTC and the EITC is that the WFTC does not have a phase-in range: At 16 hours a week, the recipient gets the maximum credit she or he is eligible to; in addition, the UK system displays a much steeper withdrawal, that is, a higher reduction rate.

Regarding expected employment and antipoverty effects, it is very important to note that the introduction of the WFTC occurred at the same time as other reforms, and ‘This coincidence of reforms is crucial in understanding the impact of the reforms’ (Blundell, 2006: 432). Indeed, this feature of welfare reform in the UK allows explaining a “pronounced puzzle”: while the WFTC has a maximum credit that is twice as high in real terms than its American counterpart, the impact of the WFTC ‘looks to be about half of what it was among similar groups in the US’ (Blundell, 2006: 424). While the welfare reform in the US has witnessed a decrease in real terms of welfare benefits and the introduction of a lifetime five-year limit, the level of means tested benefits in the UK were increased, because reducing child poverty also was a strong priority in the UK (Blundell, 2006).

The “Employment Premium” in France (*Prime pour l’emploi PPE*)

The Employment Premium was introduced in May 2001. Its main stated goals are to provide incentives to get back to work or to stay in employment through a decrease of the marginal effective tax rates (Cahuc, 2002), notably for recipients of the minimum income scheme. The first program’s eligibility criteria were linked to earnings, namely earnings between 0.3 and 1.4 times the full-time minimum wage (SMIC being its acronym), with an upper limit of 2.1 SMIC for workers in jointly-filing households who have an inactive partner or whose earnings do not exceed 0.3 SMIC in full-time equivalent. Taxable household income is also taken into account.

The approach is completely different from those presented above, as the group of eligible workers is very large, namely one in four approximately compared to approximately one in 20 for the WFTC (Cahuc, 2002) and the credit is much smaller than its more generous but also more targeted Anglo-Saxon counterparts (Cahuc, 2002). In 2001, the average credit amounted to €144 a year and the maximum credit amounted to slightly less than €400 a year, namely for a worker earning the SMIC in a single-earner household. The context in which the PPE was implemented was also different. First, the unemployment rate was high, especially for low-skilled and young workers (Legendre, Lorgnet, Mahieu, Thibault, 2004). Moreover, the minimum wage (SMIC) is one of the highest among OECD countries, when expressed in percent of the median wage, as already mentioned.

First evaluations showed that this tax credits could not have any effect on employment in a country with a compressed wage distribution and “generous” welfare benefits (Cahuc, 2002). Hence, the main effect and advantage of the PPE was redistributive. Moreover, the PPE mainly accrued to full-time SMIC workers, which is not the most disadvantaged group in the French workforce. Another drawback is that the benefit calculation is very complex, as it both depends on individual earnings and household income, making it very difficult to understand for recipients (Legendre, Lorgnet, Mahieu, Thibault, 2004).

Given all these drawbacks, the program was reformed as early as 2003. It increased the amount paid to part-time workers, with a 45-percent supplement for workers with less than a half time job, which led to a budgetary increase of €126m (Legendre, Lorgnet, Mahieu, Thibault, 2004). As of 2003, the maximum credit amounted to €444 a year for a minimum-wage worker on full-time year round employment (1,820 hours in France); as indicated above, a yearly workload of less than 910 hours meant that the credit was multiplied by 1.45 (Legendre, Lorgnet, Mahieu, Thibault, 2004).

The calculation remains, indeed, very complex. It depends on the earnings and hours worked indicated in the tax return, but also on the average wage rate. It also depends on the characteristics of the fiscal unit: Married couples, single parents, and single-earner couples get different amounts that, in addition, depend on the number of children. Even after the increase of 2003, the PPE level remained low: €27 a month for a SMIC-worker working half time and €37 for a SMIC-worker on full-time employment. Thanks to the increase for part-time workers, the PPE is better targeted; however, 12 percent of the global amount accrue to workers in the fifth income decile (Legendre, Lorgnet, Mahieu, Thibault, 2004).

Given the small amounts at stake, and the specificities of the French labor market, notably high unemployment rates and a compressed wage distribution, the **employment and antipoverty effects** of the PPE are expected to be small.

In June 2009, a new benefit was introduced, namely the RSA (*Revenu de solidarité active*); its main aim is to replace the existing minimum income schemes (the minimum income guarantee RMI and a benefit for lone parents API); in practice, workers entitled to both RSA and PPE must declare the amount of money received through the RSA, and fiscal authorities calculate PPE benefits including the RSA in household taxable income.

So far, the social transfers I have described are employment-conditional. The next section deals with benefits that are not conditioned on employment; they can be universal or means-tested.

4.2.2 Family cash benefits, child allowances/benefits

According to the OECD family database, as of 2007, approximately half the OECD countries provide family cash benefits that are not means-tested (they are, hence, universal). This is the case in Austria, Belgium, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Slovakia, Sweden, Switzerland, and the UK.

The level of these benefits varies widely across countries, from less than 1 percent of the average wage in Greece to 10 percent in New Zealand. In some countries these cash benefits are an important component of low-income families' material well-being; for instance, they represent around 10 percent of disposable income in Germany for families in the bottom decile of the income distribution (Whiteford and Adema, 2007). Eligibility in terms of the child's maximum age also varies widely, from 12 years in Japan and Lithuania up to 19 in Austria. In the large majority of OECD countries, the age limit is higher for students. There are employment conditions in Greece, and a reduction of benefits in proportion to days not worked in Italy; in other countries, eligibility is not linked to parental employment.

In some countries, family cash benefits take the form of a tax credit (they should not be confounded, however, with childcare tax credits nor with earned income tax credits), namely in Australia, Austria, Canada, Germany, New Zealand, and the UK.

Regarding the **expected employment effects**, most of the findings pertaining to social transfers in general (except for employment-conditional cash benefits) should apply to family cash benefits. It should be noted that universal benefits have the great advantage of preventing threshold effects, but their cost is notably higher, as most children do not grow up in disadvantaged families.

The antipoverty effect of these benefits is not easy to assess: In a static sense, obviously, they reduce child poverty, and figures based on a pretransfer/posttransfer approach are provided in many studies, one of the best-known being Whiteford and Adema's report (2007). It is important, however, to account for behavioral responses, as these benefits could have a negative employment effect, especially in countries in which childcare services are in limited supply or expensive, as low-skilled mothers might be financially better off staying at home with their children, or reducing their labor force participation, if family benefits are high.

Among the numerous analyses that do not include behavioral responses, Fagnani and Math's (2008) is very interesting. They use the "model family method" to analyze the repartition of family cash benefits in an 11-country comparison⁷: For each model family – varying according to the number of children and earners – the family package is calculated as the

⁷Belgium, UK, France, Austria, Netherlands, Germany, Ireland, Norway, Finland, Sweden, Denmark.

difference between the net income after transfers and taxes for a household with children and the net income of a childless couple, with both families living on identical earnings. The components included in the calculation of the disposable income are: earnings, income tax, social insurance contributions, local taxes, family cash benefits, housing benefits, social assistance, and guaranteed child support. Finally, the overall family package is measured in € in Purchasing Power Parities.

Austria and the UK stand out as the most generous countries when it comes to cash provisions for families, be it for couples with children or for lone-parent families. Regarding couples with children, France, Belgium and Germany follow the leaders, while Scandinavian countries are at the bottom of the ranking. The situation is fundamentally different for lone parent families: Here, the Scandinavian countries follow the leaders, and France, Germany and Belgium are the lowest ranked countries. Overall, it can be said that the UK is the most generous state toward low-income families; the UK and Ireland favor the working poor in their family policy. France and Belgium tend to encourage larger families, and Scandinavian countries provide more support to single parents than to couples.

But being the most generous country in terms of average cash benefits per supported family does not mean being the most efficient in the war on poverty: ‘A look at child poverty rates, however, exposes the UK as the worst performer by a considerable margin...Clearly, the goal to increase social justice while decreasing child poverty depends on providing more than simple cash benefits...The Nordic countries, where social inequality is less marked and child poverty is virtually non-existent, provide a perfect illustration of this point...Financial support is modest but benefits in kind such as community facilities and services are considerable...this goes hand-in-hand with high employment rates for mothers with children’ (Fagnani and Math, 2008: 73-74). Indeed, the fact that a country puts more emphasis on cash benefits or on family services matters a great deal. In the latter case, the approach is not based on social transfers, but on the maximization of employment, analyzed in section 4.3 below.

Another important category of social transfers, namely social assistance benefits (or welfare benefits), must be discussed, as their main aim is to prevent poverty.

4.2.3 Social assistance benefits

In fact, most of the elements presented above regarding social transfers in general (except for employment-conditional transfers) apply to social assistance benefits in particular, be it work disincentive effects as well as antipoverty effects. As indicated above, social assistance benefits can act both as substitution income for unemployed and inactive persons and supplementing incomes for poor workers. In most countries, however, the unemployed are the largest proportionate category of recipients (Eardley, Bradshaw, Ditch, Gough, Whiteford, 1996).

The specificity of welfare benefits is that they are associated with stigma (Van Oorschot, 1991, Leu, Burri, Priester, 1997), as opposed to social insurance benefits, as the entitlement to the latter is derived from social security contributions paid by the recipient and is, hence, perceived as a due right. Even in countries in which the general public’s attitude towards the welfare state is clearly positive, such as Sweden, the perception of social assistance benefits is rather negative (Bergmark, 2000).

The antipoverty and employment impact of social assistance will not be systematically assessed in chapter 6. An abundant literature already exists, and these impacts constitute a research topic of their own. Moreover, these evaluations usually do not concern poor workers in the first place; most of them are either devoted to disincentive effects for those not in the

labor force or measure antipoverty effects without accounting for dynamic aspects. However, some of the evaluations meta-analyzed in chapter 6 contain the level of welfare benefits as a control variable; these findings will be reviewed.

Let us now direct our attention to the third approach to the fight against working poverty, the employment maximization strategy.

4.3 Maximization of labor force attachment

This third approach can also have an impact on working poverty, because a low degree of labor force attachment is one of the three working poverty mechanisms I have been able to identify. Policies that allow increasing female employment (especially maternal employment) and employment among low-skilled workers of both sexes can, hence, efficiently contribute to the fight against working poverty.

In the US everything is done to maximize labor market participation, which translates into a strong emphasis on employment-conditional benefits, especially the EITC, and the existence of a five-year lifetime limit for welfare benefits; in Scandinavia, this maximization strategy translates into “generous” parental-leave schemes and an access to largely available and affordable childcare. In addition, Nordic countries have a long tradition of active labor market policies (Esping-Andersen, 2002b). It should be underscored, however, that in neither country the fight against working poverty was the main aim of the employment-maximizing approach. In the US, the main goal was to reduce welfare dependency, especially among single mothers (Meyer and Holtz-Eakin, 2001), whereas in Scandinavia it was a response to labor shortages in the 1960s and a way to take feminist claims into account (Bonoli, 2007).

Labor market participation has not been the number-one priority in many continental European countries, in which early retirement, disability pensions, low female labor force participation and labor shedding have often been perceived as appropriate ways to regulate labor supply in periods of high unemployment (Esping-Andersen, 1999, Hemerijck, 2002). In a recent past, however, there has been a departure from the “welfare without work” strategy: ‘Continental welfare states are in the midst of a general paradigmatic shift...towards...employment-friendly welfare systems’ (Hemerijck and Eichhorst, 2009: 23).

This third approach can also be divided into two subcategories. The first one consists in incentives and productivity-enhancing measures in the form of state-provided childcare, parental leaves and active labor market policies. The other one is rather based on coercion, e.g. welfare-to-work programs or employment-conditional benefits: People are compelled to hold a job in order to receive financial support. In everyday language, I distinguish between the stick and the carrot. Interestingly, some researchers consider employment-conditional benefits to be a carrot rather than a stick (see e.g. Meyer and Holtz-Eakin, 2001). Indeed, in the US, welfare-to-work policies and other measures aiming at forcing people back into employment are qualitatively different from work-conditional benefits, notably tax credits for workers.

The employment-maximization approach based on incentives implies a conception of the welfare state seen as an enabling institution, i.e. a social investment state pursuing prevention rather than protection (Van der Veen, 2009, Esping-Andersen, Gallie, Hemerijck, Myles, 2002, Bonoli and Bertozzi, 2008). Labor protection is replaced by the promotion of work.

This approach broadly corresponds to the famous “third way” advocated by Giddens, one of Tony Blair’s advisors, an approach based on a welfare state aiming at the development of human capital (Giddens, 2000, Kenworthy, 2004). In Scandinavian countries, the social investment approach is not new: The ‘accent on activation and strengthening individuals’ capacities...is indeed what the Danes and, especially, the Swedes have been pursuing for decades’ (Esping-Andersen, 2002a: 5).

The potential **employment effects** of the employment-maximization strategy are self-evident. As far as **potential antipoverty effects** are concerned, female unemployment and employment rates are significantly correlated to relative poverty (with the threshold set at 50 percent of median income) over the period 1993-2000, while it is not the case for men, confirming the central role of women’s earnings in reducing poverty risks (Burniaux, Padrini, Brandt, 2006). Indeed, ‘female employment is one of the most effective means of combating social exclusion and poverty’ (Esping-Andersen, 2002c: 94), and ‘the inability to reconcile work and family life can, especially for low-income parents, be associated with a poverty risk’ (Bonoli, 2007: 500). Moreover, as will be shown in chapter 7, countries with high maternal employment rates have a smaller share of working lone mothers who are poor. More generally, virtually all studies I am aware of show that unemployment and inactivity are important poverty factors, while double earnership reduces the poverty risk.

Finally, it is noteworthy that combating working poverty *per se* can also be seen as a social investment approach, as many poor workers have children. There is growing evidence that poverty has a detrimental effect on the mental health and cognitive development of children. Two models explain this impact. The first is the Family Stress Model: As families experience economic hardship, parents and other caregivers are subject to emotional distress and sometimes behavioral problems, which in turn leads to interparental conflict and sometimes inconsistent parenting practices (Conger and Jewsbury Conger, 2007). Another model, the Investment Model (IM), is primarily concerned with the advantages for the developing child of family financial prosperity: learning materials available in the home, stimulation of learning, specialized tutoring or training, and so on (Conger and Jewsbury Conger, 2007). For instance, in the mid-1990s, the state of Wisconsin launched an experiment called New Hope, which provided adults with earnings below 150 percent of the federal poverty line who worked at least 30 hours a week with wage supplements, subsidized health insurance, and childcare subsidies. Not only did the program decrease poverty, but it also improved children’s academic achievement (Gupta, Thornton Walker, Huston, 2007).

4.3.1 Active labor market policies (ALMP)

ALMP could be considered as a useful tool in the fight against working poverty, by contributing to the maximization of workforce attachment. Indeed, ALMP may increase the likelihood that unemployed or inactive members of working households find a job and retain it. However, whereas an abundant literature exists regarding the effectiveness of ALMP in the fight against unemployment, these policies are rarely considered as potential anti-working poverty tools outside the US (Hamilton, Freedman, Gennetian, Michalopoulos, Walter, Adams-Ciardullo, Gassman-Pines, 2001, Kluge, 2006, Martin and Grubb, 2001). Moreover, the impact of ALMP on employment goes far beyond the scope of the present work, and, as indicated in the introduction, is not analyzed here.

4.3.2 Childcare services

Subsidizing childcare is another strategy that can be pushed in order to boost the labor market participation of poor workers and of inactive members of poor working households.

Regarding family policies in general, an important fact is that the level of spending varies considerably across countries. Within the EU, ‘The remarkable generosity of the Nordic countries...contrasts sharply with the modest contributions made by countries in the southern bloc of member states... along with the Nordic countries, France leads the EU in public childcare provision and benefits aimed at reducing childcare costs for families’ (Fagnani and Math, 2008: 55 and 57). In addition, the structure of these outlays is fundamental: The majority of public spending on family policy in Scandinavian countries is devoted to the provision of services, and tax breaks are virtually non-existent. In absolute levels, spending on services exceeds 1 percent of GDP in Denmark, Finland, Iceland, Norway, and Sweden; France is notable too. In France and Germany, the distribution between services, cash benefits and tax breaks is quite balanced, with tax breaks playing a more important role in Germany than France. In the US, the bulk of public spending on family benefits consists in tax breaks. In Europe, Mediterranean countries display the lowest levels of spending overall (Whiteford and Adema, 2007).

In summary, in many countries, family policy mainly belongs to the realm of social transfers, while in others, it mainly aims at maximizing employment, especially maternal employment. The availability and the cost of childcare services are the two main approaches to the employment maximization strategy analyzed here; however, although tax credits for workers have been analyzed as employment-conditional transfers, they also belong to the category of instruments designed to increase employment rates, especially among single mothers.

Expected employment effects

Policies that improve the work-family life balance and, hence, the labor force participation of mothers are the following: increasing the availability of formal childcare, lowering childcare fees, making childcare expenses deductible from taxable income or from the calculation of means-tested benefits, childcare-related cash benefits, as well as tax credits for working mothers/parents (Immervoll and Barber, 2005). In the next chapter devoted to meta-analyses of existing programs, I focus on tax credits for working parents, and on childcare availability and costs/fees.

In their analysis of 21 countries, Immervoll and Barber (2005) show that, at both extremes of the distribution of two important variables, namely the share of children in formal childcare and the maternal employment rate (mothers of children aged under three), the situation is clear: In Greece, Italy, Spain, and Germany, a maternal employment rate of 45 to 56 percent corresponds to a low share of children in formal childcare (less than 10 percent). At the other end of the two distributions, Sweden and Denmark display both a high rate of labor market participation for mothers (more than 65 percent) and a high share of children under three in formal childcare (65 and 64 percent respectively). Regarding “in-between” countries, the evidence is less clear. A first group of countries displays employment rates for mothers of children under three between 55 and 65 percent, whereas the share of children in formal childcare lies between 10 and 30 percent (Canada, the USA, and Switzerland). A second group of countries, namely France, Belgium, Austria, the Netherlands, and Portugal have maternal employment rates of 65 to a high 74 percent and a share of children in formal childcare below 30 percent (it equals 30 percent in France and Belgium).

All in all, these figures tend to show that mothers’ labor force participation partly depends on the share of children in formal childcare, which in turn depends on the availability of childcare slots. However, a simple regression model in which maternal employment is regressed on the share of children in formal childcare yields a coefficient of determination that is rather modest, namely $R^2=0.16$; that is, 16 percent of the variation in maternal

employment rate is explained by the share of children in formal childcare (Immervoll and Barber, 2005).

Childcare fees doubtlessly play an important role, too. The average fees charged by childcare centers, for a two-year old in 2001 in full-time care amounted, on average, to 16 percent of gross earnings of an average production worker, ranging from 6 percent in Sweden, the Slovak Republic, Hungary, and Spain to 37 percent in Switzerland (Immervoll and Barber, 2005).

Immervoll and Barber show that childcare costs can be a heavy burden for working parents in OECD countries, but massive variations exist across countries. The situation of various family types is assessed in their report. For a dual-earner family with both parents earning 100 percent of the average production worker (APW) wage, the cost of childcare for two children in full-time care, including tax and benefits concessions, expressed in percent of family net income, ranges from 6 percent in Germany, Sweden and Greece to 29 percent in Ireland and Switzerland. For dual-earner households with earnings amounting to 133 percent of the wage of an APW, these costs range from 5-6 percent in Germany, Denmark and Finland, up to 32 percent of family net income in New Zealand and 40 percent in Ireland. For lone parents who earn an APW wage, differences are even larger, from 4-5 percent in Germany and Norway to 38 percent of net income in the US, 42 percent in New Zealand, and a stunning 53 percent in Ireland. For low-wage lone parents, the ranking is notably different, reflecting the fact that the US has targeted the bulk of its social policy effort on this population group: For a lone parent earning two-thirds of the APW wage, childcare costs range from 2 percent of net income in the US (and Finland) to 42 percent in Canada and 58 percent in Ireland.

In summary, in some countries, childcare costs constitute a large obstacle to maternal employment, even for families living on average earnings, whereas in others, family policy efforts make childcare services affordable, most notably in Scandinavian countries.

The relative impact of childcare costs on the incentives to take up employment is summarized in tables 13 and 14; some policy mixes can have a different impact on parents on low-wage employment (hereunder -) and on higher-wage jobs (hereunder +):

Table 9: Work incentives and childcare costs for married couples

Financial incentives to take up employment (Net income gain)				
Impact of childcare cost on income gain		Low	Average	High
	Low	Denmark Hungary Slovak republic	Finland (-) Iceland	Sweden
	Average	Finland (+)	Belgium Norway	Greece Korea
	High	Australia (+) Ireland New Zealand (-) Portugal (-) Switzerland (Zurich) UK	Australia (-) Austria (Vienna) Canada (Ontario) France (+) Japan(-) Netherlands Portugal (+) US (Michigan)	France (-) Japan (+) New Zealand(+)

Source: Immervoll and Barber, 2005

Interestingly, results are different for married parents (table 9) and for lone parents (table 10):

Table 10: Work incentives and childcare costs for lone parents

	Financial incentives to take up employment (Net income gain)			
		Low	Average	High
Impact of childcare cost on income gain	Low	Austria-Vienna(-) Denmark France (-) Slovak republic	Finland (-) Belgium Iceland Germany Japan (-) Netherlands (-) Portugal (-)	Greece Norway Sweden UK (-) US (Michigan) (-)
	Average	Austria-Vienna(+) France (+) Netherlands (+)		Australia (-) Hungary
	High	Canada (Ontario) Ireland Japan (+) Korea (-) Australia (+) New Zealand Switzerland (Zurich) UK (+)	Portugal (+) Australia (+)	Korea (+) US (Michigan) (+)

Source: Immervoll and Barber, 2005.

Childcare costs appear to play an important role in terms of work incentives. However, it is striking that low financial incentives do not only depend on the impact childcare costs have on income gain. The tax and benefits system also plays a fundamental role: ‘The cost of childcare acts as a major barrier to work in some of these cases (Canada, Ireland, New Zealand, Switzerland) but inactivity traps are also a problem where childcare is much more affordable for low-wage lone parents (Austria, Denmark, France, Slovak Republic)’ (Immervoll and Barber, 2005: 36).

Moreover, it should be noted that ‘Swedish mothers entered the labour market long before there was enough public childcare. In 1970 for example, half of the mothers with preschool children (0-6 years) were employed, while only 9 per cent of the preschool children were in public childcare. For a long time many parents arranged childcare in the informal sector’

(Nyberg, 2006: 96). The case of Greece is also interesting in this regard; mothers' labor market attachment is weak whereas the financial incentives to work are high.

In addition, it is also important to know whether women work full time or part time. Esping-Andersen shows that in most countries, except for Scandinavian countries (and surprisingly also Italy), the presence of infant children has a very strong negative effect on full-time work, e.g. in Germany, France, and the UK. Moreover, as will be analyzed at greater length in chapter 5, 'Full-time working mothers are...a fairly rare species in Southern Europe' (Esping-Andersen, 2002c: 85). It is noteworthy that, 'In Scandinavia, part-time employment has been...in decline in recent years...[it] is increasingly not *necessary* for working mothers' (Hemerijck, 2002: 199).

It is noteworthy that the phenomenon of statistical discrimination may also depend on childcare policies. In countries in which employers expect that women will experience a productivity decline due to births, they will be more reluctant to hire them in the first place, to invest in their human capital and to pay them equal wages (Esping-Andersen, 2002c).

In summary, the cost of childcare appears to be a major determinant of maternal employment; however, other factors play an important role too, such as the tax/benefits system and overall employment performance. Another key factor is the availability of childcare slots. If the number of childcare slots is low, then the price is quite unlikely to have much of an influence (Del Boca, Vuri, 2007, Kalb, 2009). In fact, there are different ways to achieve a high degree of childcare coverage. The first approach is typical of Scandinavia, a region in which childcare centers are heavily subsidized by the state; another approach is found in the US, a country in which childcare services are bought in the market. In the US, however, it is possible to find affordable childcare services, due to a wide earnings dispersion: Childcare workers are low-paid. Indeed, Bonoli and Reber demonstrate that both public spending on family services and earnings dispersion have a statistically significant and positive impact on the percentage of children aged 0-3 in formal childcare (Bonoli and Reber, 2010).

Another important factor is cultural, as it appears that opinions about what "a good mother" should and should not do have an impact on childcare use and employment; in order to demonstrate it, regression models can be calculated that include controls for employment and sociodemographic variables, as well as public policy factors. Cultural variables are measured with opinion questions pertaining to maternal employment; these appear to have a significant impact, *ceteris paribus* (see e.g. Berninger, 2009).

It is important to note that the impact of childcare services goes beyond its immediate effect on maternal employment. In fact, the more women stay in the labor market, the more jobs are created in the personal services sector. According to Esping-Andersen, this "multiplier" could amount to 10 percent, i.e. approximately one extra job in personal services for 10 mothers who stay in the labor market (Esping-Andersen, 1999).

Expected antipoverty effect

Interestingly, as will be shown in chapter 6, the number of studies evaluating the antipoverty effects of childcare policies is limited. Most available evidence pertains to the employment effects and the impact on fertility of these policies. Here, I present some descriptive evidence found in the literature, whereas evaluations based on regression models and simulations are presented in chapter 6.

The potential impact of childcare costs on poverty is easy to grasp. For instance, in 2001 in the US, 43 percent of all working parents with children pay, on average, around \$5,044 a year for childcare (the amount ranges from \$1,958 to \$6,587 a year). That is, ‘on average, child care payments eat up close to a fifth of the incomes of poor and lower middle income working families paying for care’ (Sawhill and Thomas, 2001: 37).

Childcare policies can increase multi-earnership as well as the work volume of single parents. Indeed, single earnership has become a significant poverty factor in countries in which double earnership has become the norm. Moreover, a mother’s labor market participation also plays a role in a longitudinal perspective: ‘As a rule of thumb, if a full-time worker interrupts her career for a 5-year interim she will forego 1.5-2 percentage points *per annum* in potential life-time earnings (Esping-Andersen, 2002c: 78). In the Swiss case, it has been showed that workers who have experienced a career interruption in a recent past face an above-average risk of being poor (Swiss Federal Statistical Office, 2008). This is not only due to foregone earnings while the mother is out of the labor force, but also to skills erosion and lost seniority. In short, childcare policies can contribute to the reduction of working poverty by increasing earned income, both in the short and in the long run.

Maximizing parents’ labor force participation may not be sufficient, though. The OECD published a report (Whiteford and Adema, 2007) that aimed at evaluating the respective impact of a benefit strategy (mainly cash transfers and tax breaks) and of a work strategy on child poverty. Whiteford and Adema’s conclusions are fundamental: ‘while encouraging employment of the jobless and increasing the share of two earner families is likely to be an essential part of any effective policy to reduce child poverty, complementary strategies are required’ (Whiteford and Adema, 2007: 31). Hence, it appears that the employment-maximization approach can play a fundamental role, but may not combat all types of working poverty.

5 Public Policies in the Real World: The Welfare-Regime Approach

In the real world of social policy, the instruments I present and meta-analyze separately in chapter 4 and 6 - for the sake of analytical clarity - do covary. Moreover, not all possible combinations of these tools are found in postindustrial economies. Hence, a systemic approach is requested, and I briefly analyze which of the existing welfare regime typologies found in the literature seems to be appropriate for the analysis of poverty among workers. As shown by Merrien (2002), there is disagreement among sociologists and political scientists: Esping-Andersen's typology (1990) has been criticized, either from a feminist perspective, or because other indicators were suggested to draw a typology; moreover, additional regimes have been proposed (Merrien, 2002, Bonoli, 1997). Eventually, I have chosen a four-category typology: liberal, corporatist conservative, social-democratic, and Mediterranean welfare regimes.

Sweden, the US, Spain and Germany have been chosen to illustrate the welfare regimes used in the present work. For each country, I first analyze hereafter the main dimensions that underpin the fight against working poverty and, second, underscore other features of its welfare state that appear to have an impact on working poverty. Third, all welfare regimes were hit by strong exogenous shocks, namely globalization, which went hand-in-hand with deindustrialization and technological changes in developed economies. There were objective evolutions, capital becoming much more mobile thanks to the development of transportation and communication (Wood, 1994) and the removal of many barriers to international trade, but also cognitive changes, due to the crisis of the Keynesian model in the 1970s and 1980s, which allowed neo-classical "outsiders", the "Chicago boys" in particular, to make their way to the top and impose their viewpoint: The welfare state undermines economic competitiveness, generates disincentives to work and irresponsible behaviors, and is, hence, the cause of poverty rather than an efficient solution to it (Merrien, Parchet, Kernen, 2005). Globalization should, according to this approach, mechanically lead to a strong reduction in welfare expenses; however, differences between welfare regimes remain striking (Stiglitz, 2002, Merrien, Parchet, Kernen, 2005). In what follows, I show that each country has had different reactions to these massive shocks. Fourth, the main indicators of poverty, income redistribution and employment performance are gathered from official statistics and some academic publications. Finally, I outline the main challenges each country is facing today in its fight against working poverty.

5.1 Which typology of welfare regimes is appropriate for working poverty analyses?

Obviously, this section does not aim at analyzing at great length the various welfare regime typologies that have been proposed and the theoretical and empirical elements they are based on; this is a research topic of its own. My goal is to identify, among existing typologies, one that appears to be well suited for the analysis of poverty among workers in postindustrial economies.

Esping-Andersen's famous typology of welfare regimes – liberal, social-democratic, corporatist conservative - is based on three criteria: The first is the degree to which people's wellbeing is independent from the market (decommodification), the second is the impact of the welfare regime on the class composition, as described in chapter 2, and the third is the respective role the public and the private sphere play (Esping-Andersen, 1990).

According to Merrien (2002), there is no agreement among scholars as to the best welfare regime typology to use. The choice depends on the point of departure: e.g., social assistance types differ from employment-based typologies or from family policy typologies. Moreover, some authors have suggested adding new clusters because they thought that some of Esping-Andersen's were too heterogenous, for instance the Antipodes or Mediterranean countries. Other authors have suggested the use of further indicators to define welfare regimes (see e.g. Bonoli, 1997), the approach followed here.

Moreover, feminist critics blame Esping-Andersen for not having taken gender-specific elements into account (Merrien, 2002, Berninger, 2009), and distinguish regimes in which the male breadwinner model is encouraged, even in a modified way, from regimes that promote dual-earner families. In my view, it can be said, more generally, that Esping-Andersen mainly put emphasis on decommodification and the class structure, and far less on the interplay of the private and the public sphere. Hence, he has probably underestimated the role families play, and, as a consequence, gender-specific issues.

What typology shall I use, then? As indicated in chapter 4, there are mainly three approaches (each broken down into two subcategories) to the fight against working poverty; they are summarized in table 11:

Table 11: The approaches to the fight against working poverty that underpin the typology of welfare regimes

Minimum wages	
Legal minimum wages	Collectively bargained wages
Social transfers	
Substitution income	Supplementing income
Maximization of labor force participation	
Incentives	Coercion

In my view it is possible to define welfare regimes on the basis of the two (out of six) approaches that have the largest impact on working poverty. Obviously, sharp distinctions can only be made within the framework of an idealtypical approach, idealtypes being simplified representations of reality which allow classifying countries by the type they resemble the most. Many countries combine all approaches: Substitution and supplementing benefits coexist, as well as coercive and productivity-enhancing measures; in many OECD countries there is a legally enforced minimum wage and collective bargaining. However, some combinations are not really possible in the real world of welfare regimes. For instance, a highly regulated labor market may impair a country's ability to pursue labor force maximization as a strategy.

The role of the family, female employment patterns, and family policies, are also important dimensions of the fight against working poverty. Hence, a useful typology should put enough emphasis on the design of family policies and their impact; hence, a brief review of some recent evidence regarding the impact of welfare regimes on the work-life balance is

interesting, as it is the dimension that has been somewhat neglected by Esping-Andersen, according to many authors (Merrien, 2002).

The European Foundation for the Improvement of Living and Working Conditions (hereafter Eurofound) has established a typology of welfare states according to the type of work-life balance they tend to shape, in a life-course perspective (Eurofound, 2007). First, Eurofound notes that 'it is well established in existing literature that female employment rates tend to be higher in countries which actively support the employment of women with children through the provision of a subsidized, publicly financed childcare system' (Eurofound, 2007: 8). The typology developed by Eurofound is the following:

- Nordic regimes (Denmark, Finland, Sweden)
- Liberal regimes (Ireland, UK)
- Continental regimes (Austria, Belgium, France, Germany, Netherlands)
- Mediterranean regimes (Greece, Italy, Portugal, Spain)

In addition, a cluster of post-communist member States of the European Union is defined. Eurofound identifies three models of female/maternal employment:

- a **continuous model**, found in Denmark, Sweden, Slovenia, Latvia, and Portugal. In these countries, the participation rate of women is high and continuous over the life course, even during the childrearing phase. In France and Belgium, the situation is quite similar in terms of continuity, but the labor market participation level is lower. The high and continuous level observed in most countries is mainly due to extensive childcare facilities, especially in Denmark, Sweden and Slovenia, and in France and Belgium to a lesser extent. In Portugal and Latvia, on the contrary, mothers rather work out of financial necessity. It should be added that the continuous model is also predominant in North America: 'Lifetime employment is now practically the norm among North American and Scandinavian women' (Esping-Andersen, 2002c: 88).

- a **traditional model**, is found in West Germany, Ireland, the Netherlands, as women strongly decrease their labor force participation once they have children, and do not increase their participation when their children start going to school. In Spain, Greece, Italy and Poland, mothers have low employment rates; however, employed mothers tend to work full-time. A common pattern among all of these countries is a lack of childcare facilities.

- a **transitional model**, in which women strongly reduce their working hours when they have pre-school age children, but then significantly increase their labor force participation when their children start going to school. In this cluster we find most post-socialist countries, especially Estonia, the Czech Republic, Lithuania, Bulgaria, Slovakia, Hungary and Romania; Austria, the UK, and East Germany also belong to this group of countries with a transitional model; in the latter five countries, however, the pattern is less pronounced, as mothers' employment increases when children go to school, but reach a lower level as in the former.

The overlap between the 3-4 clusters of welfare states and the three clusters of female paid employment in a life-course perspective is only partial; nonetheless, some regularities can be stressed:

Table 12: Welfare regimes and their impact on the female employment pattern

Employment pattern	Social-democratic	Mediterranean	Continental	Liberal countries	Other countries
Continuous	Denmark, Sweden (2/3)	Portugal (1/4)	France, Belgium (2/6)		Slovenia, Latvia (2/11)
Traditional		Italy, Spain, Greece (3/4)	Germany (west), Netherlands (2/6)	Ireland (1/2)	Poland, Turkey (2/11)
Transitional	Finland		Austria, Germany (east) (2/6)	UK (1/2)	Estonia, Czech Republic, Lithuania, Bulgaria, Slovakia, Hungary, Romania (7/11)

Source: Eurofound, 2007, table created for the present work.

Clearly, the social-democratic welfare regime, with its extensive childcare system, leads to a continuous model. A large majority of post-socialist countries exhibit a transitional model. The conservative cluster is more spread across the three types of female working time models; nevertheless, more than half of these countries display a traditional model (especially Mediterranean countries), whereas France and Belgium rather exhibit a continuous model due to better childcare facilities, while in Portugal this is due to financial reasons (mothers do have to work).

It should be noted that Esping-Andersen, though underscoring some specificities in Mediterranean countries, notably a higher degree of familialism, does not think it is necessary to create a separate cluster for Southern European countries (Esping-Andersen, 1999). Patterns of maternal employment suggest that Southern European countries are not fundamentally different from other conservative Continental European countries, especially Germany. However, a specific Southern pattern is noticeable: Mothers tend either to be inactive or to work full-time, whereas in the rest of Continental Europe most mothers work part time. In addition, the level of expenses on family policies is much lower in Mediterranean countries.

In addition, Southern countries rely much more on labor market regulation by law, and far less on collective bargaining than most Continental countries, with the notable exception of France. Eventually, I will use the following typology in chapters 6 and 7, as it appears to be the most appropriate for working poverty analyses:

- **Social-Democratic**, exemplified by Sweden, a country in which it is mainly employment maximization through incentives and collective bargaining that explain working poverty levels and composition (even if social transfers are high, but mainly aimed at nonworking persons),

- **Liberal**, exemplified by the US, a country in which it is mainly an employment-maximizing strategy based on financial incentives to work and coercion, as well as complementing income in the form of tax credits, that explain the size and composition of the working poor population,
- **Conservative corporatist**, exemplified by Germany. The size and composition of the working poor population is mainly explained by collective bargaining and by social transfers in the form of substitution income and family cash benefits,
- **Southern European countries**, exemplified by Spain, experience a type of working poverty that is mainly explained by the fact that labor markets are strongly regulated and by the use of social transfers in the form of substitution income.

In order to illustrate the difference between idealtypes and real cases, France is noteworthy. According to virtually all authors, this country belongs to the Continental cluster; however, it is a hybrid case in terms of the main approaches that underpin the fight against working poverty. The labor market is largely regulated by law, as unions only represent a small minority of workers and bargaining is conflictual (as in Spain). Employment maximization is not a priority: France has the shortest workweek among developed countries (according to the ILO working time database) and a low retirement age (which is being debated as of the writing); in this regard France clearly belongs to the Continental conservative cluster. In addition, France shares with Germany and many other Continental European countries its heavy reliance on substitution income. At the same time, however, the French state helps mothers combine work and family life thanks to kindergarten slots available for young children; moreover, among Continental countries, France has one of the highest shares of very young children in formal childcare. Put differently, France is not very different from Scandinavian countries in terms of work-family life conciliation.

The following sections are devoted to the four countries that epitomize the four types of welfare regimes I will use in subsequent chapters.

5.2 Sweden

a) Main approaches to the alleviation of working poverty

The main emphasis of this welfare regime is on labor market participation, notably through affordable state-provided childcare, parental insurance schemes, and active labor market policies. In Sweden, ‘the importance of waged work is emphasized as being the primary route out of poverty’ (Jones, Burström, Marttila, Canvin, Whitehead, 2006: 421). Moreover, ‘Public childcare, available at low cost, provides poor families with a real opportunity as well as incentives to work’ (Lindbom and Rothstein, 2004: 14). Particularly noteworthy is the very high female labor market participation, almost 73 percent in 2003 (Jones, Burström, Marttila, Canvin, Whitehead, 2006). In Sweden, as in other Nordic countries, ‘the pursuit of welfare is attached to a ‘crowding in’ policy of maximizing citizens’ employability and productivity’ (Esping-Andersen, 2002a: 14). Scandinavian welfare states in general, and the Swedish one in particular, have promoted the right to work for everyone and have focused their policy on the maximization of labor force participation, rather than income transfer strategies like in Continental European countries. Sweden is a “universalist work-centered society” (Leibfried, 2000), which is characterized by its reliance on the direct provision of services (Clayton and

Pontusson, 2000). This approach is pursued through a generous, state-financed social service provision, notably in the field of childcare and active labor market policies, financed by general taxation, while social insurance is mainly financed by employers' payroll taxes (European Commission's website, employment, social affairs and equal opportunities, MISSOC tables).

As far as labor market policy is concerned, Sweden is, among the four countries analyzed here, the biggest spending country with 1.24 percent of its GDP spent on public employment services and administration, training, employment incentives, integration of the disabled, direct job creation and start-up incentives, whereas this share amounts to 1.15 percent in Germany, 0.72 percent in Spain, and 0.16 percent in the US (OECD, 2006)

Family policies play a fundamental role in the Swedish employment maximization strategy, especially its very developed childcare services. Sweden has been a frontrunner in the development of publicly provided childcare, which is partly attributable to a shortage of labor in the 1960s (Lundin, Mörk, Öckert, 2008), and the fact that Sweden did not rely on immigration to fill the gaps. During the 1970s, mothers' employment grew from 30 to 70 percent. As early as 1976, 'the Government and the Swedish municipalities agreed to build 100,000 childcare slots with the next five years, and a special Government grant was introduced to stimulate this growth' (Lundin, Mörk, Öckert, 2008: 647). Since 1995, the legislation obliges local governments to supply childcare to working parents (or full-time studying parents) within four months from parents' request. The price is largely subsidized, and in 2002, a major reform of childcare fees was implemented, with the introduction of a maximum fee, which substantially reduced childcare fees for most parents of preschool children (Brink, Nordblom, Wahlberg, 2007). After the reform, the average family paid only 4 percent of its after-tax income on childcare (Lundin, Mörk, Öckert, 2008). All in all, Swedish mothers do not face a tough tradeoff between motherhood and employment.

Sweden is also characterized by a very strong emphasis on collective bargaining, which is highly centralized and coordinated; there is no legally enforced minimum wage and 'minimum wages are subject to bargaining between employers and unions...The agreements apply to all firms in the industry, whether the workers are unionised or not. In general, the minimum wages are industry-specific and nationwide' (Skedinger, 2006: 261). About 90 per cent of the employees in Sweden are protected by collective agreements. An important aspect deserves our attention, namely the very high unionization rates found in Sweden. This can be explained by the "Ghent system" of unemployment compensation: 'Under this system, access to unemployment insurance benefits requires union membership' (Bonoli, 2006: 18). This implies that women, white-collar employees, part-time workers and workers with "atypical" contracts are highly represented in the labor movement. By contrast, most unions in Continental European countries tend to mainly protect older male blue-collar workers who are in the core workforce and public service employees (Ebbinghaus, 2006).

b) Further aspects of the welfare regimes that have an impact on working poverty

It should be noted that Sweden displays a high degree of employment protection. It was higher than in other Nordic countries in 1990; however, it has decreased ever since and is now comparable to the Finnish and the Norwegian level (OECD website, overall EPL strictness), which is above the OECD average.

Social transfers, though generous in international comparison, are not the main tools in the fight against working poverty; however, they indirectly support many low-income workers by supporting a nonworking partner or a child. As will be clearly demonstrated below, social

transfers in Sweden also contribute to the fight against working poverty. Nonetheless, the main approach to the fight against working poverty is the maximization of labor market attachment combined with collective bargaining.

Social transfers in Sweden reflect a strongly egalitarian ethos and universalist style (Goodin, Headey, Muffels, Dirven, 2000). Another very important intention is to emancipate individuals from dependency on the family (Jones, Burström, Marttila, Canvin, Whitehead, 2006), in complete opposition to the Spanish welfare regime, as will be demonstrated below. In Sweden, redistribution plays a very important role by strongly reducing income inequality (Kenworthy, 2004). It should be noted that income replacement benefits in continental Europe are equally generous than in Scandinavia, whereas they require longer periods of labor market participation (Bonoli, 2007).

The very large size of the public sector is also of paramount importance. Empirical evidence gathered by Armingeon demonstrates that, in the fight against new social risks, 'the crucial variable is the size of the public sector. Generally, public-sector employees are in favor of welfare state expansion – probably since many of them work in labor or service intensive parts of the welfare state' (Armingeon, 2006: 119). Moreover, many well-paid low-skilled jobs are provided by the state (Iversen and Wren, 1998) and contribute to the shaping of the social stratification in Sweden (Esping-Andersen, 1993).

In short, the combination of a compressed wage distribution, a high employment rate and a work-related welfare system, with high replacement rates for unemployment, sickness and disability compensation (Kenworthy, 2004), leads to the fact that Swedes who are in the lower income decile are better-off than their counterparts in many other European countries, and much better-off in purchasing parity terms than Americans in the lower decile (Freeman, 1995).

Interestingly, many institutions and services provided prevent the emergence of a large low-income segment within the Swedish labor force; yet, none of them was specifically designed to combat working poverty, except for collective bargaining which aims at reducing the incidence of low-wage employment, an important poverty factor in the industrial era (Bonoli, 2007). In fact, it could be said that the Swedes started combating working poverty before it emerged as a major social policy concern in postindustrial societies. It is fundamental to understand why Scandinavian countries have been frontrunners in combating new social risks; interestingly, the main reasons are not connected with exogenous macroeconomic shocks. Before World War II, Sweden's birth rate was one of the lowest in Europe, which was a source for concern. In addition, the timing of various sociodemographic and macroeconomic changes that are often included in the label "postindustrial changes" varies greatly across nations. Based on an index combining the share of service employment in total employment, the female employment rate, and the divorce rate, Bonoli demonstrates that Sweden entered the postindustrial era in 1970, the US in 1975, Germany in 1989 and most Latin European countries in the 1990s.

In Sweden, the economic boom of the 1960s was accompanied by the emergence of second-wave feminism and a strong representation of women in the labor movement and in the Social Democratic party and this resulted in a series of measures: 'the implementation of mandatory individual taxation for married couples; universal provision of pre-school services for young children; and the right to work part time for six hours a day without loss of status for parents with pre-school children. In 1974 a statutory parental leave insurance was introduced' (Daguerre, 2006: 216). In addition, 'In countries that have entered the postindustrial age relatively early, new demands generated by the ongoing social transformations found

comparatively little competition...In contrast, in countries that have developed into postindustrial societies more recently, demands for protection against new social risk are in strong competition with demands for the preservation, in spite of population ageing, of the current level of protection provided' (Bonoli, 2007: 511). These are the reasons why Sweden's bulk of social spending on family policies is devoted to the provision of services and to generous parental leave schemes, while cash benefits are less important, quantitatively and qualitatively speaking. This is in sharp contrast with continental Europe.

c) Shocks to the system: Globalization, deindustrialization and recent changes in the welfare regime

Comparative welfare state research systematically emphasizes that Sweden spends nearly twice as much on its social policies, in percent of the GDP, as the United States. What is far less well documented is the fact that this enormous difference is a recent phenomenon, as some Anglo-Saxon countries which already had the leanest welfare states carried out a significant retrenchment, both in terms of expenditure and social rights, while in Sweden, the universalist nature of benefits and services created their own political support and made long-term retrenchment difficult: 'we find increased variation among different types of welfare systems in spite of exogenous pressure toward convergence' (Lindbom and Rothstein, 2004: 3). Most of the main social security programs are related to work performance. But the political effect of work-related programs is largely similar to that of universal programs, namely a broad support among the population, as most citizens both contribute to the financing and can benefit from these programs. This also explains why support for social assistance schemes is largely negative in a country in which pro-welfare-state attitudes are very widespread. In fact, opinions on means-tested programs became increasingly negative in the 1990s (Bergmark, 2000).

The 1990s, however, were years of change: 'Sweden experienced the most severe macro-economic crisis since the 1930s. Between 1990 and 1993...unemployment rose from 1.7 percent to 8.3 percent...At the same time, large shifts occurred in the age structure that added to the demands placed on social policy programmes...Moreover, at a time when unemployment peaked...Sweden...received the largest waves of refugee-immigrants in modern history' (Palme, Bergmark, Bäckman, Estrada, Fritzell, Lundberg, Sjöberg, Szebehely, 2002: 329). Swedish governments instituted some important cutbacks in welfare programs in the 1990s: Eligibility rules were tightened, while replacement rates and benefits levels were reduced in almost all earnings-related schemes (Palme, Bergmark, Bäckman, Estrada, Fritzell, Lundberg, Sjöberg, Szebehely, 2002). The number of social assistance recipients increased; in 1998, 43 percent of social assistance recipients were in fact unemployed but not eligible for the unemployment benefit, a quite widespread feature among young adults and recent immigrants (Lindbom and Rothstein, 2004). Another cause was the fact that the proportion of children aged 0 to 17 years living in households with annual incomes under the level of eligibility for social assistance increase from 6 to 16 percent over the period 1991-1997 (Bergmark, 2000). Higher childcare fees were introduced, whereas there was an expansion in the number of children enrolled with 82 percent of 3-to-6-year-olds in childcare at the end of the decade (from 64 percent at the outset). An increased proportion of children are in private childcare centers, mainly middle and upper-class children.

As far as collective bargaining is concerned, the wage solidarity policy through a centralized negotiation between the Swedish Labor Confederation (LO) and the Swedish Employers' Confederation (SAF) was undermined as early 1983; a decentralization of collective

bargaining took place, and this may partly explain the increase in the wage dispersion that took place in a recent past (Halleröd and Larsson, 2008).

But after the economic crisis was over, replacement rates have been raised (Lindbom and Rothstein, 2004) and resources increased (Bergmark, 2000), and ‘the commitment to a high-equality, high-employment society remains largely intact in Sweden, and as of the writing the effort can be judged rather successful’ (Kenworthy, 2004: 136). For instance, despite reduced benefits, the level of social assistance in Sweden is at approximately two-thirds of an average wage (Jones, Burström, Marttila, Canvin, Whitehead, 2006). In addition, the crisis did not lead to women leaving the labor market and there is no evidence that older workers were pushed out of working life (Palme, Bergmark, Bäckman, Estrada, Fritzell, Lundberg, Sjöberg, Szebehely, 2002).

However, even if the Swedish economy and welfare system seem to be back on track, some negative elements remain: The poverty rate increased between the mid-90s and the mid-2000s (OECD, 2008), and income inequality grew and temporary forms of employment have become more common (Palme, Bergmark, Bäckman, Estrada, Fritzell, Lundberg, Sjöberg, Szebehely, 2002, Bergmark, 2000); short-term employment is now the lot of more than one in six employees in Sweden, namely 17.5 percent in 2007, a 3 percentage points increase in ten years (OECD website, Labour statistics). Moreover, the level of earnings inequality in the mid-2000s is notably higher than in 1990, with the 9th-to-1st earnings decile ratio increasing from 2.01 to 2.31 (OECD website, Labour statistics). However, the incidence of low pay measured as a share of median earnings (usually two-thirds) is still very low in international comparison; indeed, the increasing degree of earnings inequality mainly took place in the upper segment of income distribution, and real median wages increased by 22 percent over the 1990s, because there was a strong relative decline for public sector employees, which contrasted with a strong increase in the managerial wage in the private and public sector (Palme, Bergmark, Bäckman, Estrada, Fritzell, Lundberg, Sjöberg, Szebehely, 2002).

More importantly, in-work poverty in Sweden is a quantitatively small, but growing problem (Halleröd and Larsson, 2008), a phenomenon that particularly affects young and single workers; the working poor rate is now slightly higher than in Germany (own calculations based on EU-SILC 2006 data). Finally, at the end of the 1990s, the overall costs and number of recipients of social assistance declined, but ‘long-term receipt of social assistance has established itself at considerably higher levels than ever before in modern times’ (Bergmark and Bäckman, 2004: 426), and the yearly exit rates into work are low (Bergman and Bäckman, 2004). Even if the size of this group of welfare recipients is rather modest in size, this represents a growing number of persons durably excluded from the labor market.

In summary, even though the generosity of the Swedish welfare regime is clearly above average, and poverty levels low, the expansionary phase of the Swedish welfare state is most probably over (Lindbom and Rothstein, 2004).

d) Poverty, income redistribution and employment performance

Interesting figures are provided by Notten and De Neubourg (2007), based on the American official poverty line adjusted with purchasing power parities (PPP): Sweden has a low level of “absolute” poverty, Germany’s level is even lower; it is higher in the the US and much higher in Spain:

Table 13: Poverty incidence, measured with the US official poverty line in PPP, in percent

	1995	2000
France	8.4	6.5
Germany	7.5	5.1
Spain	29.1	19.1
Sweden	n/a	5.7
United States	10.6	8.7

Source: Notten and De Neubourg (2007)

In relative terms, too, Sweden appears as a country with a rather modest poverty problem:

Table 14: Poverty rates based on thresholds set at 50 and 40 percent of median disposable income (most recent wave, around mid-1990s, around mid-1980s, and mid-1970s)

Year	Poverty rate (50 percent threshold)	Poverty rate (40 percent threshold)	Child poverty in two-parent families (50 percent)	Child poverty in single-parent families (50 percent)
Sweden, 2005	5.6	2.6	3.3	10.4
Sweden, 1995	6.6	4.7	1.5	6.6
Sweden, 1987	7.5	4.4	3.2	5.5*
Sweden, 1975	6.5	2.8	2.3	3.4

Source: Luxembourg Income Study (LIS) Key Figures, <http://www.lisproject.org/keyfigures.htm> (as of September 28, 2008).

* = Estimates based on 15 to 30 observations only.

Child poverty is very low and does not exceed a proportion of one in ten among children living in single-parent households, an extremely low percentage in international comparison, because ‘For [lone parents], the ability to reconcile work and family life may be crucial if poverty is to be avoided’ (Bonoli, 2006: 6). In Sweden, lone mothers have a very high labor force participation rate. This specificity of Scandinavian countries is mainly due to childcare services. A low child poverty rate is a logical consequence of having low poverty rates among the working-age population in general and among single mothers in particular, and high employment rates.

Regarding “in-work poverty”, the share of workers who have spent at least six month in the labor market in the previous year and have a income lower than 60 percent of median

disposable income is similar to the percentage measured in Continental European countries, whereas slightly higher: 7 percent in Sweden (vs. 6 percent in France and 5 percent in Germany in 2006, Eurostat website, in-work at-risk-of-poverty rate). Even measured with a poverty line set at 50 percent of median income, and a definition including all workers, the working poor rate is slightly higher in Sweden than in Germany (5.3 and 4.4 respectively, own calculations with EU-SILC data 2006).

The effect of redistribution on child poverty due to taxation and the benefit systems is one of the largest across OECD countries (poverty measured as having a household income lower than 50 percent of median disposable income, Whiteford and Adema, 2007). Focusing on the situation of working families, we get a good proxy of the impact of the Swedish redistributive system on working poverty: Child poverty among working lone-parent households is reduced by 83.3 percent (OECD average: 49.7 percent), among dual-earner families by 68.8 percent (OECD average: 39.3), among single-earner couples with children by 75.4 percent (OECD: 43.0) (Whiteford and Adema, 2007). In fact, 'If tax and benefit systems could be made as effective as... [in] Sweden, it is estimated that child poverty in OECD countries would be more than halved' (Whiteford and Adema, 2007: 28).

In terms of labor market performance, despite the deep recession of the 1990s, Sweden displayed in 2000 the highest level of labor market participation and an unemployment level that was slightly higher than in the US but significantly lower than in Germany and Spain (OECD website, labor statistics). The harmonized unemployment rate amounted to 5.6 percent, with an overall employment rate of 77.4 percent (civilian labor force divided by the population aged 15-64), and a female participation rate of 71 percent. Seven years later, before the worldwide recession began, the unemployment rate had slightly increased and amounted to 6.1 percent, and overall and female employment rates had increased too, with 80.5 and 77.8 respectively. Moreover, the maternal employment rate (for mothers of children under 16 years of age) was much higher than in the other countries with 82.5 percent of mothers in employment. Of the four countries analyzed in this chapter, Sweden is the best performer in terms of participation rates, and second best in terms of unemployment levels.

Hence, Sweden seems well equipped to face the challenges caused by postindustrial mutations: 'Sweden has the most well established [new social risk] policies and has developed labour market activation through training, has supported access to employment...and has developed pension policies that combined funded and pay-as-you go schemes' (Kananen, Taylor-Gooby, Larsen, 2006: 85). In fact, only in the Social Democratic welfare regime did the poverty rates of the overall working-age population, of children and of single mothers decrease since 1980 (Huber and Stephens, 2006).

e) Main difficulties and challenges

In order to fully understand the functioning of a welfare regime, it is important to understand the main approaches that characterize it; it also important, in addition, to be aware of the main weaknesses identified in the literature. This is why I review them briefly for Sweden and the other three countries analyzed in the present chapter.

The main problem for Scandinavian countries is that financing a large welfare state, 'is made more difficult due to high capital mobility, the fiscal and budgetary constraints that ageing and European monetary integration impose, and increased political tax resistance' (Hemerijck, 2002: 185); as Esping-Andersen put it, 'heavy tax requirements undoubtedly constitute a potential Achilles heel of the model' (Esping-Andersen, 2002a: 14). Kenworthy underscores the fact that 'a long-term decline in employment could pose a threat to the

generosity of welfare states even in countries with relatively egalitarian preferences and institutions. The redistributive burden – the tax burden necessary to sustain generous transfer programs – in a country with continuously declining employment might eventually become unsustainable’ (Kenworthy, 2004: 42). Moreover, the comparatively high wages at the low end of the distribution seem to constitute the main obstacle to job creation in the private-sector consumer services (Kenworthy, 2004), but this is compensated by public employment. Hence, as long as the system remains financially sustainable, this should not represent a major problem.

The Swedish welfare system was put to the test in the 1990s, as unemployment strongly increased when recession hit the Swedish economy, leading to a rapidly growing national deficit that put a huge pressure on government spending. Unfavorable socio-demographic changes, such as an ageing population and high numbers of political refugees arriving in the early 1990s, further increased this pressure. As already analyzed, the Swedish authorities had to implement welfare state cutbacks in order to reduce budget deficit (Bergmark, 2000).

However, Sweden has neither witnessed a capital flight nor an investor withdrawal recently, and opinion survey data does not show any sign of rebellion against redistribution and taxes: The long-run pattern of public opinion shows considerable stability (Kenworthy, 2004). It should be noted, however, that this support has not always been constant, ‘In the period of relative affluence that preceded the recession of the early 1990’s, popular support for the welfare state fell...At the same time, people became more negative towards central authorities and there was an increased opinion in favour of the privatisation of different services...[However, in the early 1990s] the onset of the financial crisis and the visible effects of rationing measures reversed all that’ (Bergmark, 2000).

5.3 The United States of America

a) Main approaches to the alleviation of working poverty:

The US is characterized by an employment-centered approach, i.e. by strict work requirements for welfare recipients and the provision of supplementing income to those who are compelled to work but do not earn enough to make ends meet. A “welfare-to-work” approach compelling welfare recipients to take any job available, the fact that there is a lifetime limit for benefit receipt of five years, as well as the fact that the Earned Income Tax Credit, a work-conditional tax credit, has become the main anti-poverty policy since the 1990s (Meyer and Holtz-Eakin, 2001, Husby, 2000, Nagle and Johnson, 2006) with a much higher level of expenditure than the means-tested Temporary Aid for Needy Families (MaCurdy and McIntyre, 2004), are the most distinct dimensions of this “work first approach”. The welfare state is conceived as a work-enforcing mechanism (Leibfried, 2000).

In the US, as in Scandinavia, the maximization of labor market participation is a priority; however, the services enabling a significant workforce participation must be bought in the market: ‘What Scandinavians are compelled to pay in taxes, their US equivalents are compelled to pay out of their own pockets’ (Esping-Andersen, 2002a: 14). They are affordable to many households due to very low wage levels in the low-end service sector. However, low-wage workers may find it difficult to buy childcare services in the market and pay for other work-related expenses, and, hence, face disincentives to work. According to Schulman, child care for a 4-year-old in a child care center averages \$4,000 to \$6,000 a year

in cities and states around the country, and families with younger children face even greater costs (Schulman, 2000). This problem is partly solved by the very existence of the Earned Income Tax Credit as well as childcare-related credits, which aim at “making work pay” for lone mothers and low-skilled, low-wage workers. However, it remains problematic that, ‘Unaffordable childcare can be a serious poverty trap for low income families’ (Esping-Andersen, 2002b: 57).

In fact the difference between an enabling approach of the maximization of labor force participation and a more “coercive” approach is not clear-cut. In Scandinavia too, there are constraints imposed on unemployed persons to follow training, and in the US the welfare reform of 1996 – The Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), which replaced the main means-tested program named Aid for Families with Dependent Children (AFDC, created by the Social Security Act of 1935) with a program named Temporary Aid for Needy Families (TANF) - also emphasized the provision of childcare services and training for welfare recipients in order to improve their employability and life chances (Bryner and Martin, 2007).

The name of the 1996 Act is revealing: The emphasis is put on both responsibility and opportunities. Among politicians too, there are different interpretations of workfare: ‘Large gaps remained between the liberal vision of “rehabilitative” workfare and conservative perceptions of “deterrent” workfare...’ “Making work pay” required that day care and health care be available to the working poor’ (Pierson, 1994: 122). Likewise, states differ in the way they have implemented their reforms: ‘Some states sought to help recipients gain basic education, receive job training, and learn other skills, including long-term effort where necessary. Others emphasized job placement and moving recipients as quickly as possible into the work force’ (Bryner and Martin, 2007: 5-6). However, the US relies much more on a “work first” approach than Nordic countries, by putting more ‘emphasis on manipulating the incentive structure they are faced with than on providing protection against new risks’ (Bonoli, 2007: 497).

As regards income transfers, the US anti-poverty approach for working-age persons and their children relies mainly on means-tested benefits. This is, of course, the case for welfare recipients; for the working poor, the main anti-poverty tool is a means-tested work-conditional benefit that provides a supplementing income, namely the Earned Income Tax Credit. However, the breakeven point of the credit is set at a much higher level than the official poverty line.

In summary, the main approach consists in getting as many disadvantaged persons as possible back into the labor market, and in providing those on low-wage employment with supplementing income sources in the form of a refundable tax credit. In addition, if the combination of earnings and tax credits does not suffice, workers are entitled to further means-tested cash or in-kind benefits, e.g. food stamps.

It could be said, then, that the main postindustrial challenges have been regulated essentially by market mechanisms (Bonoli, 2006) with notable interventions of the Federal government and states in order to “make work pay” and compensate market imperfections.

b) Further aspects of the welfare regimes that have an impact on working poverty

The US has a lowly regulated labor market (according to the OECD’s EPL index, the US has the least regulated labor market of all OECD countries) and a decentralized and uncoordinated type of collective bargaining. As analyzed above, there is a low federal minimum wage;

however, a growing number of states have implemented their own minimum wage, set at a higher level than the federal one. Moreover, some metropolitan areas have implemented living wage ordinances that force private companies commissioned by local authorities to pay wages above the legal minimum.

In addition, it should be noted that having a systemic approach seems of paramount importance here, as ‘The socio-demographic composition of the U.S. work force is different from most European countries. There are more single adult (parent) households, but also more multi-earners households. The United States also has an earnings distribution that is totally different from virtually every European country’ (Marx, 2008: 9). As will be shown in chapter 6, employment-conditional benefits appear to have a very limited impact in Continental European countries, partly because the composition of the workforce and the distribution of earnings are very different than in the US.

Overall employment performance has been strong for several decades, and the employment rate is high in international comparison, whereas unemployment levels have shot up during the economic crisis of the late 2000s. Contrary to what is commonly believed, the US economy did not mainly create low-skilled, low-wage service sector jobs: ‘a disproportionate share of the jobs created in the 1980s and the 1990s were in high-paying occupations and sectors...in the 1990s the distribution of new employment was U-shaped, with a relative shortage of job growth in mid-paying occupations’ (Kenworthy, 2004: 143).

Regarding female labor force participation, there is a strong emphasis on gender equality issues among workers: ‘Gender equality in the labour market has progressed faster than in other countries in recent years, also thanks to strictly enforced anti-discrimination legislation’ (Bonoli, 2006: 11). In fact, the results regarding the reconciliation of work and family life in the US are quite similar to those achieved in Scandinavia, but the distributional consequences are fundamentally different across educational levels and income brackets.

Regarding the tax and benefit system, contrary to Sweden, reducing income inequality is not a priority of the US welfare state; its goal is to improve the living standards of the worst off in society using targeted benefits (Goodin, Headey, Muffels, Dirven, 2000), a fact reflected, *inter alia*, in the low level at which the official poverty line is set. However, successive EITC expansions have led to the fact that households with income clearly above the poverty line also get a small benefit.

c) Shocks to the system: Globalization, deindustrialization and recent changes in the welfare regime

In the 1980s, when unemployment rates skyrocketed and reached two-digit levels, due to very heavy losses in industrial employment, ‘the Reagan administration tried to redesign welfare to include work requirements, [an approach] popularly termed “workfare”...Congress was receptive to the idea of increasing efforts to move welfare recipients back into the labor market...Concerns about welfare “dependency” had surfaced among liberals as well as conservatives’ (Pierson, 1994: 116 and 121-122). At the same time, the EITC was considerably expanded in the Tax Reform Act of 1986: ‘Indeed, the EITC stands out as the great political success of the retrenchment era’ (Pierson, 1994: 125). The next steps were the in-depth welfare reform of 1996 with the PRWORA already mentioned above, when Temporary Aid for Needy Families (TANF) replaced the AFDC. The word “temporary” reflects a fundamental change in the program, as no one should receive welfare benefits more than five years during their lifetime (Meyer and Holtz-Eakin, 2001, Lindbom and Rothstein,

2004). The AFDC program had been subject to criticism for a long time, and ‘Among means-tested programs, AFDC turned out to be most vulnerable in the 1980s’ (Pierson, 1994: 118).

In fact, the increase in the number of working poor since the mid-1970s made it increasingly unfair, for a majority of citizens, for the government to provide welfare recipients with benefits and services the working poor did not receive. In addition, a large share of the population does not expect the state to provide for these goods and services, as they have already bought them on the private market (Lindbom and Rothstein, 2004); means-tested welfare benefits became increasingly unpopular.

States were given much more room for maneuver; some emphasized sanctions and shorter time limits while others put emphasis on incentives. A major shift in the structure of social expenditures took place, from 77 percent of total spending on welfare programs in 1997 to 44 percent in 2002, while the proportion of spending on child care, training and education rose from 23 to 56 percent (Bryner and Martin, 2007). In fact, the US has experienced a profound paradigmatic shift, as the expansion of the EITC went accompanied with a severe tightening of welfare eligibility and several increases in the minimum wage.

In recent years, a fundamental problem has been tackled, namely the lack of universal healthcare coverage, in a number of ways. In 1997, the federal government created the State Children’s Health Insurance Program (SCHIP), providing funds to states so that they can expand health care coverage through Medicaid or a separate program: “By 2000, thirty-seven states of the fifty states were providing coverage to children in all households with income up to 200 percent of the poverty line’ (Kenworthy, 2004: 168). As of the writing of this chapter, a nearly universal healthcare program is being implemented by the Obama administration.

d) Poverty, income redistribution and employment performance

A closer look at the absolute poverty rates provided by Notten and De Neubourg (2007) leads to the conclusion that the United States has a non negligible share of its population suffering harsh financial poverty. The US poverty rate, measured with an absolute threshold set at the low official US level, is 71 percent higher than in Germany, and 53 percent higher than in Sweden, but notably lower than in Spain.

The difference between the US, on one hand, and Germany and Sweden on the other, appears larger when it is measured with relative poverty lines. Indeed, based on relative indicators, America appears to have the biggest poverty problem among the four countries analyzed in the present chapter.

Table 15: Poverty rates based on thresholds set at 50 and 40 percent of median disposable income (most recent wave, around mid-1990s, around mid-1980s, and mid-1970s)

Year	Poverty rate (50 percent threshold)	Poverty rate (40 percent threshold)	Child poverty in two-parent families (50 percent)	Child poverty in single-parent families (50 percent)
US, 2004	17.3	11.4	13.5	48.5
US, 1994	17.8	11.8	14.8	57.1
US, 1986	17.8	12.4	16.1	62.8
US, 1974	15.9	10.7	11.6	60.1

Source: Luxembourg Income Study (LIS) Key Figures, <http://www.lisproject.org/keyfigures.htm> (as of September 28, 2008).

Child poverty is notably higher than in Sweden, Germany, and Spain, whereas in the latter case the difference is less marked (see corresponding tables in the sections devoted to these countries). The incidence is staggeringly high for children living in lone-parent households: Half of them are affected by relative poverty. Some factors explain the incidence of poverty among single mothers: As of 2003, around 30 percent of single mothers did not work; this rate amounted to nearly 40 percent for never-married mothers (Sherman, Fremstad, Parrott, 2004). Many of these nonworking single mothers get TANF benefits. In fact, two-thirds of TANF families had only one adult recipient in 2000 (U.S. Department of Health and Human Services, undated). In addition, the level of TANF benefits is set at a low level – in most states they amount to 20 to 40 percent of the Federal Poverty Level (Bryner and Martin, 2007). The situation of working mothers is more enviable, thanks to the Earned Income Tax Credit, as will be evaluated in chapter 6.

As far as “in-work poverty” is concerned, in the US case, obviously, I cannot use Eurostat’s figures, nor my own calculations based on EU-SILC; however, the US bureau of labor statistics provides figures on working poverty in America. The official poverty line is, as already indicated, set at a very low level in international comparison (around 40 percent of median income in the early 2000s); nonetheless, around 5 percent of workers were poor in 2003 (Bureau of labor statistics, 2003), which means that if Eurostat’s in-work at-risk-of-poverty rate was calculated, it would be very high. In fact, working poverty has been a source for concern since the early 1980s, as the working poor rate grew markedly in that decade (Levitan and Shapiro, 1988) and, 'since the 1980s, large numbers of workers have remained poor in periods of prosperity' (Gupta, Thornton Walker, Huston, 2007: 33).

Regarding the impact of the tax and benefits system in the US, I consider the reduction in child poverty among working families as a proxy for the reduction in the working poor rate. For all working-family types, the poverty reduction effect is below average: -21.2 percent for single-parent households (OECD: -49.7), -23.6 percent for dual-earner families (OECD: -39.3) and -16.7 percent for single-earner couples with children (OECD: -43.0 percent). It should be borne in mind that these calculations encompass the impact of the taxation system and, hence, take into account the effect of the EITC (Whiteford and Adema, 2007). However, it is fundamental to note that the poverty threshold used here is 50 percent of median disposable equivalence income, as in virtually all OECD studies. Let us remember that the

official poverty line in the US amounted to around 42 percent of median disposable income in 2002 (Smeeding, 2005). Hence, when American researchers and policymakers make claims about “lifting people out of poverty”, it usually means lifting them above the “Orshansky threshold”, whereas most of them are still poor according to usual poverty lines used in comparative research. This partly explains the quite low impact of the tax system and cash benefits described in this section.

It should be noted that welfare reform combined with the expansion of the EITC and a strong economy in the 1990s led to a drop in child poverty rate. The decline was particularly strong in single-parent families (see table 15).

All in all, the US is the worst performer in terms of relative poverty, but the judgment is less negative when an absolute poverty line is used, as median income is high in this country.

In terms of employment and unemployment, the US displays, according to the OECD labor statistics, good performances. In 2000, the harmonized unemployment rate amounted to 4 percent only, and 4.6 percent in 2007, which makes it the best performer among the countries analyzed in the present chapter. Regarding the employment rate, the US ranked second just behind Sweden with 76.3 percent of the 15-64 years old in civilian employment in 2000 (1.1 percentage point less than Sweden); however, during President Bush’s two terms, employment stagnated and amounted to 75.6 percent in 2007, leading to a larger gap between Sweden and the US (4.9 points), as Sweden increased its participation rate over the 2000s. The same trend applies for female employment. As far as mothers are concerned, however, the differences are more marked: According to the OECD, as indicated above, more than 8 in 10 mothers of children under 16 were held a job in Sweden in 2007, whereas this share amounted to two-thirds (66.7 percent) in the US. In short, among the countries analyzed in the present chapter, the US ranks first in terms of unemployment (lowest unemployment rate) but second in terms of employment, especially among mothers. In fact, the employment level among American mothers is similar than among German mothers (68.1).

e) Main difficulties and challenges

The main problem of the US welfare system lies in the way the unemployment problem of the 1980s has been solved, mainly by deregulating the labor market and through retrenchment, even though the latter was not as severe as is usually thought (Pierson, 1994). Sure enough, the unemployment problem has been largely solved, contrary to many Continental European countries that still display high unemployment rates and low labor market participation rates (I do not comment the impact the worldwide financial crisis and the resulting downturn had from 2008 onwards, as it is too early to draw conclusions), but workers are exposed to the risk of being paid poverty wages - as in other countries with a strongly market-dependent wage determination, such as Britain and Switzerland (Bonoli, 2006).

The drastic solutions applied in the US have led to a marked inequality upswing and an increase in working poverty and low-wage employment. Indeed, ‘Skill shortages, low wages, and poverty have produced cumulative cycles of social disadvantage and exclusion of vulnerable groups’ (Hemerijck, 2002: 186). America’s main problem is a high level of inequalities, which in turn can generate negative side-effects, in particular high crime rates (Kenworthy, 2004). This would not be a problem if there were more opportunities to climb the social ladder than in other countries (which is widely believed in the US); however, income mobility is very similar across affluent countries (Kenworthy, 2004, Alesina and Glaeser, 2004).

It is fundamental to note that though the US has introduced specific policies that aim at the alleviation of working poverty, poverty levels among workers remain high in international comparison, as will be confirmed by my figures presented below. Moreover, working poverty has been a growing concern since welfare reform was implemented, as it was feared that former welfare recipients would merely enter working poverty; for instance, in Los Angeles county, almost 100,000 welfare recipients found work between 1990 and 1997, but 74 per cent of former recipients earned sub-poverty income (Joassart-Marcelli, 2005).

In addition, the downside of the US's work first approach is that, 'If benefits are work-conditional, they do not help workless citizens...Also, work-conditional benefits may produce unwanted externalities, such as downward pressures on wages' (Esping-Andersen, 2002a: 15). The latter is limited by the statutory minimum wage.

Maybe more preoccupying is the fact that more than one in five children live in a family with an income below 50 percent of median income (OECD website, society at a glance, mid-2000s). Even if it is true that median income is high in the US, this phenomenon cannot be so easily dismissed. Indeed, this probably constitutes the main challenge the US has to face because, as already highlighted, a deprived childhood has detrimental effects on school performance, which leads to mechanisms of social reproduction of inequalities. Poor children are more likely to become adults who live on low income and need welfare-state benefits to make ends meet. However, as long as a majority of Americans believe that their country is the "land of opportunity", which is largely a matter of ideology rather than the reality of income mobility (Alesina and Glaser, 2004, Kenworthy, 2004, Erikson and Goldthorpe, 1992), this should not become a hot political topic.

In sum, in a social investment perspective, the US has undergone remarkable changes in a recent past, with an increased generosity of the Earned Income Tax Credit and childcare subsidies, as well as the implementation of the SCHIP program. Nonetheless, levels of child poverty remain high in international comparison, and, in my view, more efforts need to be done to mitigate the reproduction of social inequality in the US. Indeed, a work-first approach alone cannot solve the problem of poverty among working families (Whiteford and Adema, 2007): 'if the goal is to reduce poverty among families, welfare policies must interact with a host of other factors that determine how well that objective will be realized...It appears that states should focus more on rewarding work than punishing noncompliance' (Bryner and Martin, 2007: 18).

More recently, a very deep financial crisis and the collapse of the housing market have caused a massive increase in unemployment in the US: Between the last quarter of 2006 and September 2009, the unemployment rate more than doubled (from 4.4 to 9.5 percent, OECD website, labour statistics). It is likely that this deep crisis will reveal the limitations of the "work first approach" in a context of high unemployment.

5.4 Germany

a) Main approaches to the alleviation of working poverty

Germany epitomizes non-Latin Continental Europe; one of the main characteristics of this group of countries is that, ‘Employment-linked social insurance protects well those with stable, lifelong employment. For this reason, countries that follow the insurance tradition have usually also introduced strong employment guarantees and regulations’ (Esping-Andersen, 2002a: 16). Likewise, Goodin et al. state that the ‘‘corporatist welfare regime’, founded in Germany in the 1880s, has contributory social insurance as its cornerstone...a quintessentially conservative mechanism, whereby you get what you pay for and pay for what you get’ (Goodin, Headey, Muffels, Dirven, 2000: 172).

This model relies on passive income maintenance for those who are not able to earn a living - be it because of a job loss, sickness, injuries, or disability - and strong job guarantees for those in work. This model tends to favor those who have a stable and continuous employment pattern. Hence, Germany is a typical strong breadwinner regime (Daguerre, 2006), and ‘For a century...[has] relied on a strategy of ‘paying off’ problems, of subsidizing ‘exit’ from the labour market or even ‘non-entry’ ’ (Goodin, Headey, Muffels, Dirven, 2000: 192), which has led to a ‘‘welfare without work’’ approach (Hemerijck and Eichhorst, 2009).

The level of social transfers is generous, in some instances even more generous than in Scandinavia, especially pension benefits: ‘The outstanding characteristic of Continental welfare states is the strong increase in old age benefits; by 1998 they even exceeded the spending level of Scandinavian countries in this field’ (Armingeon, 2006: 106). Germany devotes a large share of its GDP to family policies, especially cash benefits, with significant increases in tax credits for parents in a recent past, as will be further analyzed below. The main goal is not to reduce inequalities, but to prevent poverty wages and maintain a certain income level in the event of earnings loss, so that Conservative countries mainly promote income stability, while Scandinavian countries aim at reducing income inequality (Goodin, Headey, Muffels, Dirven, 2000: 184).

At the end of the 1990s, nine in ten workers with a pretransfer income below the poverty line (defined as 50 percent of *average* income) received social transfers, mainly child allowance/Kindergeld (63.8), unemployment benefits (22.2) and pensions (27.8) and housing subsidy/Wohngeld (11.5 percent) (Strengmann-Kuhn, 2003). Obviously, in the case of unemployment and old-age benefits, the support to workers is provided indirectly by supporting nonworking household members. However, less than one in ten working poor (9.7 percent) received social assistance, due to a low take-up rate caused by phenomena such as stigmatization, feelings of shame and lacking knowledge on the side of potential beneficiaries, as well as errors on the side of social workers, and practical aspects such as the opening hours of welfare services (Strengmann-Kuhn, 2003, Boos-Nünning, 2000, Leu, Burri, Priester, 1997).

In Germany, industrial relations are fully autonomous from state intervention, and are based on collective bargaining (Hemerijck, 2002, Bonoli, 2006). Social partners play a very important role in the administration of the social insurance system. The coverage of collective bargaining was very high in West Germany (Bonoli, 2003a), and is still rather high in reunified Germany with approximately two-thirds of the labor force covered, which is, however, lower than in Spain and Sweden (International Labour Office, 2008). Trade unions tend to represent blue-collar, core-workforce male breadwinners as well as civil servants:

‘Continental European union movements tend to be more dominated by male blue-collar workers, public employees with secure employment and older workers with seniority rights than those in the Nordic countries’ (Ebbinghaus, 2006: 140).

Minimum wages are defined in collective agreements, usually at the industry level. Extension laws exist, but they are used with much more parsimony than in France or Spain (Bonoli, 2003a). For many years, collective bargaining between trade unions and employers in Germany was highly centralized and led to a high-wage economy with a low level of income inequality (Andress and Seeck, 2007) and a very low degree of labor conflictuality with few strike days (ILO website, database of labour statistics LABORSTA). German wages are high in international comparison, but high productivity levels have kept German firms competitive (Kenworthy, 2004). This strategy has led to a “high skill equilibrium” which explains the very weak development of the private service sector, notably personal services (Eichhorst and Marx, 2009).

Contrary to Sweden and the US, the goal is not to maximize labor force participation: The employment rate drops sharply after age 55, and women under 35 years of age tend to display relatively low employment rates (OECD website, OECD family database).

b) Further aspects of the welfare regimes that have an impact on working poverty

The situation of mothers in Germany stands in striking contrast to that of Swedish mothers. In Sweden, a very important goal has been to help wage earners combine work and family life; in West Germany, on the contrary, 'social policy [assumes] that children should be looked after by their mothers and by compensating mothers for looking after them...For decades, West Germany was the exemplar of the male breadwinner model. Its tax system rewarded the one-earner marriage: There were generous transfers for mothers of young children to stay at home' (Anderson and Meyer, 2006: 173 and 175). Germany has a male-breadwinner biased social security rights and taxation system.

As already mentioned above, Germany spends much more on cash benefits for families and much less on childcare services and parental leaves than Sweden; this can prove problematic because the provision of services in kind rather than benefits may be key to an European antipoverty strategy (Esping-Andersen, Gallie, Hemerijck, Myles, 2002). In fact, in Germany, ‘public childcare for children under 3 years of age is practically non-existent’ (Giesselmann and Lohmann, 2008: 112). In 2005, the maternal employment rate was lower than in most EU 15 member states and only slightly higher than in Spain (Source: OECD website, Family database). Employment has been on the increase among women, but so has been part-time employment between 1982 and 2000 (Anderson and Meyer, 2006).

Cash benefits for families with children are generous, especially the non-earnings related “Kindergeld” (Strengmann-Kuhn, 2003), a tax credit that does not phase out as earnings increase (Bäcker, 2000, OECD website, Family database). Other cash transfers also help, especially the income-tested “Erziehungsgeld” (child raising allowance) which is designed for parents who work less than 19 hours a week (Strengmann-Kuhn, 2003) as well as the supplementary child allowance (Kinderzuschlag) which is paid to parents to prevent them from having to apply for unemployment benefit II/social welfare benefits only because of the maintenance of their children (OECD website, Family database). Overall, the level of spending on family policy amounts to around 3 percent of GDP and is nearly as high as in Sweden, and much higher than in the US and Spain (OECD website, Family database). This generosity, amongst other factors, explains why child poverty is not very widespread in Germany, as will be shown below.

Social policy in general and family policy in particular still entails aspects of the traditional family model. The organization of “half-day schools” (Halbtagschule) and of most childcare centers is revealing of the persistence of the male-breadwinner/housewife model (Fischer, 2000), even if the housewife is, more often than not, a part-time worker. The proportion of part-time workers in Germany is high in international comparison. The existence of a very long maternity leave (3 years), as well as that of the aforementioned child raising allowance are further proofs of a conception of motherhood seen as a period spent out of the labor market (Butterwegge, 2000). Family and social policy clearly favor a model in which women completely give up their job and re-enter the labor market after a three-year period – or even longer (Bäcker, 2000).

In summary, the German model is based on a husband working full-time and his wife part-time (Andress and Seeck, 2007), i.e. a modified male-breadwinner model, and ‘the idea that mothers are primarily responsible for childcare has prevailed in Western Germany to this day’ (Giesselmann and Lohmann, 2008: 110). In the Eastern part of the country, however, women tend to work more than in the West; during the communist rule, women would usually hold a full-time position, and the dual-earner model was dominant in the German Democratic Republic (Andress and Seeck, 2007, Giesselmann and Lohmann, 2008).

c) Shocks to the system: Globalization, deindustrialization and recent changes in the welfare regime

After the strong increase in unemployment in the 1980s and the 1990s, the adjustment of the welfare state to new social risks has often been prevented by the fact that an overly transfer-biased policy is not well suited to combat mass unemployment and social exclusion: ‘The model is unusually vulnerable to employment stagnation and to high inactivity rates...The social insurance model is also inadequate in meeting the new risk structure because...it deepens the divide between insiders and outsiders’ (Esping-Andersen, 2002a: 17 and Esping-Andersen, 2002b: 32). Likewise, Bonoli states that, ‘the post-war settlement contained measures that turned out to protect [new social risks] groups, but also measures that contributed to excluding them from access to employment’ (Bonoli, 2006: 25). In addition, postindustrial mutations emerged later than in the US and Scandinavia, at a time when the welfare state was already under strong financial pressure.

Germany is characterized by a low adaptation to new labor market risks, as opposed to Denmark and the UK, for instance; in addition, legislative changes mainly affected those at the margins of the labor market, while the position of core workers was actually improved, and this trend has been reversed only recently (Clasen and Clegg, 2006). But employment regulation is not the only important point: Germany’s main problem may indeed be its high level of payroll taxes that average 42 percent of gross wages (evenly split between employees and employers), compared to 15 percent in the United States, which may prevent job creation in the service sector (Kenworthy, 2004).

In addition, in Germany, ‘change away from a corporatist labour market...is limited...owing to the capacity of the entrenched social actors to delay or prevent change’ (Kananen, Taylor-Gooby, Larsen, 2006: 84-85 and 90).

However, Germany, which was seen as the “sick man of Europe” throughout the 1990s (Eichhorst and Marx, 2009), has experienced many far-reaching changes in a recent past. In recent years, “atypical” working conditions have developed through the deregulation of a so far rather “rigid” labor market, with a significant decline in the OECD’s employment protection legislation index (version 1) between 1990 and 1998. However, the degree of

protection remains fairly high in international comparison (OECD website, EPL strictness). A series of far-reaching reforms, dubbed the Hartz reforms (named after the president of the commission that proposed them), have changed the philosophy that underpins the German welfare state. In 2003, the government introduced an employee subsidy in the form of a reduction in payroll contributions: Workers in jobs paying less than 400€ per month (called the “mini jobs”) were fully exempted from payroll contributions and employers only pay 5 to 15 percent of this wage for the employee’s pension (website of the German “Minijob-Zentrale”), while those on jobs paying between 400 and 800 € (the “midijobs”) were partially exempted with low and linearly growing payroll taxes (Eichhorst and Marx, 2009, Kenworthy, 2004, Andress and Seeck, 2007, Jacobi and Kluge, 2006).

The number of “mini jobs” increased markedly after the reform (Jacobi and Kluge, 2006), whereas the share of full-time workers with open-ended contracts, as well as the coverage of collective agreements including minimum wage levels, decreased in both parts of Germany between 1993 and 2003 (Andress and Seeck, 2007). In addition, labor market insiders’ employment has also become more flexible; this flexibilization did not take place through an easing of dismissal protection, but rather through a liberalization of collective bargaining in the form of agreements with opening clauses (Eichhorst and Marx, 2009). Interestingly, the share of low-wage workers increased in the Western part of the country, while it decreased in the Eastern part (the former GDR). The share of fixed-term contracts, however, remained relatively constant.

Another major change concerned unemployment benefits and social assistance that have been redesigned to reduce the disincentives to work they supposedly generated (Andress and Seeck, 2007); this was the fourth part of the Hartz reforms (dubbed “Hartz IV”). Compulsory unemployment insurance has existed in Germany since 1927, and was organized as follows at the time the reform was implemented: After a first period of perception of unemployment benefits (6 to 32 months) with a replacement rate of 67 percent, an unemployed person would get unemployment assistance with a 57-percent rate, without time limit. These relatively generous benefits were combined with high benefit reduction rates that taxed away most of the additional earned income of a benefit recipient; hence, incentives to take up a job were low (Jacobi and Kluge, 2006).

After the implementation of Hartz IV, an unemployed person receives a so-called “type I benefit” for six to twelve months and thereafter a lump sum means-tested benefit, the “type II benefit” (Kluge and Jacobi, 2006). In fact the former unemployment assistance and social assistance for those able to work have been merged into the type II benefit (ALGII), while social assistance (“Sozialgeld”) remains for persons unable to work (Christoph, 2008, Jacobi and Kluge, 2006, Eichhorst and Marx, 2009). In addition, sanction elements have been introduced, and the functioning of public employment services modified in order to operate more efficiently, and public job creation has been redesigned for merely targeting those who are very hard to place; for this latter group, wage subsidies paid to employers were also introduced (Jacobi and Kluge, 2006).

In a review of existing evaluations *before* the introduction of the Hartz IV reforms regarding the type II benefit, Jacobi and Kluge conclude that the impact on placement services was positive, as well as the impact of new training measures, wage subsidies to employers and temporary work deregulation; the evidence is more mixed for the midijobs and the mini jobs, even though a large number of minijobs were created. Jacobi and Kluge’s conclusion is rather positive, ‘On balance, we... find that the Hartz reforms in their entirety seem to have contributed to a better functioning of the German labour market and the effectiveness of

specific active labour market policies' (Jacobi and Kluve, 2006: 26). Regarding the impact of non-standard employment forms, fixed-term contracts 'often provide effective entry opportunities as they are used during qualification phases...or as extended probationary periods in particular in industry and private services...The potential of upward mobility is more limited with regard to Minijobs. There are strong disincentives to move to longer part-time or full-time work due to the rapid phase in of taxation and social insurance contributions above the 400 EUR threshold' (Eichhorst and Marx, 2009: 19).

Germany's unemployment rate has decreased in a recent past: As of April 2009, and despite the worldwide recession, Germany's unemployment level was below EU-27 average and very similar to Sweden's (Eurostat website). In summary, Hemerijck and Eichhorst state that 'Germany shifted from a passive welfare state accommodating economic restructuring through long-term benefit receipt to one of the most ambitious and universal activation regimes' (Hemerijck and Eichhorst, 2009: 22).

Regarding the impact of Hartz IV, namely the restructuring and recalibration of unemployment benefits and social assistance, fears have been expressed that poverty might increase. Indeed, according to Eurostat, the poverty risk (income below 60 percent of median income) has been on the increase in Germany since 2005, from 12 to 15 percent (Eurostat's website, living conditions and welfare indicators), with a strong increase in the Eastern part of the country; earnings inequalities have increased too (Müller and Steiner, 2008).

Family policy, however, has become more "generous". Between 1991 and 2004, many tax allowances were increased, as was the tax credit for families (Kindergeld). As of 2000, child allowances represented 11.8 percent of the income of a family with two children relying on the earnings of a full-time industrial worker, while this share amounted to 4.7 percent in 1995 (Andress and Seeck, 2007). Around 2000, family cash benefits represented 10.3 percent of disposable income in the lowest income decile (Whiteford and Adema, 2007).

An important element needs to be underscored here: In the former GDR, a high number of companies went bankrupt and a large number of jobs were destroyed after the Reunification process (Offermann, 2000). Unemployment in Eastern Germany has been high ever since; in 2007, while the unemployment rate in Baden-Württemberg (Western part of Germany) amounted to less than 5 percent, it exceeded 16 percent in former GDR regions such as Mecklenburg-Vorpommern and Sachsen-Anhalt (Statistisches Bundesamt Deutschland's website).

After the electoral loss of the Red-Green coalition in 2005, a "Grand Coalition" formed by the Christian Democrats and the Social Democrats got to power. The new government took a more moderated stance on labor market reforms, reflecting growing concerns regarding widening inequalities (Eichhorst and Marx, 2009, Müller and Steiner, 2008).

d) Poverty, income redistribution and employment performance

Notten and De Neubourg's figures show that Germany had the lowest level of "absolute" poverty in 2000. Regarding relative poverty, the Luxembourg Income Study provides the following figures:

Table 16: Poverty rates based on thresholds set at 50 and 40 percent of median disposable income (most recent wave, around mid-1990s, around mid-1980s, and mid-1970s)

Year	Poverty rate (50 percent threshold)	Poverty rate (40 percent threshold)	Child poverty in two-parent families (50 percent)	Child poverty in single-parent families (50 percent)
Germany, 2000	8.4	4.6	4.7	38.1
Germany, 1994	8.2	4.5	5.6	41.0
Germany, 1984	7.9	3.4	4.8	49.3
Germany, 1973	6.7	3.6	3.3	28.8

Source: Luxembourg Income Study (LIS) Key Figures, <http://www.lisproject.org/keyfigures.htm> (as of September 28, 2008).

Relative poverty rates are low in Germany: They were slightly higher than in Sweden in 2000, but significantly lower than in Spain and in the US. More recently, poverty levels in Sweden and Germany have been very similar. The child poverty rate among two-parent families is very low; by contrast, around four in ten children living in single-parent households are poor, which is clearly the biggest difference between Germany and Sweden in terms of poverty outcomes. I get back to this point below. It should be noted that child poverty and working poverty are only loosely correlated in Germany, because more than half of poor families with children are jobless (Whiteford and Adema, 2007).

Regarding “in-work poverty”, official figures show that Germany displayed the lowest level among the four countries analyzed in the present chapter in 2006 (Eurostat website, in-work at-risk-of-poverty rate). Even at the 50 percent level, and including all workers (contrary to official figures that only include those who have spent at least six months in the labor market in the previous year), the working poor rate was lowest in Germany (4.4 percent, own calculations with EU-SILC data 2006). It is noteworthy that full-time employment is an almost watertight protection against poverty: As of 2004, only 3.3 percent of full-time workers holding an open-ended contract lived in a household with an income below 60 percent of median disposable income (Andress and Seeck, 2007).

Regarding income redistribution among working families, the tax and benefit system displays a far above average efficiency for dual-earner families (poverty was reduced by 94.3 percent vs. 39.3 at the OECD level), but a below-average performance for single-parent households (-39.6 percent vs. 49.7 at OECD level) and an average impact for single-earner two-parent families (-46.7 percent vs. 43.0) (Whiteford and Adema, 2007).

In summary, among the four countries analyzed here, Germany is probably the best performer in terms of working poverty, whereas the difference with Sweden is only slight; moreover, Sweden performs better as far as single-parent families are concerned.

Regarding employment performance, in 2000, the harmonized unemployment rate amounted to 7.5 five percent and increased to 8.4 percent in 2007. In a recent past, however, despite of the worldwide recession, Germany’s employment performance has improved. The

employment rate is lower than in Scandinavian and Anglo-Saxon countries, but higher than in Spain: In 2000, it reached 70.9 percent of the 15 to 64 years old and increased to 75.9 percent in 2007, a level slightly higher than in the US. One of the key differences between Germany and Sweden is the maternal employment rate, which is much lower in Germany (in 2007, the difference amounted to 14.4 percentage points), and not far above Spain's level (6.2 percentage points), the country with the lowest level among the countries under review (OECD website, Family database, 2007). Another key feature, as in many other Continental countries, is the low participation rate of workers older than 55, which lies below the 50 percent mark (48.4 percent in 2006, Statistisches Bundesamt Deutschland's website). In terms of employment, then, Germany's performance is neither very good nor disastrous.

e) Main difficulties and challenges

One of the main Continental European problems lies in high fixed labor costs – due to payroll-based social insurance financing, notably Germany with payroll taxes that amount to more than 40 percent of gross wages (Kenworthy, 2004). Indeed, high payroll taxes have regularly been seen as the main culprit for Germany's modest employment performance in general (Andress and Seeck, 2007). In fact 'Since the 1990s, Germany has shown to be unable to benefit from favourable conditions in the global economy' (Jacobi and Kluve, 2006: 5), with a GDP growth only half of that in the UK or the Netherlands. Recently, however, Germany, as many other Continental European countries (e.g. France, Belgium, The Netherlands, Spain and Portugal) has introduced a reduction in social security contributions for low skilled workers.

Another difficulty consists in the fact that 'maximizing worker productivity may have resulted in a general 'inactivity trap', whereby a virtuous cycle of productivity growth coincides with a vicious cycle of rising wage costs and exit of less productive workers, all requiring further productivity increases and eliciting another round of reduction in the work force through subsidized early retirement exit' (Hemerijck, 2002: 186). From a Bismarckian perspective, 'the more you do to improve the material situation of the poorest among the workers, the scarcer jobs become, and the more people there are who are deprived of the privilege of having one' (Van Parijs, 2000: 355). For instance, Germany displays a notable deficit in consumer service jobs. This sector employs approximately five percentage points less of the working-age population than in the typical Anglo-Saxon country, and Kenworthy (2004), amongst others, thinks that high payroll taxes aggravate the impact of this high skill equilibrium.

In addition, an ongoing problem is that trade unions in Germany tend to represent the core-workforce, blue-collar male breadwinner and public-sector employees much more than other groups. Moreover, as the unemployment insurance is managed by the social partners, the inclusion of activation elements has been much more difficult.

Moreover, gender issues remain subsidiary and the gap between core workforce breadwinners and other workers ("insiders" and "outsiders") remains an important feature of the German welfare regime (Hemerijck and Eichhorst, 2009).

On the background of these structural problems, many Continental welfare states have undergone notable changes aiming at increasing labor market participation, not least in order to secure the sustainability of the welfare state (Hemerijck and Eichhorst, 2009). The Hartz reforms have been far-reaching reforms going in this direction, but fears are expressed about increasing inequalities. Indeed, the share of low-wage employment increased strongly over the last decade (Eichhorst and Marx, 2009).

Finally, an ongoing challenge is to improve the situation in the former GDR. As already indicated, unemployment levels are much higher. Moreover, as of 2004, the poverty risk among workers was nearly three times higher than in the Western part of the country (15 and 6 percent respectively, Giesselmann and Lohmann, 2008). This is in large part due to the fact that in Eastern Germany, low-wage workers usually are primary earners, while in the Western part, they usually are secondary earners (and 79 percent of them are women). A time-series analysis of working poverty and low-wage rates between 1991 and 2004 yields a correlation coefficient of $r = 0.97$ between low-wage employment and working poverty in the East and only $r = 0.37$ in the West (Giesselmann and Lohmann, 2008).

5.5 Spain

a) Main approaches to the alleviation of working poverty

Southern European countries share many features with other Continental European countries, notably the fact that they mainly rely on a passive approach based on substitutive income transfers and on employment protection, especially unemployment benefits and means-tested benefits for able-bodied working-age persons.

In Spain, workers who have an open-ended contract are highly protected (Bonoli, 2003a). On the OECD's overall strictness of employment protection legislation index (version 2), Spain displays the fourth highest score behind Turkey, Portugal and Mexico (source: OECD website, overall EPL strictness); in addition, there is a statutory minimum wage (*Salario Mínimo Interprofesional*) set at 45 percent of median wage in 2008 (according to the OECD's website, labor statistics). Workers dismissed for "objective" reasons can get up to 12 months' wage; in the event of unfair dismissal, the maximum amount can reach 42 months' wages (OECD website, OECD indicators of employment protection). Moreover, though the unionization rate is lower than 20 percent, the degree of coverage of collective bargaining exceeds 70 percent (International Labour Office, 2008), thanks to extensions laws, imposing agreements to employers and workers who did not sign them (Bonoli, 2003a).

The other major pillar of the fight against working poverty in Spain is the use of social transfers, which mainly benefit nonworking members of working households, such as unemployed adult children and/or an unemployed (or inactive) partner. Spain displays a relatively high aggregated level of social expenditure, namely 21.2 percent of its GDP in 2005 (which is comparable to Norway or the UK), half of which is spent on old age and unemployment benefits, while expenditures on family benefits and active labor market policies amount to less than 2 percent of GDP (source: OECD social expenditure database). Spain has experienced one of the largest growth in social spending among EU countries, in purchasing power parties, between 1980 and 1993 (Guillén and Alvarez, 2002).

Among social transfers, two benefits mainly contribute to lowering poverty among working families: unemployment benefits (and further subsidies), and minimum income schemes (*rentas mínimas*), both supporting unemployed or nonactive members of working households. The unemployment insurance offers generous benefits with high replacement rates (Zubiri, 2007), namely 70 percent of reference earnings for a maximum period of 6 months (and there is no waiting period), then 60 percent of reference earnings for the remaining period of the benefits (which can last 24 months).

Minimum income schemes were introduced at the level of the autonomous communities (Comunidades Autónomas) between 1988 and 1995. The minimum income level is set at the regional level and ranges from 40.2 to 64.3 percent of the minimum wage, except for the Basque country (76 percent, Arriba González de Durana and Pérez Eransus, 2007); that is, their level is low. Indeed, even if minimum income schemes alleviate the difficulties of many poor families, they do not lift them above the poverty line (Pérez Eransus, Arriba González de Durana, Parrilla Fernandez, 2009). Many reforms of the minimum income schemes have taken place, with a growing emphasis on social inclusion and activation; however, the coverage and the expenses levels have remained nearly unchanged (Pérez Eransus, Arriba González de Durana, Parrilla Fernandez, 2009).

b) Further aspects of the welfare regimes that have an impact on working poverty

There is an important difference with the Conservative welfare regime: In Spain, the level of spending on family policies is rather low with less than 1.5 percent of GDP in 2005, a feature shared with other Mediterranean countries (Greece, Italy and Malta), the majority of Central European countries, the US, and Switzerland. In the same year, for instance, France and Germany spent more than 3 percent of their GDP on family policies (source: OECD Family database). More generally, a familialist approach characterizes Spanish social policies (Esping-Andersen, 1999, Esping-Andersen, Gallie, Hemerijck, Myles, 2002). In fact, 'the role played by the family in the Mediterranean regime constitutes one of its more characteristic traits' (Moreno, 2002: 1). Hence, I share the conclusion that Mediterranean countries 'seem to constitute a welfare state regime of their own. This league comprises Spain, Portugal, Greece, to some extent (southern) Italy' (Leibfried, 2000: 194).

Other components of the Spanish welfare state are, contrary to family policy, very generous: Since 1986, a healthcare system financed by general taxes is provided "for free" to the entire population. Moreover, as already indicated, unemployment benefits are also characterized by high replacement rates. However, some elderly persons were not able to contribute the minimum years of service and only get assistance pensions, while many long-term unemployed have exhausted their unemployment benefits and receive minimal assistance.

Another very important feature of the Spanish labor market must be put to the fore, and is, at least in part, a consequence of the very high degree of protection workers on open-ended contracts enjoy: Spain has the highest share of workers on short-term employment among OECD countries, namely 31.9 percent in 2007, a much higher share than in Continental countries such as France (13.7) and Germany (14.1, OECD website, labor statistics), a figure that skyrocketed after the modification of the Workers Status Act in 1984 (*Estatuto de los Trabajadores*, Ruesga, 2007). Many analysts consider Spain as an extreme case of dualization. However, while a majority of workers under 30 hold a fixed-term contract, the incidence decreases markedly after that age (Garrido and Gutiérrez, 2009).

The Spanish labor market can be seen as a long waiting queue, which leads us to the fundamental role played by the Spanish family and the correlated implicit intergenerational pact: Children have a long and hectic pattern of integration into the labor market, but they live with their parents who hold well-protected jobs (Garrido and Gutiérrez, 2009). Most people leave the parental home in their thirties (García Espejo and Ibáñez Pascual, 2007). As a consequence, compared to EU average values, Spain displays higher average household size (Gutiérrez Palacios, Guillén Rodríguez, Peña-Casas, 2009).

The role of the family is, as already mentioned, very important. Traditionally, Spanish institutions have favored the *pater familias*, which largely explains the very high degree of

employment protection. The role of the family has undergone profound changes in recent years; however, it remains very important (Moreno, 2002, Garrido and Gutiérrez, 2009). Cultural values play a role, and so do the institutional framework and the economic situation, and it is difficult to disentangle the influence of these three factors. For instance, a low level of spending on family policy partly explains the type of conciliation of work and family life observed; simultaneously, however, it is important to note that 'state intervention in family matters brings back memories of authoritarian policies during Franco's dictatorship' (Moreno, 2002: 3). In the 1980s and the 1990s, grandmothers have played a fundamental role by helping their daughters to combine work and family life. Likewise, the drop in the fertility rate can be partially explained by the fact that young workers struggle to find a job with an open-ended contract and live with their parents for a long period of time, which postpones family formation; however, the fertility decline is also attributable to changes in people's values and lifestyles and a relaxing of religious codes (Moreno, 2002).

c) Shocks to the system: Globalization, deindustrialization and recent changes in the welfare regime

A fundamental aspect is often neglected, namely that Spain is a young democracy (as are Portugal and Greece) that emerged, at the end of the seventies, from four decades of dictatorship. As clearly demonstrated by Amartya Sen, the absence of freedom is an obstacle to economic development and arguably one of the main poverty factors (Sen, 1999). The emergence of a social dialogue in Spain can be dated back to 1978, when the political transition occurred (Ruesga, 2007), with a relatively large share of the labor force still in the agricultural sector and a recent industrialization.

Put differently, Spain faced simultaneously the challenges of the transition to democracy, on one hand, and de-industrialization and globalization, on the other hand (Garrido and Gutiérrez, 2009). Unemployment skyrocketed from 4.5 percent in 1975 to 21 percent ten years later, because the labor market was totally inflexible, a high proportion of the labor force worked in the agriculture, many companies were inefficient but were protected by tariffs and export subsidies, and the average educational level was low (Zubiri, 2007).

Given this point of departure, some achievements are quite impressive: European Union membership, an immense increase in the employment rate (+14.4 points between 1996 and 2007, Garrido and Gutiérrez, 2009), especially among women who represented 41.2 percent of the workforce in 2007, whereas they only made up 27.5 percent of the labor force when Franco died (source: OECD website, labor statistics), a large increase in the number of persons with tertiary educational level (+150 percent between 1996 and 2007) combined with the retirement of a large share of persons without post-compulsory education - this combination has sometimes been dubbed the "educational overturn" - and the partly correlated massive influx of immigrants, a more than 900 percent increase over the same period, to fill the gaps in low-skilled occupations (Garrido and Gutiérrez, 2009).

In summary, Spain experienced far-reaching transformations within a short time span and entered the postindustrial era in the 1990s (Bonoli, 2007). As Zubiri put it, 'In the last thirty years, Spain has undergone a radical political, economic and social change. Dictatorship has been transformed into democracy, a closed overprotected and underproductive economy has given rise to a modern and highly competitive economy, and a country with low social expenditure has been turned into a very generous welfare state' (Zubiri, 2007: 382). Indeed, the main characteristic of the evolution of the Spanish welfare regime over the 1990s and 2000s is an increase in social spending and many reforms.

Between 1996 and 2007, employment increased by a stunning 7.5 million persons, a phenomenon some called the "Spanish miracle", which appeared to have been partially due to unsustainable factors (Felgueroso and Jiménez, 2009, Arellano and Bentolila, 2009). However, though many low-skilled and precarious jobs were created, an analysis of the occupational composition of the labor force between 2000 and 2008 shows no trend toward a deterioration, with the strongest increases in senior corporate and public sector managers, and other higher-level occupations (Garrido and Gutiérrez, 2009). The share of short-term contracts remained fairly constant, while gross earnings inequality and the share of low-wage workers decreased (OECD website, labour statistics). In the Spanish case, it is impossible to identify a general relationship between labor market performance and trends in earnings inequality, in line with analyses at the OECD level (Gutiérrez Palacios, Guillén Rodríguez, Peña-Casas, 2009, Kenworthy, 2004, Esping-Andersen and Regini, 2000).

However, an increase in relative poverty took place between the mid-90s and the mid-2000s (OECD, Growing Unequal 2008, Luxembourg Income Study (LIS) Key Figures). This is most probably due to the strong increase in real median income (LIS Key Figures and Instituto Nacional de Estadística's website, Índice de Precios de Consumo (Base 2006)).

The main factors that have contributed to the massive decrease in unemployment and increase in employment until 2007 are an above-average economic growth, wage moderation, a reduction in firing costs - which remain, nonetheless, high in international comparison - and a more efficient economy (Zubiri, 2007). Overall, Mediterranean countries have achieved some of the biggest employment gains since the mid-1990s, and female employment is rapidly catching up to Northern European averages (Hemerijck and Eichhorst, 2009). However, the crisis of the late 2000s gave a massive blow to these positive developments, as discussed below.

d) Poverty, income redistribution and employment performance

In absolute terms, measured with the "Orshansky poverty line" adjusted with purchasing power parities, the poverty rate was, in 2000, more than twice as high as in the US and more than three times as high than in Germany and Sweden (Notten and De Neubourg, 2007). It is noteworthy, however, that a very significant decrease took place over a short period of time, namely a 34-percent decrease between 1995 and 2000, and that this difference probably further decreased until the beginning of the recession of the late 2000s, given the strong economic growth that characterized these years.

In relative terms, differences between Spain and the other three countries are less pronounced:

Table 17: Poverty rates based on thresholds set at 50 and 40 percent of median disposable income (most recent wave, around mid-1990s, and 1980)

Year	Poverty rate (50 percent threshold)	Poverty rate (40 percent threshold)	Child poverty in two-parent families (50 percent)	Child poverty in single-parent families (50 percent)
Spain, 2000	14.2	7.6	N/A	N/A
Spain, 1995	13.7	8.4	16.6	34.0
Spain, 1980	12.1	6.7	12.3	21.5

Source: Luxembourg Income Study (LIS) Key Figures, <http://www.lisproject.org/keyfigures.htm> (as of September 28, 2008).

It is noteworthy that relative poverty is less widespread in Spain than in the US, while the poverty rate is notably higher than in Germany and Sweden. Regarding child poverty among single-parent families is slightly lower than in Germany, whereas it is much higher among two-parent families. This in part due to relatively low female labor force participation rates and to a redistributive system that appears to be less efficient than in Continental countries, as analyzed below.

The fact that the difference between Spain and the other three countries analyzed here is more marked in absolute than in relative terms is due to important differences in income levels: In 2000, real median income in Spain amounted to 12,718.46 € (approximately \$12,188 as of mid-June 2000), less than half the amount in the US with \$27,168.50 (Source: OECD website, Social and welfare statistics); even accounting for purchasing power parities, this difference is very large (OECD website, purchasing power parities for private consumption).

Regarding the “in-work at-risk-of-poverty rate”, Eurostat’s figures for 2006 show that the incidence of in-work poverty is noticeably higher in Spain (10 percent) than in Germany (5 percent) and Sweden (7 percent, source: Eurostat website). I reach similar conclusions with my own calculations based on SILC 2006 data, with the poverty line set at 50 percent of median disposable income and an encompassing definition of “working”: They show that the working poor rate is notably higher in Spain (6.9 percent) than in Sweden and Germany (5.3 and 4.4 percent respectively).

As far as income redistribution is concerned, unfortunately, Whiteford and Adema's report (2007) does not contain data on poverty reduction among working families in Spain. As an imperfect proxy, I compare Eurostat's pretax/pretransfer at-risk-of-poverty rates with the corresponding posttax/posttransfer rates and obtain the following results:

Table 18: A comparison of pretax/pretransfer and posttax/posttransfer poverty rates in 2006

	Pretax/ pretransfer, in %	Posttax/ posttransfer, in %	Poverty reduction in %
Germany	26	13	-50.0
France	25	13	-48.0
Sweden	29	12	-58.6
Spain	24	20	-16.7

Source: Eurostat website, as of September 28, 2008

Obviously, these results include nonworking households, and, thus, only allow a crude comparison with Whiteford and Adema's findings presented above for the US, Germany and Sweden. Nonetheless, I get an interesting picture: Poverty reduction is highest in Sweden, followed by the two Continental countries, and poverty reduction in Spain is much lower. Interestingly, then, Spain has a strict employment protection legislation but a low degree of redistribution; as Bonoli put it, 'Countries that developed strong employment protection have welfare states that perform little vertical redistribution' (Bonoli, 2003a: 1013-1014). This leads to the conclusion that the Spanish welfare regime relies heavily on labor market regulation in the fight against working poverty (and on families in the event of a difficult integration into the labor market).

In terms of employment and unemployment, Spain is the worst performer among the four countries analyzed here. Employment rates are lower, especially female labor market participation. The participation rate of mothers of children under 18 remained low in international comparison in 2008 (nearly four in ten mothers did not work, OECD website, labor statistics). Regarding unemployment, among the four countries analyzed here, Spain displayed, by far, the highest level at the turn of the century, but the gap was closed with Germany in 2007 (8.3 and 8.4 percent respectively). However, the unemployment rate has massively increased in Spain since 2007 – it more than doubled – while the German level remained surprisingly stable.

e) Main difficulties and challenges

Continental European countries face, as already indicated, a difficult challenge posed by the grim employment prospects of low-skilled workers in a service economy. The Southern European labor markets face an even trickier situation, because they are "very insider biased" (Hemerijck, 2002). It should be noted, in addition, that Mediterranean countries spend much less on "new social risks" than Germany, France, and Scandinavian countries (Bonoli, 2007). Apart from the very strict regulation of firing and hiring and other practices, another aspect of employment protection in Spain is sometimes subject to criticism, namely the structure of collective bargaining deemed inefficient by some authors (Felgueroso and Jiménez in FEDEA, 2009). Spain's unionization rate is low (18.1 percent in 2001), and more than twice as high among employees with open-ended contracts than among those on fixed-term employment contracts (Simón, 2003). Moreover, and maybe as a consequence of these features, conflictuality is rather high in the Spanish labor market, with a high number of strike

days over the last two decades (ILO website, LABORSTA); however, the number of strikes has been decreasing in a recent past.

Another preoccupying problem is the total fertility rate, one of the lowest in the EU (1.38 in 2006, source: Eurostat, website, total fertility rate), which is partly attributable to the labor market integration of young adults: Many persons in their thirties still live with their parents, as indicated above, which significantly shortens the period during which young Spaniards can consider having children, a feature shared by other Southern European countries. This certainly does not tell the whole story, however, as cultural factors mentioned above also play a role. Moreover, part-time employment is rather marginal in Spain and many mothers have to combine full-time employment and domestic activities; young mothers usually do not leave employment, in striking contrast to their German counterparts. Women with higher educational levels who have an access to better jobs sometimes choose not to have a second child (Moreno, 2002). The decline in fertility has been sharp and fast: For women born in 1950, Spain displayed one of the highest fertility rates. Among women born in 1965, the fertility rate was one of the lowest at the OECD level (OECD website, Family database).

Moreover, social security contributions are rather high, as the total rate amounts to 36.95 percent of gross earnings for the averaged paid workers in 2004, whereas this level is lower than in Germany with 41.1 percent (Zubiri, 2007) and social security contributions have remained remarkably stable over the last 30 years, despite the relatively high level of pensions. However, contrary to Germany's equirepartition, Spanish employers pay 82.81 percent of total social security contributions.

In Europe, countries with low expenditure on active labor market policies, rigid labor markets and high earnings inequality tend to display the highest working poor rates (Gutiérrez Palacios, Guillén Rodríguez, Peña-Casas, 2009). Spain has the second most "rigid" labor market of the EU; in terms of earnings inequality measured by the 9th-to-1st decile ratio, Spain is in the same ballpark as the UK (in 2002, according to the OECD website, Labour statistics); however, its level of spending on active labor market policy is comparable to that of many EU countries, with 0.8 percent of GDP in 2005 (OECD website, social expenditure database).

Last but not least, while all developed economies have been affected by the financial crisis that started in the US and the resulting recession, Spain is particularly hard hit, which is partly due to idiosyncratic factors. Between February 2008 and February 2009, the EU experienced an increase of 3 millions in the number of unemployed; half of this increase took place in Spain (El País, April 26, 2009): The unemployment rate reached 17.4 percent in April 2009, while it amounted to 8 percent in the third quarter of 2008 (Eurostat website, Employment and unemployment database).

In fact, employment in Spain has been strongly cyclical in recent decades; however, there are particular aspects in the current crisis. Even if it is true that many jobs have been lost, a good part of the evolution in a recent past is rather due to a strong increase in labor supply. As already indicated, immigration increased massively in order to fill the gaps in the lower segment of the labor market (Garrido and Gutiérrez, 2009); however, this influx does not seem to have had a major impact on the employment of native workers (Felgueroso and Vázquez, 2009, Carrasco, Jimeno, Ortega, 2004). The main culprit is a construction bubble that burst, which had an extremely detrimental impact (Garrido and Gutiérrez, 2009). Between 1997 and 2008, the number of housing units increased by 5.7 million; in the third quarter of 2007, the construction industry represented 13.3 percent of total employment. The demand increased due to the economic expansion, as well as to a strong reduction in mortgage

interest rates. There was a strong increase in housing prices that were overestimated. A significant part of this overvaluation was attributable to speculative behaviors: People would buy houses and apartments as a form of investment, hoping that prices would keep on increasing at a fast rate. Once the bubble burst and prices plummeted, a massive decrease in the number of jobs in the construction industry and related activities led to a dramatic increase in unemployment (FEDEA, 2009).

Having now identified promising tools in the fight against working poverty and analyzed the four countries that epitomize the four clusters of the welfare regime typology I have decided to use, I can now proceed to the empirical work. Chapter 6 is based on a meta-analysis of evaluations of specific policy tools, while chapter 7 deals with the impact of welfare regimes on the composition of the working poor population and on the three mechanisms that lead to working poverty among workers.

6 Evaluation of Existing Programs

In chapter 4, I have presented the main tools that can be used to fight working poverty and analyzed their potential employment and antipoverty effects. These effects must now be evaluated. Since there is, for most policies assessed here, a large body of evidence available, the empirical contribution of the present chapter consists in a meta-analysis of systematically identified and retrieved empirical studies published over the period 2000-2010 that provide empirical estimates of the impact a given policy has on poverty and employment. This meta-analysis consists in a weighted vote-counting procedure that allows drawing overall conclusions based on significance tests.

Moreover, as I am also interested in the way these policies operate in the “real world” of social policy, findings are also broken down by welfare regime, and accompanied by a more qualitative and detailed examination of results allowing to account for national contexts: Labor market performance and composition, other social policies and labor market regulations, and, whenever possible, business cycles and economic evolutions. This paves the way for the next chapter that assesses the overall impact of welfare regimes on the three working poverty mechanisms and, hence, on the size and composition of the population of low-income workers.

The main policies that have been identified as potentially efficient anti-working poverty tools are the following:

- minimum wages, legally enforced or through collective bargaining
- tax credits for workers,
- cash transfers towards families
- the provision and cost of childcare services.

But before meta-analyzing each policy, it is necessary to precisely define how the evaluation of each policy will be carried out.

6.1 Research synthesis

Attempts to synthesize empirical findings are not new in social sciences. In the early 1900s, British statistician Karl Pearson was asked to review the evidence on a vaccine against typhoid. He found 11 studies devoted to this topic and calculated, for each one of them, the statistic he had recently developed, namely the correlation coefficient, and then calculated the mean value of these measures (Rosenthal and DiMatteo, 2001, Cooper, 1998). However, it was not until the 1970s that researchers began to develop systematic methods for reviewing evidence in order to replace traditional, qualitative literature reviews; indeed, ‘Until recently...social science methodologists paid little attention to how investigators ought to find, evaluate, and integrate past research’ (Cooper, 1998).

The massive development of social sciences over the twentieth century and early 2000s has generated an immense corpus of books, articles, conference proceedings, position papers, working papers, etc. (Rosenthal and DiMatteo, 2001). Moreover, the recent development of

efficient search engines, scanning within a few seconds the content of thousands of journals, has facilitated the development of research synthesis.

6.1.1 Literature review, research synthesis and meta-analysis

Many terms are used interchangeably to describe the activities analyzed here: literature reviews, research synthesis, and meta-analysis, amongst others.

The label *meta-evaluation* is also used at times, but it may have various and conflicting meanings. In some instances, it relates to the research activities aiming to produce a meaningful synthesis of existing empirical researches (see e.g. Ashworth, Cebulla, Greenberg, Walker, 2003), but more often than not it refers to a different kind of scientific endeavor. In the latter case, meta-evaluation consists in evaluating the quality of evaluations: The main aim is not primarily to synthesize findings and average size effects, but rather to assess the methodological quality of experiments and evaluations, by assessing the utility, feasibility, accuracy, systematicity, integrity, respectfulness and social responsibility of a research program (Stuffelbeam, 2001). Some authors examine whether the evaluation of the quality of evaluations is value-free or not (Nilsson, Hogben, 1983), which in my view appears to be an extremely ambitious goal. In fact, the evaluation of the reliability of the findings stemming from the studies submitted to a meta-analysis is a key stage of any research synthesis; but meta-evaluation appears as a more specific task than meta-analysis or research synthesis.

Literature review is a very broad term, and can encompass both theoretical reviews, as found for instance in the third and fourth chapters of the present work, as well as research syntheses which focus on empirical studies of a specific relationship between variables of interest. The term *research synthesis* is more specific, and more accurately fits the empirical work described in the present chapter. *Meta-analysis* is even more specific, whereas it is often used as a synonym of research synthesis or research review, but it implies the use of quantitative procedures in order to combine study results (Cooper, 1998, Lipsey and Wilson, 2001, Cooper and Hedges, 1994).

Meta-analysis can be seen as a statistical approach similar to that used in usual primary quantitative research, the statistical unit being research findings (significance tests, directions of relationships, size effects) rather than individuals, households, institutions, companies, and other units primary research usually examines.

The stages of a meta-analysis are the following (Cooper, 1998): First, as in any other kind of empirical research, a research question must be formulated. In this chapter, the research question is always the same: **Does a given social policy (or labor market regulation in the case of minimum wages) efficiently combat poverty without having a negative impact on employment?** Indeed, there are two questions in one here, but they are treated separately in the meta-analysis presented below. Moreover, there is a corollary question in the event of a positive answer: Where does it work and for whom? Put differently, could it work in another country or for other sociodemographic groups?

Second, an important phase consists in a literature search based on scientific search engines, which corresponds to fieldwork or data collection in primary research, which means that this phase must be as systematically and rigorously conducted as usual fieldwork. The approach used here is not based on a randomly selected sample of articles, but it is an exhaustive data collection, as all articles that seem to answer the research question are reviewed.

The third phase consists in evaluating the data gathered, a stage comparable to what researchers normally do when they inspect their database in search of values that are not

plausible, or sets of values that are not coherent, or variables that contain too many missing values. In the case of a meta-analysis, the idea is to assess the quality of the estimates and the degree to which methodological and statistical details are provided (Cooper, 1998, Lipsey and Wilson, 2001, Cooper and Hedges, 1994).

Finally, once data has been gathered and its quality evaluated, estimates can be submitted to a statistical treatment. This latter stage is what characterizes meta-analysis, and, as any other statistical analysis, can take the form of either descriptive statistics or inferential statistics.

6.1.2 Conceptual issues and operationalization

An important difficulty research synthesists face pertains to the operationalization of concepts. On one hand, the existence of different operationalizations of the same concept constitutes a challenge in terms of findings comparability. In fact, it is often complicated to aggregate descriptive evidence because social scientists use different scales to express their findings. On the other hand, this variety of operations can also be perceived as having the potential of stronger inferences (Cooper, 1998), as it may allow more robust conclusions by giving various perspectives on the same topic, which is doubtlessly one of the pros of meta-analysis. Cooper thinks that the only general recommendation that can be made is to begin the literature search with the broadest conceptual definition in mind, leaving the possibility to restrict the sample at a later stage of the meta-analysis (Cooper, 1998).

An obvious example in the present research pertains to the definition of poverty and the evaluation of antipoverty effects: Some studies measure the impact of social policies on the headcount ratio (with poverty lines ranging from the very low US official threshold to the much more “generous” EU official at-risk-of-poverty line, which is defined in relative terms), while others use poverty measures that also account for the depth of poverty and even for the severity of poverty (for instance the Foster-Greer-Thorbecke (FGT) index with $\alpha = 1$ or 2)⁸, that is, whether poor families have, on average, an income slightly below the poverty threshold or, on the contrary, way below it, and in the case of severity indicators, whether income inequality among the poor population is weak or strong. Moreover, some studies draw conclusions on the impact a measure has on poor families’ disposable income, stating that policy *x* increases disposable income by *y* percent or by a certain amount of dollars. This can lead to the conclusion that policy *x* significantly reduces the poverty gap; however, it is not possible to determine whether it significantly reduces the headcount ratio, i.e. the incidence of poverty. In some evaluations, it is the probability of escaping poverty in the following year that is assessed.

Similar variations exist in evaluations of the potential employment effects of various policies, sometimes measured with employment rates and employment-to-population ratios, sometimes with conditional probabilities to hold a job at time *t* given the situation in year *t-1*, and sometimes in terms of hours per week or weeks per year.

6.1.3 Systematic collection of relevant studies and choice of relevant findings

Many synthesists advise to use a predefined coding sheet, whereas the degree to which this advice must be applied depends on the size of the corpus of articles that has been gathered. In the present work, given the very specific nature of the research questions and the limited time

⁸ As indicated in chapter 2, the FGT-index measures, for each poor person, the distance between her or his household’s disposable income and the poverty line. This indicator includes an aversion coefficient, α ; if $\alpha=0$, the FGT indicator equals the headcount ratio, if $\alpha=1$, it measures the poverty gap (or the depth of poverty), and if $\alpha=2$, it measures the severity of poverty.

horizon defined (the 2000s), the coding sheets presented in appendix B have been redefined many times until they were deemed completely satisfactory, as it was not too demanding to reorganize the findings of a relatively limited set of studies.

An important aspect of data collection is, obviously, the use of scientific search engines, which have revolutionized meta-analysis by allowing very far-reaching searches. In addition, they allow reducing the impact of subjective factors that may lead a researcher to subconsciously omit some publications, thereby increasing the reliability of findings. In what follows, a predefined procedure has been established, providing a nonsubjective approach based on four search engines, as the use of multiple resources appears to be the most efficient strategy. The use of various keywords is also advised, and approach that has been applied in the present work (Lipsey and Wilson, 2001).

The approach presented here contains one important source of bias, namely the language used by the authors, implying that some important pieces of evidence may have been missed. It is common to exclude studies that are not written in English (Lipsey and Wilson, 2001), especially in comparative research. It is possible that significant results obtained in non-English speaking countries are not reviewed (Delgado-Rodriguez, 2001). One attempt has been made to partly reduce the impact of this bias in the third phase of the article search described below, namely the use of Google scholar for specific purposes, based on the other languages that I can read, namely French, German and Spanish. This allowed the identification of some interesting articles. But obviously, a further step might be taken by using scientific search engines that allow identifying articles written in German, French and Spanish in a more systematic fashion.

Another practical aspect pertains to problems in library retrieval (Cooper, 1998). Some documents of potential importance are not available at the library a synthesist uses. In my case, I have an access to two universities' online journals retrieval systems (University of Lausanne and University of Neuchâtel, Switzerland), and the number of articles I could not retrieve was quite marginal. To the extent that the number was very small (never more than three articles for a given policy) and that the journals that were not available did not seem to have anything in common, which excludes any systematic bias, I do not account for the missing articles. However, to be absolutely accurate I should have attempted to obtain these few articles by other means, for instance through a direct contact with primary researchers, but the extra effort requested was not deemed justified given the small amount of articles at stake.

Another problem of availability pertains to missing information and missing data; a few articles do not display some regression findings (coefficients, t-values or standard errors) but mention findings in a general form: For instance, a variable is added in the regression model, and the author only mentions that results remained virtually unchanged without any mention of the coefficient nor of the standard error.

A fundamental step is, obviously, to assess whether all the identified articles are based on reliable and relevant methodologies. In fact, as opposed to primary studies, there is only one criterion (beyond error in recording) for discarding data, namely the validity of the study's method (Cooper, 1998). I did not exclude studies a priori, but rather evaluated the pertinence of articles ex post and excluded studies that were either purely descriptive (that is, that do not contain regression-based or microsimulation results) or based on very small samples (less than 1000 observations, which is very rarely the case in the kind of evaluations reviewed here). Moreover, personal comments found in the summary tables in appendix A, which sometimes pertain to the quality of an empirical estimate, are always preceded by my initials

(EC) to clearly distinguish them from comments made by the authors. Likewise, the decision not to include a study in the meta-analysis is mentioned in the tables presented in appendix A, as well as a justification of the decision.

However, it is important to underscore that the judgment on the relevance and validity of a study's results is colored by the evaluator's predispositions. Studies of evaluator agreement about research quality are mentioned in Cooper's book (1998): Seven studies are described, one of which carried out by Cooper himself, and lead to the conclusion that agreement on judgments of methodological quality is less than one would think, due to personal biases. There is indeed relatively little agreement among social scientists about what methodological quality is, and 'methodological quality is something that seems to exist largely in the eye of the beholder' (Lipsey and Wilson, 2001: 22).

Interestingly, for instance, Neumark and Wascher (2007) state, in their widely quoted literature review, that they do not give much credit to studies of the employment effects of minimum wages that rely on a "natural experiment approach"; it happens that most of this research stream does not find any significant disemployment effect of minimum wages, a position against which the authors of this literature review have fiercely fought in a recent past by publishing (together or separately) a large amount of articles showing that minimum wages have significant negative effects on employment of various groups of workers, in line with neoclassical theory. Whether or not this hostility only reflects a self-confidence based on statistical evidence deemed convincing enough by the authors, or whether their personal values, subconsciously, also play a role, is impossible to assess. What is interesting in their work, apart from the very broad and encompassing scope of their review, is that Neumark and Wascher display intellectual honesty by also mentioning the studies they deem less trustworthy, that is the ones that do not find any disemployment effect or even find positive effects and are based on natural experiments, thereby allowing the reader to draw own conclusions.

I have applied this principle in this chapter. In so doing, I take into account Cooper's advice not to exclude studies a priori, an approach that is probably 'too subjective to be trustworthy' (Cooper 1998: 84). This opinion might not be accepted by all researchers, however. Some have criticized this conception of no a priori exclusion of studies based on a poor methodology on the grounds that it does not allow a better understanding of the phenomenon studied, because of the "garbage in - garbage out" principle (Rosenthal and DiMatteo, 2001, Cooper 1998). Indeed, including good, bad and indifferent studies may be subject to criticism: 'Proponents of meta-analysis pride themselves on the inclusiveness of the method, rejecting the notion that bad studies should be excluded as "subjective". Yet...inclusion of bad studies may completely subvert the true outcome of a hypothetico-deductive analysis' (Eysenck, 1994: 791).

Basically, there are two main dimensions for an a posteriori examination, namely internal and external validity. Put differently, the first dimension pertains to the quality of the methodology (population, statistical method, data quality, etc.), whereas the second concerns the degree to which the study's findings can be generalized (sample size and representativity, standard errors, confidence intervals, etc.).

The present work provides tables containing relatively detailed summaries of the studies reviewed in appendix A, allowing the reader to draw his or her own conclusions about the evidence, my main concern being transparency and intellectual honesty. Based on these summaries, other tables that contain estimates rather than article summaries – the

overwhelming majority of articles contain more than one estimate – were produced and submitted to a statistical analysis (see appendix B).

Authors usually agree on the main elements these tables should contain (Cooper, 1998, Lipsey and Wilson, 2001, Ashworth, Cebulla, Greenberg, Walker, 2003): A report identification, in the present work an abbreviation of the authors' names and the publication year, the setting of the study, here mainly the country and the policy assessed, the subjects of the evaluation, here the population group studied, the methodology, namely regression-based findings or microsimulation results, and, obviously, statistical outcomes or effect sizes. Other elements are mentioned, but they pertain to experimental evidence, which is absent from the meta-analyses presented in this chapter.

Regarding the choice of the estimates included in the meta-analysis, I made the decision to only include results from the main specifications and their main variations, whereas results from models that were only specified to assess findings robustness are not reported in the vote-counting tables, but if, and only if, this intention is explicitly stated by the author(s). Moreover, when an article provides econometric models with and without macroeconomic controls (GDP growth, GDP per capita, unemployment rate, etc.), only the models including economic controls have been kept, as it has been shown above that the economic situation, business cycles in particular, can have a decisive impact on poverty. Finally, some US articles contain regional estimates that were reported in the summary tables; in the vote-counting procedure, however, as US studies are largely represented, these regional findings were dropped.

6.1.4 At the heart of meta-analyses: The statistical treatment of findings

Until recently, research synthesists did not systematically apply standard statistical techniques to their data. As indicated, growth in the amount of research and the development of computerized retrieval systems have been two major changes in social sciences that have revolutionized research synthesis. Hence, the introduction of statistical procedures into research synthesis has become a necessity, and another major change. This introduction of statistical tools can be called meta-analysis (Cooper 1998). Modern meta-analysis has become more and more interested in quantifying the effects identified in the literature, rather than identifying whether or not the relationship between variables exists. This means that meta-analysis, in a restrictive sense, only applies to empirical research studies that produce quantitative findings, and aims at integrating information about the effect sizes (Lipsey and Wilson, 2002).

There are two main sources of variation across studies, namely sampling error, on one hand, and methodological differences and/or different sample compositions, on the other hand. Meta-analysts have access either to information that can be used to calculate size effects, and/or information about whether a test found significant relationships, and/or information about the direction of the effects. Vote-counting procedures are useful for the second and the third types of data (Bushman, 1994). More sophisticated techniques are necessary for synthesizing size effects.

Vote-counting methods

The simplest methods for integrating findings are vote-counting methods, which take into account the statistical significance and/or focus on the sign of the estimates (Bushman, 1994). Basically, the synthesist classifies findings in three categories: Statistically significant findings that have the expected direction, usually named positive findings, statistically significant findings in the unexpected direction (negative findings), and nonsignificant

findings (Cooper, 1998, Bushman, 1994). ‘The synthesist then would assert that the category with the largest number of findings tells what the direction of the relationship is in the target population. This vote count of significant findings has much intuitive appeal and has been used quite often’ (Cooper, 1998: 116). The conventional vote-counting procedure counts the number of times the three above mentioned categories appear, and the modal category is declared the winner (Bushman, 1994).

It appears, however, that this strategy is very conservative and often leads the synthesist to conclude that the relationship does not exist, especially when counting the number of nonsignificant findings. An alternative vote-counting method consists in comparing the frequency of significant positive and significant negative findings, with a statistical test based on the assumption that the number of positive and negative findings is equal, but as it ignores nonsignificant findings it may have a low statistical power. A third vote-count approach consists in counting negative and positive effects regardless of the significance, which has the advantage of using all findings.

A sign test can be performed (Bushman, 1994, Cooper, 1998), and the test statistic can be defined as follows (Cooper, 1998):

$$Z = \frac{N_p - \frac{N}{2}}{\frac{\sqrt{N}}{2}}$$

Z follows a standard normal distribution, with N_p the number of positive findings (i.e. findings that have the expected direction). With a confidence level of 5 percent (error type I), the critical value is 1.96; for 1 percent it is 2.58.

Another way to perform this test is to check the assumption that $\pi = 0.5$, with π the proportion of “positive” results in the population. An estimator of π is p , the number of positive results in k independent studies, and then the tail area is found from a binomial distribution table (Bushman, 1994). The sign test can be used in a vote count of either the simple direction of all findings or the direction of only significant findings.

In what follows, the expressions “negative” and “positive effects” have a different meaning that relates to the effects various policies have on employment and on poverty. If a study examines the antipoverty effects of a policy, the result is deemed positive if this policy reduces the poverty rate or the poverty gap; a study examining the employment effects of a policy is deemed to have positive effects if employment increases, or unemployment decreases.

Vote-counting procedures have been criticized for not taking account of sample size; however, as sample size increases, the probability of obtaining a significant result increases. In addition, ‘this method does not allow the meta-analyst to determine whether a treatment “wins by a nose or in a walkaway” ’ (Bushman, 1994: 194); that is, this procedure does not provide estimates of the effect size. Third, when effect sizes are medium to small, the conventional vote-counting procedure usually fails to detect any effect.

These drawbacks have led to the development of more refined meta-analytical techniques.

More sophisticated meta-analysis techniques

A vote-counting procedure does not attempt to evaluate the magnitude of the effect, which prevents the synthesist from answering the “how much?” question. Still, vote-counting

methods appear as an ‘informative complement to other meta-analytic procedures and can even be used to generate an estimate of the strength of a relationship’ (Cooper, 1998: 119).

The most advanced statistical procedures used for meta-analysis weight findings according to their sample size, for instance by using the inverse of the standard error, so that studies that have more accurate estimates - that is, smaller standard errors - are given more weight. In addition, if several findings come from the same study, the meta-analyst may want to weight them less than a finding that is the only contribution of another study (this weighting is also applied in the vote-counting procedure presented below).

Detailed meta-analysis requires information on the number of findings, the directional outcome of each finding and sample size. The key concept in this kind of approach is the effect size, which necessitates defining a common metric for all studies based on a standardization of findings: The effect size statistic must be the same across studies (Lipsey and Wilson, 2001). Another key element is the standard error, that is, the standard deviation of the sampling distribution; its identification can at times be technically challenging. These standard errors are used, as already mentioned, to weight study findings.

Some research designs, such as those found in experimental studies, are easy to quantify, as it is a simple difference between the experimental and the control group, for instance using the d index:

$$\frac{x_1 - x_2}{\frac{SD_1 + SD_2}{2}}, \text{ with } SD_i \text{ the average standard deviation.}$$

Odds ratios are also often used in the context of experimental research. If the findings have a quantitative nature, correlation coefficients can be calculated.

In more complex research designs, such as those found in most evaluations reviewed in the present work, other metrics have to be used. For ex post evaluations based on regression models, the findings can be expressed in terms of elasticities (Doucouliagos and Stanley, 2009). Sometimes, however, it is difficult to calculate them, for instance if the outcome is not the employment rate, but the probability of being in employment in year t+1 conditional on being in the labor force in year t in a logit or probit specification.

In fact, multivariate analysis results in general, be it multiple regression, discriminant analysis, factor analysis, structural equation modeling, etc., are difficult to transform into a size effect statistic. In fact, ‘multiple regression results cannot generally be represented in an effect size statistic... Meta-analysts have not yet developed effect size statistic that adequately represent this form of research finding’ (Lipsey and Wilson, 2001: 16). Even though standardized regression coefficients are provided in the standard outputs of many statistical softwares, the varying sets of independent variables across regression models complicates their synthesis. Multivariate effects are problematic for meta-analysis (Eysenck, 1994). Other findings reviewed below are derived from simulations for which it seems difficult to estimate an elasticity (it might be possible if a large number of scenarios were tested, which is usually not the case). Hence the most recent meta-analysis techniques are not easily used for the kind of evaluations reviewed in the present work.

Another complex step consists in analyzing variance in effect sizes across findings, that is, the meta-analyst must pay attention to violations of the assumption of homogeneity of variances, which require, usually, a weighted least square regression.

Finally, some meta-analysts go even further in order to adjust findings to their needs. For instance, findings that are deemed too extreme (outliers) can be winsorized (Lipsey and Wilson, 2001), or biases due to a small sample or to measurement errors can be corrected.

6.1.5 Difficulties facing meta-analysts

A fundamental problem in meta-analysis is the “apples and oranges” problem. Ideally, samples/populations and “treatments” should be comparable, but they vary strongly across studies (Eysenck, 1994). Indeed, meta-analyses often summarize results from studies that vary notably in their operationalization of variables and are based on very different type of samples of various population groups. However, ‘It can be argued...that it is a good thing to mix apples and oranges, particularly if one wants to generalize about fruit, and that studies that are exactly the same in all respects are actually limited in generalizability’ (Rosenthal and DiMatteo, 2001: 68). A related problem is the above mentioned “garbage in-garbage out” phenomenon, due to the fact that studies do not have similar quality standards. Some meta-analysts advocate some kind of “quality weighting” (Rosenthal and DiMatteo, 2001); weighting findings according to their standard error being one of these methods.

Another important aspect of meta-analysis is the independence of estimates (Lipsey and Wilson, 2001). A single study may contain multiple tests of the same relationship, either because there are various measures of the same phenomenon, for instance in an article using the Foster-Greer-Thorbecke indicator with various values of α , say 0, 1 and 2, or because different subsamples might be used in the same study, e.g. a first estimate is based on all families, another on single-parent families only, a third on couples with children, and a fourth on childless couples.

Statistical units can be the studies themselves, samples or estimates/comparisons. If the statistical unit is the study, the meta-analyst will have to average estimates for each study. This is not the option chosen in the present work. If samples, usually population groups, are the analyzed units, the meta-analyst should weight their impact by the sample size; moreover, in some studies, some results pertain to the entire sample and other to certain subsamples, for instance single mothers in general and single mothers without a high school diploma in particular. In such cases, units are not independent. A third option is to take the estimates of a relationship as the statistical unit; likewise, if several estimates stem from the same study and the same population, the assumption that estimates are independent will be violated, which can be a problem for meta-regression techniques (as it requires more sophisticated regression models that correct for these violations of technical assumptions).

Other important aspects are common to all quantitative studies, be they primary studies or meta-analyses, namely the problem of missing data and outliers. If some important information is missing, for instance the specifications of a regression model that is central to the analysis or if the estimated effect is surprisingly large. In such cases, I clearly mention the problem in the tables presented in appendix A.

Other potential problems need to be underscored here. Some authors mention the existence of a publication bias: In the case of the minimum wage literature, studies showing that minimum wages have a significant negative impact on employment may be more likely to be published (Card and Krueger, 1995, Doucouliagos and Stanley, 2009), as they are in line with neoclassical, mainstream economics. One way to detect this bias is to draw a funnel plot, i.e. a scatterplot of precision versus estimated effect, e.g. of the inverse of the standard error versus the elasticity. If the scatterplot is asymmetric, this is taken as evidence of a publication bias (Doucouliagos and Stanley, 2009). Another noteworthy difficulty is the “file drawer

problem”: It seems that studies that produce significant effects are more likely to be written-up and published (Lipsey and Wilson, 2001).

The bottom line is that the most persistent criticism of meta-analysis concerns the diversity of the studies reviewed, and the fact of applying statistical techniques to studies that are hardly comparable – the above mentioned apples and oranges problem – leading to an aggregate statistical measure that can be a relatively fuzzy “grand mean effect size” (Lipsey and Wilson, 2001: 8), however sophisticated its calculation might be.

6.1.6 Why is meta-analysis better than traditional literature reviews?

Given the difficulties enumerated above, one may wonder why it is important to carry out a meta-analysis, that is, to perform a statistical analysis of the estimates contained in the articles retrieved.

To start with, it should be noted that traditional reviews are also confronted with the problem of comparing apples and oranges, due to the use of evaluations that vary greatly in terms of countries, population groups, sample size, estimation techniques, operationalization of both the policy variable and the effect variable, etc. Hence, this problem is at the heart of any research synthesis. However, in my view, the use of statistical techniques helps reduce the uncertainty associated with this scientific endeavor.

Probably one of the main advantages of meta-analysis is to provide *objective decision criteria*. A problem associated with any research synthesis is that most evaluations do not provide crystal-clear results; the impact of a given policy may be positive for a group of workers and negative for another group. This is not completely surprising in many cases, as some groups of workers are expected to react to the incentives provided by the policy, while others are not supposed to. Moreover, and this is usually more difficult to interpret, some specifications yield significant results, while others do not; in some evaluations, results stemming from different specifications can even have the opposite sign. For instance, adding a time trend, or an interaction term, or a quadratic term, and adding further control variables to the model can strongly affect results, and these differences are not always easy to interpret.

In addition, the variable of interest can be measured in various ways; e.g. in the case of the minimum wage, relevant indicators include the Kaitz index, the share of the workforce affected by a rise in the minimum wage, or the level of the minimum wage; conclusions may vary depending on the definition of the policy variable. Likewise, different operationalizations of the dependent variable are conceivable; e.g. the antipoverty impact can be measured in many ways, such as the change in the poverty rate, the change in the odds of being poor in year $t+1$, the change in the income-to-needs ratio, the change in the Foster-Greer-Thorbecke index, etc., and results may depend on the operationalization of the dependent variable. Moreover, some studies contain a large number of estimates, because many models are calculated, while other studies are based on more complex regression or microsimulation models and contain fewer estimates.

These difficulties are particularly problematic for traditional literature reviews. Hence, statistical techniques contribute to the clarification of certain problems. For instance, using a weighting procedure that takes into account the number of estimates contained in each evaluation can reduce a first bias: A qualitative review may lead to biased interpretations if one study contains a large number of estimates that confirm one of the researcher’s hypothesis, while a sophisticated simulation that contains only one result contradicts it. The researcher may be tempted, subconsciously, to infer that there is more evidence that confirms his or her hypothesis than that which infirms it. However, this high number of similar findings

may be the result of slight modifications of the same regression model based on the same dataset. Hence, I think it is very important to weight results according to the number of estimates per article. In addition, many researchers advocate to weight results according to the accuracy of the estimates – typically by using standard errors.

Moreover, as overall results are usually fuzzy and difficult to synthesize (Kluve, 2006), using a significance test allows the researcher who employs a vote count procedure to draw conclusions that are not subjective: The test is either significant or not. Hence, the test is a clear indication concerning the interpretation of the results (most articles are positive, most articles are significant, etc.): Do they really say something about the impact of a policy, or should this majority be interpreted with caution? Hence, in the present work, I have systematically used conditional formulations when results were not significant.

Finally, it should be noted that a meta-regression is better than the type of vote-counting procedures I have used here, but its purpose is different. It is better in the sense that it partly solves the “apples and oranges problem”, because the regression model allows controlling for the population group studied, for other institutional variables that may also have an impact on poverty or employment, and for macroeconomic performance, as well as for specific sociodemographic factors. In the present work, as indicated below, I have partly solved the comparability problem by carrying out overall meta-analyses and, whenever possible, meta-analyses for each welfare regime. In addition, these statistical procedures are accompanied by a qualitative review of the evidence that highlights differences between categories of workers.

It is fundamental to note, in addition, that meta-regression techniques require having a number of estimates that is large enough – this is, in fact, the case for any regression model - and focusing on a small number of policies. Most of the time, meta-regression analyses focus on a single policy.

In summary, meta-analysis is superior to traditional literature reviews because it limits the impact of researchers’ subconscious preconceptions, which is, in my view, a great advantage. Meta-regression techniques better contribute to the resolution of the “apples and oranges” problem than the meta-analyses I have carried out.

6.1.7 My approach to meta-analysis

The research synthesis presented here consists in vote-counting procedures (based on significance, effect direction, and a combination of both) applied to weighted data with sign tests. This approach lies, hence, somewhere between meta-regression techniques and traditional vote-counting procedures. The goal of this chapter is not so much to precisely quantify the impact a specific social policy may have on poverty and employment in a given context. It is an attempt to evaluate which policies work in which institutional and economic context, and for whom, as my meta-analysis includes a broad spectrum of policies ranging from family policy to labor laws, and provides results that are broken down by welfare regimes. After that, the global assessment of the impact of welfare regimes on the immediate causes of working poverty and the composition of this disadvantaged population is provided in chapter 7.

My analysis is based on a systematic strategy for the identification of articles. More specifically, I used the search engine provided by Thomson Reuters, namely ISI Web of knowledge, one of the most widely used engines, with a focus on 21st century articles (2000-2009/2010) written in English. The specific keywords used and the number of hits they

yielded are described in the sections devoted to each policy (minimum wages, tax credits, family policy). Other search engines have been used, which proved useful when some countries were overwhelmingly represented in the sample of articles (especially the US) or when the amount of articles was low (especially for antipoverty effects). The goal of this second stage of the search for articles was to fill the gaps left by the first research based on ISI Web of knowledge. The search engine of IZA, the Institute for the study of labor (a private non-profit research institute that works in close cooperation with the University of Bonn in Germany), and IFAU, the Institute for labor market policy evaluation in Sweden, were used. A third stage was carried out with Google scholar, with specific targets, such as articles dealing with a specific country, or the search of further articles on the poverty effects of some policies in a given welfare regime. This last step also included French, German and Spanish keywords.

Three types of vote count are provided: The first one counts whether significant or nonsignificant findings are predominant, the second focuses on significant findings and assesses whether positive or negative findings are dominant, and the third establishes whether positive or negative findings are dominant, regardless of their significance.

In most cases all studies published between 2000 and 2009/2010 were reviewed; yet, the number of articles identified that fulfilled the quality criteria I present below was relatively low, ranging from four for the antipoverty effects of childcare policy to eighteen for the antipoverty effects of minimum wages. There are two exceptions, however. First, the impact of minimum wages on employment has been the subject of a large number of evaluations published in a recent past, in the Anglo-Saxon world mainly, which is partly attributable to the publication of Card and Kruger's book (1995). The second topic that generated many evaluations, especially in Europe, is the effect of childcare policies on maternal employment. In both cases, the number of articles analyzed amounts to 20, on pragmatic grounds: First, the systematic search for other policies and their effects, as indicated above, never yielded more than 18 articles usable for meta-analysis purposes. Setting the limit at 20 provides a comparable number of articles for most policies. Second, I have been able to identify, for both topics, encompassing literature reviews published in the 2000s that, of course, include some of the studies I have identified and included in my meta-analysis, but cover a longer time period. Hence, for these two topics, I present the most recent estimates stemming from my meta-analysis and comment on the findings contained in these literature reviews.

The statistical units are empirical estimates (rather than articles or population groups), and a simple weighting procedure has been defined, so that estimates from studies containing a large number of findings are given less weight, namely the inverse of the number of estimates in the article, adjusted to keep the size of the sample of estimates constant. For instance, a literature search for a given topic yielded 20 articles containing 150 estimates in total; if one of these articles contains 10 estimates, each one gets a weight of 0.1 multiplied by 150/20 (the average number of findings per article), i.e. 0.75.

However, each estimate has not been weighted according to the sample size⁹ of the study it stems from, because the evaluations analyzed here rely on large datasets of many thousands of observations, sometimes tens of thousands. The bias due to the fact that sample size is not included in the calculation of weights is limited, as I have decided to exclude studies with

⁹ As indicated above, some researchers advocate to weight estimates according to their accuracy: the larger the sample, the more accurate the estimate, that is, the smaller the sampling error.

“small” samples of individuals or households (i.e. based on surveys with less than 1000 cases).

Empirically unreliable studies were not removed from the summary tables (see appendix A), only from the vote-counting procedure, and the reason of their non-inclusion is written in bold in the tables. I have removed studies from the vote-counting procedure on the basis of clear criteria (the absence of regression and simulation results, and sample size).

The following table summarizes the results of the article search:

Table 19: number of articles and estimates pertaining to the antipoverty and employment effects of selected policies

Effect / policy	Number of articles	Number of estimates
Employment effect, minimum wage	20	141
Antipoverty effect, minimum wage	18	87
Employment effect, tax credits for workers	17	162
Antipoverty effect, tax credits for workers	10	51
Employment effect, family cash benefits	11	66
Antipoverty effect, family cash benefits	7	29
Employment effect, childcare services	20	171
Antipoverty effect, childcare services	4	12

Overall, I have read and summarized 93 studies and reviews, most of which have been included in the vote-counting procedure, for a total of 719 estimates¹⁰.

An important element of the meta-analysis carried out here must be discussed at this point, as one of the three vote counts is based on significance. In the case of microsimulation results, there is no indication of significance (with a few exceptions, when the simulation is based on structural equations parameters, i.e. regression coefficients associated with significance tests). I made the decision to classify a simulated effect as significantly different from zero if it exceeded ± 5 percent, because in most studies based on regression models a 5-percent increase or decrease is usually associated with a significant impact. Hence, simulation results expressed in absolute numbers (e.g. 30,000 persons escape poverty) or in percentage points had to be transformed into percents, so that a decision could be made.

For most policies, the choice of this pragmatic “significance threshold”¹¹ is very unlikely to have an impact on the conclusions drawn: There is no single simulation result for the employment effects of minimum wages, and only nine out of 87 for their antipoverty effects, four of which are above 5 percent. Likewise six out of 66 estimates of the employment effects of family cash benefits are derived from simulations (four of which larger than 5 percent), six out of 29 estimates of the antipoverty effects of family cash benefits (two are larger than 5

¹⁰ It should be noted that, due to the weighting and the fact that numbers are rounded, the number of estimates may slightly vary for various vote counts pertaining to the same social policy (by one or two estimates).

¹¹ This threshold has nothing to do with significance levels of 5 percent (or 1 percent) used when I check the assumption that the number of estimates in one category equals the number of estimates in the other category. These significance levels usually denoted by α in statistics correspond to the likelihood to reject a null hypothesis that is in fact true (Type I error).

percent, and one is small), 19 out of 171 for the employment effects of childcare services (three are larger than 5 percent, and eight are smaller than 1 percent). As far as the antipoverty effect of childcare services is concerned, the number of estimates is very limited and, hence, they will not be submitted to a statistical treatment.

On the contrary, many estimates of the employment and antipoverty effects of employment-conditional tax credits are based on simulations, namely 55 out of 162 estimates of employment effects and 19 out of 51 estimated antipoverty effects. The large majority of these simulation results were calculated for Continental European countries in which no such tax credits exist. The goal was to see what would happen if the WFTC (or in a few cases the EITC) was implemented. Hence, the robustness of findings for the Continental European welfare regime will be assessed with alternative “significance levels”, namely 2 and 3 percent.

Now that methodological aspects have been clarified, the meta-analyses of four social policy and labor market policy instruments, namely minimum wages, tax credits for workers, family cash benefits, and childcare policies, are presented in the following sections. First, existing literature reviews are summarized; they were either identified through the article search, or often mentioned in the retrieved articles. Second, an overall statistical analysis, for all risk groups and all welfare regimes is provided, followed by breakdowns by welfare regime. Third, a qualitative review of some results allows me to further certain aspects that remain unclear after the quantitative procedure.

6.2 Minimum wages

a) Existing literature reviews

A study published by Neumark and Wascher in 2007 appears to be a reference publication for many scholars participating in the debate on the employment effects of minimum wages, and, hence, on the allegedly limited explanatory power of neoclassical labor supply and demand equilibrium models.

Neumark and Wascher (2007) underscore that the minimum wage has always been a contentious issue in the US. Stigler suggested, as early as in 1946, that a minimum wage could raise employment in a labor market characterized by monopsony, a fact that is central in Card and Krueger’s work. However, in the early 80s there was a broad consensus that minimum wage hikes harmed the employment prospects of low-skilled workers, with labor demand elasticities ranging from -0.1 to -0.3. However, in the 1990s, many researchers challenged this view.

This is why Neumark and Wascher carried out an encompassing review of what they call the “New Minimum Wage Research”. They note that many factors explain the broad range of findings observed. Many new studies rely on a “natural experiment approach” or case study approach, typically the employment levels in a state experiencing an increase in the minimum wage are compared with those of a state with no such increase (Card and Krueger, 1995). Most of the others studies rely on panel data studies; in the US case they often rely on state-year observations, whereas some use county-level data.

Another line of contention regards the appropriate minimum wage indicator to be used in regression models: the Kaitz index¹², the fraction of workers affected by a minimum wage hike, or the level of the real minimum wage. Regarding the dependent variable, results often differ depending on whether it is the employment rate or the number of hours (or weeks) worked that are predicted. In countries in which working hours are lowly regulated, the employment rate might remain constant but employers may reduce the number of hours worked by their employees.

Other debates pertaining to model specifications are noteworthy. For studies based on state-level panel data, the inclusion of year fixed effects (year dummies) in the regression model is subject to criticism. The difference between contemporaneous and lagged effects of minimum wage increases is also subject to controversy, as firms may adjust some non-labor inputs slowly, and it may take more than a year for a minimum wage hike to have a negative employment impact. Finally, there are also potential endogeneity problems, especially if the variations in the minimum wage are partly explained by macroeconomic factors that are used as controls in the econometric model, for instance if there is a decrease in the youth minimum wage as a reaction to a strong increase in youth unemployment, or a global increase in the minimum wage allowed by a booming economy.

In addition, as already indicated, there may be a publication bias: Authors who provide analyses that confirm the “textbook model” of labor supply have a higher likelihood of being published, as well as an “author bias”, which occurs when economists run regressions until they find a specification with the desired effect.

Eventually, Neumark and Wascher review 87 studies, 42 of which analyze the US case, 5 Canada, 1 Sweden, 7 the UK, 4 Australia, 3 New Zealand, 3 France, 1 the Netherlands, 1 Spain, 2 Portugal, 1 Greece, 4 Brazil, 1 Mexico/Colombia and 1 Mexico only and 1 Colombia only, 1 Chile, 1 Costa Rica, 1 Trinidad and Tobago, 1 Puerto Rico, and 4 Indonesia. The authors conclude that, ‘two-thirds give a relatively consistent (although by no means always statistically significant) indication of negative employment effects of minimum wages, while only eight give a relatively consistent indication of positive employment effects’ (Neumark and Wascher, 2007: 121). In sum, the evidence regarding alleged disemployment effects is mixed, but tendentially indicate a slightly negative impact.

b) Overall meta-analysis

Thanks to the search engine provided by Thomson Reuters, I searched for articles published over the period 2000-2009. Searching for “minimum wage*poverty” yielded 37 hits, 44 with “minimum wage poverty”, whereas “minimum wage*employment” led to no less than 310 hits. In the case of articles dealing with antipoverty effects, all 44 articles and proceedings’ abstracts were read; those clearly not dealing with the impact of minimum wages (either legally defined or set through collective agreements) were dropped. As to the employment effect, the literature is plethora, which is attributable to the strong impact Card and Kruger’s publication (1995) has had in the field of labor economics. As indicated, I started with the most recent article available, until 20 articles directly dealing with this issue were reviewed.

The vast majority of poverty-related articles and around half of those dealing with employment effects analyze the situation in the United States. Hence, in order to find articles on antipoverty effects in other countries, other search engines were used, notably IZA, the Institute for the study of labor, IFAU, the Institute for labour market policy evaluation in

¹² The Kaitz index is the ratio of the minimum wage to the average wage.

Sweden, and Google scholar. I searched the IZA discussion papers series for articles with “minimum wage” in the title, dropping articles dealing with employment effects or based on US data - i.e. the overwhelming majority - and identified a few interesting articles. With the IFAU search engine using “minimum wage”, I could only find an article dealing with poverty issues (out of 82 hits) that had already been found through the ISI web of knowledge. The same search was carried out on IFAU’s web site, without success. Finally, I used Google scholar with the keywords “minimum wage poverty”, “Mindestlohn” and “Mindestlohn Armut” (i.e. minimum wage and poverty in German), “SMI pobreza”, “salario mínimo pobreza” and “salario mínimo interprofesional” (the latter being the official denomination of the statutory minimum wage in Spain) and “salaire minimum pauvreté” et “SMIC pauvreté”. The vast majority of the articles found dealt with employment effects.

All in all, some elements are noteworthy: First, a large majority of the articles devoted to minimum wages I have found deal with employment effects, while the literature on the antipoverty impact is much scarcer (Vedder and Galloway, 2001, Müller and Steiner, 2008). Second, as already indicated, most of the evidence comes from the US: Regarding employment effects, 9 articles study the American labor market, 2 Canada, 1 New Zealand, 1 Japan, 1 Austria, 1 France, 1 Portugal, 1 Finland and 1 Sweden. As to antipoverty effects, 13 out of 18 studies are American, while 2 articles study the UK, and 1 New Zealand, which means that the evidence only allows drawing conclusions about the liberal welfare regime. Third, while most evaluations analyze the impact of statutory minimum wages, some analyze countries in which minimum wages are set through collective bargaining (Sweden, Finland, and Austria). Fourth, the large majority of the evaluations are empirical estimates based on econometric models. Fifth, the overwhelming majority of evaluations of employment variations are based on low-skilled groups or groups largely overrepresented among low-wage workers, such as teenagers, young adults, high school dropouts, low-skilled immigrants, middle-aged married women in Japan, or low-wage industries, such as the retail trade industry, or hotels and restaurants. These articles, as well as those not included in the statistical treatment of findings, are summarized in tables A1 and A2 in appendix A.

Employment effects

Overall results pertaining to the employment effects of minimum wages are presented as follows: The first row of the table indicates whether the majority of estimated effects are positive or negative, regardless of their significance. The second row shows whether the majority of estimates indicate a statistically significant effect of a policy or not. The third vote count accounts for statistically significant estimates only, and indicates whether significant findings are mainly positive or negative.

For each vote count, a Z test establishes if the majority identified (based on the sign of the effect, its significance, or both) is statistically significant or if the conclusion might just as well be the other way around, at usual significance levels, namely 1 and 5 percent.

Finally, if a vote count shows a “fifty-fifty” situation, or approximately so (49 percent-51 percent is the limit), the result is deemed inconclusive, as it is not possible to determine a majority. This situation is different from the one in which a majority can be identified but is not significant.

Table 20 displays the results of the three vote counts for the overall employment effects of minimum wages:

Table 20: Vote count of estimates of the employment effect of minimum wages, based on all estimates, weighted results

Type of vote count	Majority	Significance of majority
Sign (regardless of significance)	99/141 negative effects	**
Significance (regardless of sign)	71/140 → inconclusive	n.s.
Sign among significant effects	55/73 negative effects	**

**significant at the 1% level, n.s. not significant at the 5% level

Overall, then, I reach similar conclusions as I did based on Neumark and Wascher's literature review. It seems that the employment effect of minimum wages is globally negative; however, findings are mixed in terms of significance, as around half of them find a nonsignificant effect. Hence, it appears that the effect on low-skilled workers might be negative, but probably limited in magnitude.

Antipoverty effects

Table 21: Vote count of estimates of the antipoverty effects of minimum wages, based on all estimates, weighted results

Type of vote count	Majority	Significance of majority
Sign (regardless of significance)	63/86 positive effects	**
Significance (regardless of sign)	65/87 insignificant effects	**
Sign among significant effects	21/22 positive effects	**

**significant at the 1% level

All in all, minimum wages appear to have a positive, yet statistically insignificant impact on working poverty. As will be shown below, it is probably safe to say that the impact on the incidence of poverty is small, due to the fact that a large majority of low-wage workers is not poor, but that minimum wages reduce the poverty gap.

In what follows, I further my first conclusions by analyzing results by welfare regimes, because in the real world of social policy, the impact of a given instrument depends on a large set of institutional, economic and demographic factors that varies considerably across regimes. Given the very limited number of estimates at my disposal for Southern European countries, I made the pragmatic decision to include them in the Conservative cluster; this is the case for all policies reviewed in the present chapter.

c) Meta-analysis by welfare regime and further considerations

Employment effects

For the liberal, Anglo-Saxon cluster, results pertaining to the employment effects of minimum wages are the following:

Table 22: Vote count of estimates of the employment effects of minimum wages in the liberal welfare regime, weighted results

Type of vote count	Majority	Significance of majority
Sign (regardless of significance)	68/99 negative effects	**
Significance (regardless of sign)	51/98 insignificant effects	n.s.
Sign among significant effects	36/48 negative effects	**

** significant at the 1% level, n.s. not significant at 5% level

Results are similar to the global analysis, which is not very surprising, given that a majority of estimates (78 out of 141) are based on Anglo-Saxon data. The employment impact is negative, if there is any impact at all. Indeed, results tend to show a nonsignificant impact of minimum wages on employment, but the slight majority of insignificant effects could be an artifact.

As regards the Continental welfare-regime cluster, results are similar; they should, however, be interpreted with caution, as they are based on a small sample of 28 estimates:

Table 23: Vote count of estimates of employment effects of minimum wages in the Conservative welfare regime, weighted results

Type of vote count	Majority	Significance of majority
Sign (regardless of significance)	20/28 negative effects	*
Significance (regardless of sign)	16/28 insignificant effects	n.s.
Sign among significant effects	13/17 negative effects	*

*significant at the 5% level, n.s. not significant at 5% level

In Continental Europe, the employment impact of minimum wages is also likely to be negative, but seems to be insignificant; however, no clear-cut conclusion can be drawn as to the significance or nonsignificance of the latter conclusion. Hence, in this cluster too, the impact is probably small in magnitude, if there is any negative employment effect at all.

A closer look at estimates in the Social-Democratic cluster reveals that the number of observations is very small, namely 14 (weighted) estimates stemming from 2 articles: The large majority of estimates show a negative impact on employment for Finnish workers under 25 and Swedish unskilled workers in the hotel and restaurant sector.

After this first, merely quantitative approach, which leads to the conclusion that minimum wages are likely to have a slightly negative impact on the employment of low-wage workers, a more qualitative interpretation of findings is necessary to improve our understanding. It is notable that the impact of the minimum wage depends on other labor market institutions, for instance hiring and firing legislations (Neumark and Wascher, 2007), payroll taxes (Kenworthy, 2004), and the composition of the workforce (share of unskilled workers, share of migrants, etc.). The impact of the minimum wage may be different in the US - where the labor market is hardly regulated, firing employees easy and the share of low-skilled labor large, especially among a large migrant population - than in some European countries with highly regulated labor markets, high payroll taxes, and workers with a higher average educational level.

Put differently, minimum wages in Continental Europe, even if set at an equivalent level in purchasing power parities, have a bigger impact on a company's payroll, because of higher taxes. Moreover, employers in Continental Europe probably have less room for maneuver in term of quantitative flexibility, as it is more complicated to hire and fire employees, and the composition of their workforce is different.

Hence, a qualitative review of unweighted data, based on contrasting cases, appears necessary, and comparing the French and the US case can be interesting in this regard. In the US, in international comparison, the minimum wage is low, the labor market hardly regulated and payroll taxes low. In the present work, around half of estimates are insignificant, while a majority is negative. Significantly negative estimates pertain to very low skilled and/or disadvantaged groups, mostly teenagers, sometimes teenagers in low-wage industries, single mothers high-school dropouts or workers in the retail industry. Only two findings out of 67 suggest that the employment effect for all workers is significantly negative. The fact that the US official minimum wage mainly has a negative impact on very low-skilled workers is not all too surprising, given that its level is relatively low, as well as payroll taxes.

France is in strong contrast to the US: Its minimum wage, expressed as a share of the average wage (Kaitz index) is high in international comparison, and so are payroll taxes. Moreover, employment protection legislation is rather strict. The only evaluation identified in the present work provides two estimates, and both conclude to a statistically significant negative effect of the French minimum wage on employment for male and female workers. Neumark and Wascher (2007) were able to identify three studies for France published in the 1990s, none in the 2000s. The first study compares two periods - one with a strong increase in the minimum wage and one with no increase - and concludes that unemployment rose more for groups with a greater proportion of workers paid at or below the minimum wage; the pattern for employment rates is weaker but in the consistent direction. However, the first period included a recession while the second was characterized by a recovery, so it is difficult to draw a clear-cut conclusion. The second study analyzes youth employment in 32 economic sectors that vary in their proportion of young workers: The estimates are negative and statistically significant. The third evaluation, which in fact is a set of three studies by the same authors, leads to clear conclusions: The authors consistently find considerably higher transitions to non-employment for workers newly bound by the minimum wage, with very high elasticities. Of course, six studies are not enough to draw conclusions about the impact of the minimum wage. Still, all of them seem to show that the French minimum wage has a detrimental impact on the employment prospects of low-skilled workers.

This qualitative interpretation of a subset of findings may be summarized as follows: When the minimum wage is low, as is the case in the US, i.e. approximately one-third of gross average wage of full-time workers (its after tax value amounts to slightly less than 40 percent of the average net wage, Immervoll, 2007) and payroll taxes/social security contributions are low, with social security contributions amounting to around 15 percent of an employee's wage, the employment impact is very small to nonexistent. If the minimum wage is set at a high level, with an after-tax value of around 60 percent of the net average wage (or around 45 percent of gross average wage) of full-time workers and social security contributions are high (around 35 to 40 percent of an employee's wage), as is the case in France (Immervoll, 2007), the minimum wage is likely to have an impact on unskilled and young workers.

Antipoverty effects

As to the antipoverty effects of minimum wages, the vast majority of evaluations meta-analyzed here pertain to the situation in the US; a few findings concern the UK and New Zealand, and only four findings concern Continental European countries.

Hence, the vote count presented here is based on the Anglo-Saxon cluster.

Table 24: Vote count of estimates of the antipoverty effect of minimum wages in the liberal welfare regime, weighted results

Type of vote count	Majority	Significance of majority
Sign (regardless of significance)	53/76 positive effects	**
Significance (regardless of sign)	61/77 insignificant effects	**
Sign among significant effects	16/17 positive effects	**

**significant at the 5% level

The conclusion is straightforward: The minimum wage in the liberal cluster, especially in the US, has a positive yet statistically insignificant impact on poverty. This vote count might be too conservative, though; hence, it cannot be excluded that the minimum wage has a slightly positive impact on poverty.

For the conservative cluster, only 10 weighted estimates are available, all of which are positive; half these estimates point to significant effects. Hence, in Continental Europe, I do not rule out a significant effect on the incidence of working poverty. This would not be very surprising, given that minimum wages are higher than in the US. No estimate was found for the Social-Democratic cluster.

An in-depth review of the American evidence can be interesting in this regard. A large majority of estimates (54 out of 70) are not significant. This is not very surprising given the relatively low level of the minimum wage in America. Actually, a full-time worker with two children earning the minimum wage in 2006 brings home about 89 percent of poverty-level income (Levitis and Johnson, 2006). Moreover, a large majority of minimum-wage workers are not poor, most of them living in middle-income households, a fact often mentioned in the reviewed evaluations (e.g. in Leigh, 2007, Burkhauser and Sabia, 2007). However, approximately 60 percent of estimates are positive: Put differently, the minimum wage tends to reduce poverty if anything, despite the potential disemployment effects.

A closer look at the 12 (unweighted) estimates that are statistically significant and positive reveals that most measure the incidence of poverty among families with children. Moreover, one study uses the Foster-Greer-Thorbecke indicator with $\alpha=1$ and 2, and one measures the change in the income-to-needs ratio, for a total of 13 findings, all of which are nonsignificant but positive, which suggests a reduction in the depth and the severity of poverty.

d) Conclusions

Given the available evidence, it appears reasonable to say that low minimum wages set at around one-third of the gross average wage, such as those found in the US, do not strongly reduce the *incidence* of poverty as measured by the headcount ratio. In the case of the US, then, it seems appropriate to share Nobel Laureate Joseph Stiglitz's conclusion: 'a higher minimum wage does not seem to be a particularly useful way to help the poor' (quoted in Vedder and Galloway, 2001). However, it is likely that minimum wages reduce the income

gap, which in turn reduces the expenses the welfare state must incur to combat working poverty, as employers also play their part. A minimum wage set at a higher level, but low enough not to generate significant disemployment effects, could have a stronger impact on poverty.

Unfortunately, neither the evidence gathered here, nor evidence stemming from literature reviews, allows drawing conclusions as to the level at which this minimum should be set. Whereas the issue of the disemployment effects of minimum wages has drawn the attention of many (labor) economists and generated a plethora of literature in a recent past in the US, the topic of the antipoverty impact accounting for employment effects has attracted less interest in Europe.

In my view, it is relatively unfruitful to keep on publishing national studies based on well-known empirical strategies and argue about specifications of regression models; it would be certainly more useful to use comparative methods to try and estimate the level where employment effects are not significantly negative and antipoverty effects non-negligible, and the conditions in which these conclusions hold.

It should be added that, whether or not minimum wages efficiently combat working poverty, they seem to be necessary when in-work benefits are implemented; indeed, tax credits for workers in the US and the UK, which I evaluate below, work in tandem with a minimum wage. The existence of a wage floor prevents employers from paying their employees very low wages, as they might be tempted to, knowing that low-wage workers benefit from income supplements in the form of a tax credit. Last but not least, minimum wages can also be seen as useful in order to reduce the gender pay gap.

I tend to share Marx and Verbist's conclusion: 'as an isolated measure, higher minimum wages – within realistically feasible ranges – cannot contribute much towards fighting in-work poverty. Which is not to say that minimum wages have no role to play...they do, but not as an isolated measure' (Marx and Verbist, 2008).

6.3 Tax Credits for working families/workers

a) Existing literature reviews

A literature review carried out by Hotz and Scholz (2003) is mentioned by many authors of the evaluations meta-analyzed here. Their review contains 13 studies of the effects of the EITC on labor force participation and hours worked, published over the period 1993-2002. Seven studies analyze the impact of the EITC on labor force participation, and six the impact on hours worked.

The 5 studies measuring the impact of the EITC on single mothers' employment unanimously conclude that the impact is positive; one study concludes that overall employment increased. An evaluation of the impact of the EITC on married couples concludes that married men very slightly increased their employment levels, while married women worked less after expansions of the EITC.

The evidence pertaining to the number of hours worked is mixed: In some cases the impact is positive, in others it is negative, whereas one evaluation finds a nonsignificant effect. One of the evaluations deals with the situation of married couples and also points to a decrease in

employment among married women. All in all, Hotz and Scholz conclude that the overall employment impact of the EITC is positive, despite disemployment effects for married women.

In what follows, the apples and oranges problem may be important, as some evaluations use a sample of single mothers, while others include married (and sometimes also cohabiting) women, and still others combine both population groups. Hence, after a global analysis, a more detailed analysis by population group is provided.

In addition, I rechecked the articles that evaluate minimum wages, in order to find further estimates of the impact of earned income tax credits, as some articles contained specifications that checked the impact of minimum wages controlling for the impact of tax credits, especially in US evaluations.

b) Overall meta-analysis

The search for evaluations of the EITC – with the keywords “Earned income tax credit” and “EITC” – with the ISI Web of knowledge search engine yielded 95 hits for the period 2000-2009, all of which were checked.

As far as the UK is concerned, the search yielded 60 hits for the period 2000-2009 (keywords: “working tax credit” and “working family tax credit”) Regarding the Employment Premium in France, the number of hits was very small: “Prime pour l’emploi”, 1 hit, “tax credits*France”, 6 hits.

As indicated above, other tax credits exist, but the number of articles identified was either zero or very low - even when the specific names of these programs were entered in the ISI web of knowledge search engine - except for Canada with 31 hits (“tax credit*Canada”); however, only one article was usable. In addition, the search for articles based on provinces names was unsuccessful. Moreover, neither “In-work tax credit”, nor “tax credit*New Zealand”, nor “Working for families”, nor “in-work benefits*New Zealand”, nor “Family income supplement”, nor “tax credit* Ireland”, nor “in-work benefits* Ireland”, nor “Earned income tax credit* Sweden”, nor “tax credit* Sweden”, nor “in-work benefits*Sweden”, allowed identifying potential articles.

Hence, I made the decision to focus on the EITC, the WFTC and the PPE. The article search was furthered by using the IZA and IFAU search engines, looking for articles about these three programs: The first provided 190 papers for the EITC and 179 for “working tax credit”, most of which, however, had nothing to do with the EITC or the WFTC, while the second allowed identifying 62 articles for British tax credits and 77 for the EITC. Some articles were identified that had already been retrieved through ISI web of knowledge. Finally, articles in French and English about the PPE and the antipoverty effects of tax credits in general were searched for with Google scholar, with the keywords “Tax credits poverty” and “Prime pour l’emploi”. This allowed identifying some more articles, especially for the French PPE.

Employment effects

The overall vote count that includes the three credits, all population groups and all indicators, yields the following results for employment effects employment-conditional tax credits:

Table 25: Vote count of estimates of the employment effect of tax credits, based on all estimates, weighted results

Type of vote count	Majority	Significance of majority
Sign (regardless of significance)	113/162 positive effects	**
Significance (regardless of sign)	83/162 → inconclusive	n.s.
Sign among significant effects	64/77 positive effects	**

**significant at the 1% level, n.s. not significant at 5% level

The employment effect appears to be positive, whereas it is impossible to conclude, based on this global analysis, whether the impact is significant or not. This may be attributable to the variety of employment indicators and samples used.

Antipoverty effects

Table 26: Vote count estimates of the antipoverty effects of tax credits, based on all estimates, weighted results

Type of vote count	Majority	Significance of majority
Sign (regardless of significance)	35/52 positive effects	*
Significance (regardless of sign)	36/51 insignificant effects	**
Sign among significant effects	14/14 positive effects	**

**significant at the 1% level, *significant at 5% level

The global vote-counting procedure points in the direction of a positive yet insignificant antipoverty effect. As already indicated, the vote count based on significance is rather conservative, so it is not unlikely that tax credits have, overall, a slightly positive antipoverty effect.

As for the meta-analysis of the effects of minimum wages, it is important to break down results by welfare regime. Moreover, it is fundamental to distinguish single mothers from married mothers.

c) Meta-analysis by welfare regime and further considerations

Employment effects

In a first step, I want to draw conclusions about the employment effects within the liberal cluster. The three vote-counting procedures are summarized in table 27:

Table 27: Vote count of estimates of employment effects of tax credits in the liberal welfare regime, weighted results

Type of vote count	Majority	Significance of majority
Sign (regardless of significance)	101/123 positive effects	**
Significance (regardless of sign)	73/124 significant effects	*
Sign among significant effects	63/74 positive effects	**

**significant at the 1% level, *significant at 5% level

These findings lead to an unambiguous and straightforward conclusion: Tax credits in Anglo-Saxon countries have a statistically significant impact on employment and a large majority of estimates are positive. Tax credits have significantly increased employment.

Let us now have a closer look at unweighted observations. Nearly all estimates of the effects on lone mothers' employment are positive, and a large majority is significant. Two estimates only are negative and regard full-time year round work (Herbst, 2008). By contrast, all articles but one find negative effects for married women or women in couples in general. The exception is an article written by Francesconi, Rainer and van der Klauuw (2009) in which most effects are positive but insignificant.

As far as the Conservative cluster is concerned, only four studies could be identified; however, they contain 58 estimates. Two articles are evaluations of the French Employment Premium, and two are simulations of the introduction of the WFTC in Continental Europe, mainly France and Germany (there are two estimates for Finland, however, that were aggregated with France and Germany's findings).

Table 28: Vote count of estimates of the employment effects of tax credits in the Continental welfare regime, weighted results.

Type of vote count	Majority	Significance of majority
Sign (regardless of significance)	23/39 negative effects	n.s.
Significance (regardless of sign)	34/38 insignificant effects	**
Sign among significant effects	2/3 negative effects	n.s.

**significant at the 1% level, n.s. not significant at 5% level

It seems that tax credits would/do not have a significant effect in Continental Europe. Strikingly, and in contrast to Anglo-Saxon countries, tax credits may even have a negative employment impact, should they have any impact at all. For this cluster, however, conclusions in terms of significance have to be drawn with great caution, as they are derived from simulations: Policies are deemed to have a "significant" impact if it amounts to a variation of at least 5 percent. A robustness check was carried out by using 2 and 3 percent as "significance thresholds", rather than a variation of at least 5 percent. With the threshold set at 2 or 3 percent, 33 or 32 instead of 34 weighted estimates point to nonsignificant effect. More importantly, the three significant additional findings are negative. It is probably safe to say that employment-conditional tax credits would not have the same impact in Continental Europe as in the UK or in the US; contrary to the Anglo-Saxon world, they may not have any impact, or even a slightly negative one.

A closer look at the unweighted "Continental" estimates based on the simulated effect of the introduction of the WFTC in Continental Europe (plus a couple of estimates for Finland) leads to the following results: 40 out of 45 unweighted estimates are nonsignificant (with the 5-percent "significance threshold"); 12 equal zero and 15 are negative. Hence, whereas earned income tax credits have a significant positive impact in Anglo-Saxon countries, they seem to be inefficient in Continental Europe, as they appear not to have any significant effect on employment. All estimates (13) of the impact on married women or women in couple are negative or equal zero. For single mothers, only 4 estimates are provided, and all are positive; there are 5 additional estimates for single women in general that are also unanimously positive. Hence, as in Anglo-Saxon countries, the impact is positive for single mothers, and single women in general, but negative for women in couples.

These are important findings, despite the fact that they are based on simulations, whereas most Anglo-Saxon evaluations are based on regression models and real situations. Continental European labor markets are very different from Anglo-Saxon markets: Unemployment is usually higher, female employment is usually lower, the earnings distribution is (much) more compressed, and lone mothers are not so strongly overrepresented among welfare recipients, which was one of the main concerns in Anglo-Saxon countries (Blundell, 2006, Meyer and Holtz-Eakin, 2001). Hence, it is likely that, in Continental Europe, the positive impact on single mothers would be outweighed by the negative impact on married women, should a credit such as the WFTC be implemented.

Regarding the employment impact of the Employment Premium (PPE) in France, I could find 20 findings only (unweighted). However, conclusions are virtually unanimous: The PPE has a nonsignificant impact (only three unweighted estimates are significant). Moreover, three-quarters of unweighted results are negative. Hence, it is probably fair to say that the PPE does not have any impact on employment in France; should it have any impact, it might be negative. The reasons put the fore in the few articles available is that the amounts are very small and the design of the program is so complex that it is difficult for recipients to really understand it, so that the behavioral impact is necessarily limited. Moreover, the unemployment rate is high for young and unskilled workers, and the PPE does not solve the problem that many unskilled workers who are willing to work face in an environment characterized by a low labor demand (Legendre, Lorgnet, Mahieu, Thibault, 2004): The high level of the minimum wage outprices them from the labor market, given their low level of productivity (Cahuc, 2002). The latter argument seems to be in line with the few evaluations of the employment effects of the French minimum wage reviewed above. However, more empirical work is required to really assess the impact of the French SMIC (minimum wage) on employment, as other factors may better explain the grim situation of unskilled workers, for instance high social security contributions (Kenworthy, 2004).

All in all, tax credits for workers may not be the best tool in terms of employment in Continental Europe. These programs appear to have been efficient in Anglo-Saxon countries, as they allowed a large number of lone mothers to enter the labor market without facing high marginal effective tax rates; lone mothers represented, in the 1990s, a large group of welfare recipients. This labor market entry of lone mothers more than offset the withdrawal of a group of married women, leading to an overall positive employment effect. In many Continental European countries, one of the conditions for the effectiveness of tax credits is probably missing, namely that there must be enough jobs to be had (Sawhill and Thomas, 2001, Stancanelli and Sterdyniak, 2004), so that providing incentives might not be sufficient to increase the labor force participation of low-skilled women. The Belgian experience may be revealing in this regard: A low-wage tax credit was introduced in 2002; given the limited impact it had, it was abolished in 2005 and replaced by a reduction in employee's social security contributions (Marx and Verbist, 2008).

Antipoverty effects of tax credits

For the liberal cluster, 36 estimates derived from seven articles could be identified (five of them analyze the situation in the US); that is, the number of estimates of the antipoverty effect is much smaller than for employment effects. It is striking, indeed, that the main focus of evaluations of tax credits has been on employment – usually female employment - rather than on poverty, even though they are always put to the fore as anti-working poverty tools, especially in the US. The reason for this apparent paradox lies in the way the fight against working poverty is conceived in Anglo-Saxon country; the main approach, especially in the

US since the mid-1990s, is the maximization of labor force participation, as already indicated above.

The results of the meta-analysis are shown in the following table:

Table 29: Vote count of estimates of the antipoverty effect of tax credits in the liberal welfare regime, weighted results.

Type of vote count	Majority	Significance of majority
Sign (regardless of significance)	25/36 positive effects	*
Significance (regardless of sign)	24/36 insignificant effects	*
Sign among significant effects	12/12 positive effects	**

**significant at the 1% level, * significant at 1% level

Based on the evidence gathered here, it can be said that tax credits reduce poverty in the US and the UK; yet, a significant majority of estimates point in the direction of an statistically insignificant impact (but only for $\alpha=5$ percent), despite numerous claims about numbers of families escaping poverty based on descriptive, pretransfer/posttransfer evidence. Again, the vote count based on significance may be too conservative, hence, it is not unlikely that tax credits have a slightly positive impact on the incidence of working poverty in Anglo-Saxon countries.

Here too, a more qualitative in-depth review of unweighted estimates appears necessary. First, ten of the 38 estimates stem from the same study by Gundersen and Ziliak (2004) and all of them are nonsignificant, which means that this evaluation weighs heavily on conclusions, even after weighting results. Second, 31 estimates stem from American studies, four from a Canadian evaluation and three from a British evaluation. This means that conclusions mainly concern the US.

All in all, it seems safe to assert that the EITC has had a slightly positive impact on working poverty in the US; many claims have been made, however, that the EITC lifts up to 4 million people out of poverty every year, but these claims probably do not take into account behavioral responses to tax credits, especially disemployment effects on married mothers that are systematically underlined in the evaluations meta-analyzed here.

Regarding the Continental cluster, 13 estimates have been identified (unweighted), ten of which are simulations of the introduction of the WFTC, one a simulation of the introduction of the EITC, and two are evaluations of the French PPE. As in the Anglo-Saxon cluster, the majority is positive; however, only a minority of estimates point in the direction of a significant effect (four estimates only). As shown above, these tax credits are likely not to have any effect on employment (or even a slightly negative one); moreover, they do not seem to have a significant antipoverty impact (but the sample is very small). All in all, it is relatively safe to say that the introduction of the EITC of WFTC in Continental Europe would not have much of an effect.

d) Conclusions

Based on the evidence meta-analyzed in this section, it appears that earned income tax credits have been successful in the UK and the US at increasing female labor force participation, as the increase in single mothers' employment appears to have outweighed the decline in married women employment. In addition, they appear to have slightly reduced poverty among

working families, whereas to a probably lesser extent than pretransfer/posttransfer evidence suggests.

Moreover, it appears that the French PPE has had very little effect; if anything, it had a small redistributive impact, but the amounts at stake are too small to have a significant impact.

It is very important to note that a hypothetical introduction of such credits may not have much effect in Continental Europe; the employment effect might be slightly negative, or, more probably, there would not be any effect at all. The antipoverty effect might exist, but it is likely to be slight and limited to a small reduction of the poverty gap, rather than of the incidence of poverty. The reasons of this difference are not clearly identified but some factors are conceivable. First, the earnings and income distributions are less wide in Continental Europe. Second, the situation British and American single mothers faced in the 1990s was particularly unfavorable; in Continental Europe, family policy is more generous, be it in terms of income transfers and of family services (with the notable exception of Southern European countries and Switzerland). Hence, single mothers in Continental Europe, though they are much more exposed to working poverty than other mothers, may be in a less detrimental situation that was the case in the early 1990s in the US, for instance. Third, these employment-conditional benefits are part of a more general approach of the fight against working poverty that aims at maximizing labor force participation; a part of the system is to have a labor market in which there are enough jobs to be had, especially low-skilled service sector jobs. This is far less the case in most Continental European countries than in Anglo-Saxon countries and Scandinavia.

6.4 Family cash benefits

a) Existing literature reviews

I have not been able to identify a noteworthy literature review, nor did the review of relevant evaluations allow identifying a research synthesis mentioned by most authors.

b) Overall meta-analysis

Again, I used the ISI web of knowledge search engine first, and used the following keywords:

- family cash benefits (58 hits)
- family allowance-s (22 hits)
- child allowance-s (82 hits)
- child benefit-s (32 hits)
- child poverty (92 hits)

I checked all these hits; this allowed me to identify and retrieve a smaller number of articles than for the policies meta-analyzed above. Again, I used IZA's and IFAU's search engines with the following keywords: child allowances, family benefits, family policy, child benefit, poverty, child poverty, family allowances, which yielded a large number of hits ranging from around 150 to more than 1000 in a few cases. The IZA search engines generated many more hits than IFAU; for each hit, the engine provides an indicator of relevance that increases with

its degree of pertinence. I started with the highest scoring articles, and stopped checking abstracts when this relevance indicator amounted to around 2.5, which is the level at which articles had not much to do with the employment and antipoverty effects of family cash benefits anymore.

As for previous policies, I also used Google scholar with the keywords *family cash policy* (without commas) and got more than 2,000 hits. What is striking is that most articles and papers either pertain to the impact of benefits on fertility or to antipoverty effects measured with microsimulation model, such as EUROMOD, the tax and benefits simulation model for EU countries, without accounting for behavioral aspects. These simulations are very interesting in order to understand which family types get how much money from the state, however, they do not provide estimations of the antipoverty impact among workers: ‘in order to go beyond [static simulation findings] and perform actual policy recommendations, one should also take into account possible behavioral responses to social programs that may affect market and net income in any country’ (Bibi and Duclos, 2008: 13). Regarding the hits generated by Google scholar, I reviewed the first 300; from that point onwards, articles and papers did not seem to have any relevance with the topics dealt with in this section anymore.

The large majority of articles regard benefits that are either universal or means-tested, but that do not have an employment condition. Two articles, however, pertain to employment-conditional benefits: one analyzes child benefits for working mothers in Spain, while the other one deals with programs that exist in some Canadian provinces and are partly employment-conditional. Results will be provided with and without these two studies, as it is obvious that employment-conditional benefits may have a different impact on parental work.

Employment effects

The overall vote count, including all policies and indicators, yields the following results for employment effects:

Table 30: Vote count of estimates of the employment effect of family cash benefits, based on all estimates, weighted results

Type of vote count	Majority	Significance of majority
Sign (regardless of significance)	47/66 negative effects	**
Significance (regardless of sign)	36/66 insignificant effects	n.s.
Sign among significant effects	22/29 negative effects	**

**significant at the 1% level, n.s. not significant at 5% level

The employment effect appears to be negative, whereas it is not possible to conclude, based on this global analysis, whether the impact is significant or not. This majority of insignificant findings is relatively small (36 out of 66), however, so that it is probably safe to say that family benefits only have a slight negative impact on employment. As indicated above, clear negative employment effects of social transfers have mainly been observed in the US; in Europe, this trend is far less marked, which may explain this low global impact observed here, as most evaluations concern European countries. Moreover, negative impacts are usually observed for welfare benefits that often constitute an important share of recipients’ household income, whereas this usually not the case for family cash benefits.

Antipoverty effects

The number of articles I was able to identify and retrieve is limited, namely 7 articles containing 29 estimates.

Table 31: Vote count estimates of the antipoverty effects of family cash benefits, based on all estimates, weighted results

Type of vote count	Majority	Significance of majority
Sign (regardless of significance)	28/29 positive effects	**
Significance (regardless of sign)	15/29 insignificant effects	n.s.
Sign among significant effects	14/14 positive effects	**

**significant at the 1% level, n.s. not significant at 5% level

Given the small sample size (n=29), these findings are tentative; however, they almost unanimously show a positive effect. However, it is not possible to say whether the impact is significant or not. Family cash benefits are likely to slightly reduce the incidence of poverty, or, at least, they reduce the poverty gap, without generating strong work disincentives.

c) Meta-analysis by welfare regime and further considerations

Contrary to the policies presented in previous sections, many studies of the impact of family cash benefits are comparative and combine data from Conservative and Social-Democratic countries, as benefits tend to have a similar design in many countries (universal). Moreover, these benefits exist in most European Union member states, and this fact facilitates the production of comparative studies. Hence, the analyses by welfare regimes are more limited than in previous sections, as single-country evaluations are less numerous.

Employment effects

In a first step, I want to draw conclusions about the employment effects within the liberal cluster. Three studies (two American and one Canadian) have been identified as mainly focusing on the employment effect of TANF and food stamps among families with children, or the National Child Benefit in Canada. These evaluations contain 18 estimates, so that the meta-analysis presented here must be interpreted with great caution:

Table 32: Vote count of estimates of employment effects of family cash benefits in the liberal welfare regime, weighted results

Type of vote count	Majority	Significance of majority
Sign (regardless of significance)	12/18 negative	n.s.
Significance (regardless of sign)	11/18 insignificant	n.s.
Sign among significant effects	3/6 → inconclusive	n.s.

n.s. not significant at 5% level

Unsurprisingly, given the small number of estimates, no majority is significant. The two American evaluations find negative effects exclusively and are statistically significant for single mothers (they usually are insignificant for subgroups of lone mothers, which may be due to smaller subsample sizes). The Canadian study finds positive effects as it is, in the provinces under study, based on programs that are partly employment-conditional.

This vote count can be completed with a review of the evidence found in studies devoted to the EITC and minimum wages that I have meta-analyzed above, as many contained the level of TANF benefits (sometimes combined with the Food Stamp Program) as control variables; TANF benefits help low-income families with children. Five American evaluations are virtually unanimous (unweighted estimates), as 21 out of 22 estimates point to negative employment effects; 14 out of 21 effects are statistically significant.

Finally, one evaluation for the UK shows that the effect of the WFTC expansion was positive, as it increased single mothers' employment rate by 5.95 percentage points; however, the impact of all reforms implemented during that period (including increases in benefits that do not have an employment condition) increased employment by 3.86 points only, which shows that the others reforms reduced the positive impact of the WFTC expansion; indeed 'increases in Income Support [one of UK's main means-tested benefit] dulled the positive labour supply impact of WFTC' (Blundell, 2006: 437).

As far as the Conservative cluster is concerned, there is even less evidence available. Weighted results lead to the following conclusions: The direction of the impact is unclear if all evaluations are accounted for (6 estimates are positive, 6 are negative). However, the 6 positive estimates stem from the evaluation of the Spanish employment-conditional child benefit, which means that the others are unanimously negative. Nine out of twelve findings points to an insignificant effect, but that majority could be an artifact (based on the Z-test). If the Spanish evaluation is removed, all estimates are nonsignificant. Hence, it is probably fair and safe to say that too little is known about Continental Europe to draw clear-cut conclusions about the employment effects of these benefits, and that more evaluations that include dynamic aspects (rather than static microsimulations) are requested. However, the results presented here suggest that the negative impact of these benefits may be insignificant, or at least very weak, in line with findings pertaining to cash transfers in general presented in chapter 4. One reason could be the situation of single mothers, as already indicated; another could be the fact that, for low-skilled mothers, there may be fewer jobs to be had in many Continental European countries, as the low-skilled service sector is less developed than in Anglo-Saxon countries and Scandinavia.

Some evidence is also available for Scandinavian countries, but scarce. Of the 12 weighted estimates I could identify, 5 are negative and 4 equal zero; 8 are statistically insignificant. Hence, the impact may be very slightly negative; however, it is probable that there is no effect at all. In fact, Scandinavian mothers have a very high employment rate, which is partly attributable, as will be shown below, to high work incentives, mainly in the form of available and inexpensive childcare services.

Antipoverty effects

The number of estimates is too small to draw conclusions as to the antipoverty effects of family cash benefits at the welfare regime level; moreover, most findings stem from comparative studies.

d) Conclusions

Family cash benefits, and, indeed, family policy in general, has drawn researchers' interest inasmuch as they have an impact on maternal employment and fertility decisions. They are also included in studies that use static simulation models, i.e. they do not include behavioral responses. The microsimulation models used, one of the most widespread apparently being EUROMOD as it accounts for the tax and benefits system of many EU member states, are

very sophisticated tools that provide precious and useful findings regarding the distributive impact of various tax and social policies. They do not allow, however, policy recommendations, as the generosity of some benefits might reduce maternal employment, especially in countries in which low-skilled mothers face high employment-related and childcare costs.

Overall, these benefits appear to have a negative impact in Anglo-Saxon countries; on the contrary, it seems that the impact is marginal in Europe, despite usually more generous benefits. Family cash benefits seem to have a positive antipoverty effect, even when employment effects are accounted for. These conclusions are only tentative, though, as the sample size of my meta-analysis is relatively small.

6.5 Childcare services

The last policy meta-analyzed in the present chapter is the provision of childcare services. This policy belongs to the same group of policies as family cash benefits, obviously, in terms of target group. However, these two policy groups (services and cash benefits) differ in their positioning on the main dimensions that underpin the fight against working poverty: Whereas family cash benefits are income transfers, childcare policies belong to policies that aim to maximize labor market participation, mainly female participation.

a) Existing literature reviews

Among the articles reviewed here, Kalb (2009) carried out a literature review that summarizes 23 evaluations of the impact of childcare costs on workforce participation published between 1992 and 2007; eight were published in the 1990s; all but one of these older evaluations deal with the American case. The evaluations published in the 2000s include a broader set of countries: the United States (2), Canada (3), Australia (3), Germany (2), The Netherlands (1), France (1), Italy (1), Japan (1), Sweden (1), and Norway (1). The vast majority of the 80 estimates deal with the situation of married mothers, some also analyze single mothers (21 estimates), while four estimates pertain to mothers in general.

The review does not provide information as to the significance of the effects, but indicates elasticities for labor force participation and average number of hours. All virtually all estimates are negative, but elasticities vary greatly. For employment elasticities, they range from 0 to 0.92 in absolute value: 23 estimates are smaller than 0.1, and 22 are larger. Put differently, around half these elasticities predict a decrease of employment of less than 1 percent for a 10-percent increase in childcare costs, which is a small impact. Regarding the impact of childcare costs on the number of hours, 23 out of 35 elasticities are lower than 0.1 in absolute value: A 10-percent increase in childcare costs reduces work by less than 1 percent, which is a very small decrease (24 minutes for a 40-hour workweek).

b) Overall meta-analysis

The search for evaluations of the impact of childcare costs and availability for the period 2000-2010, with the ISI web of knowledge search engine, was based on the following keywords: “child care” and “childcare”, which led to 744 and 325 hits respectively (I restricted the number of research fields to sociology, economic sciences, political sciences, social work, economics, public administration, social sciences, and anthropology; without this restriction, the number of hits was very high, and most of them totally irrelevant). I checked

abstracts until I had identified around 20 articles dealing with the employment effects of childcare policies. It proved more problematic to find articles measuring the effect childcare services have on poverty. I checked “child care poverty” (134 hits) and “childcare poverty” (26 hits), within the same set of research fields, in ISI web of knowledge, and even “maternal employment” (143 hits).

Eventually, I also used IZA and IFAU search engines, and performed a search based on similar keywords, but also including very broad searches with keywords such as “poverty”, “child poverty”. I stopped searching for articles when the relevance level of articles reached around 2.5 for IZA, while I checked all hits generated by the IFAU engine. Likewise, I used similar keywords with Google scholar, but quit searching after 400 hits, as papers, reports and articles had not much to do with the topic of childcare and poverty anymore.

Employment effects

The topic of the employment effects of childcare policies is the one that yielded the highest number of estimates among the policies analyzed in the present chapter. The figures presented in table 33 pertain both to the availability of childcare (usually the share of children in formal childcare) and its cost. In a second step, I check if conclusions differ depending on whether it is childcare fees that are reduced, or the number of childcare slots that is increased.

Table 33: Vote count of estimates of the employment effects of the availability and cost of childcare, based on all estimates, weighted results.

Type of vote count	Majority	Significance of majority
Sign (regardless of significance)	125/171 positive effects	**
Significance (regardless of sign)	94/171 significant effects	n.s.
Sign among significant effects	85/94 positive effects	**

**significant at the 1% level, n.s. majority is not significant at 5% level

This overall vote count doubtlessly points to positive employment effects of decreases in childcare fees or increases in the number of childcare slots, and the vast majority of evaluations analyze the situation of mothers. The effect may be significant, whereas the estimates I have gathered do not unambiguously show it (based on a Z-test).

Conclusions are very similar for reductions in childcare fees or increases in the number of childcare slots. Regarding fees reductions, weighted estimates are distributed as follows: 62 out of 93 are positive, and 32 out of 37 significant findings are positive; however, 60 out of 97 findings are statistically insignificant. Regarding the impact of childcare availability, likewise, a large majority of estimates is positive (63 out of 72), as well as a majority of significant estimates (53 out of 55 are positive); contrary to childcare fees, however, a large majority of effects are significant (55 out of 72). Overall, it appears, then, that both decreases in childcare fees and increases in availability have a positive impact on maternal employment, and that availability, usually expressed as a percentage of young children in formal childcare, may have a bigger impact than fees.

Antipoverty effect

Evaluations of antipoverty effects are in stunning contrast to assessments of the employment impact of childcare policies: The number of estimates I managed to find and retrieve is anecdotal, namely 12 estimates (unweighted) found in four articles. This is indeed the main conclusion that can be drawn about the antipoverty effect of childcare services: Very little

evidence has been published in a recent past. Needless to say, no meta-analysis broken down by welfare regime is provided below.

A closer look at unweighted estimates shows that all estimates but one are positive: Childcare services, by allowing mothers to work more, probably contribute to the alleviation of poverty. However, as indicated by some authors, the level of childcare fees may contribute to an increase in disposable income inequality if there is a fees cap, as middle-class or high-income families may have to spend less on childcare, in relative terms, than lower-income families.

Chapter 7 will provide indirect evidence about the antipoverty effect of family policy in general, and childcare policy in particular, as my comparative perspective includes countries with both high and low shares of children in formal childcare, and both highly subsidized public childcare and largely private-owned facilities.

c) Meta-analysis by welfare regime and further considerations

Employment effects

Table 34: Vote count of estimates of the employment effects of the availability and cost of childcare in the liberal welfare regime, weighted results

Type of vote count	Majority	Significance of majority
Sign (regardless of significance)	55/85 positive effects	**
Significance (regardless of sign)	49/85 insignificant effects	n.s.
Sign among significant effects	32/37 positive effects	**

**significant at the 1% level, n.s. not significant at 5% level

Estimates found in articles analyzing the situation in the liberal welfare-regime cluster point to a positive effect of childcare services, but it is difficult to say whether this impact is significant or not. American evaluations mainly deal with programs that reduce the cost of childcare, as the state is not involved in the creation of publicly-funded childcare centers; this kind of evaluations clearly point to positive employment effects of a reduction of childcare fees (15 out of 20 unweighted estimates). Likewise, Australian evaluations measure the impact of fees on maternal employment. It appears that estimates are almost unanimously insignificant; however, increases in childcare fees have a negative impact on maternal employment. Overall, then, childcare fees appear to have a negative impact in Australia, but the impact may be very small. One American evaluation pertains to the introduction of universal prekindergarten in two states, and analyzes the impact of eligibility, which is negative but statistically insignificant. Fitzpatrick (2010) explains this surprising result by the fact that comparable women in other states may benefit from childcare subsidies.

67 estimates were found in articles that analyze the situation in the province of Quebec (Canada). Quebec introduced a major family policy reform that began in 1997 with the extension of full-time kindergarten to all 5-year-olds, and the provision of childcare at an out-of-pocket price of \$5.00 for all children aged 0-4. The program was phased in, starting with the 4-year-olds, than 3-year-olds in 1998, all 2-year-olds in 1999, and all children younger than two in 2000. Moreover, the number of spaces doubled between 1997 and 2005. The estimates of this increase of coverage and reduction in fees are overwhelmingly positive, except for mothers with no children younger than six and with at least a high school diploma. It should be noted that, given the features of the family policy of the Quebec province, it is debatable whether it really belongs to the liberal cluster on this dimension.

As far as the Continental welfare regime is concerned, the number of estimates is relatively small. They are displayed in the following table:

Table 35: Vote count of estimates of the employment effects of the availability and cost of childcare in the Conservative welfare regime, weighted results

Type of vote count	Majority	Conclusion/significance
Sign (regardless of significance)	21/26 positive effects	**
Significance (regardless of sign)	19/25 significant effects	**
Sign among significant effects	18/20 positive effects	**

**significant at the 1% level

The interpretation is clear: Increasing the number of childcare slots (or reducing childcare fees, but most estimates assess the impact of the availability of childcare slots) has a significantly positive impact on maternal employment. These results, however, should be interpreted with caution, as the Conservative cluster is very heterogeneous here, with results from Germany, Italy and Switzerland (the latter being a rather hybrid “liberal-conservative” model, Bonoli, 2003c). These countries have something in common though, namely the fact that their childcare policy is little developed. In other Continental countries such as France and Belgium, where childcare services are much more developed, results could have been different. Only one study is based on a “Mediterranean” country, namely Del Boca and Vuri’s (2007) article. Interestingly, they conclude that childcare costs cannot have much effects in the Italian regions in which the share of children in formal childcare is very low.

Finally, let us have a look at the Nordic, Social-Democratic countries; they are the countries in which the share of young children in formal public childcare is highest.

Table 36: Vote count of estimates of the employment effects of the availability and cost of childcare in the Social Democratic welfare regime, weighted results

Type of vote count	Majority	Significance of majority
Sign (regardless of significance)	9/18 → inconclusive	n.s
Significance (regardless of sign)	15/17 insignificant	**
Sign among significant effects	1/2 → inconclusive	n.s

** majority is significant at the 1% level, n.s. not significant at 5% level

It may seem surprising that the impact of childcare policy on employment is not significant in Scandinavia; however, all estimates stem from studies that evaluate the impact of the introduction of a fees cap in Sweden. In fact, in a country in which maternal employment was already very high, and childcare services already inexpensive, it is not surprising that the introduction of a fees cap did not have much of an impact on female employment; moreover, this measure mainly benefits middle-class and rich households, in which women tend to work more than in low-income families. As far as the direction of the impact is concerned, the evidence is inconclusive; the effect could just as well be positive or negative; it is most probably zero.

Antipoverty effects

As indicated above, the number of estimates is far too small to break down the analysis of the antipoverty effects of the cost and availability of childcare slots by welfare regime.

d) Conclusions

The evidence presented in section 6.5 unambiguously shows that the availability and affordability of childcare slots have a positive impact on maternal employment. Interestingly, the impact varies greatly across countries. In Scandinavia, where mothers have the highest labor market participation rates worldwide and childcare is heavily subsidized and inexpensive, childcare policy reforms are quite unlikely to have a big impact on both employment and poverty levels among working families. By contrast, the situation in countries or regions in which childcare coverage is low and waiting lists in public facilities long, reforms aiming at reducing childcare fees are also quite unlikely to have any effect on employment; they may, however, improve some working families' disposable income.

A second important conclusion is that the link between childcare policies and poverty has rarely been directly established in the empirical literature. The impact of childcare policy on child poverty is mentioned at times, but it is often taken for granted or indirectly derived from risk-group analysis rather than based on empirical estimates, as is the case here. This is probably due to an implicit assumption: If childcare centers allow mothers to work more and if their cost is reasonable, then, this policy must reduce poverty, one way or another. But this link has rarely been demonstrated. This is certainly an interesting avenue of research that can greatly contribute to the identification of social policies that reduce working poverty.

6.6 Conclusions: Which policies work in which welfare regime?

The liberal cluster is characterized by the existence of minimum wages, usually enforced by law, and of earned income tax credits. Those are two aspects of a more global approach often dubbed "make work pay". Minimum wages seem to have a limited impact on both employment levels and working poverty, given that they are set at a low level, especially in the US (and with the notable exception of Australia); moreover, their impact also depends on labor market regulations and payroll taxes. Tax credits have fulfilled one of their main goals, namely to increase employment among single mothers, and contributed to the strategy of maximizing labor force participation. But their impact depends largely on other aspects of the welfare state. The comparison between the UK and the US is very revealing: Though the British program is around twice as generous as its American counterpart, its impact has been more limited, because its increased generosity was accompanied by an increase in other benefits that are not employment-conditional. Moreover, these "make work pay" policies appear to have reduced poverty, whereas their real impact may have been overestimated by descriptive evidence. Despite all these policy innovations, actual levels of working poverty - presented in the next chapter - remain high in international comparison, which is, at least in part, explained by the relatively low levels of these benefits, especially in the US.

In the Conservative corporatist, Continental European regime, the first striking element is that, apart from minimum wages, there has not been, until recently, policies that specifically aim at poor workers. I have shown in chapters 2 and 3 that researchers and official bodies acknowledged this phenomenon much more recently than in Anglo-Saxon countries. Some countries, however, have introduced employment-conditional tax credits in a recent past. I will show below that social transfers have, overall, a positive antipoverty impact: Regression models show that the level of social expenditure has a positive antipoverty impact, even when potential disemployment effects and negative effects on economic growth, are accounted for. As social transfers are more "generous" in Continental Europe, they contribute to the

relatively low levels of working poverty I measured for Germany (see next chapter), and family cash benefits contribute to this poverty reduction. In Continental Europe, tax credits for workers are quite unlikely to have any significant effect, be it on employment or on poverty, as the composition of the workforce is different, income inequalities less wide and family policy usually more generous than in the US (and the UK to a lesser extent). Minimum wages may have a more negative employment impact on low-skilled workers than in the US, as they are set at higher levels.

I have not been able to determine, however, the level at which minimum wages could be set so that they can really contribute to the fight against working poverty without creating hurdles in the labor market. I could only reach very gross conclusions: A low minimum wage set at around 35 percent of gross average earnings combined with low payroll taxes, as is the case in the US, is unlikely to have much of an effect (neither on employment, nor on poverty), while a minimum wage set at around 45-47 percent of gross average wage (i.e. an after-tax value of 60 percent of net average wage), in countries with high payroll taxes and strict hiring and firing regulations, as in France, is likely to have a negative employment impact on low-skilled workers.

In Scandinavian countries, there are not specific policies for poor workers, except for minimum wages that are set through collective bargaining. As trade unions represent the vast majority of workers, this bargaining is unlikely to reach wage levels that constitute major obstacles in the labor market. There is, however, little evidence pertaining to these countries in this regard. Scandinavian countries have “generous” and expensive family policies, especially in the shape of state-subsidized childcare centers: Fees are affordable and waiting lists very short. Paradoxically, however, recent reforms – the introduction of fees caps - did not have much effect on female employment, for a very simple reason: It has already reached the highest level worldwide.

Employment-conditional tax credits have been introduced in Scandinavia in a recent past. There is, to my knowledge, no evaluation of these programs as of the writing of this chapter.

Last but not least, for all countries, it is noteworthy that the number of evaluations of the antipoverty impact of family policies that allow policy recommendations is limited, because evaluations usually do not account for dynamic aspects in the case of family cash benefits, while evaluation of the impact of childcare policies focus on employment effects (as well as fertility), without paying much attention to distributional effects.

The conclusions of the present chapter pave the way to the next one that deals with the overall impact of welfare regimes on working poverty. In chapter 5, the main features of welfare regimes have been analyzed. In the next chapter, I analyze the composition of the working poor population as well as the relative weight of the three working poverty mechanisms outlined above across welfare regimes. In addition, the robustness of findings is assessed by using various poverty lines (50 and 60 percent of median income, income and consumption levels) and various poverty indicators (headcount and poverty gap).

7 Public Policies in the Real World: Welfare Regimes and the Fight against Working Poverty

After having assessed the employment and antipoverty effects of each social policy tool identified in the literature as a promising instrument in the fight against working poverty, with an analysis by welfare regime, it is fundamental to measure the overall impact of each welfare regime on working poverty. As indicated above, the instruments analyzed in the previous chapters covary; moreover, they interact with a broad array of institutional arrangements, and their impact depends on the sectoral and sociodemographic composition of the labor market.

This chapter represents the second empirical contribution of the present work. First, I provide figures pertaining to working poverty and employment performance in the four countries chosen to illustrate the four welfare regimes on which most of my empirical work is based, and then carry out a “classical” analysis of the working poor population in terms of risk groups, based on a relative poverty line and the headcount ratio. Then, I re-assess my findings by using poverty indicators that account for the depth of poverty, namely the income gap and the poverty gap; finally, I check the robustness of my findings by using another poverty line derived from consumption levels by comparing the situations in three countries for which I have information on both household income and consumption expenditure, namely France, Italy, and Switzerland.

Second, I measure the relative weight of each working poverty mechanism, namely getting a low wage rate, having a low degree of labor force attachment, and having high needs (especially a high number of dependent children). The combination of both approaches (risk groups and poverty mechanisms) provides an in-depth insight into the topic of the main types of working poverty found in each welfare regime, as well as to the impact specific policy mixes appear to have. Hence, the present chapter allows drawing robust conclusions as to the following questions: **Which welfare regime generates which type of working poverty? Which policy mix appears to work in which country?**

Two important restrictions must be underlined: First, the analysis presented here does not account for the major economic downturn of the late 2000s, as at the time of the writing of the present work, too little is known about the possible consequences of this deep recession on welfare regimes. It will probably take a few years to allow analysts to fully understand the implications of this massive exogenous shock on welfare states, labor market regulations, and the role families play in these difficult times. However, some comments are made, especially for the two countries that have been particularly hard hit, namely the US and Spain.

Second, the analyses presented below mainly describe the situation in the early 2000s and the conceptions that were dominant, and sometimes, hegemonic, at that time in each welfare regime. This does not mean, however, that every policymaker and every citizen shared these dominant perspectives on social issues, nor that the prevailing conception of the fight against working poverty has always been the same.

For instance, in the US, the work-first approach and explanations of poverty in terms of disincentives to work (rather than structural problems) have become overwhelmingly dominant. The fact that the 1996 welfare reform was implemented by Democrats is very revealing in this regard. However, this rather “conservative” conception of social policy has not always been dominant in the US; for instance, the 1900-1919 period has been dubbed the “progressive era” (Merrien, Parchet, Kernén, 2005), and the same could be said about the 1960s during the Kennedy and Johnson administrations, when structural explanations of

poverty were dominant (Meyer and Holtz-Eakin, 2001). Moreover, welfare reform and make work pay policies are understood differently: For many Conservatives, the main aim is to have welfare-deterrent institutions, whereas more progressive viewpoints tend towards an enabling welfare state. Likewise, the situation has changed in Germany since 2000; the Hartz reforms that I have described in chapter 5 were implemented stepwise, the more recent being a reform of unemployment and social assistance benefits (dubbed Hartz IV). These reforms represent a “paradigmatic shift” in Germany; however, in a recent past, many have criticized these reforms and advocated, among other things, the introduction of a statutory minimum wage (Müller and Steiner, 2008).

In short, the following sections aim at understanding the impact of a welfare regime at a moment in time, not to account for the history of each welfare regime nor for the power conflicts and different viewpoints that coexisted in the early 2000s. In the meantime, the situation has changed significantly in some of these countries (for instance Germany implemented the far-reaching Hartz reforms), but this does not play a role here. What matters is to analyze the interplay of the situation in the labor market, the welfare regime and the mechanisms that lead to working poverty at a given point in time.

7.1 The extent and composition of the working poor population

In order to achieve the objectives presented in the introduction of this chapter, I have used Luxembourg Income Study data. This database provides comparable datasets for most OECD countries. As its name indicates, the aim of this database is to provide detailed and comparable information on household income. A complicated issue regards the definition of “disposable” income, that is, the income a household has at its disposal once social security contributions and taxes have been paid, and cash benefits received. As the tax and benefits system varies from country to country, this poses very challenging difficulties for comparative research. However, the Luxembourg Income Study allows this kind of analyses, because it provides a measure of disposable income that is comparable across countries. Data are derived from national surveys, and the most important variables (for the analysis of the financial situation of households) are made as comparable as possible.

Moreover, the Luxembourg Income Study contains the variables that are necessary for the analysis of the three working poverty mechanisms I have presented above: individual wage rates, the volume of work performed, household size and composition, the age of household members, as well as they status within the household (head of household, spouse, other status).

Some important and tricky empirical difficulties must be underlined. First, the working poor (luckily) represent a small share of the labor force in postindustrial countries. The labor force itself does not include a large minority of the population (retirees and other non-active persons). In addition, in all surveys dealing with the financial situation of households, income questions inevitably yield non-response rates that are not marginal. All this indicates that large samples are requested; otherwise results would not be statistically reliable, due to large confidence intervals. This excludes many comparative databases from the outset; the Luxembourg Income Study, luckily, entails national samples that are large enough.

Second, at the time of the redaction of this chapter, wave VI of the Luxembourg Income Study is available for the United States and Sweden, but not for Germany and Spain. Hence,

the following calculations rely on wave V (around 2000) for the US, Germany, Sweden and Spain. More problematic is the fact that some of the Swedish data used here date back to the mid-1990s wave, because in wave V (2000) many variables related to the volume of work are not available. As no other Scandinavian dataset contains these variables either, be it for wave V or wave VI, we have to settle for Sweden 1995 to calculate the degree of labor force attachment and the share of low-wage workers among the working poor, which is certainly an important drawback.

Third, the number of children under 14, which is an important variable when the modified OECD equivalence scale is used, is not available in the 1995 Swedish dataset; hence, a weight of 0.3 instead of 0.5 has been attributed to children between the age of 14 and 17 years old, which means that for a small minority of households the equivalized income might be slightly overestimated. In the analyses below, the Swedish child-to-adult ratio among the working poor is calculated with 2000 data, in which the number of children under 14 is available. It should be added that the situation in Sweden in the mid-1990s was quite grim, as the unemployment rate soared and reached rates as high as eight percent, a very unusual level for Sweden. At the turn of the century, however, the Swedish economy was back on track (Halleröd and Larsson, 2008). Hence, Swedish results based on the 1995 dataset have to be interpreted with some caution, while the other countries' results do not cause any major concern.

I first assess the extent of working poverty (the poverty status is defined as having a household income below half median disposable equivalized income, whereas the at-risk-of-poverty line is set at 60 percent of median income), with two definitions of “working”, namely active at the time of the interview, which is the approach I advocate, and being active as the main activity status over the income reference period:

Table 37: Working poor rate and at-risk-of-poverty rate among workers, and poverty rate, in 2000, in the US, Spain, Germany, and Sweden (in percent)

Country	Working poor rate (person is active at the time of the interview)	Working poor rate (personal status over reference period is 'employed')	At-risk-of-poverty rate among workers (active at time of interview)	At-risk-of-poverty rate among workers (employed over reference period)	Poverty rate (regardless of work status)
US	7.2	6.0	11.4	10.0	17.0
Spain	6.1	4.1	10.1	8.1	14.2
Germany	4.5	2.9	7.3	5.0	8.4
Sweden	n/a	3.1	n/a	5.3	6.6

Source: Luxembourg Income Study, own calculations.

Poverty rates in the last column from Luxembourg Income Study (LIS) Key Figures, <http://www.lisproject.org/keyfigures.htm>, as of October 12, 2008.

These figures can usefully be completed with information on wages and employment performance:

Table 38: Employment and unemployment rates and low-wage incidence in 2000 in the US, Spain, Germany and Sweden (in percent):

Country	Harmonized unemployment rate	Employment rate	Low-wage incidence
US	4.0	74.1	24.7
Spain	11.1	57.4	16.2
Germany	7.5	65.6	12.9
Sweden	5.6	74.2	6.1

Source: OECD website, labor statistics and country statistical profiles, as of June 6, 2009.

The working poor rate in the US is approximately twice as high as in Sweden¹³ and Germany, based on a relative poverty line, namely an income below 50 percent of median equivalent disposable income. The difference between Germany and Sweden may not be significant, but other calculations based on other datasets confirm that the working poor rate is slightly lower in Germany than in Sweden (Lohmann and Marx, 2008). Spain's working poor rate is approximately halfway between the US and the tandem Sweden/Germany.

As indicated in chapter 5, however, the use of an absolute poverty line yields differences that are much less marked between North America and Europe, and the highest poverty rates are found in Mediterranean countries (Kenworthy, 1999, Notten and De Neubourg, 2007); hence, I would probably get smaller differences between the US and the tandem Germany/Sweden in terms of working poverty should I use an absolute poverty line adjusted with purchasing power parities.

Table 38 clearly demonstrates that the US and Sweden exhibited, in 2000, the best labor market performances. Yet, the incidence of low-wage employment is much higher in the US than in Europe and wide differences exist among the EU countries analyzed here.

In what follows, the 60 percent of median income threshold is used, due to the small number of cases obtained in most countries with a threshold set at 50 percent of median income¹⁴. Hence, the working poor are individuals who are active at the time of the interview and live in a household with an equalized disposable income below 60 percent of median income.

Now that the extent of poverty among workers has been measured for each country, it is important to analyze the sociodemographic composition of the "working poor population".

Given the important role family policy appears to play, it seems natural to look at the differences in terms of gender, household composition and size, and age. As far as wage rates are concerned, gender, age and the educational level play a decisive role. Regarding labor force attachment, gender, age, educational level and household composition are also likely to

¹³ The current labor force status is not available in the Swedish dataset 2000, hence the use of the labor force status over the income reference period in columns 2 and 4 of table 37.

¹⁴ Otherwise, I may have chosen 50 percent of median income. Using the 60-percent threshold yields "poverty" rates that are very high: one in six persons is deemed to be poor in the average EU member state.

play an important role. The incidence of working poverty among these sociodemographic groups is the following:

Table 39: Working poor rate among various sociodemographic groups, 2000, in percent, as well as mean/median age and household size among the working poor

	US	Germany	Spain	Sweden
16-25 years old	17.3	18.6	11.6	17.9
26-35	12.4	7.7	7.4	5.3
36-45	11.1	5.4	12.3	4.1
46-55	7.7	3.5	11	2.7
56-65	8	3.7	10.6	2.3
Mean age	36	33.9	38.3	33.9
Median age	35	30	39	30
Men	11	6.2	10.7	5.2
Women	11.9	8.6	9.3	5.3
Single	12.9	16.1	13.4	11.6
Childless couple	5.4	3.1	5.5	2.3
Couple 1 child	7.8	4.1	9.6	2.6
Couple 2 children	11.1	4.3	14.8	3.1
Couple 3+ children	24.1	9.8	34.8	5.5
Lone parent 1 child	21.1	24.2	29.8	9.3
Lone parent 2 children	30.9	46.1	44	9.2
Lone parent 3+ children	57.3	51.1	85.7	8
No child under 18	8.3	3.5	7.1	2.1
Mean household size	3.6	2.2	3.8	2.1
Median household size	3	2	4	1
low educational level (ISCED 1 and 2)	27.5	13.1	16.6	6.2
medium (ISCED 3 and 4)	11.3	6.5	5.0	5.6
high educational level (ISCED 5 and 6)	4.1	3.6	2.5	3.7

Source: Luxembourg Income Study, own calculations

German and Swedish poor workers are young. The median disadvantaged worker in these two countries is five years younger than in the US, and nearly a decade younger than his or her Spanish counterpart. In Sweden, most low-income workers escape poverty early, as the working poor rate plummets after 25 years of age; this is also reflected in the fact that the median poor worker in Sweden lives alone, whereas the median household size amounts to 2 among the German working poor, despite of the identical median age, which is probably attributable to the very high female labor market participation rate in Sweden: Young adults are more likely to escape working poverty as soon as they live with a partner than in the German case.

In the US, on the contrary, working poverty appears to be a longer lasting problem in a life-course perspective, as the rate does not decline markedly before 45 years. The Spanish case is interesting, as it displays a peculiar pattern. Teenagers and young adults are not, contrary to the other countries, harder hit by working poverty than middle-aged people. On the contrary, the working poor rate reaches its highest level between 36 and 45 years of age, and hardly declines afterwards. This may be due, in part, to the very peculiar labor market integration pattern of young adults. As most of them work on short-term contracts until their thirties, they keep on living with their parents, as indicated above, until they are able to obtain an open-ended work contract. Hence, leaving the parental home as late as in their mid-thirties is not an oddity.

In terms of gender, differences between men and women are slight, a relatively well-known finding (Andress and Lohmann, 2008, Swiss Federal Statistical Office, 2008). This may appear as a paradox at first, as women tend to be more exposed to poverty in general, as well as to low-wage employment. The reason is mainly due to the definition of the phenomenon: A working woman is much more likely to have a working partner than a male worker. In many poor families, especially in countries with lower female employment levels, the husband will be classified as a working poor whereas his nonworking wife will be classified as poor. In the Spanish case, indeed, men are more likely to be working poor, as the employment participation gap between men and women, despite a strong reduction in recent years, is still marked.

Regarding the working poverty risk broken down by household type, it appears, once again, that family policy in a general sense is an absolutely decisive factor. In the two countries with a very limited family policy (namely the US and Spain), the working poor rate of couples strongly increases after the birth of the second and subsequent children, whereas it is lower than 10 percent even for large families in Germany and Sweden, i.e. in the two countries in which parental-leave schemes are much more generous and family cash benefits higher. Childcare services are more developed, whereas this is much more the case in Sweden than in Germany.

Another finding is striking: Whereas a divorce or a breakup leading to lone parenthood is a decisive factor in the US and Spain, of course, but also in Germany despite its relatively generous family policy, it is far less the case in Sweden. Indeed, whereas working poor rates are staggeringly high among single mothers with more than one child in most countries, it does not exceed 10 percent among Swedish single parents, due to their very high employment rates. Of course, the confidence intervals are likely to be large for these subgroups of lone mothers with two children and more, but even a margin of error of ± 10 percent would not affect the interpretation, as differences are extremely marked. This shows that the choice between a family policy largely based on passive income transfers as in Germany and a family policy largely based on the provision of services as is the case in Sweden leads to very different outcomes.

The large difference observed between couples with children in the US and Spain, on one hand, and Germany and Sweden, on the other, is reflected in the fact that German and Swedish disadvantaged workers are notably younger and that households affected by working poverty are much larger in the US (the median working-poor household has three members) and in Spain (the median size being four persons) than in Germany (the median equals two) and Sweden (at least half of Sweden's low-income workers live alone).

Finally, and unsurprisingly, workers with a high educational level are less likely to suffer from income deprivation than persons with an intermediate, secondary level, and far less

likely than those with a low educational level. However, differences in labor market regulation and structure are visible. In the US, a country in which hiring and firing is hardly regulated (except against discriminatory behaviors) and the sector of low-productivity, low-wage personal services large, the disadvantage of low-skilled worker is marked, with a working poor rate 2.5 times higher than among workers with a secondary education level. In Spain, the difference is even larger than in the US, as the incidence of low income among workers with a primary educational level is three times higher than among secondary-level workers. In a country in which most women either work full-time or not at all, social endogamy might have a particularly strong impact: Low skilled workers are more likely to have a non-employed partner than higher-skilled workers. Moreover, some low-wage sectors such as the tourism industry and agriculture are large employers of low-skilled workers in Spain.

The difference between educational levels is less marked in Germany, a country in which collective bargaining has led to high wage levels. Still, the risk of being a low-income worker is twice higher among the low-skilled. It should be borne in mind that the dataset used here dates back to 2000; that is, before the Hartz reforms were introduced. It is not impossible that the gap between primary-level and secondary-level workers has grown larger with the development of low-wage employment (the so-called “minijobs” and “midijobs”) encouraged by some of the reforms presented above. In the case of Sweden, the earnings distribution is very compressed and many low-skilled employees, especially women, work for the government (Esping-Andersen, 1993), so that the group of low-skilled workers is not particularly hit by poverty nor by unemployment. Indeed, the working poor rate is very low among persons without a secondary or tertiary educational attainment, namely 6.2 percent, and the difference with higher level workers is small (5.6 percent for those with a secondary educational level and 3.7 for those who have a tertiary-level diploma).

So far, my analysis has relied on the headcount ratio; the next section is based on an alternative poverty indicator.

7.2 Depth of poverty

As indicated in chapter 2, the present work focuses on monetary definitions of poverty, as they appear to be more useful for social policy purposes. So far, I have only used the headcount ratio. It is, however, advisable to use alternative monetary indicators. Important dimensions must be added to the analysis, namely the income gap and the poverty gap: Not only is it important to know how many workers have an income below the poverty line in a given year, but it also matters a great deal whether disadvantaged workers have, on average, an income that is slightly below the threshold or, on the contrary, way below it. Moreover, taking into account the depth of poverty may affect country rankings.

In short, not only is it important to know how many people are poor, but also how poor they are. The mean and median income gap ratios are the following:

Table 40: Mean and median gap income gap ratios, expressed as a percentage of the poverty line, 2000

	United States	Germany	Spain	Sweden
Mean income gap	29%	27%	29%	27%
Median income gap	24%	21%	24%	24%

Source: Luxembourg Income Study, own calculations

The mean income gap ratio is highest in the United States: On average, poor workers in the US have an income 29 percent lower than the poverty line. Put differently, not only is the incidence of working poverty highest in the US, but the income gap is also deepest. The mean and median income gap are similar in Spain, but as the incidence of working poverty is lower than in the US, the poverty gap – i.e. the product of the headcount ratio and the income gap ratio – is lower in Spain. The mean income gap ratio is identical in Germany and Sweden, whereas the median is lower in Germany. Overall, the country ranking is unaffected by the inclusion of the depth of poverty, but the distance between countries grows bigger, as the countries with the highest incidence of working poverty display the highest income gap.

Looking at income gaps, and, hence, at poverty gaps, does not fundamentally affect conclusions regarding the distribution of the poverty risk among various subgroups of workers:

Table 41: Income gap (average income of poor workers as a share of the poverty line) and poverty gap (headcount ratio*income gap), 2000

	US		Germany		Spain		Sweden	
	Income gap	Poverty gap	Income gap	Poverty gap	Income gap	Poverty gap	Income gap	Poverty gap
16-25	29%	5	30%	5.6	31%	3.6	27%	4.8
26-35	28%	3.5	32%	2.5	28%	2.1	27%	1.4
36-45	28%	3.1	22%	1.2	29%	3.6	22%	0.9
46-55	27%	2.1	22%	0.8	31%	3.4	25%	0.7
56-65	33%	2.6	23%	0.9	30%	3.2	42%	1
men	28%	3.1	28%	1.7	27%	2.9	28%	1.5
women	29%	3.5	26%	2.2	33%	3.1	26%	1.4
single	32%	4.1	35%	5.6	42%	5.6	32%	3.7
childless couple	30%	1.6	21%	0.7	23%	1.3	29%	0.7
couple 1 child	26%	2	17%	0.7	30%	2.9	23%	0.6
couple 2+ children	26%	4.1	20%	1.1	30%	5.4	19%	0.7
single parent 1 child	28%	5.9	27%	6.5	32%	9.5	22%	2
single parent 2+ children	32%	13	24%	11.2	33%	17.5	12%	1.1
low educational level	30%	8.3	26%	3.4	29%	4.8	27%	1.7
medium	28%	3.2	27%	1.8	27%	1.4	27%	1.5
high educational level	27%	1.1	29%	1	39%	1	27%	1

Source: Luxembourg Income Study, own calculations

The ranking of sociodemographic groups based on the poverty gap is identical to the ranking derived from the headcount ratios in the US and Germany. In Spain, the difference between men and women is reversed: Whereas the incidence of working poverty is higher among men, women have a notably deeper income gap, and, hence, a larger poverty gap. In Sweden, men and women display a virtually identical working poor rate, but women's income gap is slightly narrower. A closer look at age groups shows that, as young people display above average income gaps and poverty rates, their disadvantage is even more marked when the poverty gap is used as a poverty indicator.

Regarding household types, not only are lone parents much more likely to be hit by poverty, they also have above-average income gaps, which means that they appear to be the most disadvantaged household type in terms of poverty gaps. It is noteworthy, however, that Swedish lone mothers display below-average income gaps, probably due their very high labor market participation rates. Singles also display high poverty gaps in all countries. Conclusions pertaining to couples with children vary widely across welfare regimes: In Germany and Sweden, thanks to generous family policies, these households have notably below-average income gaps; it is also the case in the US, despite a limited family policy, probably owing to a high labor market participation among parents, but the difference is less marked. In Spain, on

the contrary, parents living in couple display income gap ratios that are close to those of single parents.

As to the impact of the educational level, low-skilled workers have above-average income gaps in the US and Spain, which increases their disadvantage, whereas this is not the case in Sweden and Germany.

All in all, conclusions drawn from the analysis of headcount ratios are not fundamentally altered when the depth of poverty is accounted for; however, some disadvantaged groups that have an above-average working-poverty risk appear even worse off in terms of the poverty gap.

7.3 Robustness checks with a consumption poverty line

Another way to set a monetary poverty line is to use consumption expenditures rather than income. Studies have shown that the overlap between income poverty and consumption poverty is only partial; in the case of Australia, for instance, the correlation coefficient between income and consumption expenditures is only $r = 0.52$ (Headey, Krause, Wagner, 2009). Unfortunately, none of the national datasets used in the previous sections contains consumption expenditure data. Hence, an attempt has been made to find countries that are more or less comparable to the four countries analyzed so far for which consumption data are available. It proved impossible to find a Scandinavian country filling this criterion. For the Southern European cluster, Italy contains the necessary variables for the purpose at hand. For the Continental conservative cluster, French data are available. Within the liberal cluster, the US database does not contain consumption expenditure data, nor do the Canadian, Australian, UK and Irish databases. A European country that has at least some features in common with Anglo-Saxon countries is Switzerland, with its lowly regulated labor market (according to the OECD, Switzerland is the non-Anglo-Saxon country with the least regulated labor market), its reliance on public-private partnerships (pensions, healthcare, etc.), and its low level of spending on family policy and the very limited provision of childcare services. However, many aspects of Switzerland's welfare regime are rather comparable to other Continental countries. Hence, Switzerland can be seen as an in-between, "liberal-conservative" case (Bonoli, 2003c).

In what follows, due to common data limitations in the Luxembourg Income Study datasets, the current labor force status was used to identify the French and the Swiss working poor; in the Italian database, however, this variable does not exist and the main labor force status during the income reference period was used. For both poverty indicators, being poor is defined as having an income or expenditure below 60 percent of the median level, and the same equivalence scale is used, namely the modified OECD scale. Table 42 shows the incidence of income and consumption poverty in the three countries analyzed in this section:

Table 42: Working poverty rates according to the type of monetary poverty threshold used, 2000

	Consumption poverty			Income poverty		
	France	Italy	Switzer-land	France	Italy	Switzer-land
Poverty risk (60%)	8.5	8.7	8.7	5.6	9.7	6.5
Working poverty (50%)	4.6	4.6	4.2	2.5	6.2	4.3

Source: Luxembourg Income Study, own calculations

Are these three countries suitable illustrations of the welfare regimes analyzed in the present chapter? The country ranking based on income poverty is quite comparable: The working poor rate is lowest in the Continental European country (France), higher in the country that mixes Anglo-Saxon and “Corporatist conservative” features (Switzerland), and highest in the Southern European country (Italy). It is fundamental to note that the Italian working poor rate would be higher if the current labor force status could have been used, instead of the main activity status during the income reference period, as the latter excludes respondents who worked at the time of the interview, but were mainly unemployed or inactive during the reference period. In table 37 above, for the US, Germany and Spain, the working poor rate based on the current status is 20 to 55 percent higher than the one based on the main activity status during the year previous to the interview. Hence, Italy’s working poor rate based on the current labor force status probably exceeds 10 percent.

When the poverty line is derived from consumption expenditures, the incidence of working poverty is very similar in Switzerland and France. In both countries, the working poor rate is higher when a consumption poverty line is used. This may mean that the distribution of consumption expenditure is more unequal than the income distribution in Continental Europe; the opposite appears to be true in the Southern European country analyzed here (Italy), as the incidence of working poverty is slightly lower when based on consumption expenditures. Again, Italy’s figures are based on those who were active in the labor market for most of the reference period, which probably means that consumption poverty would also be higher if workers with a looser connection to the labor market were included.

As will be shown below, the differences between the extent of income poverty and consumption poverty among workers is mainly due to the situation of workers aged 55 years and more. Indeed, it is very important to have a closer look at the sociodemographic composition of the group of low-consumption workers and to compare it to that of low-income workers, in order to assess the robustness of the findings presented in previous sections. Table 43 contains working poor rates measured with an income threshold, whereas table 44 contains the same risk-group analysis based on consumption poverty:

Table 43: Income poverty risk among workers, broken down by age, gender, household type, and educational level, 2000, in percent:

	France	Italy	Switzerland
16-25	9.7	10.9	7.9
26-35	4.7	7.2	6.1
36-45	5.7	10.7	6.5
46-55	5.1	10.9	5.5
56-65	4.5	9.7	7.8
men	6.1	12.6	6.9
women	5.1	4.8	6
single	7.5	3.7	5.6
childless couple	2.9	3.4	2.4
couple 1 child	5	10.2	4
couple 2 children	5.6	15.8	7.9
couple 3+ children	10.8	33.8	20.9
lone parent 1 child	9.5	7.1	7.6
lone parent 2 children	19.1	12.8	21.9
lone parent 3+ children	17.4	...	40.5
no child under 18	4.5	8.3	10.2
low educational level	9.6	16.4	11.2
medium	5.1	5.4	6.3
high	2.2	1.8	4.1
TOTAL	5.6	9.7	6.5

Source: Luxembourg Income Study, own calculations

Let us first assess if conclusions based on income levels for Switzerland, France, and Italy are comparable to those presented above for the US, Germany, and Spain. Indeed, Italy is similar to Spain: The incidence of working poverty hardly decreases after 35, whereas the age bracket 26-35 is the least affected; moreover, the poverty risk strongly increases after the birth of the second child, and the educational gradient is very strong. The specificity of the Italian case is that lone parents do not seem to be worse off than couples with children, but this result should be interpreted with caution given the small number of cases at disposal.

France and Germany are comparable, but differences exist: Though young workers are the most exposed to poverty in both countries, the risk declines regularly with age in Germany, whereas in France the working poor rate goes down between 26 and 35 but then increases slightly between 36 and 45 and then decreases regularly. In addition, whereas German women are slightly more affected than men, it is the opposite in France, which is seemingly attributable to the very high poverty rate among working lone mothers in Germany, whereas in France this level never exceeds 20 percent, which might be due to a much better provision of childcare services. The education gradient is very similar in France and Germany.

As indicated above, the Swiss case is hybrid. It shares an important feature with the US, namely high working poor rates among families with children and single mothers, but also

with Spain, due to an underdeveloped family policy. But most of its other features are rather reminiscent of Continental European countries (France, Germany): an education gradient that is not very steep, no big difference between men and women, and a poverty risk that tends to decrease with age; however, in Switzerland as in France, there is a “hump” between 36 and 45 years.

Switzerland displays a distinctive feature in terms of its age profile, though, namely a marked increase between 56 and 65 years of age, which may be due, at least in part, to institutional factors. Switzerland has had a “second tier” in its pension system based on capitalization since the mid-1980s, and workers are allowed to withdraw the entire amount when they retire. Hence, these financial resources are not accounted for by an income-based indicator. This is one of the reasons why Swiss official poverty statistics usually do not contain figures on income poverty for workers aged 55 and over, as many have a retired partner and some have benefited from early-retirement schemes. Hence, this feature might well be a statistical artifact.

All in all, results obtained with a poverty threshold set at 60 percent of median equivalized consumption expenditures are broadly in line with those presented above for the liberal, conservative and Southern European welfare regimes.

Let us now see if these conclusions in terms of risk groups are robust to the use of a poverty line derived from consumption expenditures, by comparing table 43 and table 44:

Table 44: Consumption poverty among workers, broken down by age, gender, household type and educational level, 2000, in percent

	France	Italy	Switzerland
16-25	8.9	12.9	11.1
26-35	7.7	6.7	6.5
36-45	9.2	9.2	8
46-55	8.2	8.2	8.6
56-65	10	10.2	10.1
male	9.2	10.5	9.4
female	7.7	5.6	7.8
single	9.7	8.9	4.3
childless couple	5.4	2.8	4.8
couple 1 child	4.9	8.8	8.1
couple 2 children	9.8	10.3	10.3
couple 3+ children	13.3	21.2	22.8
lone parent 1 child	13.7	5.7	12
lone parent 2 children	14.6	24.7	12.4
lone parent 3+ children	28.2	...	34.4
no child under 18	11	8.8	14.4
low educational level	15.9	13.6	14.4
medium	7.5	5.9	9.1
high educational level	2.4	2.2	3.7
TOTAL	8.5	8.7	8.7

Source: Luxembourg Income Study, own calculations

Most findings are comparable to the conclusions obtained with income-based poverty lines. Gender differences are hardly modified; in Italy, however, the gender gap is narrower with a consumption-based poverty threshold. Regarding the situation of household types, there is never more than a one-rank change between the income-based and consumption-based rankings, except for singles in Switzerland and lone mothers with children in Italy, who both move two ranks. The ranking of educational levels is unaffected, whereas differences are less marked with income than with consumption levels.

There is, however, a factor that is affected by switching from an income threshold to a consumption poverty line, namely the impact of age. In terms of rankings, in all three countries, the groups most affected by consumption poverty are people under 26 years and over 55; whereas the younger age group is also the hardest hit by income poverty, older workers appear to be among the least affected by income poverty in France and Italy. In Switzerland, older workers are more affected by working poverty both in terms of income and consumption levels; however, the difference is less marked when measured with consumption levels, and the difference between workers aged 55 plus and workers aged 46-55 is quite comparable to that measured in France and Italy, which seems to confirm that the higher income poverty risk of Swiss senior workers is, at least in part, a statistical artifact.

The increase in working poverty due to switching from an income-based to a consumption-expenditure based threshold is, in France and Switzerland, largely attributable to the category

of the over 45. The pattern in Italy is different, as consumption poverty is lower than income poverty among middle-aged workers, which more than offsets the fact that consumption poverty is higher among older and younger workers.

Overall, then, using a consumption poverty line does not fundamentally modify conclusions about most risk groups (in Continental European and Mediterranean countries, as well as in countries with a lowly regulated labor market and a lowly developed family policy). However, the extent of the phenomenon is affected by this definitional change, which appears to be largely due to changes among older workers, who appear to spend less than middle-aged workers; this may not reflect, however, lower living standards. Indeed, workers aged 55 and over usually do not have dependent children (anymore); in addition, they have had more time to build up savings and/or to buy a house. Hence, it may well be the fact that they have lower needs and more savings; this would explain their lower consumption expenditures. In this regard, it would certainly be advisable to carry out the same analysis with nonmonetary indicators to compare the situation of middle-aged workers with that of workers over 55. Unfortunately, the dataset I have used throughout the chapter does not contain indicators that allow a direct measurement of living conditions, but this is doubtlessly an interesting avenue for future working poverty analyses.

Finally, a cautionary note is of order here: Consumption measurement is not, obviously, the core of the Luxembourg Income Study, and indicators may be less comparable than income variables. Moreover, it is more difficult to collect expenditure data, as it is not possible to do it in a standard survey format (Headey, Krause, Wagner, 2009). Swiss and French consumption data are derived from household budget surveys, whereas Italian data stem from a survey on income and wealth, which may partly explain differences between France and Switzerland on one hand, and Italy on the other hand.

7.4 Working poverty mechanisms across welfare regimes

The sociodemographic composition of the population affected by working poverty differs across country, as shown above. This is due to the fact that the weight of each mechanism that leads to working poverty differs from one country to another; measuring these variations is the object of this section.

Based on the analysis of the four countries presented in chapter 5, I formulate the following hypotheses: In Social democratic welfare states I do not expect any of the three mechanisms to be particularly strong. Working poverty should be a quantitatively limited phenomenon. In Anglo-Saxon countries, I expect working poverty to be mostly the result of low wages and high children to adult ratios. Low labor force attachment should play a less important role. In Conservative-corporatist welfare states (Continental Europe), working poverty will be mostly the result of low labor force attachment, and working poverty should also be little widespread. In Southern European welfare states, working poverty should mostly be the result of low labor force attachment and high children to adult ratio.

7.4.1 The relative weight of the three mechanisms leading to working poverty across welfare regimes

My first aim is to assess the relative weight of the three mechanisms outlined above, and to verify whether the impact of each factor differs from one welfare regime to the other, by comparing the situation of poor and non-poor workers in each country under review. Second,

the main features of each welfare regime that explain, at least partly, the weight and impact of each working poverty mechanism will be identified. I compare the mean and median values of labor force attachment and child-to-adult ratio, as well as the incidence of (hypothetical) low full-time year-round earnings as a proxy for the remuneration rate of a wage-earner. The three mechanisms are operationalized as follows:

- **Low hourly earnings.** The most intuitive mechanism leading to working poverty is the fact of being badly paid. However, several researchers have pointed out that low wages alone are seldom the cause of working poverty (Andress and Lohman, 2008, Nolan and Marx, 2000, Strengmann-Kuhn, 2003, Peña-Casas and Latta, 2004). However, few will object that being paid a low wage vastly increases the risk of ending up in working poverty. I operationalize the notion of low wages by taking into account the number of hours usually worked, as well as the number of weeks spent in the labor market over the income reference period, leading to the calculation of hypothetical “full-time year round earnings” (FTYRE). Half median FTYRE is used as a low-wage threshold. This indicator (low pay in full-time year round equivalents) is calculated for all household members who are wage-earners.

- **Low labor force attachment.** This mechanism is proteiform and hits underemployed and intermittent workers, as well as persons - usually women - who cannot or are not willing to work more due the presence of children in the household. The rise in double earnership observed in most OECD countries puts families with a nonworking spouse in a relatively more difficult situation than during the postwar years, when single-earnings was the norm. I focus on heads of households and their spouses (if any) aged 18-65. In most cases, this corresponds exactly to the number of potential workers in a household. In some cases, however, there may be working adult children who are not taken into account. This should not lead to a large distortion of results for the US, Germany and Sweden, but could be problematic for Spain, as most Spaniards live with their parents until they are in their thirties. I get back to this point below, when discussing country profiles.

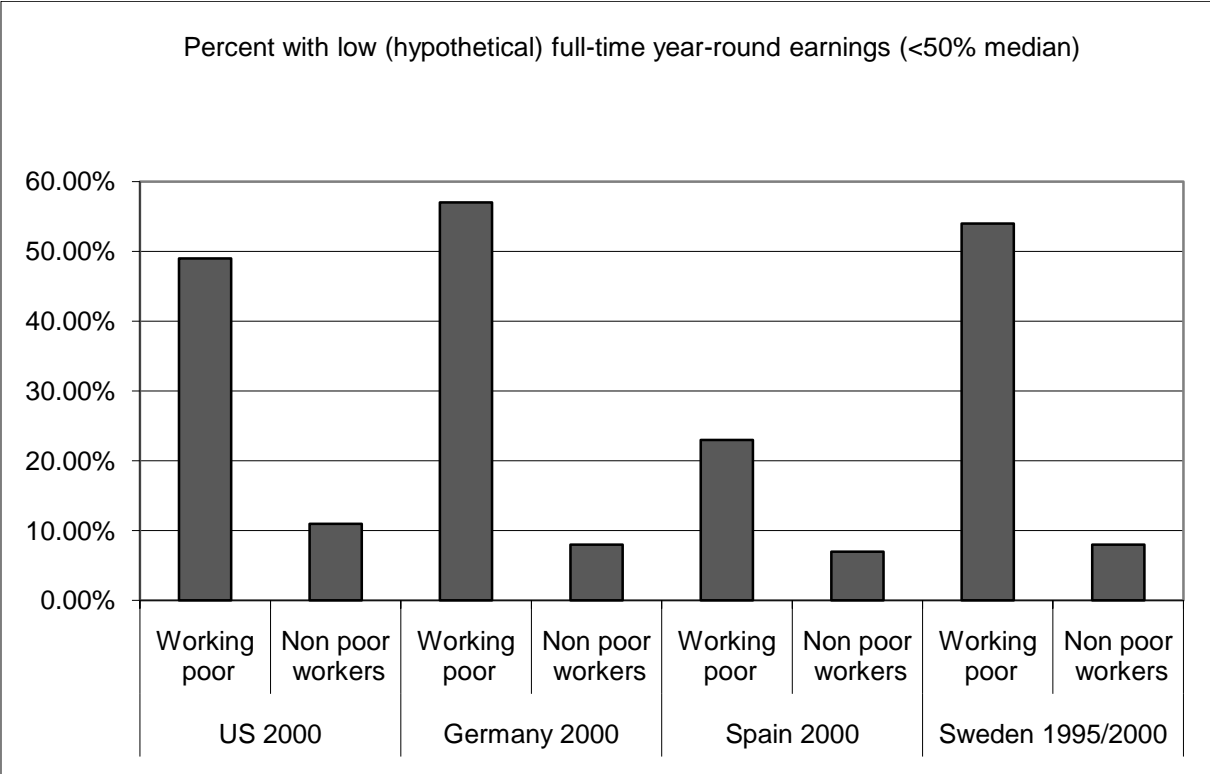
For example, a couple with children where one parent works full-time and the other one has a 50-percent job will have a labor force attachment of 0.75 ($1.5 \text{ full-time equivalents} / 2 \text{ adults} = 0.75$).

- **Large needs, especially a large number of dependent children in the household.** Most studies show that having many children can lead to poverty. Having a third or a fourth child is a dangerous choice for a couple to make, in terms of poverty risk. The same number of children is more likely to lead to poverty for one-parent families than for two-parent families. In fact, after a break-up or a divorce, even just two children may become problematic, because the needs of the two resulting households (the ex-husband who lives alone and the mother with the children, most of the time) increase significantly. What matters, as a result, is not the absolute number of children in a household, but rather the ratio of children to adults. For this reason, I operationalize this mechanism by dividing the number of children by the number of working-age adults (18-65 years). A family of four (two parents and two children) will have a children to adults ratio of 1, just like a single parent with one child. A family of five (two parents and three children) will have a children to adults ratio of 1.5.

Low wage rate

Even if low earnings spontaneously appear as the main, if not the only, cause of working poverty, many researchers have underscored the fact that these two phenomena differ. It is, hence, fundamental to evaluate the weight of this factor. Figure 3 is very revealing in this regard:

Figure 3: Share of workers with “full-time year round earnings” below 50 percent of the median



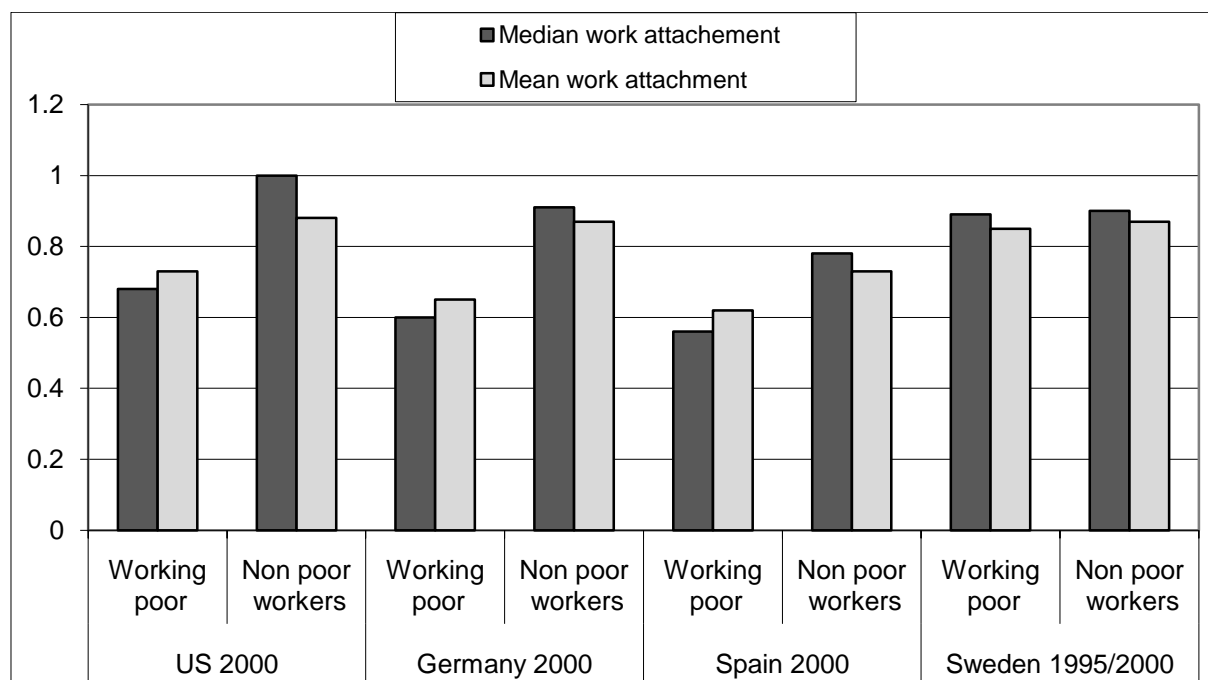
Source: Luxembourg Income Study, own calculations

Even if the relationship between low-wage employment and working poverty is far from straightforward, my conclusion is clear-cut: Being on low wage-rate employment seems to be an important factor everywhere, whereas the difference is less marked in Spain. Interestingly, the incidence of “low full-time year-round earnings” is not higher in the US than in Sweden, for instance, despite a much higher incidence of low-wage employment. However, as the incidence of working poverty is much higher in the US than in Sweden, the share of the workforce made up of poor workers on low-wage employment is noticeably higher. In addition, as demonstrated below, the working poor in Sweden and Germany are notably younger, i.e. in age brackets in which the incidence of low-wage employment is high.

Low labor force attachment

The labor force attachment at the household level is expressed as the ratio of the volume of work performed by the head of household and his or her spouse (if any) to their full work potential, namely a full-time job for each partner. The following figure compares poor and nonpoor workers, both in terms of median and mean work attachment:

Figure 4: Median and mean work attachment expressed in percent of the full work potential



Source: Luxembourg Income Study, own calculations

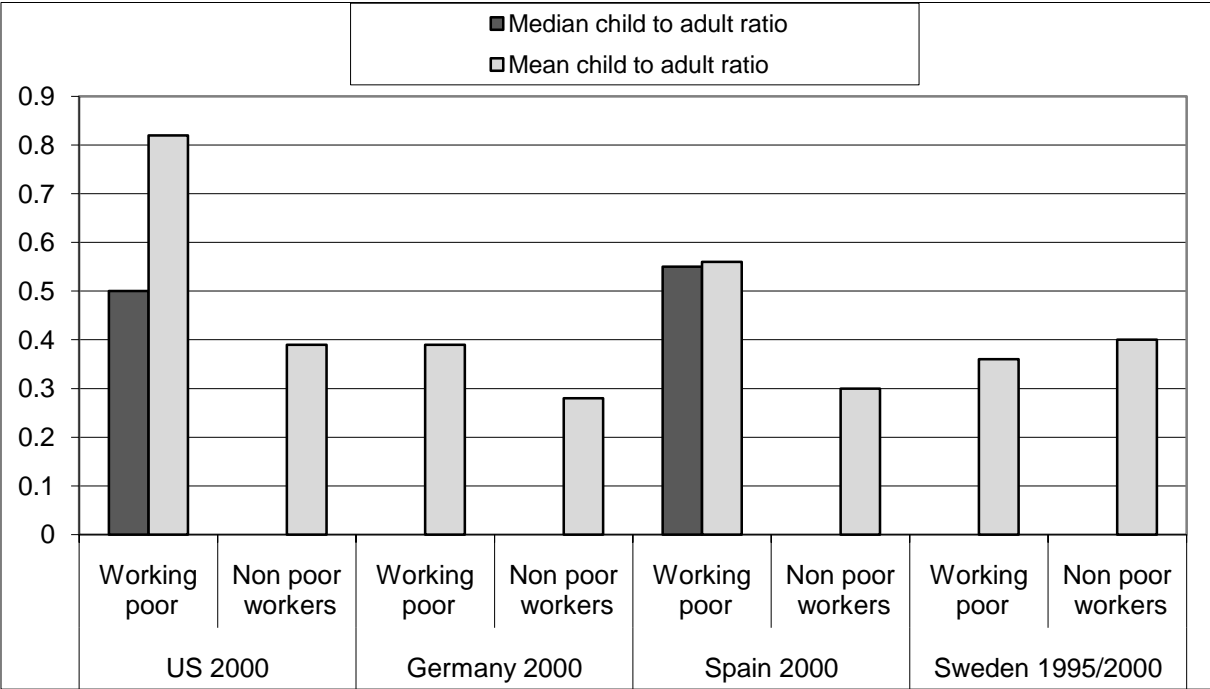
The level of labor force attachment seems to be a mechanism of working poverty everywhere, except in Sweden, where poor and nonpoor workers have similar employment levels, which at first may seem counterintuitive. I get back to this fact in the section devoted to country profiles. Sweden and the US are the countries in which low-income active persons work the most (Sweden exhibiting the highest levels) while the labor force attachment is lower in Germany and lowest in Spain. Comparing the mean and the median among the working poor indicates whether the distribution of work is symmetric or not. In all countries but Sweden, mean labor force attachment is slightly higher than the median, the difference being largest in Spain.

High number of children relative to the number of working-age adults

This indicator produces more surprising results at first sight. It should be noted that in all four countries the median nonpoor worker does not have children – more precisely at least half of them do not live with children (a divorced father who does not live with his children, e.g., has a child-to-adult ratio of zero).

Let us consider now the mean number of children per adult. In the US and in Spain, it is an important working poverty factor, as the mean value is notably higher among the working poor (more than twice as high in the US, 86 per cent higher in Spain). In Germany the mean is hardly higher among poor workers, due to very generous family cash benefits, amongst other factors, and in Sweden the average ratio is even higher among nonpoor workers. This is very counterintuitive, but understandable if one considers that in Sweden poor workers are mostly younger people who have left the parental home early, and because family policy is generously designed. The fact of having children is clearly not a factor of poverty in that country.

Figure 5: Median and mean child-to-adult ratio



Source: Luxembourg Income Study, own calculations

Before turning my attention to country profiles, I have to account for the interplay of these three mechanisms. It is probable that employees whose work volume is low are more exposed to low-wage employment (a low wage rate); moreover, families with children are likely to have a lower labor force participation than childless households. In order to assess these interactions, a logistic regression model has been calculated: The logarithm of the odds of being a poor worker was regressed on the three variables analyzed in the present chapter. Each variable has a statistically significant impact, *ceteris paribus*, on the odds of working poverty in each of the analyzed countries (the p values are always smaller than 0.001). Moreover, I checked whether there is a multicollinearity problem in the model. None of the variance inflation factors exceeds 1.1, which is way below the customary threshold in social sciences of $VIF = 5$. Hence the correlations between the three mechanisms do not bias the estimates presented in table 45, which contains the odds ratios of the four regression models. In this table, cells are shaded according to the weight of each mechanism (horizontally); the larger the weight, the darker the cell:

Table 45: Odds of being a poor worker in the US, Sweden, Germany, and Spain

	US	Sweden	Germany	Spain
	Odds ratio (Exp(B))			
Share of full labor potential actualized ¹⁵	0.13	0.094	0.099	0.077
Child per adult ratio	2.967	2.135	1.832	5.712
Dummy low wage employment	9.106	7.653	15.612	7.257
Nagelkerke R ²	0.281	0.095	0.249	0.192

Source: Own calculations based on Luxembourg Income Study data

The odds ratios indicate that an increase in employment has the largest antipoverty impact in Spain and Sweden, and the smallest impact in the United States: An increase of 0.1 unit increase in the work volume (i.e. an 10 percentage point increase, if the potential is measured in percent) performed by the head of household (and his or her spouse) reduces the odds of being a poor worker by 33 percent in Spain ($\ln(0.077) = -2.56$ and $\exp(-0.256) = 0.77$) and by 28 per cent only in the US ($\ln(0.13) = -2.042$ and $\exp(-0.2042) = 0.82$). An increase of one child per adult (hence of two children for a couple) has the strongest impact in Spain, as the odds of being a working poor are multiplied by 5.7, whereas they are multiplied by 3 in the US and are lowest in Sweden and Germany (the odds are multiplied by 2.1 and 1.9 respectively). Having a low earning potential (that is, low “full-time year round earnings”) has the worst effect in Germany, where the odds of working poverty are multiplied by 15, whereas they are multiplied by 9.1 in the US, by 7.6 in Sweden and by 7.3 in Spain. These findings are largely in line with the descriptive evidence presented above. Last but not least, based on Nagelkerke’s pseudo-R², it can be said that these three mechanisms have the strongest explanatory power in the US, followed by Germany and Spain; as expected, it is smallest in Sweden.

7.4.2 Country profiles

I have already given a certain number of indications on why these mechanisms vary from one country to another. Now I have to discuss country profiles in relation to my hypotheses in a more systematic fashion.

United States

The three mechanisms play an important role, even if low labor force participation is a less decisive factor than in Germany and Spain, as the American working poor have a relatively high labor force attachment. This is not surprising because increasing labor market participation of disadvantaged groups was the main aim of the welfare reform brought about by the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (Clinton administration) and the repeated increases in the generosity of the Earned Income Tax Credit. Indeed, working poverty has been a growing concern since the reform was implemented, as indicated above (Joassart-Marcelli, 2005). The fact that the incidence of low “full-time year-round earnings” is not higher than in Germany and Sweden can be surprising, given that the incidence of low-wage employment is notably higher in the US. However, even if the share is

¹⁵ A value of 1 indicates that the head of household and his or her spouse (if any) work full-time.

similar among poor workers in these three countries, the fact that the incidence of working poverty is much higher in the US means that the percentage of the workforce on low-wage employment living in poverty is significantly higher.

Having children is also a significant poverty factor, which is not very surprising given that working parents have to buy childcare services in the market, which can be a financial burden for low-income families even in the presence of a large low-wage personal services sector; in addition, there are no child benefits in cash (Esping-Andersen, Gallie, Hemerijck, Myles, 2002). Yet, the Earned Income Tax Credit (EITC) has been strongly expanded since the early 1990s and it benefits working families with children mainly. In fact, it is generally considered by American scholars that many families are lifted out of poverty by the EITC - out of poverty by American standards. This means that these families are not necessarily lifted above 60 per cent of median equivalized disposable income – not even above 50 per cent, probably. The following example is revealing in this regard: A microsimulation was carried out by Swiss researchers in order to assess the poverty reduction potential of the EITC in Switzerland, using purchasing power parities to set the boundaries of the various ranges (phase-in, plateau, phase-out) that characterize the design of the EITC. The authors conclude that the EITC is not generous enough to significantly reduce working poverty in Switzerland, using Swiss poverty standards amounting to approximately 55 percent of median income (Gerfin, Leu, Brun, Tschöpe, 2002, Swiss Federal Statistical Office, 2007).

Another factor that has not been stressed so far deserves attention, namely the fact that household size is similar among poor and non-poor workers (the median value is three for both groups according to own calculations based on the same database). This may seem surprising as poor workers tend to have more children. This, however, is in line with the finding that poverty incidence among single-parent families is extremely high in the US: According to LIS-based own calculations shown in table 39, the working poor rate is much higher among single parents than among couples.

Sweden

This is probably the country for which I have obtained the most puzzling findings. First, there is virtually no difference in terms of mean and median labor force attachment between poor and nonpoor workers. The overall high work attachment of poor workers is not surprising in a country with a very high labor market participation rate. My results are in line with others; for instance, Halleröd and Larsson note that a vast majority of the working poor in Sweden work more than 30 hours a week (Halleröd and Larsson, 2008). Another, at first sight, surprising feature is the fact that nonpoor workers have more children than the working poor. This is due to the fact that childcare services are largely available and affordable in Sweden and that parental-leave schemes are very generous (Fagnani and Math, 2008); put differently, the opportunity cost of having children in Sweden is very low in international comparison (Armingeon and Bonoli, 2006). Indeed, child poverty is very low in Sweden (Whiteford and Adema, 2007). But a perhaps more revealing indication is that the median Swedish low-income worker lives alone (own calculations based on the same data set), while the median among nonpoor workers amounts to 2.1 household members: In a country in which two-earner couples constitute the very dominant form of household arrangement and set the level of median income, being single is a disadvantage. Moreover, many Swedish poor workers are young and single (Halleröd and Larsson, 2008); young Swedes tend to live the parental home early in international comparison. Our calculations are revealing: At least half the Swedish working poor are younger than 31.

In Sweden, having a relatively low wage seems to be a precondition to working poverty (Halleröd and Larsson, 2008), which is a widespread characteristic of young employees, not only in Sweden. In this regard, working poverty in Sweden, in a social investment perspective, is probably a less problematic social issue, as it often concerns young, single and childless adults. Child poverty is very low, owing to a “generous” family policy and high maternal employment rates (Whiteford and Adema, 2007). Working poverty, then, does not massively affect children, nor does it seem to have a long-lasting character: The working poor rate drops after age 25 (see table 39). However, the problem of working poverty should not be ignored, as it is a growing problem among Swedish employees (Halleröd and Larsson, 2008).

1995 Swedish figures on low wage rates and labor force attachment, however, should be interpreted with some caution, as they rely on family units rather than households (contrary to the 2000 data), which leads to an overestimation of the number of households by some 12 per cent. It is estimated that around 50 percent of family units in the first decile of equivalized disposable income are children between 18-29 years who are considered as independent units. Hence the average volume of work among low-income workers is probably underestimated in 1995.

Germany

A significant poverty factor among workers is the degree of labor market participation, as the difference between low-income workers and the rest of the workforce is marked. Indeed, poverty among full-time workers who benefit from standard employment conditions (*Normalarbeitsverhältnis*) is very low: As of 2004, only 3.3 percent had an income below 60 per cent of median income (Andress and Seeck, 2007). Unemployment was high at the turn of the century in Germany, and female employment rate quite low, owing to the fact that the German welfare regime reflects a modified male-breadwinner model that does not aim at maximizing women’s participation in employment. It is still expected that women leave the labor market for some years when they become mothers (Andress and Seeck, 2007, Giesselmann and Lohmann, 2008). If male partners have relatively low earnings, this can then easily lead to financial difficulties; however, child poverty is low in Germany, due in large part to a generous tax credit program which has been very significantly increased in a recent past (*Kindergeld*, Andress and Seeck, 2007). The other mechanism that plays a significant role is to have low earnings per unit of time. In fact, this is the main difference between both groups of workers. This mechanism probably plays a bigger role in the Eastern part of the country, as low-wage workers are much more likely to be the main, if not the sole, wage-earner of the family, while most low-paid employees in Western Germany usually are “secondary earners” – mostly women – whose earnings allow the household to escape poverty (Giesselmann and Lohmann, 2008).

Another factor is certainly important: As mentioned above, the working poor are usually young, as they have virtually the same age as the Swedish working poor. According to Giesselmann and Lohmann (2008), based on another indicator and another database, 4 in 10 workers with an income below 60 percent of median income are under 31 years of age. This is also reflected by the fact that the median working poor lives in a smaller household than his or her nonpoor counterpart (2 versus 2.7 members, own calculations based on the LIS 2000 dataset).

The fact of having children in Germany is not a decisive poverty factor, even if poor workers tend to have more children than the rest of the labor force, but the difference is not as striking as in the US or Spain. In fact, this is due to very generous cash benefits for families with

children: Child allowances represented 11.8 percent of the income of a family with two children relying on the earnings of a full-time industrial worker, while this share amounted to 4.7 percent in 1995 (Andress and Seeck, 2007). Interestingly, Germany's generous family policy (more than 3 per cent of GDP is spent on family policy around the mid-2000s, according to the social spending database of the OECD, a level only slightly lower than Sweden's) largely prevents child poverty and contributes to the reduction of working poverty among working parents. However, as it is largely based on cash transfers, and far less on childcare services than in Sweden (Fagnani and Math, 2008), the outcomes are perceivable in terms of maternal employment levels.

Spain

In Spain, low labor force participation seems to be an important poverty factor, even if the impact of this mechanism is less marked than in the other "Bismarckian" country reviewed here, namely Germany. Interestingly, the difference between the mean and the median is largest in Spain, probably owing to the fact that part-time jobs only represent a small share of available positions. Hence, women either work full-time or not at all when they have children (European Foundation for the Improvement of Living and Working Conditions, 2007, Moreno, 2002). Put differently, single earner couples are more widespread than in most countries (Gutiérrez Palacios, Guillén Rodríguez, Peña-Casas, 2009). This all-or-nothing phenomenon among mothers probably explains the dissymmetric distribution of labour market participation of heads of households and their spouses in Spain. All in all, the Spanish working poor display the lowest mean and median work attachment, due to a higher unemployment rate and a lower female participation rate; however, these factors have changed significantly in Spain in a recent past, with an increasing female workforce participation (Guillén and Alvarez, 2002). Between 2000 and today, the female participation rate has skyrocketed (OECD website, labour statistics), which may contribute to a decline in working poverty, but also to an increasing gap between single-earner and dual-earner couples.

Having children can also be a poverty factor, as the mean as well as the median child-to-adult ratio is higher among the working poor, which is not completely surprising in a country with a low level of spending on family policy (Fagnani and Math, 2008). However, due to the importance of the family, one of the most characteristic traits of the Spanish welfare regime (Garrido and Gutiérrez, 2009, Moreno, 2002), the effect of the limited provision of childcare services is reduced.

These results are in line with those obtained by García Espejo and Ibáñez Pascual with a logistic regression of the working poor rate on various poverty factors (in terms of risk groups) – occupational profiles, household type, demographic factors - based on SILC data, concluding that the main factors are labor market attachment and the number of dependants (García Espejo and Ibáñez Pascual, 2007).

An important remark is of order here, namely the fact that the median household is larger in Spain than in the other countries analyzed in this chapter (Gutiérrez Palacios, Guillén Rodríguez, Peña-Casas, 2009); my calculations indicate a median household size of four persons among poor workers, and three among the rest of the workforce. This is due to the fact, among other factors, that a large majority of young Spaniards leave the parental home in their thirties, in very striking contrast with Sweden for instance. This factor is important, because the labor force attachment calculated in the present chapter is based on the situation of the head of household and his or her spouse/partner. Hence, the conclusions drawn may be slightly distorted for the Spanish case; young adults' income is accounted for, but not their labor force participation. So the reader should always keep in mind that we are talking about

the head of household and his/her spouse when analyzing labor market participation. Another important consequence is that these households with many workers benefit from economies of scale in their consumption, which probably contributes to a reduction in the working poor rate.

Finally, a rather surprising finding is the relatively low incidence of low pay among poor workers, when both the hours per week and the weeks per year are accounted for, as available data do not seem to suggest that wage dispersion is more compressed in Spain than in Sweden for instance – the opposite is true. As indicated, the role played by the Spanish families in the provision of welfare is fundamental, by allowing economies of scales in consumption. The aforementioned research carried out by García Espejo and Ibáñez Pascual (2007) also concludes that the incidence of low pay is not very high among poor workers in Spain. This is largely attributable, in my view, to the fact that young low-wage workers escape poverty, as the working poor rate is low among young workers (see table 39).

In fact, the incidence of low-wage jobs (below two-thirds of median hourly gross wage) in 2000 was much higher among workers on fixed-term contracts (approximately 30 per cent) than among workers with a permanent contract (less than 10 per cent, Blázquez Cuesta, 2008). This corresponds to the fact that the share of non-permanent contracts falls sharply with age (Garrido and Gutiérrez, 2009), and that the incidence of low-wage jobs is high among young and prime-age workers (73 per cent of low-wage workers are under 40) and much lower in their parents' age brackets.

7.4.3 Preliminary conclusions: Working poverty mechanisms and policy factors

It is undisputable that working poverty is by far not merely a matter of low earnings, and that the relationship between individual earnings and household income is loose, as has been shown by many authors. However, it seems to be a very important factor that should not be downplayed in social policy analysis. It is noteworthy that the explanations of the incidence of low-wage employment among poor workers differ from one country to another: In Sweden and Germany, it is mainly the young age of poor workers, whereas in the US it is mainly the high incidence of low-wage employment in general. These explanations point to the impact of labor market regulations, among other factors.

However, being badly paid is not the sole working poverty mechanism: Other factors are also very important, notably household size and composition as well as labor market participation, as has already been demonstrated by others in terms of the composition of the working poor population (see e.g. Andress and Lohman, 2008).

Family policy broadly understood, that is including family cash benefits, of course, but also parental leave schemes and the provision of childcare services, seems to be the most important welfare state related factor – in terms of the relative weight of the three mechanisms leading to working poverty. This factor plays a decisive role in terms of the cross-sectionally measured levels of working poverty, but also in a social-investment, life-course perspective, as it allows working parents to have a lower likelihood of falling into poverty, and, hence, reduces the share of children of working parents who grow up in poverty.

This leads us, hence, to another conclusion, namely that working poverty in Sweden and Germany is probably less detrimental a social problem than in Spain and the US: First, because the incidence is weaker, but also because many working poor are young and childless workers who may well escape poverty once they start living with a partner who works too; in addition, they will benefit from generous family-policy schemes should they have children.

7.5 Conclusions: Working poverty mechanisms and risk groups across welfare regimes

The present chapter has shown that despite the massive exogenous shocks that occurred in the 1970s and the 1980s, differences across welfare regimes are still marked – in terms of the approaches that allow combating working poverty - even though a certain degree of convergence has been perceivable in recent years. These differences translate into the fact that each working poverty mechanism has a different weight in each welfare regime, which explains the differences in the extent and composition of the working poor population.

In the liberal cluster, all three mechanisms play a role, but labor market participation less so. In Conservative corporatist countries, a low degree of labor force attachment is an important factor, as well as having a low wage, due to the fact that most working poor are young; children are not an important risk factor. In Southern European countries, too, low workforce participation is a significant determinant, as well as having children; low-wage employment is not fundamental due to the very specific patterns of labor market integration of youth. In Scandinavia, no factor appears to be decisive, except for low wages, as the Swedish working poor are very young. The extent of working poverty is highest in the liberal and Southern European clusters and noticeably lower in Scandinavia and in Corporatist European countries. In terms of employment, until the beginning of the crisis of the late 2000s, the best performers were Anglo-Saxon and Scandinavian countries, whereas Germany's perspectives look less grim today than they did at the turn of the century.

In terms of risk groups, the main differences across regimes concern families with children. The case of single mothers is particularly striking. These findings confirm that family policies are extremely important public policy variables, as maternal employment rates appear to play a fundamental role. Differences are also striking for workers under 30 years of age; in Sweden and Germany, the median working poor is 30 years old; he or she is about five years older in the US and nearly a decade older in Spain.

These findings are robust to the use of alternative poverty lines and poverty indicators. The situation of senior workers remains somewhat unclear, though. In income terms, they appear to be better off workers, whereas they seem more disadvantaged when consumption expenditures are accounted for. This may, however, reflect lower needs and higher savings and wealth rather than deprivation. Hence, the use of nonmonetary indicators could prove very useful for further researches on the financial situation of senior workers.

8 Conclusions

Given the conceptual reflections presented in chapter 2, the analysis of the causes of working poverty presented in chapters 3 and 4, as well as the empirical results provided in chapters 6 and 7, I can now draw conclusions regarding the three arguments presented in the introduction. I can also answer the question that has been at the heart of my analysis: Is it possible to combat working poverty without generating hurdles in the labor market? The results presented here open up interesting avenues of research.

8.1 Main findings

The main findings are grouped into three sections. Each section corresponds to one of the arguments formulated in the introduction.

8.1.1 Argument 1: There is no such thing as “the working poor”

Given the evidence presented in this work, this first thesis is clearly established. There are three working poverty mechanisms through which economic, sociodemographic and public policy factors have a bearing on working households, and, hence, three basic types of working poverty. The evidence is synthesized in the following sections.

There are three basic types of working poverty

A striking feature of mainstream research has been, until very recently, a “definitional chaos” characterized by the use of a large number of poverty thresholds, on one hand, and thresholds defined in terms of hours a week or months a year, on the other hand, for the definition of “being in work”. In many cases, some groups of poor workers (whatever the poverty line used) are not classified as “working poor” for reasons that are, more often than not, implicit. These implicit assumptions might be connected to personal values as to what “really being in work” means. They could also pertain to social policy implications: The situation of workers with a low labor force attachment requires other types of policy interventions. I think that this “chaos” is potentially harmful to social policy analysis, and would like to suggest some solutions.

The main reason behind this myriad of definitions and concepts is mainly due to the fact that conceptual reflections have largely been missing. Throughout the first part of the present work, my idea was to take a step back and think about what “being in work” could mean, and if it is a good idea to exclude some groups of workers from the outset. Another central element is the definition of poverty, a problem that has kept social scientists busy ever since the first poverty analyses were published in the nineteenth century; unfortunately, no consensus has been found to this date.

Regarding the first element, I suggest that a very encompassing definition of “working” poverty should be used in order not to exclude groups of workers from the outset. Sure enough, a respondent who has been working one day a week during the month prior to the interview and was unemployed before is in a completely different situation than a respondent who has worked full-time over the whole period. But if this person is in work and has an income below a given poverty line, why exclude her or him from the group of the “working

poor”? Not classifying this person in this category means, as a consequence, including him or her in the category of the “nonworking poor”; however, her or his situation is also very different from that of a person who did not work in the year prior to the interview and who is not looking for a job (that is, an inactive person). It is also different from that of an unemployed person who has been actively looking for a job, but failed to find one.

The approach I advocate is the following: Based on a very encompassing definition of “working”, it is then possible to draw a typology of working poverty. I have shown that **there are three working poverty mechanisms**, namely being badly paid, having a low degree of labor force attachment, and high needs (especially the number of children per working-age adult). These mechanisms are the channels through which macrolevel factors have a direct bearing on working households. Starting from these three mechanisms and, hence, from the three basic types of working poverty, it is possible to draw a typology of poor workers in order to allow a “fine tuning” of social policy. This can be achieved through setting some threshold values – at this point, setting arbitrary values is less problematic, because no low-income worker has been excluded from the outset – for instance, for the child-per-adult ratio: less than one child per adult, between 1 and 1.5 children per adult, and more than 1.5 children per adult. The same can be done for the percentage of full work potential that is actualized (e.g. 50, 66 and 75 percent of full work potential), and for the “full-time year round” wage expressed as a percentage of the median (e.g. 50, 66 and 75 percent of median earnings). Another, and arguably better, possibility is to use a statistical classification technique in order not to set arbitrary thresholds, cluster analysis for instance.

Another way to proceed is to use official definitions, especially in comparative research. These definitions also entail a certain degree of arbitrariness, but at least they have the advantage of increasing the comparability of analyses by limiting each researcher’s subjectivity. Researchers specialized in comparative social policy analysis are partly dependent on the studies and figures produced by other researchers and official bodies; as an increasing number of European researchers use Eurostat’s definition, for instance, it might be advisable to use it too in order to get comparable results. Ideally, a European researcher could use both approaches, namely Eurostat’s criterion of having spent at least 6 months in the labor market, as well as the most encompassing definition of working, and compare results, which I have done in chapter 7 (table 37) by using both the current labor force status and the main activity status over the income reference period.

Regarding the **definition of poverty**, there is no readily available solution, no answer out there waiting for clearing up the confusion. Poverty lines vary from around 40 percent of median income up to 60 percent, which represents a very broad spectrum. Moreover, even if it is true that the vast majority of researches dealing with working poverty rely on income thresholds as poverty lines, and the headcount ratio as a poverty indicator (i.e. the number of poor persons divided by the size of the analyzed population), other possibilities exist and are used in comparative social policy analysis or in studies that focus on neighboring topics. Accounting for the depth of poverty (poverty gap), or even the severity of poverty (squared poverty gap) are also useful approaches, and the former has been used in the present work. In addition, other monetary indicators are conceivable, consumption expenditure in particular, an approach presented in chapter 7 that leads to different conclusions for senior workers.

The absence of a consensus regarding poverty lines does not, in my view, constitute a major problem for social policy analysis. All poverty definitions in rich countries entail a certain degree of arbitrariness, as those who are considered to be “poor” do not face difficulties that threaten their survival - famines and death from easily curable diseases have largely been

eradicated in postindustrial societies¹⁶. Hence, a pragmatic solution to definitional problems can be the use of a poverty definition that corresponds to a social policy objective. In every country, social policy defines a minimum income level any citizen is entitled to, in order to live a decent life; these thresholds are often found in social assistance programs. This is not advisable, however, for comparative purposes; in this case, poverty lines set by a supranational body can be used, especially if this institution aims at reducing the share of the population with an income below that threshold.

The interest of a typological approach of working poverty has been demonstrated in chapter 7, in which the relative weight of each working poverty mechanism explains why the size of various risk groups varies across countries.

The main drawback of this approach is methodological, namely that it requires large samples. Using a cluster analysis, however, allows choosing the number of clusters wanted at the end of the procedure; hence, a researcher can adjust the number of clusters to the number of poor workers in the sample.

Once the extent of the three types of working poverty is assessed (it is possible to have a more refined typology, because the three working poverty mechanisms may partly overlap, for instance in the case of workers who have a low labor force attachment and more than two children, or workers who combine a low wage rate and part-time employment), it is important to understand why it is so in a given country. This is due to economic factors and to demographic evolutions; moreover, I have shown that existing policy mixes have a pervasive impact.

Economic and sociodemographic changes have an impact on working households through three working poverty mechanisms

Regarding the main determinants of poverty among workers in postindustrial economies, the following conclusions have been drawn:

- economic development per se is a good thing, especially in the early stages of the development process. In advanced economies, however, further development can lead to more inequality and relative poverty. Hence, in postindustrial countries, economic growth can help reduce poverty in the short run, but its impact depends on the evolution of the income distribution,
- concerns about globalization and North-South trade have sometimes been exaggerated. Nonetheless, should North-South trade represent a higher share of total trade in the future, i.e. if there is less trade among OECD countries and more between OECD countries and emerging economies, the situation could become more preoccupying for the low-skilled labor force in high-income countries. Moreover, endogenous mutations, especially skill-biased technological changes, have had a pervasive impact,
- the evolution of productivity growth could be a potential danger, as many service occupations suffer from the cost-disease problem identified by Baumol; some authors, however, relativize this phenomenon. Moreover, the assumption that increased productivity

¹⁶ Unfortunately, however, some cases of extreme poverty still exist: for instance, homeless people die of hypothermia in many American and European cities every winter.

will lead to increased national prosperity may no longer hold, due to automation and technological changes that could leave a large share of workers in lower-paid service jobs,

- the welfare state reduces poverty, in a static sense, thanks to its redistributive effect, but also in the longer run. It seems that worries pertaining to the potential poverty-generating effect of welfare state benefits are not verified empirically. It is reasonable to think, however, that a very heavy tax burden generated by welfare expenses could impede the economy to be running at full speed,

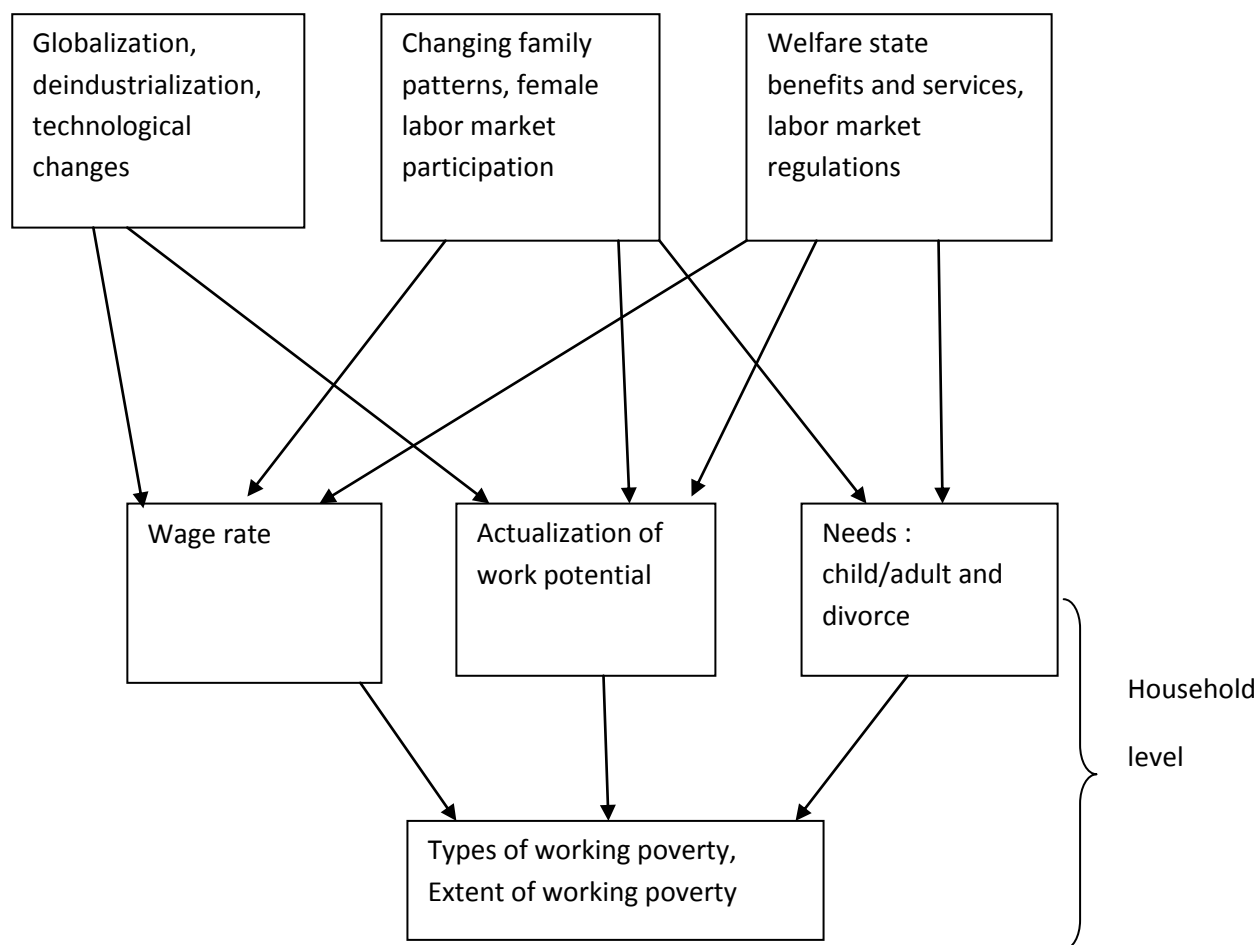
- there have been pervasive demographic and social changes in high-income countries over the past four decades: Families are less stable and divorce rates have skyrocketed. Single parenthood is a significant poverty factor. Moreover, in a society still characterized by social endogamy, increased female labor force participation furthers inequalities in terms of income and employment,

- risks have shifted towards young adults, as they are more affected by problems to find and hold a stable job, to reconcile work and family life in a society in which dual-earner couples have become the norm, and by much higher obstacles for low-skilled and inexperienced workers,

- public policy factors appear to play a pervasive role. The economic and demographic changes that took place over the last three to four decades have been broadly the same in all postindustrial countries; yet, great variations in terms of outcomes are striking and virtually all authors acknowledge the impact of institutional factors, such as labor market regulations and welfare state benefits and services. Public policy factors shape the socioeconomic and demographic composition of the working poor population and have a different impact on each type of working poverty in each welfare regime.

One of the main contributions of the present work is to show that these economic, demographic, and public policy factors have a bearing on households through three channels, namely the remuneration rate, the degree of labor force attachment and the level of needs, especially the number of children per adult. The following scheme summarizes the main findings presented in chapters 3 and 4:

Figure 6: Economic, sociodemographic and public policy factors and the three working poverty mechanisms.



Source: own representation.

Figure 6 simply aims at summarizing the findings of chapters 3 and 4; it is not meant to show all possible causal relationships between each set of causal factors. Moreover, the dynamic dimension is deliberately absent.

In fact, figure 6 does not include all possible factors explaining the incidence and duration of working poverty in postindustrial countries, even though the factors mentioned are the most important according to low-income/low-wage research. For the sake of intellectual honesty, though, I have to mention that some authors put forth individual factors.

An example of this approach, which downplays the impact of social and economic factors, is Herrnstein and Murray's explanation (1994): IQ test results tend to follow a normal distribution, hence the title of their book "the Bell Curve". People with low IQs are more affected by poverty, unemployment, welfare dependency, and prison sentences. Herrnstein and Murray also try to show that African Americans have, on average, lower IQs, which in turn explains why they fare less well than other Americans (Herrnstein and Murray, 1994), which scarily reminds us of old theories that asserted that some "races" are inferior by nature. Put simply, their assumption is that intellectually limited people, coming from intellectually limited minorities, do not fare well in life precisely because they are less intelligent, which IQ tests are supposed to prove. Obviously, this model would fall short of

explaining anything in the absence of proof that IQ tests really measure some form of biologically determined cognitive skills. Actually, IQ tests may reflect parents' educational level and language skills, a child's cultural environment, and knowledge acquired in school. Moreover, oversimplistic, single-factor explanations always raise suspicion, especially when they have a racist connotation. Hence, I did not include this pseudo-scientific factor in my model, even though it is undisputable that psychological and cognitive factors have an impact on an individual's life chances.

The factors summarized in figure 6 affect various sociodemographic groups, defined in terms of:

- **age:** Youth have a higher risk of being unemployed or low paid, as they lack experience in the labor market. Prime-age adults, i.e. most young parents, are more exposed to working poverty in many countries because the presence of children increases household needs, especially if they divorce, as the poverty rate of single-parent households is significantly above average in most countries,

- **gender:** Women are more likely to be low paid than their male counterparts, and are overrepresented in unskilled service sector jobs, while many unskilled males work in the manufacturing sector. Women are also more likely to be unemployed or involuntarily in part-time employment and much more likely to be heads of lone-parent households. Hence, they are more at risk of poverty. However, they are not necessarily more exposed to working poverty, especially married women, because disadvantaged female workers are more likely to have a working partner than their male counterparts; this raises the question, however, of their economic independence,

- **education:** Low-skilled workers, especially people with no post-compulsory education, are more likely to be low paid and unemployed, as the educational level has become the most hegemonic determinant of life chances. Social endogamy reinforces the disadvantage of low-skilled workers, both in terms of income and of employment,

- **household type:** Single parents and large families are more exposed because of high needs and also because, in many cases, labor force participation must be reduced.

- **immigrant or minority status:** Whereas there are very mobile and cosmopolitan elites made up of CEOs, executives, academics, high-ranking officials, and the like, persons with a migration background as well as other minorities tend to have a lower educational level - or their diplomas are not accepted by the host country - and less desirable positions in the labor market, as they are overrepresented in low-wage sectors. Moreover, they are more exposed to unemployment. However, it is often difficult to distinguish class-related factors (skills, diplomas, etc.) from "ethnic"/"racial" disadvantages (statistical discrimination). Limited linguistic skills of non-native speakers are also an obvious barrier to employment and vertical mobility. For children, having parents who are not native speakers is an obstacle to educational achievement. Moreover, some immigrant groups tend to have a larger family, which increases their needs.

Risk factors such as belonging to a visible minority or having a migration background have not been analyzed thus far, because they are mainly reflected in the three working poverty mechanisms, due to differences in skill levels, diplomas, language proficiency, family size and composition, among other factors. However, there may be elements that are specific to these groups, such as, for instance, statistical discrimination; this phenomenon, likewise, mainly translates into lower wage rates and lesser employment opportunities. However, I

briefly review some figures I have not presented in chapter 7, namely the incidence of working poverty broken down by nationalities or minority groups, based on Luxembourg Income Study data for the year 2000. I do not review this evidence extensively, but the main findings illustrate the heterogeneity of “minorities” and of the population with a migrant background.

In 2000 in the US, natives born in the US make up 87 percent of nonpoor workers but only 74 percent of the working poor; one in eight working poor (12.3 percent) arrived in the US between 1990 and 2000. In the same year, German nationals make up 93 percent of nonpoor workers and only 82 percent of poor workers; interestingly, EU-15 citizens have a lower working poor rate than Germans. The difference between nationals and other workers is less marked in Sweden, probably owing to the smaller size of minority groups in 2000. Swedes represent 96 percent of nonpoor and 92 percent of poor workers; as in Germany, some groups of European non-nationals have a lower working poor rate than Swedes, especially other Scandinavians and Finns (4.3 percent vs. 5.1 percent among Swedes). In Spain, in 2000, the presence of non-nationals was still limited; however, this has changed in a recent past, as indicated above, with a 900-percent increase between the mid-1990s and the late 2000s. But in 2000s, Spaniards made up 99 and 98 percent of nonpoor and poor workers, respectively. These figures show, unsurprisingly, that non-nationals or persons with a migration background are more exposed to working poverty. However, in each country, some groups are less affected than native born nationals; in Europe, it is often the case of persons coming from “old” EU member states. It should be borne in mind that any form of discrimination or of difficulties due to the non-acceptance of diplomas do not constitute a working poverty mechanism per se; they translate into lower wage rates and higher difficulties to find a job.

8.1.2 Argument 2: Different welfare regimes generate different types of working poverty

The three working poverty mechanisms have a different weight in each welfare regime. I was able to show in chapter 7 that all three factors have an impact in the US, whereas workforce participation has a lower weight than the other two. In Germany the main mechanisms are a low workforce participation and being badly paid, whereas the latter has much to do with the young age of the median working poor in this country, and also with specific problems in the Eastern part of the country (the former GDR). In Spain, having children and a low workforce participation are the main determinants of working poverty; having a low-paying job is not a pervasive factor. In Sweden, none of the mechanisms appears to play a fundamental role, whereas having a low wage is very widespread due to the fact that most Swedish working poor are very young and live alone. Hence, I can conclude that this second thesis is clearly established, in terms of mechanisms and of risk groups.

Family policies appear to play a particularly important role in shaping working poverty; their “generosity” as well as their emphasis on either cash benefits or family services are decisive factors. Chapter 7 also demonstrates that the sociodemographic distribution of the working-poverty risk varies considerably across countries. Hence, from this risk-group perspective too, it comes as no surprise that some policy mixes appear to be more efficient in some countries than in others.

In addition, the present work allows understanding how existing policy mixes shape the three types of working poverty (extent and composition), and that any reform aiming at reducing

working poverty will have to identify the types of working poverty that are not efficiently combated as well as the negative side-effects a policy that efficiently combat one type of working poverty can have on the other working poverty mechanisms.

Though I have already analyzed working poverty mechanisms in each welfare regime, I still have to provide a succinct depiction of the functioning of each welfare regime in systemic terms.

The liberal cluster is mainly characterized by legally enforced minimum wages and earned income tax credits, which are both components of a “make work pay” strategy (MWP). In the US, this MWP approach is accompanied by a welfare-to-work orientation, and caseloads have markedly decreased since the welfare reform of 1996. The US case, as it is today, is based on a “work-first approach”. The UK is somewhat different in this regard, as means-tested social assistance benefits were made more generous at the same time as the WFTC was expanded, because the reduction of child poverty was also an important goal of the proponents of the “third way”. The functioning of this policy mix is the following: The goal is to maximize workforce participation. Labor markets are lowly regulated, the minimum wage set at a relatively low level (the latter comment does not apply to the Antipodes), and welfare recipients are strongly encouraged, and sometimes forced, to accept any job available. A large low-skilled service sector exists. Moreover, efforts have been made in the field of childcare policies, in order to further help low-skilled mothers in general, and lone mothers in particular, to participate in the labor market. Hence, there are many workers who need a public intervention in order to be able to make ends meet. If a person holds a low-paying job, then she or he is granted financial support through the tax system, which is less stigmatizing than going to a welfare agency, mainly through earned income and childcare tax credits. It is hoped that, by keeping low-skilled workers in the labor market, they will climb the earnings ladder after some time and become financially more autonomous and will not be back on welfare. This approach requires, on the part of voters-taxpayers, the acceptance of large inequalities and a reluctance to see the state heavily involved in the economy in general, and the labor market in particular.

In the Social Democratic Scandinavian cluster the approach to the fight against working poverty is fundamentally different. The central goal is also to have high employment rates and low unemployment levels, but another fundamental aim is to keep income and earnings inequality as low as possible. Active labor market policies, generous parental leaves and childcare policies, combined with the existence of a very large public sector, ensure that enough jobs are available and that all groups of citizens can have a high employment rate, including mothers of young children and senior workers. Earning inequalities are kept at a low level through collective agreements; public employment also plays an important role, as many low-productivity jobs are provided by the state and are, hence, relatively well-paid. Income inequalities are combated through generous income transfers towards unemployed and inactive citizen. Moreover, households’ expenses on childcare services and healthcare are low. In the Swedish case, for instance, this combination of factors ensures that households who are in the bottom decile of the income distribution are better off than their counterparts in most OECD countries, especially US low-income families. The Scandinavian model requires a fundamental condition: Voters-taxpayers must be ready to pay high taxes and to accept a heavy involvement of authorities in many aspects of everyday life - employment, family matters, disposable income, etc. - and they must have a relatively egalitarian ethos. This appears to be more or less the opposite of the prerequisites of the liberal model.

The Conservative corporatist European model constitutes a largely different world of social-policy efforts than both the liberal and the social-democratic model. Until recently, the goal was not to maximize employment, but to ensure “good quality” jobs for those who are in the labor market, while early retirement, low female labor force participation and labor shedding were perceived as appropriate measures, i.e. the reduction of labor supply. The core labor force is well protected, both through employment protection regulations and collective bargaining, whereas the relative weight of each component varies largely across countries. For instance, regulation by law plays the main role in France (legal minimum wage, the frequent use of extension laws, etc.), while in Germany collective bargaining is at the heart of the regulation of the labor market. While the situation of the core workforce has remained stable in recent years, flexibility has been obtained by deregulating the labor market at its margins, a trend that has been observed in many Continental European countries in a recent past. Short-term employment, the use of temporary agencies, lower payroll taxes for low-paying jobs, among other measures, have been used, thereby generating a certain degree of dualization. In addition, exception clauses have increasingly been accepted in collective agreements. Working poor rates are low in Continental Europe, and can be even lower than in Scandinavia, through a combination of relatively high wages, whatever the way minimum wages are set, combined with “generous” social transfers for the unemployed or inactive members of working households. But whereas Scandinavian countries combine both low working poor rates and good employment performance, Continental European countries appear to be subject to a complex tradeoff. For instance, better employment performances and larger inequalities characterize Germany in the 2000s. The tradeoff seems to be reinforced by the fact that voters-taxpayers are reluctant to see inequalities increase: Some authors think that the perceived unfairness of some of the Hartz reforms explain the electoral loss of the Red-Green coalition in 2005.

The Southern European cluster has some features in common with other Continental European countries, mainly its heavy reliance on passive income transfers to support those who are not in the labor force, and the fact that employment maximization has never been a priority. This cluster has, however, distinctive features, mainly the role families play. The main pillars of the fight against working poverty are generous social transfers combined with a very strict regulation of the labor market: Spain and Portugal are the two European countries with the strictest employment protection legislations. Hence, workers who are in the core labor force are very well protected, and in the event of a layoff, severance pay is very expensive for employers. In Spain, young workers have a long and relatively hectic pattern of labor force integration, and alternate between unemployment and short-term employment. In periods of economic slump, their unemployment rate shoots up and can reach staggeringly high levels: Around one in three young adult in Spain is unemployed as of the writing. Unemployment in Spain is, hence, strongly cyclical. However, the working poor rate is relatively low among workers in their late twenties and early thirties, as a large majority live with their parents, who hold well protected jobs; in addition, unemployed households member get “generous” unemployment benefits. Most of them leave the parental home when they are in their thirties, once they obtain an open-ended work contract. Hence, one of the characteristics of the Southern European welfare state is that it attributes an important role to families: Young workers are expected to live with their parents if they do not have an open-ended contract (unemployment benefits are generous, but they require a certain period of labor market participation); moreover, family policy is not very developed.

Finally, I can draw conclusions as to the efficiency of the fight against working poverty in each welfare regime. It is probably fair to say that Scandinavian countries are the best-equipped in the fight against new social risks in general, and working poverty in particular.

These countries demonstrate that there is not necessarily a tradeoff between unemployment and working poverty, but they display a very specific constellation of institutional factors. Anglo-Saxon countries appear to be relatively well prepared to face postindustrial challenges; after the culmination of neoliberal policies in the 1980s, which led to a strong increase in social exclusion and poverty in general, and working poverty in particular, these countries have largely expanded tax credits for workers, reduced the impact of childcare costs, and, in the US, expanded healthcare coverage. Relative poverty levels remain high, though. Continental European countries have had many difficulties in facing the challenge posed by postindustrial mutations; in the 1990s and early 2000s, they appeared to be unable to tackle high unemployment levels and were perceived as a “frozen landscape”. However, according to many authors, they seem to be in the midst of a paradigmatic shift, with a gradual transformation of the model. Understanding and analyzing this evolution will certainly be a key component of European social policy analysis in the near future; researchers are currently analyzing this “long goodbye to Bismarck” (Palier, 2010). Finally, it does not seem unfair to say that Southern European countries are the less well equipped to adjust to new social risks. However, it should be borne in mind that they are young democracies who had closed economies until recently, and, given this point of departure, many improvements they have made in recent years are quite impressive. In Spain, female labor force participation has increased massively, the average educational level is much higher than it was 15 years ago, and the welfare state has been expanded to unprecedented levels. Yet, Spain’s labor market probably needs very far-reaching reforms.

8.1.3 Argument 3: There is no “one-size-fits-all” policy mix. Each regime must find its own combination of policies.

This thesis is largely confirmed by the meta-analysis; it shows that various instruments do not have the same impact across welfare regimes. The risk-group analysis clearly shows that the composition of the working poor population varies across countries, which further confirms that it is not possible to determine a single policy mix that would work everywhere.

Different social policy instruments affect different types of working poverty (in different welfare regimes)

I have shown that the fight against working poverty relies on three basic approaches, namely minimum wages, social transfers and an employment-maximizing strategy, and that each approach can be broken down in two main subcategories. The first and the third approach mainly combat one type of working poverty (poverty due to a low wage rate and that caused by a weak labor force attachment, respectively), whereas social transfers can support each type of poor workers, by providing benefits that supplement low earnings, by supplementing the income of “high-needs” households, and by providing incentives to work if they are employment-conditional.

It is possible to draw a typology of welfare regimes according to the two main subcategories that underpin the fight against working poverty: A coercive employment-maximization approach combined with complementing cash transfers in the US, an employment-maximizing strategy based on incentives and collective bargaining in Sweden, substitution income transfers and collective bargaining in Germany, and legal minimum wages and substitution cash benefits in Spain.

I have then analyzed the impact of specific social policy instruments in chapter 6 with a meta-analysis of social policy tools and labor market regulations that are usually put to the fore in the literature and appear to have an impact on poverty among workers. These are minimum wages, be they legally enforced or collectively bargained, employment-conditional tax credits, namely the American Earned Income Tax Credit, the UK's Working Family Tax Credit, and the French Employment Premium (*prime pour l'emploi*), as well as family cash benefits, be they universal or means-tested, and policies that aim at reducing the fees or increasing the availability of childcare services. These meta-analyses have been accompanied by qualitative interpretations that focused on subsamples of estimates.

The main conclusions I have been able to draw on the basis of meta-analyses are the following: Low **minimum wages** set at around one-third of gross average wage, such as the American federal minimum wage, are unlikely to efficiently reduce working poverty and they seem to have little disemployment effects, if any. In countries with higher minimum wages, such as France with a legal minimum set at 45-47 percent of average gross wage, they are more likely to reduce working poverty, but they also appear to have a more negative impact on employment performance, whereas it may not be as negative as is often assumed in "textbook" labor economics. Moreover, even if minimum wages set at a level that does not harm employment do not strongly reduce the incidence of working poverty, they reduce its depth, and, hence, welfare state expenses needed in order to fill the poverty gap. Unfortunately, neither the evidence I have gathered, nor the one stemming from literature reviews, has allowed me to draw conclusions as to the level at which these minimum levels should be set.

It is fundamental to note, in addition, that minimum wages interact with other labor market regulations and taxation; the same minimum wage (in purchasing power parities) will not have the same impact in countries with high payroll taxes and strict employment regulations as in countries that have a lowly regulated labor market and low social security contributions. Finally, minimum wages appear to be necessary complements to employment-conditional benefits, in order to prevent employers from lowering wages after the introduction of these work-conditional programs.

Second, **employment-conditional tax credits** for workers appear to have efficiently contributed to employment increases in Anglo-Saxon countries, but these conclusions apply to very specific contexts. First, single mothers had very low employment rates and made up a large share of welfare recipients before the expansion of these credits. Second, the UK and the US have lowly regulated labor markets and a large low-skilled service sector, with a high degree of wage dispersion and a high incidence of low-wage employment. Third, both the UK during Tony Blair's era and the US during Bill Clinton's experienced very good economic performances; this is particularly true for the US with one of the most prosperous decades in its history. Fourth, in the case of the US, the increased generosity of the EITC was accompanied by a fundamental welfare reform which led to a massive decrease in caseloads, contrary to the UK, a country in which means-tested benefits were also increased as the reduction of child poverty was high on the political agenda. This fundamental difference between the American and the British reform helps explain a pronounced puzzle, namely that the WFTC, which was twice as generous as its American counterpart, was roughly twice less efficient in employment terms. In both countries, it was mainly lone mothers who were reactive to the positive incentives provided by the EITC and the WFTC; on the contrary, married women reduced their labor force participation following the expansions of the tax credits. Nonetheless, the increase in single mothers' employment appears to have outweighed

the decline in married women employment. These tax credits also appear to have slightly reduced the incidence of poverty among working families.

Interestingly, simulations of the introduction of similar programs in continental Europe lead to different conclusions, as it appears that these credits would have little effect, if any. The employment effect may even be slightly negative, with disincentives effects for married women outweighing the positive impact on lone mothers. Some reasons could be indentified: First, the distribution of earnings and income is more compressed, and the incidence of low wages smaller. Second, the situation of single mothers appears to be less grim, due to more generous family policies; in countries in which family policy mainly takes the form of cash benefits, the impact of such credits might be dulled by relatively generous benefits. Third, the number and types of jobs available in Continental European labor markets probably do not allow a large influx of low-skilled (single) mothers. Some attempts have been made in Continental Europe, and many led to disappointing results. A tax credit introduced in Belgium was suppressed after a few years only, and virtually all evaluations of the PPE in France also conclude that its impact is very limited and only redistributive. It will be interesting to see whether the tax credits that have been introduced in Scandinavia in a very recent past will be more successful; this could be the case, because Scandinavian welfare systems actively promote maternal employment.

Family policy appears to be a more promising tool for European countries, whereas this conclusion largely varies from one instrument to another. First and foremost, providing **affordable childcare slots in sufficient number** has a positive impact on maternal employment in countries in which the supply of childcare slots is still quite limited, and/or prices high. In countries in which childcare slots are already largely available and not expensive, mainly in Scandinavia, recent reforms have not had, logically, a large impact, as the vast majority of mothers were already in work and in-work poverty low. It should be noted, however, that this approach works in Scandinavia because there are enough jobs to be had, even for low-skilled mothers, because there is a large pool of public sector jobs in personal services, including the employees of publicly funded and subsidized childcare facilities. Moreover, this servicing strategy is articulated with other employment-maximizing policies, mainly active labor market policies and “generous” parental leave schemes. It might not be necessary, however, to have a similar institutional environment as Scandinavian countries for childcare policies to be successful. If unemployment is reasonably low, increasing the number of subsidized childcare slots and decreasing childcare fees may contribute to the fight against working poverty, because this would create a virtuous circle, due to the “multiplier effect” of female employment in postindustrial economies.

Interestingly, while the impact of childcare policy on maternal employment and on fertility has been evaluated by many authors, its antipoverty impact has been much less subject to quantification. This might be due to the implicit assumption I have often read between the lines of many articles that an increase in maternal employment leads to a reduction of poverty. This is probably true, overall, but in many cases, as indicated by Whiteford and Adema (2007), the servicing strategy alone is not sufficient. Hence, I think that investigating the anti-working poverty effect of an increase the availability of childcare slots and/or a decrease in childcare fees, is probably an important avenue for future research on potential efficient policies in the fight against working poverty.

Another approach to family policy is possible, namely supporting families with children through **cash benefits**. Their antipoverty impact has often been assessed, and some sophisticated evaluations based on static microsimulations are available. Yet, they do not take

into account the fact that low-skilled mothers may reduce their labor force participation after an increase in family cash benefits. Evidence stemming from Anglo-Saxon countries, in which family benefits are mostly means-tested, tends to indicate a negative employment effect. On the contrary, disemployment effects appear to be only marginal in European countries. This may be due to the fact that there are, as already indicated, probably less low-skilled jobs available in the service sectors in Continental Europe; in addition, due to the more compressed wage distribution and the lower incidence of low-wage jobs, mothers who hold a job may be less likely to leave the labor market in the event of an increase in family cash benefits. Family benefits appear to have a positive antipoverty impact; however, this conclusion is only tentative. As in the case of childcare policies, the number of estimates of their antipoverty effect is limited – estimates that take into account the potential negative employment effects. I should be borne in mind, in addition, that the regression model provided by Moller, Huber, Stephens, Bradley and Nielsen that I have presented above shows that family cash benefits have a positive antipoverty impact, even when economic growth and employment are controlled for.

With hindsight, I realize that, as social policy instruments cannot be expected to have the same impact in all socioeconomic contexts and for all groups of poor workers, **it would be ideal to follow my model and to evaluate the impact of social policies on each type of working poverty,** or on each working poverty mechanism, in each welfare regime. This, of course, is usually not the case in evaluations, whereas some estimates pertain to specific subgroups, such as families with children or full-time workers. As the first prong of my empirical contribution is a meta-analysis, that is a statistical analysis of estimates produced by others, this would require an in-depth retreatment of their findings and would prove impossible in most cases. Still, I will shortly analyze, in retrospect, the impact of the instruments I have meta-analyzed on different types of working poverty.

Minimum wages, obviously, have an impact on the fact of being badly paid, by preventing wage rates to be too low. As the wage a worker gets is not a function of his or her household's size and composition, then, minimum wages cannot fight working poverty when it is caused by high household needs. If minimum wages are set at a "high" level that may affect the employment opportunities of low-skilled or inexperienced workers, or, on the contrary, if they help low-wage workers without creating hurdles in the labor market because they are set at an "optimal" level, they can have an impact on the second working poverty mechanism, namely the degree of labor force attachment at the household level. Hence the impact of a minimum wage will depend on the number of badly paid workers among poor workers, on their sociodemographic characteristics, and on how low their wages are. Finally, it appears that minimum wages set through collective bargaining, by allowing more flexibility, may allow taking into account the characteristics of economic sectors (especially low-productivity industries, such as hotels, catering, tourism, retail, and the like) and of specific groups of workers (for instance workers under 25), thereby reducing the risk of creating hurdles in the labor market. However, the coverage of minimum wages set in collective agreements is never universal, and in some countries, it is far from universal, which means that many workers still have the risk to be paid a "poverty wage".

Tax credits for workers have an impact on two mechanisms. They were mainly designed to increase the labor force participation of low-skilled workers, especially lone mothers, and reduce welfare dependency. In Anglo-Saxon countries, they have had a positive employment impact and have, hence, helped workers who were poor because of a low labor force attachment. Second, as the level of the maximum credit depends on the number of children, they have also contributed to combat poverty among those who were in a difficult situation

due to high needs. As minimum wages exist in countries in which these employment-conditional credits are more developed (notably in the UK and the US), it can be said that the tandem earned income tax credits/minimum wage dulls the effect of the three working poverty mechanisms. In the US, however, as these programs are relatively modest and mainly aim at preventing workers from falling into extreme poverty (the official poverty line, which is very low in international comparison, is about where the EITC starts phasing out), they do not lift many workers above the usual poverty thresholds used in mainstream comparative social policy analysis. Moreover, the program lifts millions of people out of poverty (by American standards) because, at least in part, there is a large number of workers who need support to make ends meet.

Cash benefits and services for families mainly affect two mechanisms. First, of course, they help workers who are poor because they have higher needs due to the presence of children in their household, by providing them with cash benefits; however, they may reduce the workforce participation of mothers (mainly in Anglo-Saxon countries, and less so in Continental European countries), which in turn could have a negative impact on the second working poverty mechanism. Childcare services, if they are largely available and affordable, allow parents of young children to work more. They reduce the type of working poverty that is generated by a low degree of labor force attachment, but this approach is quite unlikely to have striking results if job opportunities are scarce, especially for low-skilled mothers. In Scandinavia, there is a large public low-skilled service sector (and it is noteworthy that public employment accounts for about one-third of employment in Sweden); this allows mothers to work more if they wish to, which in turn generates more personal-services jobs due to the “multiplier effect” of maternal employment. In other countries, especially in Continental Europe, mothers have less employment opportunities. Still, even in these countries, mothers who have a job will also be better off if the availability of childcare slots is increased and fees reduced. Moreover, as already indicated, employers may be more inclined to pay better wages and invest more on mothers’ human capital if they think that the birth of children will not strongly decrease their productivity.

These are the main answers I can give to the question: Which policy mixes have an impact on which kind of working poverty in which welfare regime? This leads me now to another empirical contribution of the present work, namely the overall impact welfare regimes have on various types of working poverty.

The tradeoff between the quality and the quantity of jobs is dealt with in various ways across welfare regimes

In the introduction of the present work, I suggested that policymakers are held hostage by a tradeoff between combating (working) poverty and establishing an employment-friendly environment. However, the fact that there is no tradeoff between working poverty and employment performance is illustrated by Scandinavian countries, but this welfare regime combines very specific features that probably make this model difficult to export, mainly the very large size of the public sector, a strong egalitarian ethos and taxpayers who do not rebel against high tax rates. Hence, in the other welfare regimes, there may well be a tradeoff between the quantity and the quality of jobs¹⁷.

¹⁷ Of course, defining the quality of a job is complex and goes beyond income considerations (Guillén Rodríguez, Gutiérrez Palacios González Begega, 2009); yet, I have focused on monetary aspects in the present work for reasons developed in chapter 2.

In Anglo-Saxon countries, the tradeoff exists but is not very marked. Employment performance remains the number one priority and the existence of high levels of inequalities is not perceived as a major problem, especially in the US. However, as indicated above, the large increase in working poverty that took place during the Reagan era seemed to undermine a core American belief: That a commitment to the work ethic will provide a road out of poverty (Levitan and Shapiro, 1988). After the peak of the neoliberal era, measures aiming at helping low-income working families have been largely expanded in the 1990s, especially the EITC, but also healthcare coverage for children (SCHIP), and, as of the writing, a fundamental reform of healthcare is being implemented, which ensures that the vast majority of Americans is covered. It is noteworthy, though, that the access to financial support has become more restricted for nonworking persons, especially since the 1996 reform.

Continental Europe appears to be the region in which this tradeoff is the most pronounced. The German case is very interesting in this regard. In the 1990s, Germany was regarded as the “sick man of Europe” due to its difficulties to perform well in macroeconomic terms, especially its high unemployment levels. Now that the Hartz reforms have been introduced, some of which increased the number of jobs supplied, especially in the low-wage segment, Germany appears to have achieved better employment performances – yet, there are other factors than the Hartz reforms that also explain this improvement, for instance the growing importance of exception clauses in collective agreements. In parallel, Germany has also experienced growing earnings and income inequality. In recent years, the Hartz reforms have contributed to the creation of many low paying jobs and, according to evaluations, to an increased efficiency of public employment services. On the other hand, however, both earnings inequality and the poverty risk have been on the increase in Germany in recent years, and many voices have expressed their concern. After the electoral defeat of the government that implemented the Hartz reforms, subsequent administrations have adopted a more moderate stance towards labor flexibilization. Moreover, many politicians have advocated the introduction of a minimum wage to stop this trend towards increased inequalities.

In Mediterranean countries, too, this tradeoff between protecting the core labor force (and thereby protecting them against working poverty by allowing constant patterns of labor force participation) and preventing too strong a dualization of the labor market exists, with a very high degree of protection of the core labor force. In my view, national debates on a reform of the labor market cannot be avoided. The Spanish government has recently introduced such a reform by reducing the layoff costs, from 45 days of indemnization per year worked in the company to 33 days, among other measures (El Mundo, June 16, 2010). As unemployment levels are currently very high and public debt abysmal, however, the priority may well be given to reducing unemployment and cutting welfare state expenses, especially pensions, thereby relegating poverty reduction to the role of a secondary goal for some years.

In conclusion, I would like to underline that what could work in each welfare regime in the fight against working poverty largely depends on the existing policy mix, because it has a differential impact on the three types of working poverty, that is, it has an impact on the relative weight of each working poverty mechanism. It is then necessary to identify which of the working poverty mechanisms are not efficiently combated in order to broaden the scope of the fight against working poverty.

In addition, it seems reasonable to conclude that the trade-off between the quality and the quantity of jobs can be overcome, but that it probably takes a costly policy mix to achieve this goal: Countries like Denmark, Sweden and the Netherlands spend at least 1.4 percent of their

GDP on active labor market policies (Kluve, 2006), and Sweden and Denmark spend around 1.5 percent of their GDP on family services (mainly childcare services).

8.2 Public policy matters a great deal

In this work, public policy factors are analyzed in two ways. First, they shape working poverty, by influencing each of the three working poverty mechanisms. Second, they can be adjusted and reformed in order to better combat different forms of working poverty. I have been able to show whether specific policies are efficient tools in the fight against working poverty or not. I did not, however, draw conclusions as to the overall impact of social policy, though I have drawn conclusions in terms of the overall impact of each welfare regime. Moreover, social policy always interacts with economic and demographic factors. This section is devoted to this interaction.

In chapter 3, I have presented in a systematic and organized fashion many findings regarding the poverty impact of the main economic and sociodemographic factors in postindustrial countries, including reflections as to the impact of economic growth and unemployment on poverty, while chapter 4 has dealt with public policy factors, and underscored the main instruments that contribute to the fight against working poverty.

Whereas I have presented evidence on whether specific policies have an impact on employment and poverty when macroeconomic factors are accounted for and analyzed the overall impact of welfare regimes on working poverty, I still have to assess the overall impact of economic, demographic, and public policy factors. In order to do so, I searched in the literature for regression models with specifications that allow answering the question: **What is the impact of social policy factors when the impact of economic and demographic factors is controlled for?**

Some authors have tried to organize the plethora of empirical findings found in the comparative literature, usually by using regression models in order to obtain a hierarchy of various factors. **Brady (2004)**, in a very encompassing approach, including demographic, macroeconomic, policy and institutional factors, has tried to identify the most important poverty factors, using the Luxemburg Income Study, namely datasets from 18 Western nations from 1967 to 1997. As already indicated, many studies have established in a descriptive fashion, by comparing pretax/pretransfer and posttax/posttransfer poverty rates, that the welfare state effectively reduces poverty. However, this approach does not account for the fact that social benefits and the tax burden they impose might slow down economic growth and reduce employment levels, among other neoliberal criticisms. Hence, Brady takes into account what he calls “the liberal critique” which blames the welfare state for generating welfare dependency, favoring single-headed households, and hindering the full realization of potential economic growth. This “liberal” critique rests upon the assumption that economic performance is the main determinant of poverty.

Brady also takes account of the comparative sociological literature on welfare states, including Esping-Andersen’s famous typology of welfare regimes: liberal (residual, mainly in Anglo-Saxon countries), corporatist (read continental European) and social democratic (i.e. Scandinavian) (Esping-Andersen, 1990). As of 2004, according to Brady, ‘only descriptive evidence exists on the patterns in poverty across welfare state regimes’ (Brady, 2004: 10). Comparing what he calls “market generated” poverty (i.e. pretax/pretransfer) and “state

mediated” poverty (i.e. posttax/posttransfer), using a relative poverty threshold, he comes to the following conclusions:

‘The state mediated poverty results do not support liberal economic claims. The welfare state, not economic performance, is the most important influence on poverty. While economic growth significantly reduces state mediated poverty, its standardized coefficient is less than a sixth as large as the combined effect of social security transfers and public health spending...unemployment [does] not have significant effects...the percent of the population not in the labor market and the percent of children in single mothers families are insignificant...the welfare state does not indirectly increase poverty...results contradict Esping-Andersen’s arguments¹⁸...Public health spending has the largest effect of the welfare state features, and in fact of any variable’ (Brady, 2004: 20-27).

Brady’s model demonstrates that the welfare state does not have a negative impact on poverty; on the contrary, it is the main antipoverty factor (actually social security transfers and health spending). Economic growth is also a statistically significant antipoverty factor. His model explains about 80 percent of the variability of the poverty rate across countries.

Lane Kenworthy (1999), using an absolute poverty line for international comparisons (based on purchasing power parities), first shows that welfare state awards do not negatively affect pretax/pretransfer income (the correlation between social transfers and the pretax/pretransfer poverty rate is very small, $r = 0.18$), contrary to the “welfare dependency”-thesis, an archetypal example being Charles Murray’s famous statement according to which: ‘We tried to provide more for the poor and produced more poor instead’(quoted in many articles including Kenworthy, 1999 and Darity and Myers, 1987). This welfare-as-a-poverty-factor view holds that ‘economic growth, the key to poverty reduction, is crippled by excessive redistribution’ (Kenworthy, 1999: 1120). Using an absolute threshold and pretax/pretransfer allows Kenworthy to take account of the fact that the welfare state might slow down economic growth and hence, the growth of the median income, a fact that relative poverty indicators do not reflect. However, even when taking into account the indirect, longer-run effect of social welfare transfers, the welfare state does reduce poverty (Kenworthy, 1999).

Other regression models have been developed by **Moller, Huber, Stephens, Bradley and Nielsen (2003)**. Analyzing the situation of households in which the head is 25 to 59, they use 50 percent of the average household income as a poverty line. Their regression models explain the level of pretax/transfer poverty and poverty reduction, that is, posttax/posttransfer poverty levels.

They note that researchers have recently begun to examine the predictors of cross-national differences in relative poverty. Analyzing the impact of economic development, they state that ‘The historical association with decreasing poverty may have ended in recent decades...There is some evidence...that income inequality becomes positively associated with GDP at high levels of development’ (Moller, Huber, Stephens, Bradley, Nielsen, 2003: 24). As many authors, they note that the manufacturing sector has higher average wages and a more equal income distribution. They also take account of the changing role of women and changing family patterns, single-headed households becoming much more frequent. Political and institutional factors are also accounted for, i.e. the presence of a left-wing or a Christian democrat or a conservative cabinet and the impact of welfare policies, including potential

¹⁸According to Brady’s regression models, surprisingly enough, welfare-state clusters have no statistically significant effect on poverty, whereas the level of social welfare expenditures has. The latter finding probably explains the former.

negative impacts such as an increased pretax/pretransfer poverty due to the disincentive to work caused by “too generous” transfers. The constitutional structure can also be important: Proportional systems allow small parties to have some MPs elected and have their voice heard, whereas majoritarian systems do not allow that. Moreover, some political systems have more veto points than others (Alesina and Glaeser, 2004). Women’s political mobilization can also play an important role in shaping social policy and the poverty risk of some subgroups of the population. In their model, labor markets institutions (bargaining centralization and wage coordination), vocational education, and capital market openness, are also seen as potential predictors of poverty.

These predictors can be subsumed in 5 categories of independent variables:

- economic development (GDP/capita, agricultural employment, human capital, ...)
- the U-turn problematic (deindustrialization, globalization, ...)
- female labor force participation and single-mother families
- labor markets institutions (union density, wage coordination)
- political variables (left cabinet, Christian democratic cabinet, and constitutional structure)

The main findings of this article regarding the predictors of pretax/pretransfer poverty are the following:

‘in advanced industrial countries, economic development has lost its antipoverty effectiveness...coefficients for globalization are nonsignificant...the most powerful predictors of pretax/pretransfer poverty are industrial employment...unemployment...and wage coordination’ (Moller, Huber, Stephens, Bradley, Nielsen, 2003: 39-40).

Regarding the determinants of poverty reduction, they note that:

‘there is a strong correlation between left cabinet and union density...left cabinet, constitutional structure and welfare policy structure are the central determinants of poverty reduction’ (Moller, Huber, Stephens, Bradley, Nielsen, 2003: 42-43).

In sum, ‘The more generous the welfare state, the greater is the extent of poverty reduction...One of the most effective antipoverty policy instruments is child and family allowances...industrial employment has declined and unemployment has risen, particularly among workers with few skills...However, we do not find much support for the globalization hypothesis’ (Moller, Huber, Stephens, Bradley, Nielsen, 2003: 44).

Lohmann (2006) has proposed a multivariate analysis of **working poverty** based on a logit model, with pooled data – 8 years, 15 European Union countries - showing that there is ‘a strong interplay between welfare state characteristics and the composition of households and the labour market involvement of household members’ (Lohmann, 2006). Lohmann shows that welfare state variables (social expenditures, replacement rate of the unemployment benefits, and available childcare for 100 children), labor market institutions (centralized bargaining, minimum wage legislation, union coverage) and economic conditions (GDP, unemployment¹⁹) all significantly affect the incidence of working poverty (Lohmann, 2006); “poverty” is measured as 60 percent of median income and the current employment status is

¹⁹We find here further evidence of the relationship between unemployment and working poverty already analyzed in chapter 3.

the work criterion. He also shows that such factors as age, gender, educational level, number of children, marital status, employment status (low-wage earners, self-employed), and occupational categories have an impact on the likelihood of being working poor, which is confirmed by virtually all working-poverty studies. Lohmann has carried out a similar exercise more recently (Lohmann, 2008); however, his regression model is based on a much smaller, transversal sample of EU countries, and conclusions are less relevant for the present work.

In summary, the regression models presented here tend to show that the welfare state has a positive antipoverty effect, even when the possibility that social benefits reduce economic growth and employment is accounted for. Indeed, these models suggest that it is possible to implement social policy tools that help the poor without hindering economic growth. Moreover, it seems that social spending and welfare-state benefits have a bigger antipoverty impact than economic performance in postindustrial countries.

8.3 Where do we go now? Challenges for working poverty research

The findings presented in sections 8.1 and 8.2 open up interesting and important avenues of research: Further theoretical developments are necessary, and some empirical challenges should be tackled.

8.3.1 Theoretical developments

This work combines a sociological comparative analysis of welfare regimes and social inequalities with a political economy that aims at the identification of best practice models. Each part relies on a theoretical and conceptual framework that is coherent, for instance conceptual reflections about the nature and the definition of the problem and about the dimensions that underpin the welfare regime typology used in this work, a causality model based on exogenous factors and mechanisms, etc. But having two distinct parts makes the development of a global theoretical framework more difficult.

A fundamental question would be at the heart of this theoretical framework: **To what extent is it possible to compare models and regimes?** This theory should be three-pronged:

i) The role of social norms and cultural values: There are many indications of the importance of cultural values and social norms scattered throughout the text. I have underlined the role of the family in Southern European countries, the fact that young Swedes leave the parental home very early; one of the main aims of the Scandinavian welfare regime is that people are not dependent on their family. I also underlined the fact that Scandinavians do not rebel against high tax rates nor against the strong intervention of the state in many aspects of everyday's life, and that they have an egalitarian ethos, while most Americans are not appalled by the high level of income inequalities found in the US and are distrustful towards government interventions. Moreover, the impact of what people think about what "goods mothers" should do is measured in some of the studies I have meta-analyzed. The fact that Germany displays a "modified male breadwinner model" and that mothers are still expected to leave the labor market for a few years after childbirth is pivotal in this country chapter. In addition, it appears that the maximization of labor force participation is an important dimension of the fight against working poverty in protestant countries (the US and Sweden).

However, there is no such thing as a systematic and coherent model of the impact of social norms and cultural values on social policies. This model should include the following dimensions: The perceptions of the role of the family and of the distribution of roles within the family, the conception of “solidarity” and of the relationship between citizen and the state, and even the impact of religion. Some of these aspects are found in the literature, of course, but the idea would be to have a systematic modelization. Such a systematic analysis of these factors could greatly enhance our understanding of the “exportability” of policy mixes.

ii) The impact of the specific context in which a model was implemented. All the conclusions drawn in this work pertain to specific points in time and space. In the comparative social policy literature, many “models” and “employment miracles” are put to the fore, and they are often seen as a coordinated model that was the object of conscious decisions, such as the “Dutch miracle”, flexicurity in Denmark, family policies in Sweden or the “work-first” model developed in the US, to name a few examples. With hindsight, however, these models can be questioned. In some cases, one could even ask: Was it really cleverness or was it luck? Was it really a coordinated effort? In the case of flexicurity in Denmark, for instance, social partners and the government probably never had a clear and systematic model in mind; it was the result of a stepwise negotiation and adaptation to adverse economic conditions; the same can be said about the Netherlands (Viebrock and Clasen, 2009). In the case of family policies in Sweden, they were not meant to fight (working) poverty and were introduced at a time when the financing of pensions was not yet a pressing problem (Bonoli, 2007). In the US, the expansion of the EITC combined with the welfare reform has been hailed as successful by many authors, as shown in the meta-analysis: The employment of low-skilled mothers increased and poverty decreased; moreover, TANF caseloads plummeted. However, some American authors have underlined that these reforms took place in a very specific context, namely one of the most prosperous decades in American history (Sawhill and Thomas, 2001).

On the contrary, some cases were presented as obvious failures. Germany was seen as the “sick man of Europe” until recently and as a “frozen landscape”, as other Continental European countries, while the massive impact of the reunification of Germany was largely left out of the analysis. However, a few years later, in the midst of one of the worst recessions since the Great depression, Germany is performing well and has a reasonably low level of unemployment compared to other countries, and has been able to undergo important labor market reforms in a recent past.

In summary, the success stories and alleged failures presented in the literature depend on a very specific context and some successes may have been somewhat “lucky”. In addition, the current worldwide crisis may well question some models, for example the American “work-first approach”, as the poverty rate among the working-age population is at its highest level since the 1960s (US Census Bureau, 2010). In a model that mainly relies on the maximization of labor force participation, when unemployment strongly increases, the poverty rate skyrockets.

iii) The differences between a large country like the US, with its federalist institutions and its great diversity and a small country like Sweden with its relatively homogenous population may constitute a major obstacle to comparative analysis. Hence the differences in terms of size and political institutions should also be problematized in this model.

Apart from this global theoretical model aiming to modelize the conditions under which sound comparisons can be made, two other theoretical avenues could contribute to a better understanding of the conditions under which “best practices” can be exported. Such theories

already exist in the literature, most notably in the field of political science, but specific models could be developed for the analysis of working poverty.

A first theoretical element would be an analysis of the dynamic aspects of working poverty. The present work largely relies on a static analysis of welfare regimes and the types of working poverty they generate, but a longitudinal perspective would add to our understanding of the situation in various welfare regimes. Theoretical models are already available, such as the “path dependency” model in political science; interestingly, however, as indicated by many authors, some recent successes took place in countries in which policymakers and social partners walked away from the path and found original solutions (Kenworthy, 2004, Viebrock and Clasen, 2009). Another important dimension of a dynamic analysis would include a longitudinal analysis of the financial situation of working households; I get back to this point below.

A second important contribution would be a theory of the role of various actors (politicians, social partners, policymakers, and other stakeholders) and the conditions under which they successfully impose their views on how to best combat working poverty and contribute to social policy reforms. General models pertaining to social policy in general already exist, such as neo-institutionalist models, the power resources model, the garbage can model, the rational choice model, just to name a few. The idea would be to develop a specific model dealing with the fight against working poverty.

8.3.2 Empirical challenges

Apart from the theoretical models discussed above, the results presented in this work also open up interesting avenues in terms of empirical work.

Dynamic aspects and longitudinal analyses

As indicated above, I have focused on static aspects of working poverty in the present work. It would be equally important, however, to include dynamic aspects in the analysis. The situation of a worker who had a low income for one or two years, and then experienced an income increase is fundamentally different from that of a working household that is in the midst of a long poverty spell. In addition, the choice of a social policy instrument to help a group of disadvantaged workers may depend on the duration of the problem before the policy intervention. For instance, in the case of the working poor who have a low labor force participation, it is fundamental to know whether they have been underemployed for a long time or not; this has an impact on the choice of the social policy instrument and on the cost of the policy intervention.

However, analyzing the situation of the workforce (at the microlevel) over a period of, say, five to ten years poses very tricky empirical challenges, not least in terms of the availability of panel data and of sample size. Indeed, the working poor (luckily) represent a small share of the workforce; in addition any panel is subject to attrition over time. This means that the sample size shrinks rapidly. Indeed many analyses focus on overall poverty rather than working poverty; in addition, the number of years analysed is usually small, typically three to five years (García, Gutiérrez, Ibáñez, Tejero, undated)

Meta-analysis

Despite the difficulties faced by the meta-analyst, this technique - which combines the systematic search and retrieval of evaluations using various search engines and the statistical

treatment of estimates in order to summarize and organize findings – is probably a useful tool. Meta-analysis goes beyond traditional literature reviews in which the selection criteria are rarely explicit and the conclusions drawn as to the efficiency or inefficiency of a policy left to the subjective appreciation of the researcher. Meta-analysis is, hence, less exposed to subconscious subjective biases and more rigorous than traditional literature reviews, as shown in chapter 6. In addition, the method I have used does not exclude any evaluation a priori: Even if I excluded some evaluations or estimates from the meta-analysis in a second step, the decision was based on explicit criteria (sample size, the use of economic controls in the econometric models, etc.). Moreover, all the studies I have identified are summarized appendix A, even those that have not been included in the meta-analysis, so that the reader can draw his or her own conclusions.

One of the main difficulties of meta-analysis is the famous “apples and oranges problem”: How is it possible to draw general conclusions on the basis of evaluations that analyze different countries, different risk groups, and rely on different poverty and employment measures? A first way to proceed is to take into account the fact that each policy is intertwined with a large set of public policies, and its impact depends on the sociodemographic composition of the population in general, and of the workforce in particular, as well as on the degree of economic performance of a given country or region. So all meta-analyses presented in chapter 6 were broken down by welfare regimes; as far as I know, this is a relatively original solution to the problem of meta-analysis applied to social policy analysis. Moreover, after the meta-analysis, I had a more in-depth look at the evidence and tried to answer the following questions: Are conclusions different for various risk groups? Are there major disagreements among authors depending on the evaluation method used, mainly regression models, “natural experiments” and microsimulations?

In summary, meta-analysis appears to be a useful tool that probably deserves more attention by social scientists, and its benefits outweigh its drawbacks. In many cases, a meta-analysis can be more fruitful than yet another evaluation of the impact of given social policy on a specific subgroup of the labor force in a given country, especially when the corpus of available evaluations is relatively large. Moreover, if the number of estimates is large enough, a meta-regression could prove even more useful than the kind of meta-evaluation I have carried out, but this requires being able to find a common metric for all estimates: This is far from a trivial task for multiple regression results, especially for generalized linear models (logit, probit, etc.).

Hence, a promising avenue of research would be to expand the pool of evaluations of the employment and antipoverty effects of the policies I have analyzed in this work and to carry out a meta-regression of the estimates, controlling for the population group analyzed (all workers, single mothers, unskilled female workers, etc.), for various institutional factors, such as a measure of the strictness of the employment protection legislation and the level of payroll taxes, for sociodemographic controls such as the share of unskilled workers in the labor force or the share of single mothers among welfare recipients. It remains to be seen whether economic controls should be included or not in the meta-regression, because most estimates stem from econometric evaluations that rely on specifications that include economic controls, the most usual being GDP growth and the unemployment rate.

This would largely solve the problem of comparing apples and oranges, as the effect measured by the coefficient of the policy variable would be the “pure effect” of the program, all other things being equal.

9 Appendix A: Summary tables of the articles dealing with the antipoverty and employment effects of various policies

In the following tables, some abbreviations have been used in order to reduce the size of paragraphs:

w/ → with, w/o → without, b/w → between, ppts → percentage points, pvtly → poverty, min → minimum, CC → childcare, hh → household, ctrl → control.

Table A1: Employment effects of the minimum wage

Author(s), country. Evaluated program, period	Method, independent variable(s)	Employment effects	Comments
Sabia (2008), USA, effective minimum wage, 1992-2005	Regression model: employment, weekly hours, weeks last year, annual hours regressed on the ln(effective min wage), state and year fixed effects, a state-specific time effect (quadratic), state economic controls (average wage rate, unemployment rate, ln(GDP), and welfare variables (welfare waivers, ln(max AFDC+food stamps)), Single mothers , for various educational levels.	No impact on single mothers overall, even in specifications including government transfers and the EITC; however, reduces weekly and annual hours and weeks last year for high school dropouts. HS dropouts: Increase 10% in min wage reduces employment by 8.8%, weekly hours -9.2%, weeks last year -11.6%, annual hours -11.8%	Elasticities are quite large compared to literature on teenagers, maybe due to the fact that before PRWORA there was strong disincentive to work; in addition min wage increases may shift employment away from low-skilled adults
Bazen (2000), France, Belgium, the Netherlands, Germany, Italy, Denmark, UK, US, minimum wage and collective bargaining	Correlations; Remark: min wage 60% in F, 50% in BE and in NL, poverty line = 50% average income	There is no one-to-one mapping between the presence of mechanisms to regulate low wages and labor market performance	EC: purely descriptive, not included in vote-counting procedure.

<p>Vedder, Gallaway (2002), USA, state & federal minimum wage, 1953-1998</p>	<p>Regression model (ARIMA), impact of min wage deflated with CPI on hours worked and overtime hours, controlling for the unemployment rate and GDP growth, for all full-time year-round workers in non agricultural sector.</p>	<p>Significant negative relationship b/w hours worked and overtime hours and the real minimum wage, full-time year-round workers. A 10% increase in the minimum wage reduces the number of hours worked by 1.3%; a 1\$ (real) increase reduces weekly hours in manufacturing sector by 0.816 hrs and overtime hours by 0.349 hr.</p>	<p>Reason for choosing full-time year-round workers: they usually do not lose their jobs as a consequence of minimum wage hikes, yet they may have a reduction in hours worked. Indeed, FTYR workers tend to work a bit less when min wage increases, i.e. the employment effect of min wage is probably understated in most studies (only unemployment is considered).</p>
<p>Neumark, Wascher (2002), USA, state & federal minimum wage, 1986-1995</p>	<p>Regression model (multinomial logit), probability of more workers/same number/fewer workers regressed on real minimum wage (deflated w/ CPI), a state dummy variable, fixed year effects, a vector of controls (unemployment, quartiles of earnings distribution, and welfare policies (AFDC waivers, max AFDC benefits).</p> <p>All families.</p>	<p>Effect on number of workers in family: total effect has a significant positive impact on the likelihood of having fewer workers in year 2; only significant for nonpoor families (in year 1). A \$1 increase in real min wage increases the likelihood of having fewer workers in year 2 than in year 1 by 0.021 for nonpoor families (0.015 for all observations, significant at 10% level)</p>	<p>A higher minimum wage generates trade-offs: some families gain and escape poverty and others slip into poverty, due in part to negative employment effects. On balance, no compelling evidence that minimum wages help in the fight against poverty. Various trade-offs more closely resemble income redistribution among low-income families than income redistribution for high- to low-income families.</p>

<p>Watson (2000), UK, if all workers' wage=$w(p)$, i.e wage that could be earned given their human capital; i.e. without underpayment, what would happen ? 1985-1993</p>	<p>Simulation, calculation of full earnings given the number of hrs worked. H0: workers cannot change contractual hours & H0': if min wage $\leq w(p)$, no decrease in employment. In order to determine underpayment, $\ln(\text{wage})$ is regressed on a sum of human capital characteristics, and unobserved individual characteristics to calculate the wage person should get.</p>	<p>Wage capacity rates differ substantially across industries (agriculture, energy, metal extraction, engineering, other manufacturing, construction, distribution, transport, bank/finance, other services), difference b/w union and non-union. The wage capacity ranking is as follow (increasing): agriculture, distribution, other manufacturing, transport and communication, construction, other services, engineering, metal extraction, bank/finance, energy.</p> <p>As the degree of underpayment increases in a group, the minimum wage rate that can be introduced without causing unemployment will also increase.</p>	<p>As wage capacity rates differ substantially, a Wage Councils orientation is preferable to a national minimum wage.</p> <p>EC: does not provide an estimate of employment effect, hence not included in vote-counting procedure.</p>
<p>Neumark, Adams (2003), USA, living wage legislation + minimum wage, 1996-2000</p>	<p>Regression model, impact of presence of living wage ordinance and minimum wage. Probability of employment in various ranges of the wage distribution (lowest decile, b/w 10th and 25th percentile, between 25th and 50th percentile, and b/w 50th and 75th) is regressed on year, month and city fixed effects, on $\max(\ln(\text{wage ordinance, min wage}))$, on $\ln(\text{min wage})$ and a vector of individual characteristics → Workers in cities that have adopted living wage legislations are compared to workers in metropolitan areas that haven't ; lags of 6 and 12 months are tested</p>	<p>Living wage has a significant negative impact (w/ 12-month lag) on probability of being employed for workers below lowest decile of wage distribution, and positive impact b/w 25th and 50th (contemporaneous and 6 months) and b/w 50th and 75th percentile (contemporaneous and 12 months). Minimum wage has no significant impact. Lowest-wage workers (lowest decile) : a 10% increase in LW lowers probability of employment by 0.56 percentage points</p>	<p>LWO: Disemployment effects appear moderate. There is some evidence of positive employment effects for workers in the higher percentiles of the wage distribution.</p>
<p>Portugal, Cardoso (2006), Portugal, minimum wage, 1986-1989</p>	<p>Regression model (Poisson regression/ firm-specific random effects), impact of large increase in minimum wages for teenagers in 1987.</p> <p>Gross flows (accessions and separations are analyzed separately).</p> <p>Number of teenage workers (hired/ separated/dismissed) regressed on year dummies (88 and 89), firm size and hiring rates and market concentration.</p> <p>Also simulations w/ 3 alternative scenarios for teenage shares: actual 1986, the 1988 & 1989 share</p>	<p>Companies significantly decreased the share of teenagers among their newly hired workforce; however, also a significant negative impact on share of teens in job separations. New firms ('88 and '89) recruited a significantly lower share of teenagers than those set up before min wage hike of 1987; in addition, teens overrepresented in firms going out of business. In 1988. In 1988 & 1989, the share of teenagers in overall job accessions to continuing firms was 4% lower than in 1986; however, the share of teenagers in job separations was 15% lower in 1988, and 14% lower in '89. New firms (set up in '88 & '89) hired a 4% lower share of teens. Simulations: the change in min wage was responsible for an increase in total employment of 0.41 percentage pts in</p>	<p>Therefore, the decline in separations has clearly driven the rising teenage employment level. Another specification measures the impact of retention rates, which increased by 38%, which points to the relevance of supply-side factors. It should be noted that Portugal's labor market has one of the most stringent employment</p>

	that would prevail given the estimated impact (regression parameters) and actual shares in '88 & '89	'88 and 0.32 percentage pts in '89.	protection legislation
Skedinger (2004), Sweden, minimum wage through collective bargaining, 1979-1999	<p>Regression model, situation in Swedish hotels and restaurants, gross flows (hirings and separations) limited to unskilled workers.</p> <p>Sample is divided into two parts: observations with increasing or with decreasing min wages. Each is divided into four groups: wage lower than min wage, treatment group with wage b/w old and new min wage, control group w/ wage b/w new min wage and 1,05*new min wage, and above.</p> <p>Separate estimations for 1979-1991 and 1992-1999. Logit: probability of separated in the next period (min wage increase) or accessed the job in current period (min wage decrease) explained by group dummies*real increase/decrease in min wage and controls (real wage, age, number of employees, gender, type of contract, occupation).</p>	<p>Min wage increases and decreases contribute significantly to job separations and accessions, respectively, except for teenagers 1993-1988; job separations increase when min wage increases, but the evidence is less conclusive for accessions. 1979-91: an increase in min wage increases job separations in treatment group by 1.332 % more than in the "high" wage group, by 0.756% for control group. The difference 1.332-0.756 = treatment effect = 0.576%. For decreasing min wages, the difference in elasticities is 0.843%. 1992-1999: the effect is insignificant for workers aged 20-59 in the full sample, but significant for two-year panel of firms; for teens the impact is insignificant</p>	<p>The effects are not dramatic, but of non-negligible magnitude. Another specification leads to the conclusion that the effects of decreasing min wages on job separations are insignificant and smaller than the effects of increasing min wages; however, accessions are at least as large when minimum wages increase as when they decrease. Differs from Card and Kruger, maybe due to the fact that the min wage bite is larger in Sweden</p>
Campolieti, Gunderson, Riddell (2006), Canada, minimum wage, 1981-1997	<p>Empirical estimate, new research design by Neumark, where researcher has to precommit to a methodology, specifications, and data set prior to estimating employment effects; method applied here to Canadian data. Regression explaining the employment to population ratio of youth (16-19 & 20-24). Baseline model: employment-to-population ratio for a given age group regressed on ratio of min wage to average wage of workers 16-64 in given region (both year t and t-1), regional and year dummies, and controls. Another specification uses the "fraction below new minimum wage" instead of the minimum wage itself.</p>	<p>The sum of current and lagged effect: statistically significant negative effect on employment for teens (16-19, elasticity - 0.282) and young adults (20-24, elasticity -0.155). Using "fraction below" as min wage variable, also significant negative impact. Then, two-stage regression model, modeling demand elasticities for teens, in which the wage of the group under study is regressed on the minimum wage and control variables, and then in the second stage the employment rate is regressed on this instrumented wage rate and control variables. This 2-stage model leads to elasticities most of which are insignificant for teens, but significant for 20-24. For 16-24, specification with minimum wage index, elasticity of - 0.256 (current + lagged), and lagged elasticity is larger than contemporaneous. The adverse effect is larger for 16-19, elasticity = -0.282. For specification w/ "fraction below"</p>	<p>(i) There may be publication bias, but also "author bias" where authors run alternative specifications until they get the results they want. (ii) in Canada, no federal min wage b/c under provincial jurisdiction --> considerable cross-sectional and time series variation, hence particularly appropriate (iii) substantial adverse employment effects for</p>

		variable, results are fairly similar.	youths, however, estimates for demand elasticities are mixed.
Ragacs (2007), Austria, minimum wage through collective bargaining, 1967-1995	Empirical estimate, growth rate of employment = f(time trend, growth rate of output, lagged labor productivity, ln(real minimum wage)), also lagged employment is added as a predictor. Aggregated data for Austrian industry, average employment	Contrary to the "textbook model", no significant negative effect of minimum wages on employment could be found.	Austrian labor market may be organized differently than described in textbook model, and unions' wage claim may be very modest, due to productivity-oriented wage settings
Doucoulagos, Stanley (2009), USA, minimum wage	Meta-regression analysis, 1,474 estimates from 64 US studies, accounting for publication bias by regressing the estimated elasticities on their standard error. There's evidence of publication bias, i.e. selection for negative employment effects. Selection bias included in regression model.	Estimates of the empirical effect corrected for publication bias show that there's no evidence of a genuine employment effect when using Card and Kruger data set. Using the authors' much extended data set and meta-regression analysis techniques, conclusions are similar: there's strong evidence of publication selection; once this publication selection is filtered, no evidence of a minimum-wage effect remains. The publication bias appears rather severe. publication bias -> elasticity of employment effect = f(standard error): the intercept of regression model lies between -2 and -3 for the specifications preferred by the authors or the articles, -1.3 to -2.63 for all estimates. The all-set meta-regression finds, contrary to the best-set one, a very small but significant negative minimum-wage effect --> a 10% increase in min wage decreases employment by 0.1%. Conclusion: the average publication bias for the minimum-wage literature is -0.231 (multivariate meta-regression analysis) or -0.273 (simple multiple regression). Subtracting the estimated publication bias, the average employment effect of -0.19 is converted to +0.041, but too small to be of practical import.	The elasticity estimates are getting 0.14 larger (or less negative) every decade, not as a result of falling real minimum wage EC: meta-analysis, hence not included in own meta-analysis, but analyzed in text.

<p>Sabia (2009 a), USA, effective minimum wage, 1979-2004</p>	<p>Regression model, impact of ln(min wage) on teenage employment-to-population ratio and hours of work (unconditional and conditional hours), with state effects and a set of state-level time-varying controls (economic + demographic). Appropriateness of including year effects, which may capture much of the variation in the min wage measure, but this is hotly contended. First a model w/ months dummies, then another specification w/ year & months dummies.</p>	<p>For period 1979-1997: Without year effects, stat. significant negative impact on employment/population ratio for teens, whereas when year effects are included, the estimated elasticity becomes insignificant. For period 1979-2004: the impact is statist significant w/ or w/o year effects. Hours effect: consistent evidence of decrease in average weekly hours. Evidence for conditional hours = inconclusive. For 1979-1997: w/o year effects, a 10% increase in min wage is associated with a 2.8-3% decline in teenage employment ratio. 1979-2004: w/o year effects, -2%, and w/ year effects -0.3%. When lagged effects included (t and t+1), for 1979-2004, the elasticity is slightly larger and significant: a 10% increase in min wage associated with a "long-run" 2.5-3.3% decrease in ratio of employed teens. (Unconditional) hours effects: "long-run" elasticities range from -0.37 to -0.51</p>	
<p>Kalenkoski, Lacombe (2007), USA, Federal & state minimum wage, 2000</p>	<p>Regression model (OLS) at county level, b/c geographical variables are important, e.g. Card & Kruger noted changes induced by the inclusion of regional dummies.</p> <p>Log of employment-to-population ratio for 16-19 yrs old at the county level, explained by log of effective min wage, income/capita, weekly wage, unemployment rate, and demographic controls, accounting for spatial autocorrelation, notably neighboring counties. 3,605 counties in sample</p>	<p>Increase in the effective minimum wage has significant impact on teenage employment/population ratio. Increase of 10% leads to a statistically significant decrease in employment/population ratio of teens of 2.5%. With the spatial autocorrelation model, a 10% increase causes a 3.2% decrease in youth employment to population ratio</p>	<p>Accounting for spatial autocorrelation leads to a coefficient that is 28% higher than the OLS estimate</p>
<p>Addison, Blackburn, Cotti (2009), USA, federal & state minimum wage, 1990-2005</p>	<p>Regression model at country level (payroll data) for the retail-trade sector nationwide, ln(employment) is regressed on ln(min wage), county and quarter fixed effects, and controls (population, total employment, weekly earnings, unemployment and enrollment rate); the model incorporates a county-specific time trend in the error term, as in Sabia 2008.</p> <p>Results are sensitive to the inclusion of state-specific trends, impact of the "effective" minimum wage.</p>	<p>W/o time trend: 3 out of 5 coefficients are positive but insignificant (1), (2) & (4); only significant effect is negative in subsector (3). With county-specific trends, 4 out of 5 coefficients are stat significant and positive (whereas for sector (3) at 10% level only). Another model accounting for border counties leads to a largely similar general pattern of results as that obtained w/ detrended data. W/ county-specific trends: a 10% increase in min wage leads to a 1 to 2% increase in employment in 4 out of 5 subsectors of retail trade</p>	<p>Explanation may be efficiency wage or monopsony, but authors not convinced. Could be the impact of increased earnings for minimum-wage workers (increased demand).</p>

	5 subsectors: (1)food & beverage stores, (2)supermarket/grocery stores, (3)convenience stores, (4)specialty food stores, (5)beer/wine/liquor stores		
Fang, Gunderson (2009), Canada, Minimum wage, 1993-1999. In Canada, min wage is under provincial jurisdiction	Regression model, probability of being employed (probit model) in subsequent year depending on whether in treatment (wage b/w old & new min wage at time t-1) or control group, controlling for individual characteristics, and including time and region dummies. The focus is on older workers , contrary to most of the literature, namely workers 50+ . Various ctrl groups: ranging from 0-0.25 Canadian \$ above min wage, up to \$4 above. Authors prefer 0-1 \$ above min wage as ctrl group. Other control groups also include wages below old minimum wage. 22 regressions were carried out (11 comparisons groups, w/ or w/o wages below min wage).	Model for preferred control group, i.e. within \$1 above the min wage: minimum wages have a statistically significant and positive impact on affected workers aged 50+. When all 22 regressions are considered, overall, the effects are significant and positive; no coefficient is negative. Model w/ control group within \$1: workers 50+ affected by min wage increase were 14 % points more likely to be employed the next year compared with otherwise similar low-wage workers not affected by these increases	Results for older workers are completely at odds with the results for youth found in the recent Canadian literature, which found substantial negative effect
Wessels (2007), USA, Minimum wage, 1990-1991 and 1996-1997	Reevaluation of Card and Kruger (1995) difference-in-difference model, with the main minimum wage indicator being the proportion of workers affected by the minimum wage hike, but dependent variable changed. Log (employment-to-population ratio 1992/e-t-p ratio 1989), regressed on fraction of affected workers + ln(change in adult employment) as control. Teenagers.	Re-evaluate C & K: when controlling for business cycle (adult employment change), the regression coefficient becomes insignificant - same conclusion as C&K. However, second model for 1996-1997 min wage hike leads to a significantly negative coefficient. Regression rerun for states with the federal min wage only: for 1996-97, coefficient is stat significant and negative. Elasticities for 1996-1997: regression coefficient is -0.4112 for fraction of affected workers, and the fraction averaged 44.9% for teenagers, hence elasticity should be $-0.4112 * 0.449 = -0.18$, as the equation is of the log-linear type. When only states with federal min wage in the equation, the coefficient is -0.7576 (but % of affected workers not indicated hence no elasticity)	C&K were correct with their model for 1990-1991; however, for the 1996-1997 hike, the impact was significantly negative, maybe due to a higher number of workers affected by the hike.

<p>Feldmann (2009), 73 countries, minimum wage, 2000-2003</p>	<p>Regression model (random effects) based on 2004 Executive Opinion Survey, based on 60-70 executives pro country, who gave answers on scales between 0 and 1 (agree/disagree), on 4 topics: minimum wage has little impact b/c low or not obeyed; hiring and firing are determined by private contract; the share of wages set by collective bargaining is low; unemployment benefits preserve incentives to work + 1 objective measure: duration of conscription, rescales --> 0 to 1. Dependent variable is the unemployment rate. A set of controls is added: business regulation, tax burden, GDP growth, % of children, ethnic fractionalization, whether the country is landlocked, wars, transition economy, and the model includes year dummies.</p>	<p>Coefficient for variable "little impact of minimum wage" has not a significant impact on unemployment rate</p>	<p>EC: not quite reliable (opinion questions), hence not included in meta-analysis</p>
<p>Böckerman, Uusitalo (2009), Finland, Minimum wage through collective bargaining 1991-1996, reduction in min wage for workers under 25 over period June 1993- June 1995 (80% of the lowest task- and region-specific tariffs)</p>	<p>Regression model (difference-in-difference) → effect of this decrease based on payroll records.</p> <p>Time (before/during/after the reform) and treatment group (Trainee, under 25) dummies and their interactions to explain share of workers in control and treatment group in each firm (employment share + share of hours worked), control group =workers under 30 w/ a maximum of 2 years' work experience.</p> <p>Workers under 25.</p>	<p>Contradictory findings: there was a decrease in employment in the affected group both when min wage exceptions were introduced and then removed. Potential endogeneity problem as subminimum wage is reaction to growing unemployment, hence inclusion of interaction term (business cycle x treatment group) and GDP growth or unemployment rate. Authors also narrowed the age range, and compare 24- w/ 26-year-olds. Specifications with interaction terms --> treatment*business cycle (real GDP, unemployment) lead to negative estimates very close to zero and insignificant. W/ narrower age range, slight increase when min wage decreased and slight decrease when exceptions removed, but not significant. Conclusion: No statistically or economically significant effects of changes in youth minimum wage.</p>	<p>i) Due to a severe recession in early 1990s unemployment skyrocketed, and unions signed agreements w/ employer organizations to relax wage regulations for young workers. ii) Out of 86 minimum wage studies surveyed by Neumark and Wascher (2007), only Skedinger (2006) analyzes the effects of union-negotiated min wages</p>

<p>Thompson (2009), USA, minimum wage, 1996-2000, in 15 states covered in dataset based on unemployment insurance wage records and affected by changes in the min wage in the mid-1990s</p>	<p>Much of research showing small effects relies on state-level panels => here regression model: impact of the 1996 and 1997 min wage rises on teenage employment share w/ county level data, counties are classified as "low-impact" and "high-impact" based on regional earnings variation, either with thirds or fifths (top and bottom) of teenage earnings distribution. Model (difference-in-difference): teen employment is regressed on impact variable (low vs. high impact), time indicator (=1 after reform) and controls(unemployment, teens as a % of working-age population, adult earnings)</p>	<p>Membership in the high-impact group following the 1996 increase has a stat significant negative impact on teenage employment, the addition of states fixed effects has no impact. Interestingly, county-level data show a stat significant negative effect, while state-level data yields insignificant effects. W/ usual covariates, 1996: membership in high-impact group (bottom third) is associated with a 3.1% reduction in teenage employment (-3.0% if states fixed effects are included); -3.4% if high-impact is bottom fifth; that is elasticities of -0.26 and -0.29 respectively; for the 1997 increase, elasticities are -0.29 and -0.37, but when high-impact defined by bottom third, the results narrowly miss significance. A stable/transitory (stable= lasting at least the full quarter) tenure variable is added, which shows min wage increases only have an impact on transitory teenage employment.</p>	<p>(i) No significant impact on 19-22 years old in most regressions in 1996 and 1997 (ii) Impact was stronger in small counties i.e. with total employment below 10,000 (elasticities in the range 0.59-0.67 in '96 and 0.38-0.54 in '97)</p>
<p>Orrenius, Zavodny (2008), USA, Effective minimum wage, 1994-2005</p>	<p>Regression model (Huber White std errors and correction for heteroskedasticity): log(employment-to-population ratio) of low-skilled immigrants is regressed on log(min wage), business cycle controls (log GDP/capita, unemployment, and construction permits), and state and time fixed effects, w/ state-level data.</p> <p>3 groups: 20-54 natives w/o high school diploma, same group but foreign-born and not US citizen at birth, and all teens. Alternative independent variable is ln(minimum wage/real average wage of 20-54 yrs old), same model for hours worked. Another model includes mobility variables, w/ % of low-skilled immigrants and average yrs of education among immigrants as dependent variables.</p>	<p>Real min wage has no significant effect but for teens when controlling for state-level economic conditions (significant for male but not for female teens). No significant employment losses for immigrants. Same conclusions for relative minimum wage. Same for hours worked, only significant effect is for teens; however, hours increase for male teens, and decrease for female teens (which explains why no employment effect for female teens). Finally, results suggest that min wages influenced low-skilled immigrants' location patterns. Teens: a 10% increase in the min wage reduces teen employment by 1.8%, a result driven by male teens, among whom a 10% increase reduces employment by 1.9%; non stat significant effect for female teens. The estimated responses to this min wage increase are 1% increase in male teens hours worked, and a 1.3% decrease in female teens' average hours. Regarding mobility patterns: raising the minimum wage has a stat significant negative impact on the fraction of low-skilled immigrants at state level</p>	<p>(i) Including a one-year lag of the real minimum wage is not significantly negatively associated with employment rates or average hours, except for employment among low-skilled adult immigrant women. Hence, results are broadly unaffected by this addition. (ii) the gender asymmetry in teen results is striking, may depend on incidence of tipped jobs and higher enrollment in school of young women</p>

<p>Sabia (2009 b), USA, Effective minimum wage, 1979-2004</p>	<p>Regression model of retail industry-wide employment effects with a state-month panel, effect on 16-64 as well as teenagers (16-19). Dependant variable is ratio of retail employment to total population 16-64 regressed on ln(min wage) , state, month, and year fixed effects, and economic controls (ln wage rate of workers 25-54, unemployment rate), average weekly hours equations are also specified.</p>	<p>Minimum wage increase leads to significant but modest reduction in retail employment. However, when state-specific linear month trends are included, adverse retail employment effects disappear. With Kaitz index as independent variable, not stat different from zero. Hours effects: significant negative impact on hours worked, but again quite sensitive to the inclusion of state-specific time trends. Elasticities: min wage hikes seem to have larger effects on retail employment rather than on conditional hours worked. Effects are stronger for teenagers. W/o time trend, employment: a 10% increase in min wage is associated with a 1.1% decline in employment. Hours worked: a 10% increase reduces average retail hours worked by about 1%. Teenagers, employment effect: a 10% increase in min wage associated with a 3.4% decrease in teen retail employment, and a 3.8% to 4.1% decrease in average teenage hours worked in retail trade</p>	<p>State trends may be capturing retail employment variation that the model seeks to explain</p>
<p>Hyslop, Stillman (2005), New Zealand, Large reform of minimum wage affecting youth workers in 2001, period: 1997-2003. Before 16-19 yrs old min wage = 60% of min wage, after 18-19 yrs old get adult min wage + youth min wage 80% of adult min wage</p>	<p>Regression model (difference-in-difference estimates, robust standard errors) comparing employment rate for 16-17 yrs old and 18-19 yrs old to those of young adults (20-25), before and after the 2001 reform: employment is regressed on age dummies interacted with post-2001 dummy and on single-age dummies, quarter-specific dummies, and on controls (gender, ethnicity, marital status, NZ born, urbanicity, region, and the size of each age group).</p>	<p>Descriptive stat: min wage changes that occurred after 2001 do not appear to have had a substantial effect, at best weak effects. Regression results: the estimated employment effects are negative but not stat significant. Control for announcement effect with a dummy variable (announcement in April 2000, dummy=1 for Q2, Q3 and Q4 of 2000): announcement effects are quite important in 2003. Main model: interact quarterly and age-specific dummy variables and also add 26-49 yr-olds unemployment rates; the estimated impacts are non significant in 2001 & 2002, but significantly negative in 2003. For hours worked, most effects are insignificant. Estimates of the impact on unemployment, results are not plausible. Accounting for announcement effects, there is a significant negative impact on youth employment in 2003 (-2.6% to -2.9%). With the more complete models, including age-specific business cycles, there is a decline in 2003 b/w 2% and 4% of 16-17 and 18-19 year-olds</p>	<p>no evidence of adverse effects on youth unemployment immediately following the reform; some weak evidence of employment loss by 2003; but also an increase in hours worked, depending on specification adopted</p>

<p>Kawaguchi, Yamada (2007), Japan, Min wage in Japan is rather low (as a share of median earnings). All Japanese prefectures are divided into four categories. Period 1993-1999</p>	<p>Regression model based on a panel survey of consumers.</p> <p>5 groups are defined, observations for 2 consecutive years, the full sample (n=1438): workers with wage <110% min wage (sample A, n=236), sample A w/ wage below 110% for 2 yrs or more (sample A', n=152), sample A' but w/o workers w/ wage below min wage (sample B, n=148), and sample B in 2 yrs or more (sample B', n=96). Linear probability model: Employment dummy regressed on treatment group dummy (wage b/w old and new minimum) and controls (age, children, education, marital status, job openings) and prefecture and time dummies</p>	<p>Results are not statistically significant. The preferred samples, namely A and B, lead to negative regression coefficients, suggesting disemployment effects. However, none is significant. This may be due to very small sample sizes.</p>	<p>EC: small sample sizes, hence not included in meta-analysis.</p>
<p>Kawaguchi, Mori (2009), Japan, min wage set at the prefecture level, years 1982, 1987, 1992, 1997, 2002</p>	<p>Regression model (weighted least square), the change in employment rate regressed on the fraction affected over a 5-year period, proportion in each category (7 categories: male/female teens, male/female young adults (20-24), male/female 60+, and 20-59 women), year dummies, unemployment, and average wages.</p> <p>Workers working less than 200 days in a year are dropped.</p>	<p>Significant reduction of employment rate among male teenagers, and among women in the 20-59 age group, but not for young adults aged 20-59. Male teens: A 1% increase in the fraction affected reduces employment by 0.2 percentage point. Less clear for female teens. Women aged 20 to 59: A 1% increase in the fraction affected decreases the employment rate by 0.4-0.8 percentage point</p>	<p>Min wage in Japan is rather low (as a share of median earnings)</p>
<p>Abowd, Kramarz, Margolis, Philippon, France, min wage, 1990-1998</p>	<p>Regression model (logit): Treatment t and control groups are defined by the log real minimum wage in year t and t+1 (control group's upper bound = $\log(1.1) + \ln(\text{real min wage})$).</p> <p>Exit models: Probability of being in employment in year t+1 conditional on being in employment in year t and on an increase in the min wage is regressed on interaction treatment*difference b/w new and old min wage (amount), on interaction control*difference, and on a vector of controls (age, sex, seniority, type of contract, education, and year). Two separate model for increasing and decreasing real minimum wages.</p>	<p>Difference-in-diff estimator of exit based on both increases and decreases: the elasticity is -0.404 for French men and -0.2983 for French women, and the impact is statistically significant. The probability of being in employment in year t+1 significantly decreases when the real minimum wage increases. When increases and decreases are analyzed separately, elasticities are very high: approximately -2 for men and -1.5 for women.</p> <p>Regarding entry probabilities: the effects are essentially zero. Hence, an increase in minimum wage strongly and negatively affects exit probabilities in France, while it has virtually no</p>	

	There are also entry models, similarly specified. Overall employment, broken down by gender.	effect on entry rates.	
Grogger (2003), USA, EITC, 1979-2000	Based on state-level variation in welfare reform policy. Employment and weeks worked of female-headed families are regressed on log (minimum wage), the introduction of time limits, a dummy for the introduction of welfare reform, demographic controls and the generosity of the maximum credit of the EITC. The model includes states dummies and state-specific quadratic trends.	Log(minimum wage) has no significant impact on the employment rate and on the number of weeks worked among female-headed families.	

Table A2: Antipoverty effects of the minimum wage

Author(s), country. Evaluated program, period	Method, independent variable(s)	Antipoverty effect	Comments
Neumark, Wascher (2001), USA, federal & state minimum wage, 1986-1995	Regression model: linear probability model using first-difference estimators (robust standard errors) → probability of being nonpoor in year 2 if poor in year 1 (<i>pre-tax</i> poverty) regressed on real minimum wage, controlling for the unemployment rate, # of children under 18 (1, 2, 3+), with state and year dummies. Poor and low-income families. similar specifications to examine effects on changes in the income-to-needs ratio (official poverty line)	No significant effect overall, however positive impact on families with children, with or without workers in year one (lagged effect if no worker in year 1). Significantly increases pre-tax income-to-needs ratio of families below poverty line in year one. An average increase in the real minimum wage (+ \$0.2) increases the probability of escaping poverty by 0.013 for families with kids, 0.02 for families w/ at least 1 worker in year 1. Income-to-needs ratio increase = 0.018, which is weak	(i) 23% of families in sample are pretax poor (ii) Families w/o worker in year one +0.012; families w/ at least one worker +0.02
Sabia (2008), USA, effective minimum wage, 1992-2005	Regression model: the dummy variable poverty (income is below the official poverty line) is regressed on the ln(effective min wage), state and year fixed effects, a state-specific time effect	No significant impact on single mothers' poverty (whether they work or not and whatever their educational level)	

	(quadratic), state economic controls (average wage rate, unemployment rate, ln(GDP), and welfare variables (welfare waivers, ln(max AFDC+food stamps)). Single mothers.		
Joassart-Marcelli (2004), California, state minimum wage, 1998-2000	Simulation, official poverty line, no employment effect	Minimum wage of 8.45\$ would be necessary so that a full-time full-year worker can provide the basic needs of a family of 4 i.e. much higher than minimum wage b/w 98 and 2000 (\$5.75); if poverty line = 50% of median in Los Angeles, then minimum wage should amount to \$12.80	EC: does not provide any estimate of the antipoverty effect, hence not included in meta-analysis
Vedder, Gallaway (2002), state & federal minimum wage, 1953-1998	Regression model (ARIMA), impact of real minimum wage (deflated with CPI) on official poverty rate, controlling for unemployment, GDP growth, GDP/capita, and quadratic term for real transfers/capita. Full-time year-round workers in nonagricultural sector.	No statistically significant relationship b/w min wage and poverty rate, not even for full-time year-round workers, and not in 3 out of 4 broad census regions: South, Midwest, and West ; in Northeast, significant positive impact: higher min wage increases poverty (for f-t y-r workers). Increase of 1\$ in real min wage leads to 0.36 percentage point increase in official poverty rate in the Northeast (+1.56 for Nonwhites)	Reason for choosing full-time year-round workers: they usually do not lose their jobs as a consequence of minimum wage hikes, yet they may have a reduction in hours worked. Indeed, f-t y-r workers tend to work a bit less when min wage increases, i.e. the employment effect of min wage is probably understated in most studies (only unemployment is considered).
Neumark, Wascher (2002), USA state & federal minimum wage, 1986-1995	Regression model (logit), impact of real minimum wage on probability of escaping poverty (official poverty line), remaining in poverty and slipping into poverty and impact on needs-to-income ratio (n-to-i ratio <1 = poor), similar specification as described above.	Full model: real minimum wage has a significant negative impact on probability on staying in poverty in year 2 (contemporaneous effect); however, no significant lagged effect. Total effect on poor population is not significant. For nonpoor persons in HH with at least 1 worker in year 1, minimum wage significantly increases probability of slipping into poverty; no effect for HH w/o a worker. Another model	A higher minimum wage generates trade-offs: some families gain and escape poverty and others slip into poverty, due in part to negative employment effects. On

	<p>All families.</p>	<p>(multinomial logit): effect of min wage on various income-to-needs categories: ≤ 1 [poor], 1-1.5, 1.5-2, ≥ 2). Total effect (contemporaneous +lagged) are generally not significant, but increased likelihood to slip into poverty for persons in inc-to-needs ratio > 1.5. For all poor HH, regardless of the number of workers: 1\$ increase decreases probability of staying in poverty by 0.094 (-0.096 for HH w/ at least 1 workers, -0.081 for HH w/o a worker). For nonpoor HH, a 1\$ increase increases probability of slipping into poverty by 0.02 (0.024 for HH w/ at least 1 worker, not significant for HH w/o a worker). Second model shows that for families entering poverty, a \$1 higher minimum wage reduces the income-to-needs ratio by 0.08; for families remaining in poverty, however, the contemporaneous effect of a \$1 increase is an increase of 0.072 of the income-to-needs ratio, which is nontrivial given that these HH have a ratio < 1 (by definition)</p>	<p>balance, no compelling evidence that minimum wages help in the fight against poverty. Various trade-offs more closely resemble income redistribution among low-income families than income redistribution for high-to low-income families.</p>
<p>Heller Clain (2007); USA, living wage legislation + state minimum wage at county level, two time periods: ca. 1990 and ca. 2003</p>	<p>Regression model, impact of presence or absence of both living wage ordinance and state minimum wage above federal minimum on poverty rate.</p> <p>Poverty rate is regressed on a vector of behavioral and demographic controls (race, age, family structure, education, labor force status), unemployment rate, unionization rate, a dummy for state min wage above federal min wage and dummy for the presence of local living wage ordinance. But endogeneity problem, hence 2-stage estimation to estimate instrument variables for the local economic activity and state and local wage policies.</p> <p>Overall poverty rate.</p>	<p>Living wage ordinances have a statistically significant impact: they reduce poverty rates; on the contrary, there is no significant evidence that state minimum wages reduce poverty. Presence of a living wage ordinance in at least one municipality of significant size reduces poverty rate by 1.821 - 1.965 ppts (depending on specifications), i.e. for the average county with a population of 720,273 in 2000, b/w 13,115 and 14,155 individuals lifted out of poverty</p>	<p>No evaluation of employment effect, but the favorable effect of living wage ordinances is probably due to the absence of disemployment effects: Coverage is much narrower - approx. 1-2% of workers in lowest quartile of wage distribution - and the employers of low-wage workers targeted by legislation sell services to local governments, who intentionally maintain their demand and absorb the higher costs; the redistribution occurs b/w taxpayers in general and low-wage</p>

			workers
Watson (2000), UK, if all workers' wage= $w(p)$, i.e. wage that could be earned given their human capital; i.e. without underpayment, what would happen? Poverty line = 140% of a single person's supplementary benefit/income support allowance rate. 1985-1993	Simulation, $\ln(\text{wage}) = \text{function of human capital, unobserved characteristics and error term. If the latter} = 0 \Rightarrow \text{potential wage. Calculation of full earnings and wage capacity earnings given the number of hrs worked. H0: workers cannot change contractual hours \& H0': if min wage} \leq w(p)$, no decrease in employment. Impact on disposable equivalized income.	The payment of household income capacity (wage capacity earnings) reduces poverty, but not sufficiently to eradicate it. Payment of household income capacity (full earnings capacity given contractual hours) reduces working poverty by 39.4%	Theory of dynamic monopsony: due to job search costs, workers will accept wages below their marginal productivity; as wage capacity rates differ substantially, Wage Councils orientation is preferable to a national minimum wage. EC: no estimate of antipoverty effect, hence not included in meta-analysis.
Burkhauser, Sabia (2007), USA federal & state minimum wage, 1988-2003	Regression model at state level: $\ln(\text{pvty rate})$ is regressed on $\ln(\text{min wage})$, $\ln(\% \text{ of adult males unemployed})$ and $\ln(\text{mean wage rate})$, some specifications w/ year and state fixed effects, and Prais-Winsten GLS to deal w/ autocorrelation and heteroskedasticity across states. Total population / single mothers. Simulation of 96-97 increase \$4.25 to 5.15 and proposed increase \$5.15 to 7.25, H0: no employment effects and no decrease in hours worked (overall + single mothers), sample of workers aged 16-64.	Across specifications there is little evidence of a significant relationship b/w min wage increases and overall state poverty rate; no evidence that min wage decreases poverty rate among single mothers. Regression coefficients have negative sign, but never statistically significant. Simulation: 1997 increase only helped 27.3% of poor workers and only 14.7% of beneficiaries lived in poverty; however, 55.6% of single mothers who benefited from min wage increase lived in poverty; simulation of proposed increase: would help 31.1% of poor workers; only 13.4% of beneficiaries live in poor households (53.4% among single mothers)	(i) In the presence of monopsonies, minimum-wage hikes could have positive employment effects (ii) increase from \$4.25 to \$5.15: 60.6% of benefits went to workers in households with income-to-needs ratio greater than 2.
Morgan, Kickham (2001), USA, Effective minimum wage 1987-1996	Regression model: child poverty rate regressed on minimum wage, average EITC and food stamps benefits, indicators of child support effort and collection, and controls (# of births to unmarried women, single-parent families, % of African Americans, average pay, unemployment rate), w/ and w/o state dummies.	Minimum wage has a significant negative impact on child poverty rate. If real minimum wage decreases by an inflation-adjusted \$1, child poverty rate increases by 2.51 % points	The minimum wage's employment effects and its impact on poverty are less than commonly believed, the poverty-fighting potential has more support

Gundersen, Ziliak (2004), USA, effective minimum wage ; 1981-2000	Regression model, log pre-tax and post-tax Foster-Greer-Thorbecke indicator w/ $\alpha=0$ regressed on $\ln(\text{effective min wage})$, a lagged term (poverty in previous year), other policy variables (dummy before and after introduction of TANF, $\log(\text{food stamps}+\text{AFDC})$, $\log(\text{effective EITC})$, macroeconomic indicators (unemployment, employment growth rates, state median wage & wage inequality), aggregate and state-specific fixed time effects, a state-specific time trend \rightarrow two dependent variables: poverty rate and squared poverty gap ($\alpha=2$) for all families, female-headed families, married-couple families, white families, black families.	The higher the state minimum wage relative to the federal level, the lower the poverty head count, before as well as after tax; also a significantly negative impact on pre-tax squared poverty gap, but no significant impact on post-tax squared poverty gap. A 10% increase in the state min wage lowers pre-tax poverty by only 0.5%; conclusion changed little after tax liabilities netted out and EITC credits added. Also reduced pretax squared poverty gap, and regression coefficient is larger than in poverty equation (-0.036 vs. -0.027)	
Sawhill and Thomas (2001) in Bartik (2004), USA, federal minimum wage increase	Simulation of increase from \$5.15 to \$6.15 (simulation parameters not indicated)	This increase would reduce poverty by 4%	EC: indirect account w/o details hence not included in meta-analysis
Neumark, Adams (2003), USA, living wage legislation + minimum wage, 1996-2000	Regression model, impact on workers living in cities w/ living wage ordinance vs. workers in cities w/o such ordinance on poverty, depending on level of living wage. Also impact of minimum wage on probability of being poor. For both policies, lags of 6 and 12 months are tested. For more details, see above. All families.	Living wage has significant negative impact on probability of income below poverty line only w/ 12-month lag. Minimum wage has a contemporaneous impact (significant and negative), but no significant lagged effect. A 10% increase in the living wage reduces the probability that a family lives in poverty by 0.0033 to 0.0039, i.e. 1/3 of a percentage pt. A 10% increase (contemporaneous) in min wage decreases probability of income below poverty line by 0.9 to 1.38 percentage points	Disemployment effects appear moderate. There is some evidence of positive employment effects for workers in the higher percentiles of the wage distribution.
Leigh (2007), Australia, Minimum wages 1994-2003, real min wages increased by 9% over the period	Simulation using a range of plausible elasticities; Elasticity of wages b/w 0 and 1, and elasticity of labor demand b/w 0 and -1. Three scenarios: (1,0); (0;-1), (1;-1), for hourly wages and labor demand, estimates are averaged over 50 replications of the simulation. Simulation of the effect of giving minimum-wage workers a 10% pay rise, firing 10% of minimum-wage workers, or both.	Estimated impact on the share below half the median pretax equivalized income; income inequality rises under the three scenarios, i.e. relative poverty. These are extreme cases. Among workers, the correlation b/w hourly wages and family income is 0.43. Simulation results: Status quo, pre-tax poverty rate = 21.7%, scenario (1,0) poverty rate=22.4%, scenario (0,-1) pr=22.0%; scenario (1,-1) pr=22.4%. Assuming an hourly wage elasticity of 1, a min wage rise will lower inequality (Gini of pretax income) if elasticity of labor demand < -0.4; if this elasticity is 0.5, min wage rise will lower inequality if	(i) Stigler wrote in 1946: 'the connection b/w hourly wages and the standard of living of the family is... remote and fuzzy.' (ii) the typical minimum-wage worker is likely to live in a middle-income household (iii) Australia

		elasticity of labor demand <-0.2	has relatively high min wage, 58% of mdn vs. 34% in the US, subminimum wages exist under 21 (iv) these estimates do not take account of income support and taxation EC: no estimate of antipoverty effect → not included in meta-analysis
Hyslop, Stillman (2005), New Zealand. Large reform of minimum wage affecting youth workers in 2001, period: 1997-2003. Before: 16-19 yrs old min wage = 60% of min wage, after: 18-19 yrs old get adult min wage + youth min wage 80% of adult min wage	Regression model comparing the outcomes (log weekly income) for 16-17 yrs old and 18-19 yrs old to those of young adults (20-25), before and after the 2001 reform, with age dummies and post-2001 dummy and covariates. For more details on specifications: see above.	W/o age-specific business cycle controls, significant positive impact in 2002; w/ business cycle controls, income impact is insignificant. W/o business cycle controls, for 16-17 yr-olds: significant 16 log points increase in individuals' total weekly income in 2002, and for 18-19 yr-olds about 10 log pts increase in 2002. When business controls are added, no significant effect.	
Neumark, Schweitzer, Wascher (2005), effective minimum wage, 1986-1995	Regression model with non parametric technique, difference-in-difference estimators of the effect of minimum-wage increases on the density at each income-to-needs ratio. Availability of 2 consecutive years for each family. Treatment = in states in which min wage increased b/w years 1 and 2, control = min wage remained constant. Does not rely on the linearity of any relationship. Lagged effects are accounted for. All families in various income-to-needs ratio categories.	Contemporaneous effect: share of income-to-needs (i-t-n) ratio b/w 0 & 0.6 decreases, share of i-t-n 0.6 to 1.5 increases and proportion w/ i-t-n b/w 1.5 and 2.7 decreases. Lagged effect: unambiguously increases share w/ i-t-n ratios b/w 0 and 1.3 and reduces the share above 1.3. Total effect: essentially no change for i-t-n below 0.3, a marked increase for i-t-n b/w 0.3 and 1.4 and decrease for i-t-n b/w 1-4 and 3.3. Not significant for i-t-n ratios b/w 0 and 0.5 but significant b/w 0.5 and 1. An increase in the min wage has no effect for income-to-needs ratio below 0.5. In contrast, increase of 0.0079 in the proportion of families w/ i-t-n b/w 0.5 and 1; that is an increase of 0.0083 (0.83 % point) in the share of the population w/ an income-to-needs ratio b/w 0 and 1, i.e.	The share of nearpoor families also increases, but only significant at 10%-level

		increase in poverty; as the poverty rate is 18%, this change represents a 4.6% increase in the poverty rate	
Vedder, Gallaway (2001), USA, federal minimum wage, 1953-1998	Regression model: poverty rate regressed on real min wage, unemployment, and real transfer payments/capita (w/ quadratic term), aggregate data at national level; overall 8 models for 9 cohorts. First-difference approach, which solves many econometric issues. Evidence reviewed based on changes in the poverty rate. Also cross-sectional analysis using state data over period 1996-1999. Overall poverty rate.	Rem: in 1999, only 12% of the poor worked full-time. Most evidence suggests no stat significant relationship (127 out of 144 models). First-difference regressions: in all 72 regressions the observed relationship b/w poverty rate and real min wage was not stat different from zero. Same conclusions with another poverty indicator and another price index. Analysis by region (Northeast, South, Midwest, West), no significant effect. Regressions for nonwhite workers: results are the same. Then use of state cross-sectional state-level data, average poverty rate 1996-1998 regressed on number of times state min wage was changed b/w 96 and 99, state unemployment rate, and level of income per capita. No significant impact on poverty. Identical analysis w/ data 1991-1993, same conclusions.	(i) The literature on the poverty effects of the min wage is surprisingly modest compared with that on the employment effects (ii) Joseph Stiglitz wrote "a higher min wage does not seem to be a particularly useful way to help the poor".
Müller, Steiner (2008), Germany, minimum wage, 2008 (2005 income data adjusted with average growth rates)	Simulation of the introduction of a min wage of 7.5 €, using a model accounting for the complexity of the German tax-benefits system: means-tested schemes, exemptions from social security contributions for "mini jobs", joint income taxation for married couples. Poverty line = 50% of median income and Foster-Greer-Thorbecke. Changes in labor supply and demand are deemed negligible, based on Neumark & Wascher (2007), hence no effect simulated. All workers.	Overall, the income change would amount to roughly 1.5 billion € a year, about 40% of the total increase in net household income would go to East Germany (around 20% of population). There would be less people affected in the lowest income decile than in 2nd, 3rd, 4th and 5th. Very little effect on the incidence and depth of poverty, decrease in the poverty rate would be weak, from 11,75% to 11,56%, with no change in West Germany and a decrease from 21,25% to 20,28 in East Germany. Results are fairly robust to the definition of the poverty line. The poverty gap remains virtually unchanged.	There has been little research on the question to what extent minimum wages affect the income distribution and may serve as an instrument to reduce poverty. Relationship b/w lower wages and low incomes is rather weak.
Kawaguchi, Mori (2009), Japan, minimum wage, 1982, 1987, 1997, 2002	Descriptive stat on profile of min wage workers: empirical first-difference estimates of the impact of the "fraction below" on employment rates of various groups at the prefecture level allow authors to draw conclusion on efficiency of minimum wage as an antipoverty tool. People working less than 200 days/year on irregular schedules are dropped.	70% of minimum-wage workers are not household heads, and around 50% of min wage workers belong to middle- to high-income families as nonhead of household. More than half of min wage workers are middle-aged women (30-59). 7 categories are defined: male 15-19, male 20-24, female 15-19, female 20-24, elderly women (60+) and 25-59 married females. Fraction below: significant reduction in male teen employment (+10% increase in min wage => employment -	EC: no estimate of the antipoverty impact, hence not included in meta-analysis

		2%). For married women 25-59%, a 10% increase in min wage decreases employment by 4 to 8% (also decreases employment for teens and young adults). Overall, a rising minimum wage does not seem to be an efficient policy to alleviate poverty in Japan, because it is not well targeted to the poor and reduces the employment of less-skilled workers.	
Sutherland (2001), UK, national minimum wage (NMW) combined with Working Family Tax Credit (WFTC) and other benefits, 2000/2001	Simulation, poverty=60% of median, using POLIMOD, simulation program of tax and benefits. No employment effects simulated. Counterfactual: the policy that would have prevailed had Labour not come to power. Situation in 2000/1 with tax and benefits unchanged since April 1997; poverty rates are higher than those observed. Overall poverty/ singles/couples w/ children.	Reform package proposed by government (NMW + WFTC + increases in some benefits) reduced overall poverty by 23%, from 18.6% to 14.4%. Of these 23.0 percentage points, 21.8% attributable to tax-benefit changes and only 1.2% to the NMW. Of families affected by the NMW, only 16% are poor	
Giannarelli, Morton, Wheaton (2007), EITC, USA, 2004	Microsimulation model TRIM3, which contains detailed state-specific modeling of the rules of tax and transfer programs. Employment effects are also simulated using estimates derived from US evaluations. Several variables were imputed: monthly transfers, child care expenses, housing expenses. Simulation based on income definition that is broader than the official definition, but poverty lines set at a level that produces headcount ratios very similar to the official ones. Model simulates an increase in the federal minimum wage to \$7.25 per hour (from 2010 to 2003 dollars), b/c new minimum wage set to be implemented in 2010. Assumption: a min wage worker's probability of losing his or her job equals 0.06 times the percentage increase in the min wage, and indirect wage gains for those slightly above and below min wage (spillover effects). Workers	Assuming no employment or wage effects, the increase in the minimum wage lifts approximately 200,000 people out of poverty. Assuming the expected job loss and indirect wage gains, poverty falls by 475,000 people.	

<p>Bargain (2009), income support, WFTC and other reforms in the UK , 1998-2001.</p>	<p>Microsimulation and decomposition into three effects i) changes in tax-benefit policy ii) adjustments of tax-benefits monetary parameters according to market income growth iii) changes in market income inequality, by calculating counterfactuals based on the EUROMOD tax-benefit calculator. Poverty line fixed at 60% of median income.</p> <p>During this period, Income Support was increased, WFTC more generous than its predecessor and introduction of the National Minimum Wage (NMW).</p> <p>Overall poverty rate.</p>	<p>Over the period, total poverty decreased 2.4 ppt as measured by the FGT indicator w/ $\alpha=0$ (headcount), and by 0.1 ppt with the FGT indicator with $\alpha= 1$ (poverty gap). The severity of poverty FGT ($\alpha= 2$) increased by 0.1 ppt.</p> <p>The changes in tax-benefit policy amounts to -2.5/-2.4, -0.6/-0.1 and -0.2/0.1 respectively, which means that these changes more than offset slight increases in market income inequality.</p> <p>More specifically, of the -2.4 ppt overall effect, -0.2 ppt can be attributed to the introduction of the NMW, i.e. 8% of the decrease in poverty attributed to the tax-benefit system (NMW, WFTC, Income Support, and other changes)</p>	
<p>Grogger (2003), USA, EITC, 1979-2000</p>	<p>Based on state-level variation in welfare reform policy. Income and log(income) of female-headed families are regressed on the introduction of time limits, a dummy for the introduction of welfare reform, demographic controls and the generosity of the maximum credit of the EITC. The model includes states dummies and state-specific quadratic trends.</p>	<p>Log(minimum wage) has no significant effect on income and log(income) among female-headed families.</p>	
<p>Gerfin, Leu, Brun, Tschöpe (2002), Switzerland, EITC and WFTC (simulated)</p>	<p>Simulation: introduction of a minimum wage set at 3'000 Swiss Francs gross/net, no employment impact simulated. Results are based on families in which household members together work at least 40 hours a week (i.e. 1 full-time job at the HH level).</p>	<p>Effect is positive w/ a ½ ppt decrease in poverty among workers who live in a household whose members work at least 40 hours a week in total.</p>	

Table A3: Employment effects of tax credits

Author(s), country. Evaluated program, period	Method, independent variable(s)	Employment effects	Comments
Ellwood (2000), USA, EITC, 1975-1999	First, runs a wage equation for 1998 for women aged 18-44 who worked 26+ weeks, and then can predict a potential 1998 wage for all women 18-44 in each sample from 1975-1978 and defines quartiles → it obviates the need to do regression-corrected estimates (thanks to consistent wage/skill quartiles). Predicts incentives with effective tax rate for median earnings for women who work more than 26 weeks. Then compares change in employment between 1986 and 1999 across quartiles for unmarried women with children and then for married mothers, and checks whether differences are statistically significant. Mothers 18-44, single or married.	The difference-in-difference estimated impacts are statistically significant for unmarried mothers, and amount to: . Increase in bottom quartile – increase in highest quartile = +18 percentage points (ppts) . Increase in bottom quartile – increase in 3 rd quartile = +13 ppts). For married mothers, . Increase in bottom quartile – increase in 3 rd quartile = -3 ppts, not significant . Increase in bottom quartile – increase in 2 nd quartile = -5 ppts, significant	
Neumark, Wascher (2001), USA state & federal EITC, 1986-1995	Regression model, impact of changes in EITC credit rate + other policies (minimum wage) on probability of adding an adult worker in year 2 if no worker in year 1 or 1 worker in year 1, and impact on change in hours worked in poor families with kids . Unemployment and other controls. Average EITC federal credit rate = 14,8% for families with children, 4,8% for state credit	Both federal and state credit have positive impact on P(add a worker if no worker in year 1), which improves likelihood by 11,2 and 14,1 ppts respectively, but no impact on P(add a worker if one worker in year 1) . For hours worked, significant impact of state credit on both families with or without workers in year 1, positive impact for families w/o worker (+205.39 hours) and negative for families w/ workers (-162.64). Federal EITC has essentially no effect on hours worked.	The absence of effect of federal EITC on hours worked is at odds with the large positive employment effect. Lack of consistency of the results for the federal credit, while state credit has sizable positive effects.
Eissa, Hoynes (2004), USA, EITC, 1985-1997	1. Regression model (probit), difference-in-difference estimates, Labor force participation (LFP) of married couples is regressed on fixed group effect*time effect, post 1992*2+kids fixed effects, time and group effects and individual characteristics. A 2 nd model adds year dummies*any child 2. Reduced form labor force participation equation (probit), LFP regressed on net nonwage income, gross wage and tax rate and controls, then parameters estimated are used for a	1. All mothers were 1.5 ppt less likely to be working after the EITC expansions, and mothers with larger families (2+ kids) were additionally 3.6 ppts. Total effect for mothers of 2+ kids is a 5 ppts decrease 2. Simulation: married mothers were 1.1 ppt less likely to work in 1996, while fathers were only 0.2 ppt more likely to work. For married women whose husband's wage is in the lowest decile, probability of employment is reduced by 1.7 ppt, and in the second decile 1.6 ppt. For married men the increase is always less than 0.6 ppt. In the phase-in range, married women have an increase in employment	

	simulation of the employment impact. Married couples.	probability (+1.1 ppt), a decrease in flat range (-1.5 ppt) and in the phase-out range (-2.1 ppt). For men, impact is always positive and very small, whatever the region of the tax credit	
Grogger (2003), USA, EITC, 1979-2000	Regression model: Based on state-level variation in welfare reform policy. Employment rate and weeks worked among female-headed families are regressed on the introduction of time limits, a dummy for the introduction of welfare reform, demographic controls and the generosity of the maximum credit of the EITC. The model includes states dummies and state-specific quadratic trends.	The maximum credit has a significant impact on both the employment rate and weeks of work. A \$1000 increase in the maximum credit leads to a 3.6 ppt increase in employment for single-mothers and to an increase of about 1.2 weeks of work. The effect of the EITC explains 34% of the increase in employment among single mothers and 27% of the increase in weeks worked.	
Trampe (2007), USA, EITC, 1993 expansion	Regression model: Focuses on the phase-out range of the credit, 200 households in the phase-out range in 1993, 1994, and 2006 and calculates the phase-out rate that applies to each household (all households, not only single mothers as is often the case). Hours worked are regressed on the EITC phase-out range, age, gender, number of children, educational level, marital status, and school enrollment of parents.	The phase-out rate has a small but statistically significant negative impact. The 1993 expansion (a 7.2 ppt increase in the phase-out range) caused those in the phase-out range to reduce their hours of work by 2.7 hrs/week if they have 2 kids and by 1.1 hours/week for those with 1 kid.	Hoynes: If women who enter the workforce work less than those already in the labor force, there is an endogeneity problem. In addition, no control for year fixed effects, no controls for macroeconomic trends, and the analysis pools single and married women. EC: very small sample. => Not included in meta-analysis
Herbst (2008), USA, EITC, 1986-2005	Regression model: Single mothers with at least one child 0-18. Probit: probability of various outcomes (any work, work and no welfare, full-time full-year work) as a function of social policy reforms → federal and state maximum EITC credit, child care subsidies, welfare benefits (+work requirements, sanctions, time limits), state and year fixed effects, state unemployment rate, demographic and human capital controls and time trends. Another specification decomposes the impact across quartiles of unemployment levels (heterogeneous effects model)	EITC has a significant impact on any employment and full-time year round employment. Average effects model: a \$1,000 increase in the max credit is expected to increase any employment by 1.1 ppt, but decrease full-time full-year employment by a similar amount. Heterogeneous effects model: same magnitude (+1.1 ppt and -1.1 ppt respectively). The impact is very similar across unemployment quartiles, including for single mothers with a high school diploma or less and for non-white single mothers.	75% of EITC dollars are paid to single-parent families (48% of all claimants)

<p>Noonan, Smith, Corcoran (2007), USA, EITC, 1991-2003</p>	<p>Regression and simulation: focus on single mothers, differences b/w black and white mothers. Multilevel logistic regression: Variable “employed in the week prior to the survey” regressed on maximum federal and state EITC, welfare policies (any waiver, TANF, sanctions, benefits) and sociodemographic controls. Simulation: 1991, 2000 and 2003 samples → thanks to regression coefficients, probability of being employed is calculated; then, each women is assigned the conditions (labor market and welfare policies) she would have faced in 2000, and also the EITC she would have received (for the 1991 sample). Finally, this counterfactual probability of being employed is compared to observed values.</p>	<p>Full regression model: the max EITC benefit has a significant impact on employment. For each \$1,000 increase in the maximum EITC, the odds of employment are 9.1% greater.</p> <p>Simulation: between 1991 and 2000, changes in the EITC explain 20-25% of the increase in employment for black single mothers and 23-31% for white single mothers (19-25% for all single mothers). The decrease in employment after 2000 -2% is completely attributable to the increase in unemployment.</p>	<p>Black single mothers are younger, more likely to be never married and high school dropouts, and have more children on average.</p>
<p>Meyer, Rosenbaum (2001), USA, EITC, 1984-1996</p>	<p>Regression with focus on all single mothers. Probit employment estimates (worked in reference week), independent variables are: a vector of demographic and economic controls (state, age, race & ethnicity, education, marital status and kids, unemployment, unearned income, central city, month), year dummies and an interaction term year*any children. The coefficient of the latter variable gives the difference-in-difference estimates.</p>	<p>Taxes have a significant impact on employment: a \$1,000 reduction in income taxes (or increase in tax credit) increases employment last week by 2.7 ppt, and increases employment last year by 4.5 ppt. The effects are larger for the less educated: for high school dropouts the corresponding increases are +4.2 ppt and +8.8 ppt respectively. For hours worked per year conditioning on positive hours, the policy variables have the same signs, but smaller and less significant effects.</p> <p>Using parameter estimates, the EITC explains 62% of the increase in weekly employment over the 1984-1996 period, but only 27% b/w 1992 and 1996. For annual employment, EITC explains 61% of annual employment.</p>	<p>Single parents received about two thirds of EITC dollars; EITC credits increased fifteenfold.</p>
<p>Blundell (2006), United Kingdom, WFTC, 1996-2003</p>	<p>Regression models and simulation to evaluate the impact on single mothers under 45: First a structural model → discrete choices from a small subset of hours (0, 1-15, 16-22, 23-29, 30-36, 37+) w/ usual sociodemographic and economic controls as well as child care demand as a function of hours worked and fixed costs of work. Then parameters are used for a simulation. 2nd regression model used as a quasi-experimental approach: difference-in-difference estimate of the</p>	<p>Difference-in-difference results: the impact was a 3.5 to 4 ppt increase in single mothers labor supply attributable to the WFTC policy (using 2 different surveys), the response was slightly larger for the lower education group. Significant impact.</p> <p>Simulation: moving from the Family Credit to the WFTC → increase in single mothers’ employment rate +5.95 ppt (about 7.5 ppt for children aged 3 to 10). The same simulation including all reforms directed to single mothers</p>	<p>A pronounced puzzle: the UK policy appears twice as generous as the US policy. Yet the impact looks to be half what it was among similar groups in the US.</p>

	impact of the WFTC on employment (comparison group = single women w/o children)	shows an increase of 3.86 ppt: the contemporaneous increase in Income Support dulled the positive labor supply of the WFTC	
Brewer, Duncan, Shephard, Suarez (2006), UK, WFTC, 1999-2003	Simulation based on parameters of structural equation → Tobit regression model, sample of all families with children in Great Britain, but separate regression for single mothers and couples . Probability of choosing from a subset of working hours (same one as Blundell (2006)) as a function of demographic and other household characteristics. Wage equation also specified.	Simulation shows that replacing Family Credit with WFTC lead to a statistically significant 5.11 ppt rise in the proportion working among lone mothers. Hours worked are estimated to increase by 14%, with average weekly hours worked by those working increasing by 2.7% (0.75 hrs/worker). The non-WFTC reforms reduced the positive employment impact by 1.45 ppt. Among couples with children, there was a slight increase for women whose partner doesn't work (+0.06 ppt), but a decrease amongst women whose partner is in work of -0.64 ppt. The overall decrease: -0.57 ppt. For men in couples, the WFTC increased employment by +0.75 ppt.	
Blundell (2000), UK, WFTC, 1994-1996	Simulation using discrete choice structural labor supply model similar to the one already described above, simulation for samples of single parents and married couples (including <i>de facto</i> married) with children, excluding self-employed from the 1994-1995 and 1995-1996 family resources survey; simulation allowing child care demand to vary w/ hours worked, fixed cost of work, and stigma associated with welfare.	WFTC simulations show an increase of 2.2% in the number of single parents who work (+34,000), 1.32% for women with a nonworking partner (+11,000), a decrease of 0.57% for women whose partner is in work (-20,000) → an overall increase among mothers +24,000. In addition, an increase for men with a nonworking partner of 0.37% and for men with a working partner of 0.3%. The overall decrease in workless families amounts to 57,000 families.	
Francesconi, Rainer, van der Klaauw (2009), UK, WFTC, 1991-2002 Francesconi, van der Klaauw (2007), WFTC, UK	Regression model, married and cohabiting couples . If man works 16+ hours and is in top quartile of earnings distribution → excluded from sample. Quasi-experimental: employment is regressed on dummy experimental vs. control group, a time trend interacted with this dummy, the difference b/w any year and the year of the reform, a vector of individual characteristics and an individual fixed effect. Lone mothers and women in couples.	The overall impact on women in couples with children is not significant, but heterogeneity in responses. Strong effect among women whose partner did not work or worked fewer than 16 hours: increase in employment by 3 ppt, with an increase in full-time employment rate by 2 ppt. Very similar findings in Francesconi and van der Klaauw (2007) for single mothers. For women with a partner who works 16+ hours, no significant effect. No statistically significant difference between low-education sample and the rest of the sample. Among women whose partner works less than 16 hours or not at all, significant impact of WFTC on persistence probability (i.e. staying in employment) as well as entry probability.	

		No significant impact on men whatever their partner's labor force attachment.	
Bargain, Orsini (2005), France, Germany, Finland	Simulation of the introduction of the WFTC in these 3 countries (but extended to childless singles and couples), as well as that of a hypothetical low-wage subsidy (LWA) using the lowest decile of the wage distribution as a threshold, those earning between 1 and 1.4 times this amount getting the subsidy, Simulation uses the 1998 Income Distribution Survey for Finland, the 1998 Socio-Economic Panel for Germany and the 1994 Household Budget Survey for France. The parameters stem from a structural model, a discrete-choice logit model similar to that developed by Blundell, including disposable income, the costs of work, a vector of socio-demographic characteristics. Wages are predicted for non-participants. Lone mothers and married women.	WFTC single women: 1.8% of single women in Germany and in Finland enter the labor force, while the effect is smaller in France (0.51%). 80% of these movers are single mothers. As for women in couples, 4.3% in France, 1.43% in Germany and 1.17% in Finland leave their job. Almost all negative responses concern women with children. Overall, the disincentive effect for married women prevails so that the net effect on employment is negative. LWS: The impact on single women is lower, between half and 2/3 of what is found with the WTC. For married women the impact is positive: 3.1% in France, 0.99% in Germany and 0.34% in Finland → % of the sample who enters the labor market.	Contrary to the US and the UK, the overall effect is negative. Why? A smaller share is in the phase-out range in the UK and the US. In addition, these countries have a wider wage distribution and lower level of taxation. Moreover, the poverty rate of lone mothers is lower in Continental Europe and Scandinavia; however, it is as high in Germany as in the UK. More fundamentally, the employment level of single mothers is higher in Continental Europe and even higher in Scandinavia.
Scarth, Tang (2008), Canada, Working Income Tax Benefit	Simulation, based on a nine-equation system, based on some important assumptions: globalization constraint (if government raises taxes, owners of capital can relocate their factors of production, there is involuntary unemployment among the unskilled, government budget constraint –how the program is financed, the rich receive 2/3 of income, the WITC benefits 10% of workers, all poor have same benefits – although there are a phase-in and a phase-out range, a the take-up rate is 100%. Options: an income tax credit financed by higher tax on “rich” population or a cut in spending (upper half) or by a cut in spending (both amount to 1 ppt), allowing for changes in labor force participation or not. Poorest decile of the population.	Poorest decile of the population who work at minimum-wage levels of remuneration, allowing for changes in the labor force participation: Increase in taxes: the unemployment rate decreases by approximately 0.17 ppt Decrease in spending: the unemployment rate decreases by approximately 0.2 ppt.	

<p>Gregg, Harkness, Smith (2009), UK, WFTC, 1998 and 2003, and employment rates 1993-2003 (labor force survey panel)</p>	<p>Detailed evidence on entry and exit rates, dynamic approach. Difference-in-difference approach w/ 2 control groups 1) women w/ kids in couples 2) single childless women. Probit regression model: probability of being employed regressed on an interaction lone mother*post-reform, a lone mother dummy, a post-reform dummy, and controls (age, education, age of child, ethnicity, region, and interaction terms). Dynamic aspects → probit model probability of job loss after break-up for partnered women in year t-1 (become single mother in year t), conditioning on education, age, and other differences. Another probit model (difference-in-difference) for entry/exit with an interaction lone mother*post-reform, a lone-mother dummy, and same controls as 1st model described above, w/ and w/o poor health control. Fixed-effects regression for weekly hours, similar controls, with two groups: < 16 hrs/week and >= 16 hrs/week. Lone parents.</p>	<p>Lone mothers, employment: compared to single childless women: probability increased by +5.2% (significant), compared to mothers in couples +3.8% (significant) Lone parents, employment: compared to single childless adults +4.1% (significant), compared to parents in couples + 3.8% (significant) Dynamic model of exit rates: in 1993-1999, becoming a lone mother increased the exit probability by a stat significant 9.5% and in 1999-2003 the impact was insignificant. Regarding the probability of entering the labor market, when single mothers are compared to childless single women, the difference is significant (+4.8%), however when a poor health control is included the result is insignificant. There is no difference when the comparison is made w/ mothers in couple. Regarding exit probabilities: significant w/o poor health control (-3.7%), not significant when this control is included. No difference with mothers in couples. Hours worked (mothers in couple for comparison): + 3.06 hours among part-timers but -1.33 hours among full-timers</p>	<p>The increase in generosity of out-of-work benefits reduced some of the WFTC's pro-employment effects. The increase in lone mothers' employment has come largely from a sharp increase in the share of mothers becoming lone parents holding on to work at the point of transition into lone motherhood.</p>
<p>Haan, Myck (2007), Germany, introduction of UK's WTC and CTC, 2005</p>	<p>Simulation w/ 2003 data, based on discrete choice labor supply estimation, similar model as Bargain and Orsini (2006), extended to women <i>and</i> men, and uses 2005 parameters to account for the Hartz reforms. The structure and generosity of the simulation are based on the 2005 system in the UK: working tax credit (WTC) and child tax credit (CTC) introduced in 2003, childless individuals becoming eligible (contrary to WFTC). H₀: income from tax credits is included in the means test for income support, which is withdrawn at a rate of 100%. Use of the STSM microsimulation model of the German tax and benefit system</p>	<p>Labor supply, restricted to households where both spouses are aged b/w 25 and 59 not in education and not self-employed: the overall employment of single women increases by more than 95,000 or +2.9%, almost exclusively borne by lone mothers. The effects on single men are modest, namely +10,000 (+0.3%). Total employment among women in couples decreases by more than 55,000, i.e. -0.8%; for men in couples the effect is also negative but smaller, namely -13,000 or -0.2%. The negative impact is highly concentrated among two-earner couples (-53,800 among women and -29,900 among men), while there is an increase among workless households (+8,500 and +26,100 respectively). Put differently, many no-earner and two-earner couples become one-earner couples.</p>	<p>These estimations call for a high degree of caution as far as 'importing' UK-style tax credits to Germany is concerned. A solution could come in the form of an individual tax credit combine w/ addressing the problem of supply shortages of childcare places.</p>

	Lone parents and couples.	The overall effect is slightly positive (+35,000), contrary to Bargain and Orsini's simulation findings for Germany.	
Shannon (2009), Canada, changes in various provinces, 1976-2001	<p>Article follows Meyer and Rosenbaum (2001), with probit employment equations, the probability of employment being regressed on the effect of interaction term having children* year, with the following controls: age, education, province, marital status, unemployment rate, age of children. Comparison of single mothers w/ unattached women (=in single-person households).</p> <p>Policy effects are measured by 1) classifying provinces by their degree of aggressiveness 2) calculate an aggressiveness indicator based on cuts in real welfare benefits, presence and level of income support program for the working poor at the province level. Ontario and Alberta are the most aggressive reformers, Newfoundland and New Brunswick the least aggressive. Regression model, employment probits, with employment regressed on province classified by degree of aggressiveness, maximum welfare benefit available, full-time earnings at minimum wage level, and a "welfare wall" variable including income supplements for the working poor and their tax treatment. Some specifications include aggressiveness and welfare generosity dummies. When possible, the whole sample, otherwise the 1989-2001 sample. Simulation using the coefficients with welfare pre-reform values and unemployment rates at their 1992 value.</p>	<p>The negative impact on employment of having a child diminished markedly after 1994: By 2001, the effect of a child on weekly employment had diminished from 16.6% to 4.7% and that on annual employment from 14.8% to 3.3%.</p> <p>Restricting the sample to younger women (20-34 years) made little difference, as did an analysis of the difference b/w single and nonsingle. In Canada, unattached women are also eligible to collect welfare, contrary to the US. By contrast, the differences by skill level are striking, the effect being, as in the US, strongest for the least educated.</p> <p>Changes in income support policies do not explain much of the rise in lone mothers' employment in Canada, increased by 3.1-3.5 ppt. Policy changes explain at most 10-20% of the rise in Canadian lone mother's employment during the 1990s.</p>	<p>Canadian welfare program changes went less far than those in the US. However, in the UK, in contrast to Canada, welfare benefits to nonworking lone mothers rose significantly. Yet, the UK reforms appear to explain a larger share of the increase of lone mothers' employment. Maybe the use of other datasets and techniques will uncover more significant results. EC: does not really provide an estimate of employment effect, hence excluded from meta-analysis.</p>
Stancanelli (2008), France, "employment premium" (PPE)	Difference-in-difference approach: difference b/w the employment probabilities of women in the treatment group and that of women in the control group. 3 different "treatments": 1) potential eligibility (conditional on earnings and household income if married) 2) Comparison of married and cohabiting women 3) Comparison of lone mothers	Treatment 1: eligibility → No significant effect on overall female employment. For married women, negative and significant impact (-3 ppts) in fixed-effects model, but insignificant in random-effect model. For cohabiting women, the effect is significant at the 10% level and positive (+6 to 6.9 ppts). The effect is not significant for all single women.	This is the 1st evaluation of the employment effects of the French tax credit using non-experimental methods.

	<p>and single childless women. Logit of employment dummy regressed on treatment dummy, fixed group and year effects, and a vector of controls (experience, education, number of children, region, nationality, wage rate) , with robust standard errors → autocorrelation). A random-effect model is also specified (term c_i added for individual unobserved effects). Women: Married, cohabiting, single.</p>	<p>Treatment 2: marital status → significant negative impact (-3 to 3.5 ppts) for married women compared to cohabiting women. Treatment 3: lone parents vs. single childless women → the impact is not significant. Maybe due to the fact that childless singles are also eligible for the tax credit. Net impact on total female employment is very small, about 2,000 jobs.</p>	
<p>Bloemen, Stanca (2007), France, “employment premium” (PPE), 1999-2002</p>	<p>Estimation of the employment effects, accounting for potential endogeneity: Eligibility depends on earnings and so does the employment decision in theory, wage rates and employment are potentially correlated → this may introduce a bias in the usual difference-in-difference estimates.</p> <p>First, a wage equation is estimated, so that the probability distribution of eligibility can be obtained: log earnings are regressed on individual characteristics, and then a probit specification is used to estimate P(eligibility). Then sophisticated regression models are specified that estimate the conditional probability of employment whether the person is eligible or not, and the probability of non-employment, whatever the eligibility. Hence, P(employment) is regressed on eligibility, eligibility*policy year, and controls, with a specific joint distribution of residuals. Robust standard errors are estimated to control for serial correlation. The policy year is 2002.</p> <p>Sample of women: single, married and cohabiting. Self-employed are dropped, retired women and full-time students as well. Those who have a retired or self-employed husband too.</p>	<p>W/o controls: overall significant (at the 10% level) negative impact on employment. Insignificant effect on married women, cohabiting women and single women.</p> <p>When controls are included, w/ and w/o corrections for potential endogeneity, all effects are insignificant. Hence, there is no evidence of any positive effect of the tax credit on employment.</p> <p>Regarding working hours, the effect isn’t significant either. The PPE did not affect women’s working hours.</p>	

Table A4: Antipoverty effects of tax credits

Author(s), country. Evaluated program, period	Method, independent variable(s)	Antipoverty effects	Comments
Gundersen, Ziliak (2004), USA, state and federal EITC, 1981-2000	Regression model, impact of macroeconomic factors and policy factors (TANF, waivers, food stamps, EITC and minimum wage) on logarithm of pre-tax and post-tax Foster-Greer-Thorbecke (FGT) indicator + squared poverty gap ($\alpha=2$), for various groups (all families, female-headed families, married-couple families, white families, black families), with time and state fixed effect and state-specific time trends + macroeconomic and policy controls (described above). A lag is included in the specification, namely FGT poverty in year t-1 EITC variable = $\ln(\text{state-federal EITC})$	EITC increases pre-tax poverty and squared poverty gap, no significant impact on post-tax poverty and squared poverty gap; however, the 1990s trend-break variables (after 1990, after 1992, after 1995) have stat significant and higher coefficients in post-tax models suggesting a positive role of the EITC in eradicating post-tax poverty in the 1990s	
Morgan, Kickham (2001), USA, EITC, 1987-1996	Regression model, pooled times series (OLS with state fixed effects), impact of rise of the maximum tax credit eligibility (beginning of phase-out range) on child poverty rate.	In specifications only with significant state dummies, the EITC variable has a stat significant impact. As the threshold for maximum tax credit eligibility rises by \$1000, child poverty declines by 0.18 percentage points.	
Neumark, Wascher (2001), USA state & federal EITC, 1986-1995	Regression model, impact of on pre-tax poverty among poor families with kids, probability of being nonpoor in year 2 if poor in year 1, and impact of income-to-needs ratio (official poverty line) of changes in EITC credit rate + other policies (minimum wage). Unemployment and other controls. Average EITC federal credit rate = 14,8% for families with children, 4,8% for state credit. Poor families.	An average change in state credit rate (0.04) has a significant impact on P(nonpoor in year 2/poor in year 1) which is increased by 7 ppts, and on change in income-to-needs ratio (+0.076) for families with children, federal EITC has no significant effect. For families with children and no adult worker in year 1, the state EITC significantly increases P(nonpoor in year 2) by 10.9 ppts, but no effect on families w/ kids who already have a worker. The same pattern applies for income-to-needs ratio (significant +0.1 if no worker, no increase otherwise). Federal EITC has no effect.	i) Probability of increasing earned income → impact on pretax poverty. The increase in total resources would be more pronounced if one considered the additional income received from the credit itself ii) It is not clear why the incentives posed by the federal and state tax systems should differ.
Grogger (2003), USA, EITC, 1979-2000	Based on state-level variation in welfare reform policy. Income and $\log(\text{income})$ of female-headed families are regressed on the introduction of time limits, a dummy for the introduction of	Surprisingly, the results from income and $\log(\text{income})$ regressions suggest that the EITC has no net effect on income.	The absence of a significant effect on income may be due by the offsetting effects of a decrease in welfare use and

	welfare reform, demographic controls and the generosity of the maximum credit of the EITC. The model includes states dummies and state-specific quadratic trends.		an increase in work and earnings. However, the author underlines that EITC income is not reported at all in the March Current Population Survey
Keegan Eamon, Wu, Zhang (2009), USA, EITC 1996-1998 and 2003-2005	Measure used is disposable family income obtained by adding the EITC and near cash government benefits to the family's income and subtracting federal, state and payroll taxes. Authors carried out simple calculations comparing the poverty rate before and after the EITC benefit is added to the disposable family income measure for 2004 and 2005. For previous years, they used figures from other authors' articles based on the same database (Current Population Survey) and similar indicators. Child poverty.	Reduction in child poverty rate thanks to the EITC: 1996 - 14.5% for all children (-30% for children with working parents), 1997 -15.6% (-27.2%), 1998 -17.9% (-27.7%), 2003 -19% (n/a), 2004 -18.3% (n/a) and 2005 -19.5% (n/a)	“the method might overstate the poverty reduction effectiveness...First...the EITC can serve as a disincentive for employed parents to work more hours...or for married women to enter the work force. Second... earning more income increases taxes and decreases eligibility for or the amount of other means-tested benefits” (p.924) EC: simple pretax/transfer – posttax/transfer comparison, hence not included in meta-analysis.
Bargain, Orsini (2005), France, Germany, Finland	Same simulation as described above: Ignoring behavioral responses, there is obviously a reduction in the poverty rate, but also when behavioral responses are accounted for. Poverty line set at 50% of median equivalized income (also 40% and 60% for comparisons). Overall poverty rate.	For the WTC: France: poverty rate decreases from 7.03% to 6.35%, Germany 5.65%→5.41 and Finland 3.75 →3.71%, when behavioral responses are included in the simulation. The impact of the LWS is surprisingly similar to that of the WTC, even though smaller amounts are distributed to many more working families, including those in high income brackets with 6.45% (France), 5.5% (Germany) and 3.66% Finland	

Gerfin, Leu, Brun, Tschöpe (2002), Switzerland, EITC and WFTC (simulated)	Simulation: the EITC and WFTC parameters are adjusted using purchasing power parities. A structural model allows predictions of family labor market participation, following Blundell's discrete-choice model described above. Results are based on families in which household members together work at least 40 hours a week (i.e. 1 full-time job at the HH level).	The EITC has no impact, while there is a very slight increase (+0.1 ppt) in the working poor rate with the WFTC, because some households decide to work full-time but remain poor nonetheless.	
Scarth, Tang (2008), Canada, Working Income Tax Benefit	Simulation, based on a nine-equation system, based on some important assumptions: globalization constraint (if government raises taxes, owners of capital can relocate their factors of production, there is involuntary unemployment among the unskilled, government budget constraint –how the program is financed, the rich receive 2/3 of income, the WITC benefits 10% of workers, all poor have same benefits – although there are a phase-in and a phase-out range, a the take-up rate is 100%. Two options are tested: an income tax credit or an individual wage subsidy as the one proposed by Phelps; both programs can be either financed by a 1 ppt increase in the tax rate of by a 1 ppt cut in other spending. Poorest decile of the population.	Poorest decile of the population who work at minimum-wage levels of remuneration: Increase in taxes, no change in labor force participation: average income goes up by 3.9%, with change in labor force participation by 4.3% Decrease in spending, no change in labor force participation: average income increases by 8.1%, with changes in labor force participation by 8.6%	EC: antipoverty impact depends on the average income gap (in terms of incidence)
Haan, Myck (2007), Germany, introduction of UK's WTC and CTC, 2005	Simulation w/ 2003 data, based on discrete choice labor supply estimation, similar model as Bargain and Orsini (2006), extended to women <i>and</i> men, and uses 2005 parameters to account for the Hartz reforms. The structure and generosity of the simulation are based on the 2005 system in the UK: working tax credit (WTC) and child tax credit (CTC) introduced in 2003, childless individuals becoming eligible (contrary to WFTC). H ₀ : income from tax credits is included in the means test for income support, which is withdrawn at a rate of 100%.	Distributional impacts: families in the 2 nd decile (+ €52.10/week i.e. +4%) and in the 3 rd decile (+€ 60 i.e. +3.8%) would gain the most, while families in lowest decile would gain € 25.80 i.e. +3.4%	EC: antipoverty impact depends on the average income gap (in terms of incidence). Behavioral impact not accounted for, even though authors show the employment effect is negative for couples. Not included in meta-analysis.

<p>Giannarelli, Morton, Wheaton (2007), US, EITC, 2004</p>	<p>Microsimulation model TRIM3, which contains detailed state-specific modeling of the rules of tax and transfer programs. Employment effects are also simulated using estimates derived from US evaluations. Several variables were imputed: monthly transfers, child care expenses, housing expenses. Simulation based on income definition that is broader than the official definition, but poverty lines set at a level that produces headcount ratios very similar to the official ones. Workers.</p> <p>3 types of EITC expansions simulated. For childless workers, phase-in rate of 20% instead of 7.65%, and phase-out rate of 16%. Further, extension to childless workers aged 18-24 who aren't full-time students. Moreover, the provision for married couples excludes ½ of the earnings of a lower-earning spouse if it would result in larger EITC, and, third, for families w/ 3+ kids, phase-in rate=45% and phase-out rate=23.69%.</p>	<p>Assuming no employment effects, the packet of EITC changes reduces poverty by approximately 2 million individuals.</p> <p>Assuming higher employment among childless workers, poverty would decline by 2.2 million individuals.</p>	
<p>Bargain (2009), UK, income support, WFTC and other reforms , 1998-2001.</p>	<p>Microsimulation and decomposition into three effects i) changes in tax-benefit policy ii) adjustments of tax-benefits monetary parameters according to market income growth iii) changes in market income inequality, by calculating counterfactuals based on the EUROMOD tax-benefit calculator. Poverty line fixed at 60% of median income.</p> <p>During this period, Income Support was increased, WFTC more generous than its predecessor and introduction of the National Minimum Wage (NMW). Overall poverty rate.</p>	<p>Over the period, total poverty decreased 2.4 ppt as measured by the FGT indicator w/ $\alpha=0$ (headcount), and by 0.1 ppt with the FGT indicator with $\alpha=1$ (poverty gap). The severity of poverty FGT ($\alpha=2$) increased by 0.1 ppt. The changes in tax-benefit policy accounts for -2.5/-2.4, -0.6/-0.1 and -0.2/0.1 respectively, which means that these changes more than offset slight increases in market income inequality.</p> <p>More specifically, of the -2.4 ppt overall effect, -0.8 ppt can be attributed to the change from Family Credit to the WFTC, i.e. 1/3 of the changes in total poverty attributable to the tax-benefit system (NMW, WFTC, Income Support, and other changes).</p>	

<p>Bargain, Terraz (2003), France, “employment premium” (PPE), 2002</p>	<p>Microsimulation based on SYSIFF98, used for static simulations of the tax-benefit system, i.e. employment effects aren’t accounted for, based on Household Budget Survey 2002.</p> <p>Impact of the reform of the initial PPE introduced in 2001 w/ increased credit for part-time workers (in force from 2003 onwards, hereafter named “PPE Raffarin”, named after the Prime Minister who was in charge at that time). It is a 4.4% credit rate w/ an increased credit for part-time workers (corresponding to approx. 6.6%). Two poverty lines: 50% and 60% of median income. Overall poverty rate.</p>	<p>PPE Raffarin has an extremely weak impact on poverty despite the increased credit for part-time workers: the poverty rate decreases from 6.51% to 6.47% (poverty line=50% of median) resp. from 12.97% to 12.94% (poverty line=60% of median).</p>	<p>EC: Accounting for employment effects wouldn’t change much, as these effects are usually estimated to be very weak.</p>
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Table A5: Employment effects of family cash benefits

<p>Author(s), country. Evaluated program, period</p>	<p>Method, independent variable(s)</p>	<p>Employment effects</p>	<p>Comments</p>
<p>Del Boca, Pasqua, Pronzato (2008), Italy, Spain, France, Belgium, the Netherland, 1999</p> <p>Family allowances.</p>	<p>Use the large variations across EU countries in terms of CC slots and opening hours. Bivariate probit model, i.e. the probability of choosing to work and to have children are modeled jointly. The probability of working and of having children are regressed on the woman’s age (and its square), educational level, other hh income, the age of the youngest child, part-time jobs’ availability and quality, CC availability, family allowances, length of optional leave, and cluster dummies (pro-natalist, pro-traditional, pro-egalitarian, on-interventionist).</p> <p>HH w/ women aged 21-45, married or living w/ a partner</p>	<p>Family allowances have a statistically significant negative impact on the probability to be in work.</p> <p>Regressions are carried out separately for women w/ tertiary education and women w/ less than a tertiary education. Family allowances only have a statistically significant negative employment impact for women w/ less than tertiary education. For women w/ tertiary education, the impact is also negative but much smaller and insignificant.</p>	

<p>Sánchez-Mangas, Sánchez-Marcos (2008), Spain, 1996-2004. Introduction of €100 monthly cash benefit for working mothers of children under three.</p>	<p>Introduction in Spain in 2003 of a monthly cash benefit of €100 per child under three for working mothers.</p> <p>Difference-in-difference-in-differences approach (DDD), based on a probit model which regresses the likelihood of labor market participation on after-the-reform dummy, a treatment dummy (mothers of kids under 3 as opposed to the comparison group: mothers of kids aged 3-6), an interaction after*treatment, a time trend, an interaction time*treatment, educational attainment, age and age squared, number of kids, employment status in previous year, and employment status of spouse. Fertility is assumed to be exogenous.</p> <p>Married women under 45.</p>	<p>The policy variable, namely after*treatment, has a statistically significant and positive effect on employment.</p> <p>The estimated change that results from this reform is a 2.93 ppts increase in labor market participation, which represents approximately 5% of the labor market participation of the treatment group in 2002.</p> <p>Estimates by educational level are the following: the reform has a positive effect on each educational level; however, it is only significant for women with an intermediate educational level (as opposed to those with a primary or tertiary level).</p>	<p>EC: employment-conditional benefit</p>
<p>Berninger (2009), 21 European countries, 2004-2005.</p> <p>Family cash benefits</p>	<p>Situation in Belgium, Denmark, Germany, Finland, France, Greece, UK, Ireland, Iceland, Italy, Luxembourg, the Netherlands, Norway, Austria, Poland, Portugal, Sweden, Slovakia, Spain, Czech Republic, and Hungary. Multilevel regression models: maternal employment rates regressed on individual characteristics (age, age squared, youngest kid's age, number of kids, educational level, marital status, personal representation of mother's role) and macro characteristics (supply of CC for kids under 3, CC supply for kids aged 3-5, family cash benefits as a % of GDP, number of weeks of maternal leave, employment of childless women, and national representation of mothers' role).</p> <p>The representation of the maternal role is measured w/ the question: "A woman should be prepared to down on her paid work for the sake of her family"</p> <p>Mothers of children under 16, aged 25-60</p>	<p>In the model that includes all individual and macro characteristics, income transfers have a negative but insignificant effect on maternal employment. Indeed, the log odds amount to 0.977, indicating a very small decrease in the odds of being in employment.</p>	<p>The insignificant effect of cash benefits could be due to lack of differentiation of the operationalization, which includes universal child benefits, benefits that provide incentives to stay at home, and employment-conditional benefits.</p>

<p>Milligan, Stabile (2007), Canada, 1996-2000. Introduction of National Child Benefit.</p>	<p>1998: introduction of the National Child Benefit (NCB), w/ national benefit, also for nonworking parents + provincial benefit that is employment-conditional. Some provinces subtract NCB from welfare payments (“clawback states”) while others don’t. Clawback states increase incentives to work through child benefit. The provincially-run earned income supplements provide more incentive to join the labor force.</p> <p>Regression: linear probability model or OLS, both w/ instrument variable b/c of the endogeneity of benefits. NCB depends on income, which in turn depends on earnings and other income sources.</p> <p>Welfare recipients, mothers aged 18-50, married women are excluded.</p>	<p>The interaction term Clawback state*NCB has a significant positive impact on single mothers’ probability to have positive earnings, and also for all single women.</p> <p>This interaction term has a positive but insignificant impact on the number of weeks worked; however, its impact on hours worked is statistically significant and positive for single mothers. For all single women, however, the impact on both variables is insignificant.</p>	<p>EC: employment-conditional benefits</p>
<p>Naz (2004), Norway, 1998-1999. Cash-for-care benefit.</p>	<p>In 1998 the Norwegian government introduced cash benefits up to approx. €400/month for parents of 1-to-3 years old kids who don’t utilize state-subsidized day-care facilities.</p> <p>Difference-in-difference estimator, treatment = parents of kids under 3, control = parents of kids 3-6. Outcome variables are: market intensity (husband’s working hours+ his wife’s), specialization (husband’s working hours – his wife’s), wife’s working hours and husband’s working hours.</p> <p>1st specification: each outcome is regressed on child-under-3 dummy, a before/after dummy, and an interaction child under 3*after the reform. 2nd specification adds a tertiary education dummy variable and interaction terms w/ previous dummies. 3rd specification adds a vector of control variables and interactions w/ the same dummies (child under 3, after, child under three*after).</p> <p>Married and cohabiting couples who have children</p>	<p>Policy variable is the interaction term Child under 3*after the reform. It has a statistically significant and positive impact on specialization (+3.28 hours), a significantly negative impact on market intensity (-2.42 hours) and on wife’s working hours (-2.85 hours), and an insignificant (but positive) impact on husband’s working hours (+0.43 hour).</p> <p>Adding the educational level shows that the difference b/w the reform’s effects for the two types of hh (tertiary vs. below tertiary educational level) is stat insignificant. If the wife has a university degree, the increase in specialization amounts to 5.06 hours (significant), in other hh by 2.43 hours (insignificant). For market intensity, the decrease amounts to 3.49 for women w/ a tertiary educational level, and -1.9 hours otherwise, but these decreases, as well as the difference, are not significant. Wives’ working hours are decreased in both groups, but only significantly so for women w/ a higher educational level. The impact on husbands’ working hours is positive but insignificant whatever the educational level.</p>	<p>Surprisingly, bigger impact on wives w/ a university degree. Reason could be that the use of subsidized childcare is higher among higher-educated mothers.</p>

	at least one-year-old		
<p>Brink, Nordblom, Wahlberg (2007), Sweden, 1999.</p> <p>Simulated child benefit reform.</p>	<p>In 2002, a maximum was introduced in Sweden. Simulations are carried out, based on parameters obtained from a sophisticated structural labor supply model. This model allows estimating pre-reform labor supply and disposable income. Then, the maximum fee is applied (3% of gross hh income for the 1st child, 2% for the 2nd and 1% for the 3rd, for family incomes below 38,000 SEK → this fee is applied to all hh). A tax-benefit simulation model from Statistics Sweden.</p> <p>Information about CC is simulated: for single mothers, number of working hours = use of CC; for couples, time in CC = working hours of the parent who works the least.</p> <p>This policy is compared with a theoretical child-benefit increase that gives the same budgetary implications as the maximum fee reform.</p> <p>Single mothers and couples w/ children born b/w 1994 and 1998.</p>	<p>Simulated child benefit reform, which amounts to a 5,500 SEK/year increase, i.e. a 61% increase: for single mothers, employment decreases by 1% overall and 6.5% in the lower income quartile, whereas hours of work decrease by 2.4% overall and 5.4% in the lower income quartile.</p> <p>For two-parent families, husband's and wife's employment rate and hours of work remain unchanged.</p>	
<p>Van Damme, Kalmijn, Uunk (2009), 13 countries, Denmark, UK; Belgium, Netherlands, Austria, Germany, France, Ireland, Finland, Italy, Portugal, Spain, Greece, 1994-2001.</p> <p>Family cash benefits</p>	<p>Measuring the impact of family benefits and CC policy on the odds of after-separation employment. Simple and multinomial logit models: Outcomes are regressed on cash benefits in PPPs as the sum of 3 allowances (basic welfare + single-parent allowance + child allowance), on the number of public CC slots/100 kids under 3, macro-level controls (female unemployment rate, incidence of part-time work, and gender role values derived from a scale), and individual variables (married before separation, ex partners' income quartile, living w/ adult family e.g. mother's parents, education, a dummy for repartnered mothers, duration of inactivity for mothers who didn't work before break-up, dummies kids 0-6 and kids 7-</p>	<p><u>Women who didn't work before separation:</u></p> <p>The net monthly allowance for single-parents has a negative and significant impact in the baseline model, in the model controlling the impact of gender role values and in the model where the impact of CC is interacted w/ dummies kids 0-6 and kid 7-15. It is negative and insignificant in the model w/ the interaction term net allowance*1st quartile. Baseline: an increase of 100 PPP in allowances reduces the entry odds by 9%.</p> <p><u>Women who worked before separation (3 outcomes: increase in working hours, decrease, and exit):</u></p> <p>The net monthly allowance has a positive but insignificant</p>	

	<p>15, dummies for # of years after separation. The allowance variable is interacted w/ 1st income quartile of ex partner and CC variable interacted w/ dummies kid 0-6 and kid 7-15.</p> <p>Women aged 18-60 at the time of separation who experienced a separation during the panel period</p>	<p>impact on the odds of exit (compared to stability, the reference category), i.e. negative employment impact, but nonsignificant.</p>	
<p>Cho (2006), Korea, 1998-2003</p> <p>Child allowances</p>	<p>Complex simulation process: first, a wage equation is calculated, and then a non-maternal income equation. Then, a certain number of parameters are estimated from the dataset, based on an initial guess. The estimated values are compared to existing values (employment, hours of work, labor force participation within 5 years since birth, income share of expenditure on kids, number of kids, age at 1st birth), and if necessary, parameters are adjusted.</p> <p>Women aged 20-40 w/ at least 1 child</p>	<p>The introduction of child allowances would decrease labor force participation by 5.4% (from 57.6% to 54.5%). For women within 6 years since birth, employment is reduced by 13.9% (from 34.6% to 29.8%).</p>	<p>Interesting, b/c only one type of family policy exists in Korea, namely CC subsidies</p>
<p>Jaeger (2010), 10 countries, 1995-2000: Australia, Canada, Czech Republic, Finland, Germany, New Zealand, Norway, Spain, Sweden, and the US.</p> <p>Family cash benefits</p>	<p>Probit regression model: probability of employment is regressed on family cash benefits as % of GDP, benefits in kind as a % of GDP, a dummy variable strong religious ties (based on 2 questions), and 2 interaction terms (cash benefits*religious ties and in-kind benefits*religious ties), and a set of sociodemographic control variables (age, family status, # of kids, education, living area, denomination, social class, chief-earner dummy, living w/ parents, female unemployment rate, GDP/capita, and growth rate).</p> <p>Mothers aged 25-40 or 25-54.</p>	<p>Model w/o interaction terms: family cash benefits have a negative but insignificant impact on labor force participation, whereas the impact is stat significant and negative for full-time employment. The same conclusions apply to the models that include interaction terms.</p>	

Table A6: Antipoverty effects of family cash benefits

Author(s), country. Evaluated program, period	Method, independent variable(s)	Antipoverty effect	Comments
<p>Milligan, Stabile (2007), Canada, 1996-2000. Introduction of National Child Benefit.</p>	<p>1998: introduction of the National Child Benefit (NCB), w/ national benefit, also for nonworking parents + provincial benefit that is employment-conditional. Some provinces subtract NCB from welfare payments (“clawback states”) while others don’t. Clawback states increase incentives to work through child benefit. The provincially-run earned income supplements provide more incentive to join the labor force.</p> <p>Regression: linear probability model or OLS, both w/ instrument variable b/c of the endogeneity of benefits. NCB depends on income, which in turn depends on earnings and other income sources.</p> <p>Welfare recipients, mothers aged 18-50, married women are excluded.</p>	<p>The interaction term Clawback state*NCB has a positive, yet insignificant effect on single mothers’ total income. On the contrary, it has a statistically significant and positive effect on total income for all single women.</p>	<p>EC: employment-conditional benefits</p>
<p>Matsanganis, Levy, Mercader-Prats, Toso, O’Donoghue, Coromaldi, Farinha Rodrigues, Tsakoglu (2005) Spain, Portugal, Greece, Italy, 1995-1996</p> <p>Family cash benefits.</p>	<p>Static simulation, does not account for behavioral responses; as it appears that means-tested or universal benefits tend to reduce maternal labor force participation, the estimates are overoptimistic.</p> <p>Microsimulation based on EUROMOD, tax and benefit simulator for 1998. Data 1995-1996, adjusted for 1998. Impact of family allowances and non-refundable tax credits.</p> <p>Child poverty</p>	<p>The impact on the child pvtly rate / pvtly gap :</p> <p>Greece: -8.1% (-1.5 ppt) / -11.4%</p> <p>Italy: -19.0%(-6.2 ppts) / -28.2%</p> <p>Spain: -7.7% (-1.8 ppts) / -12.1</p> <p>Portugal: -20.9% (-6.1 ppts)/ -36.7%</p> <p>The impact on Foster-Greer-Thorbecke w/ $\alpha=2$:</p> <p>Greece: -13.2%</p> <p>Italy: -30.8%</p>	<p>The most striking finding is that the overall value of family transfers in southern Europe is extremely low.</p> <p>EC: doesn’t account for behavioral responses, not included in vote count.</p>

		Spain: -14.0% Portugal: -44.0%	
Brink, Nordblom, Wahlberg (2007), Sweden, 1999. Maximum fees reform.	In 2002, a maximum was introduced in Sweden. Simulations are carried out, based on parameters obtained from a sophisticated structural labor supply model. This model allows estimating pre-reform labor supply and disposable income. Then, the maximum fee is applied (3% of gross hh income for the 1 st child, 2% for the 2 nd and 1% for the 3 rd , for family incomes below 38,000 SEK → this fee is applied to all hh). A tax-benefit simulation model from Statistics Sweden. Information about CC are simulated: for single mothers, number of working hours = use of CC; for couples, time in CC = working hours of the parent who works the least. This policy is compared with a theoretical child-benefit increase that gives the same budgetary implications as the maximum fee reform. Single mothers and couples w/ children born b/w 1994 and 1998.	Simulated child benefit reform, which amounts to a 5,500 SEK/year increase, i.e. a 61% increase, increases disposable income by 4.6% overall, and by 4.3% in the lower quartile for single mothers. For two-parent hh, disposable income increases by 1.5% overall and 2.3% in the lower quartile. Distributional effects: the reforms decrease inequality (Gini coefficient) by 3.4% and P90/P10 by 1.22%.	
Misra, Moller, Budig (2007), 11 countries: Belgium, Finland, France, Germany, Luxembourg, Netherlands, Norway, Sweden, Canada, UK, USA. Mid-1990s → early 2000s. Family benefits.	Logistic regressions, w/ robust estimator (Huber-White for heteroskedasticity). Probability of poverty is regressed on family benefits (% of social insurance), on the % of 1-2-year olds in formal CC, paid leave and family leave (including family leave ²) and controls: age, part-time and full-time employment, education, partnered or not, parent or not, partnered*parent. Women aged 25-59	W/o control for paid and family leaves, family benefits have a significant and positive antipoverty effect (poverty reduced by 1.9%). Same result when paid leave is included (-1.2%). When family leave and its square are entered, CC availability has a positive but insignificant effect on poverty.	Misra, Moller, Budig (2007), 11 countries: Belgium, Finland, France, Germany, Luxembourg, Netherlands, Norway, Sweden, Canada, UK, USA. Mid-1990s → early 2000s.

<p>Bäckman, Ferrarini (2009), 21 countries, 2000: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, The Netherland, Norway, Poland, Slovenia, Sweden, Switzerland, UK, US</p> <p>child allowances, lump-sum maternity grants, tax deductions</p>	<p>Multilevel, random intercept regression model: odds that children are poor are regressed on “traditional” policies (child allowances, tax deductions, lump sum grants), dual-earner policies (parental insurance transfers), age of family head, labor market attachment i.e. the # of earners, a female-head dummy variable, and interaction terms.</p> <p>In some specifications, the public CC coverage of kids aged 0-3 is added. Moreover, the coefficients are estimated w/ the whole sample or w/ the sample w/o postcommunist countries (and w/o Denmark which displays very specific patterns).</p> <p>HH with pre-school children</p>	<p>Whole sample: The “traditional” benefits variable has a positive but insignificant antipoverty effect; controlling for the number of earners, the gender of the hh head, and interaction terms doesn’t affect these conclusions. The odds ratio in the 1st model is 0.19; surprisingly enough, this large change in the odds is not stat significant. When the public CC coverage for kids aged 0-3 is added, the impact becomes stat significant and remains positive (odds ratio=0.26).</p> <p>When the sample excludes postcommunist countries (Czech Republic, Estonia, Hungary, Poland and Slovenia), the conclusions are the same: traditional programs only have a significant impact when public CC coverage is included in the model.</p>	
<p>Frick (2007), 15 countries, 1994-1998: Italy, Greece, Spain, Portugal, UK, Ireland, Luxembourg, Netherlands, France, Germany, Austria, Denmark, Finland, Poland and Hungary.</p>	<p>First, usual pretransfer and posttransfer comparison to calculate a “poverty reduction effect” due to the receipt of family-related transfers (FRT) expressed in %. Poverty is measured w/ the Foster-Greer-Thorbecke indicator w/ $\alpha=2$ (severity of poverty).</p> <p>The “poverty reduction effect” is regressed on family benefits as a % of GDP, length of maternity leave, female employment, country dummies, welfare-regime dummies, and on socioeconomic characteristics: educational level within hh, # of siblings, age structure of hh, health status of adults, single-parenthood dummy, immigrant status dummy, unemployment dummy, and an inactivity dummy.</p> <p>FRT = sum of family related cash benefits, social assistance and housing allowance.</p> <p>Children identified as poor in a fictitious world w/o FRT</p>	<p>Family cash benefits as a % of GDP has a stat significant and positive effect on poverty reduction in the model that includes country dummies as well as in the model that contains welfare-regime dummies.</p> <p>W/ the Corporatist regime as a reference category, the social-democratic dummy has a positive and significant impact, <i>ceteris paribus</i>, whereas the Southern regime and the liberal regime have a negative and significant impact on poverty severity reduction. The negative impact is much stronger for the Southern dummy than for the liberal.</p>	

Table A7: Employment effects of childcare (CC) availability and cost

Author(s), country. Evaluated program, period	Method, independent variable(s)	Employment effects	Comments
<p>Del Boca, Pasqua, Pronzato (2008), Italy, Spain, France, Belgium, the Netherland, 1999</p> <p>CC availability.</p>	<p>Use the large variations across EU countries in terms of CC slots and opening hours. Bivariate probit model, i.e. the probability of choosing to work and to have children are modeled jointly. The probability of working and of having children are regressed on the woman's age (and its square), educational level, other hh income, the age of the youngest child, part-time jobs' availability and quality, CC availability, family allowances, length of optional leave, and cluster dummies (pro-natalist, pro-traditional, pro-egalitarian, on-interventionist).</p> <p>HH w/ womend aged 21-45, married or living w/ a partner</p>	<p>CC availability (% of children aged 0-2 using CC facilities) has a significant positive effect on the probability of working for the entire sample.</p> <p>Regressions are carried out separately for women w/ tertiary education and women w/ less than a tertiary education. CC availability is significantly positive for both groups of women, but the coefficient is higher for lower-skilled women.</p>	
<p>Kornstad, Thoresen (2006), Norway, 1998/2003. Reform aiming at reducing queues and fees.</p>	<p>The Norwegian parliament has passed a resolution to end queues in childcare centers and to reduce fees. Simulation based on parameters derived from a joint labor supply and childcare choice decision model, from a finite set of jobs and childcare arrangements (3 modes of care and 4 brackets of working hours). A multinomial logit regression model is used: the probability of choosing 1 of the 12 combinations is explained by disposable income, the number of hours worked, number of children, the number of opportunities and of jobs available. The simulation is based on 1998 data projected to 2003; the tax and benefit system in 2003 serves as a baseline.</p> <p>Married and cohabiting parents with at least one child aged 1-5.</p>	<p>Increasing the number of places at CC centers up to a point where there are no more queues has a strong impact on female labor supply. The probability of working 38+ hours increases from 31 to 37%, whereas the probability of working b/w 28 and 38 hours increases from 14% to 17% (approx.). The likelihood also increases in others work hours brackets, hence overall increase in employment.</p> <p>In the lowest and 3rd deciles of the income distribution, there is a one-hour increase in mothers weekly working time. The increase is even higher in the 2nd lowest decile (approx. 1.2 hours). The increase is slightly less than 1 hour in the upper two quintiles.</p> <p>Overall, expected hours of work for married or cohabiting mothers of pre-schoolers increase by 4%</p> <p>A 50% reduction in CC fees increases labor supply by about 2</p>	<p>EC: only 768 observations, hence not included in vote-counting procedure.</p> <p>Only small number of families has access to informal cares by others, especially grandparents.</p> <p>70% of kids aged 1-5 attended childcare centers in 2003 in Norway.</p>

		hours a week, i.e. about 8%. When queues are suppressed and fees reduced by 50%, labor supply increases by 13%.	
Sánchez-Mangas, Sánchez-Marcos (2008), Spain, 1996-2004. Introduction of €100 monthly cash benefit for working mothers of children under three.	Introduction in Spain in 2003 of a monthly cash benefit of €100 per child under three for working mothers. Difference-in-difference-in-differences approach (DDD), based on a probit model which regresses the likelihood of labor market participation on after-the-reform dummy, a treatment dummy (mothers of kids under 3 as opposed to the comparison group: mothers of kids aged 3-6), an interaction after*treatment, a time trend, an interaction time*treatment, educational attainment, age and age squared, number of kids, employment status in previous year, and employment status of spouse. Fertility is assumed to be exogenous. Married women under 45.	As indicated above, the introduction of a €100 benefit per child under 3 for working mothers had a significantly positive impact on maternal employment, namely around 3 ppts. Since the cash benefit represents 39% of the average child care cost, the implied elasticity of labor market decision of mothers of children under 3 with respect to CC prices is -0.07, assuming that there is no effect of the cash benefit on the equilibrium price of CC services.	
Berninger (2009), 21 European countries, 2004-2005 Belgium, Denmark, Germany, Finland, France, Greece, UK, Ireland, Iceland, Italy, Luxembourg, the Netherlands, Norway, Austria, Poland, Portugal, Sweden, Slovakia, Spain, Czech Republic, and Hungary. CC availability.	Multilevel regression models: maternal employment rates regressed on individual characteristics (age, age squared, youngest kid's age, number of kids, educational level, marital status, personal representation of mother's role) and macro characteristics (supply of CC for kids under 3, CC supply for kids aged 3-5, family cash benefits as a % of GDP, number of weeks of maternal leave, employment of childless women, and national representation of mothers' role). The representation of the maternal role is measured w/ the question: "A woman should be prepared to down on her paid work for the sake of her family". Mothers of children under 16, aged 25-60	In the model w/ all individual and macro variables, CC availability for kids under 3 has a significant and positive impact on maternal employment, whereas rather small effect as the odds increase by 3.6 percent $\rightarrow e(\beta)=1.036$. In the 2 models w/ all individual variables but only significant macro variables, 2 interaction terms are added. Conclusions: CC availability has a significant positive impact and the odds ratio increases by 3 to 4.7 percent. Interaction term CC availability*age of youngest child shows that the negative impact of the age of the youngest child significantly decreases when CC availability increases.	

<p>Baker, Gruber, Milligan (2008), Quebec/Canada, 1994-2003, Québec's new CC policy</p>	<p>Quebec introduced a major family-policy reform: began in 1997 w/ the extension of full-time kindergarten to all 5-year-olds, and the provision of CC at an out-of-pocket price of \$5.00 for all children 0-4. Program was phased in, starting w/ the 4-year-olds, than 3-year-olds in '98, all 2-year-olds in '99, and all kids under 2 in 2000. Moreover, the number of spaces doubled b/w '97 and '05.</p> <p>Difference-in-difference: %of mothers in employment is regressed on a policy eligibility dummy (=1 if kid is under 5 and lives in the province of Quebec), province and year dummies, as well as a vector of parents' characteristics, city size, number of siblings, age and sex of child.</p> <p>Panel survey of children w/ details on parental situation.</p>	<p>For two-parent families: There is a statistically significant rise in employment of women in Quebec, relative to the rest of Canada, of 7.7 ppts, that is, 14.5% of baseline participation. Including an economic control (male unemployment rate) slightly decreases this coefficient: 7.4 instead of 7.7.</p> <p>Alternative samples: for single mothers, the impact is positive, but insignificant. For mothers in couples w/ kids aged 0-2, the impact is positive and significant (+0.09), as well as for kids aged 3-4 (+0.055). For mothers in couples high school or less, the impact is positive but insignificant, contrary to mother w/ some post-high school education (+0.095).</p>	<p>Before the 1997 reform, CC policies targeted low-income families → the reform brought little gain for the lowest-income families, which explains why impact is much larger for women in couples and w/ higher education level.</p>
<p>Brink, Nordblom, Wahlberg (2007), Sweden, 1999, impact of the maximum fees reform.</p>	<p>In 2002, a maximum was introduced in Sweden. Simulations are carried out, based on parameters obtained from a sophisticated structural labor supply model. This model allows estimating pre-reform labor supply and disposable income. Then, the maximum fee is applied (3% of gross hh income for the 1st child, 2% for the 2nd and 1% for the 3rd, for family incomes below 38,000 SEK → this fee is applied to all hh). A tax-benefit simulation model from Statistics Sweden.</p> <p>Information about CC is simulated: for single mothers, number of working hours = use of CC; for couples, time in CC = working hours of the parent who works the least.</p> <p>This policy is compared with a theoretical child-benefit increase that gives the same budgetary implications as the maximum fee reform. Single mothers and couples w/ children born b/w 1994 and 1998.</p>	<p>Single mothers: the maximum fee reform increases average labor force participation by 0.7%, and by 4.6% in the lower income quartile. The increase in working hours amounts to 1.4% overall, and 16.5% in the lower quartile.</p> <p>Two-parent households: the wife's labor market participation increases by 0.4% and working hours by 0.5%, and for the husbands the increases amount to 0.2% and 0% respectively. In the lower income quintile, wife's employment increases by 2.5% and working hours by 3.1%; for husbands, these increases amount to 1.3% and 0.3%.</p>	

<p>Del Boca, Vuri (2007), Italy, 1998 Availability and cost of CC.</p>	<p>Regression: bivariate probit model to jointly estimate the probability of maternal employment and of CC use. Both outcomes are regressed on hourly CC costs, on a dummy variable for regions in which the provision of CC is highest (Emilia Romana, Lomardia and Veneto), and sociodemographic controls (wife's and husband's age and education, dummy grandparent still alive, husband's labor income and hh's nonlabor income, family transfers, # of kids 4-5, # of kids 6-13) and labor market variables (% part-time jobs, unemployment rate). A second model includes an interaction hourly CC costs*dummy(Emilia Romana, Lombardia, Veneto). In addition the estimates are used for a simulation of the absence of rationing and of two subsidies: 100% and 50% of CC costs.</p> <p>Married adults w/ the youngest kid under 3.</p>	<p>Simulation: W/ no rationing, a 50% CC subsidy increases employment by 15.5% and a 100% subsidy increases employment by 26.5% (from a baseline of 61.5%).</p> <p>Model I: hourly CC costs have a negative but insignificant effect on P(mother works). Living in in a region in which the provision of CC services is highest significantly increases this probability.</p> <p>Model II, w/ interaction term: hourly CC costs still have a negative but nonsignificant impact; living in one of the 3 "high CC provision" regions has a stronger impact. The interaction term has a stat significant and negative impact on P(mother works), which demonstrates that CC cost do have an impact, but only if CC availability is not heavily constrained.</p>	<p>EC: simulating the absence of rationing and a 100% subsidy is not realistic → simulation results not included in vote count. - An important component: the distance b/w the family's house, the workplaces and the location of CC facilities. - In the North, 15-20% of kids under 3 are in public CC, while in the South only 1-2%.</p>
<p>Bub, McCartney (2004), USA, children born in 1991 followed until 1st grade,</p>	<p>Families were recruited after the birth of a child in 1991, the follow-up interviews until kid is in 1st grade, i.e. 6-7 years old. Families recruited in 10 cities across the country. Three measures: 24 months after birth, 36 months and 54 months. Maternal employment hours are regressed (OLS) on hours of childcare, a dummy continuous employment, pre-birth maternal employment, partner employment status, income-to-needs ratio dummy (below or above 2*official poverty line), interactions hours in CC*maternal education and hours in CC*poverty status, and control variables (child gender and ethnicity, maternal partner status and maternal education).</p>	<p>The hours spent in CC at 24 months have a positive and stat significant impact on maternal employment when the kid is in 1st grade, and so do hours in CC at 36 months and at 54 months, w/ coefficients of 0.39, 0.43, and 0.5 respectively. Interaction terms do not have a significant impact, but poverty status*Hours in CC at 54 months. Signs for maternal education are negative, signs for poverty status are positive. So the impact does not vary by maternal educational level nor by hh's income level; however, hours in CC at 54 months have a bigger impact for higher income families.</p>	<p>EC: sample not representative, sample size is small, and attrition is not at random --> The final sample: highly educated overrepresented, partnered women overrepresented, African American underrepresented.</p> <p>Not included in vote-counting procedure.</p>
<p>Blau, Tekin (2007), USA, 1999, substantial increase in funding of CC subsidy programs</p>	<p>Welfare reform in 1996 consolidated four existing CC subsidy programs into a single block grant, the Childcare and Development Fund (CCDF), which substantially increased funding. Parents must be</p>	<p>4 specifications: w/ or w/o lagged variables, welfare receipt since January 1997 (dummy) and CC assistance after welfare since January 1997. Either one OLS regression (2nd equation) or 2-stage least square model (both equations) 2SLS --> model</p>	<p>EC: results from models III and IV are disputable. And criticized by the authors themselves. →</p>

	<p>employed, in training, or in school. However, there aren't enough funds approx 12-15% of those eligible are served.</p> <p>A subsample of 13 oversampled states, all hh headed by an unmarried mothers w/ at least 1 kid under 13.</p> <p>Pair of linear probability equations: 1) subsidy receipt (dummy) is regressed on family characteristics and policy variables 2) employment (and other outcomes) is regressed on this estimated subsidy dummy, the same hh characteristics and other policy variables. Rationing defined at the county level --> county dummies (i.e. the instrument variables) included in the set of policy variables in the 1st equation, but not in the second. State fixed effects are included in both equations.</p> <p>HH characteristics are: age, age², black/white/Hispanic dummies, a good health dummy, 12-15 years of education and education > 15 years, nonwage income, family size and its square, kids 0-5 only and kids 6-12 only --> used in the first equation. Then, estimated likelihood of subsidy receipt included in 2nd equation.</p> <p>Single mothers of children under 13.</p>	<p>1= OLS w/o lagged variables, model 2= OLS w/ lagged variables, model 3 = 2SLS model w/o lagged variables, model 4 = 2SLS model w/ lagged variables.</p> <p>CC subsidy receipt has a significant positive impact in all 4 models: likelihood of employment increases by 13 ppts in model I, by 12.5 ppts in model II, by 17 ppts in model III, and by 32.9 ppts in model IV. However, in model III the impact is not significant, b/c standard errors are very large in the 2SLS model. Equations III and IV: the validity of county dummies as instruments for CC subsidy is disputable.</p>	<p>2SLS not included in vote-counting procedure, only OLS results.</p>
<p>Fitzpatrick (2010), US, 2000, universal pre-kindergarten in Georgia and Oklahoma.</p>	<p>Georgia and Oklahoma introduced universal prekindergarten for all 4-year-olds → kids who turned 4 by September 1, 2000. Program take-up is high: 50 to 60% of all 4-year-olds.</p> <p>Identification of eligible and ineligible kids in the 1999-2000 school year, kids born within 100 days before the cutoff date and 100 days after the reform. Census data.</p> <p>Outcomes are regressed on the difference b/w date of</p>	<p>The policy variable (eligibility) has a negative but insignificant impact on labor market participation (worked last week & worked during the year prior to the interview) and hours of work per week. The impact on weeks worked is positive but insignificant.</p> <p>The cutoff variable (child born before cutoff date) also has a negative and insignificant impact on labor force participation and hours per week. The impact on weeks worked is negative</p>	<p>Conclusion: labor supply of mothers didn't increase following the introduction of pre-K for all 4-year-olds. First, female labor supply elasticities seem to be declining; moreover, many women in the comparison group may already be receiving</p>

	<p>birth (DOB) and cutoff date (number of days), on a dummy “born before cutoff date”, an interaction term number of days*cutoff, and an eligibility term (born in Oklahoma and Georgia before the cutoff date) and a set of demographic controls. For the “number of days” variable and the interaction term “number of days*cutoff”, a polynomial is used (cubic).</p> <p>Outcomes pertain to maternal labor supply: employment over a year, employment last week (Probit), and hours/weeks of work (OLS).</p>	<p>but insignificant.</p> <p>Generally, it is not possible to reject the assumption that the estimated effects are the same across groups of mothers (single or married, w/ or w/o a younger child). The effect is never significant.</p> <p>One exception: for weeks worked, the “cutoff variable” has a significant negative impact for single mothers who don’t have younger kids or for married mothers who do.</p>	subsidies.
<p>Pettit, Hook (2005), 19 countries, mid-1990s: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Hungary, Italy, Luxembourg, Netherlands, Norway, Poland, Russian Federation, Sweden, UK, USA.</p> <p>Public provision of CC.</p>	<p>Multilevel model: For each country, a dummy “woman employed or not” is regressed on individual-level characteristics: age, age², marital status, education, # of kids, having a kid under 3, youngest child 4-6. Then, the coefficients of these country-level regressions are used as dependent variables and regressed on national characteristics: Maternity leave weeks, parental leave weeks, parental leave², public provision of CC, unemployment, service sector growth, and the share of women in parliament.</p> <p>Both OLS and random-effects regression are carried out. Women 18-65</p>	<p>OLS specification: public provision of CC has a positive impact for married women and women w/ children 0-3 and children 4-6. Another specification leads to identical conclusions. The random-effect model leads to similar conclusion, but the impact is only significant for children aged 4-6.</p>	
<p>Lundin, Mörk, Öckert (2008), Sweden, 2001 and 2003, maximum fees reform in Sweden</p>	<p>Analyze the 2002 maximum CC fees reform.</p> <p>Employment dummy and share of full-time conditional on employment are regressed on the price of CC and household characteristics. A 2nd specification includes hh type fixed effects as well as hh type*municipality fixed effects, and the 3rd (preferred by the authors) also further includes a hh type*time effect.</p> <p>Two-parent hh w/ at least one child aged 1-9.</p>	<p>Model w/ hh characteristics: The maximum fee has a statistically significant and negative impact on the probability of being in employment. However, in the preferred specifications w/ hh type fixed effects, interacted w/ municipality and time, the impact of maximum fees is negative but insignificant.</p> <p>Regarding the impact on the share of full-time mothers among those already in the labor force, the impact is always negative but insignificant.</p>	<p>Highly subsidized CC already existed in Sweden before the reform, hence the difference w/ previous studies.</p>

<p>Lefebvre, Merrigan, Verstraete (2009), Canada, 1999-2004</p> <p>Québec's new CC policy</p>	<p>Québec's new CC policy w/ large increase in the number of subsidized spaces and low fees provides a Canadian "natural experiment".</p> <p>A difference-in-difference (DD) model is specified: Various outcomes are regressed on a Québec dummy, a dummy for mothers having benefited from the program, and a sum of year dummies multiplied by the Québec dummy, plus a set of control variables. Both a model w/ equal effects (the coefficients of the policy variable are constrained to be identical every year) and w/ unequal effects are specified. The article focuses on unequal effects.</p> <p>A DD-in-difference (DDD) model is also specified, mothers w/ kids aged 12-17 and no kind under 12 are added, but only as a robustness check.</p> <p>Mothers w/ at least 1 kid aged 6-11 and no kid under 6, a group that potentially benefited from the new policy when their kid was under 6.</p>	<p>Labor force participation (LFP): coefficients for 2002, 2003 and 2004 are positive and have a significant effect and LFP increased by 3.4, 6.1, and 5.7 pts respectively. For women w/ high school diploma or less, the effect is significantly positive and very large: 8.3, 16.1 and 17.3 pts, but insignificant for mothers w/ a higher educational level.</p> <p>Weeks of work/year: coefficients for 2002, 2003 and 2004 are positive and have a significant effect; +2.07, +2.76 and +3.98 weeks respectively. For mothers w/ HS diploma or less, effect is significantly positive and large: +5.63, 9.29, and 10 weeks respectively. For mother w/ a higher educational level, the impact is insignificant.</p> <p>Hours of work/year: coefficients for 2002, 2003 and 2004 are positive and have a significant effect; +95, +92 and +147 weeks respectively. For mothers w/ a HS diploma or less, effect is significantly positive and large: +114, 266, and 318 hours respectively. For mother w/ a higher educational level, the impact is insignificant.</p> <p>It is noticeable that there is an increasing pattern.</p>	
<p>Kalb, Wang-Sheng Lee (2008), Australia, 2002</p> <p>Cost and availability of formal and informal CC</p>	<p>Sophisticated microsimulation based on regression models and a tax/benefit simulation program. A simultaneous bivariate tobit model predicts formal CC hours and informal CC cost. The average price of formal CC is available from an external source; hence the cost of formal CC can be predicted.</p> <p>Another bivariate model predicts the demand for both formal and informal CC. The budget constraint is based on a tax and transfer simulator (MITTS). Finally a labor supply model is specified based on wage rates, nonlabor income other than taxes and transfers, number and ages of kids, age and education of each parent. Two scenarios are simulated : a 10% increase in net costs (=cost of formal CC – CC subsidies + cost of informal CC) and a 10% increase</p>	<p>A 10% increase in the net costs of CC:</p> <ul style="list-style-type: none"> - Lone parents: hours of labor decrease by 1.4% and participation decreases by 1.5% - Mothers in couples: hours of labor decrease by 0.3% and participation by 0.2% - Fathers in couples: both indicators remain unchanged. <p>A 10% increase in gross hourly prices w/ adjustment in demand:</p> <ul style="list-style-type: none"> - Lone parents: hours of labor decrease by 1.6% and participation decreases by 1.9% 	

	<p>in gross hourly prices allowing for adjustment in demand.</p> <p>Families w/ kids younger than 12 years of age.</p>	<p>- Mothers in couples: both indicators remain unchanged</p> <p>- Fathers in couples: both indicators remain unchanged.</p>	
<p>Lefebvre, Merrigan (2008), Canada, 1999-2002, Québec's new CC policy</p>	<p>September 1, 1997, the government of Québec implemented a new policy of day-care subsidies. On September 1, 2000, all kids aged less than 59 months were eligible for reduced contribution spaces. Difference-in-difference procedure (DD), comparison group is made up of women w/ kids under 6 in other Canadian provinces. Outcomes are regressed on a Québec dummy, an after-the-reform dummy, a sum of time-specific Québec dummies, and a vector of controls (mother's age (& age squared), years of education (& education squared), dummy mother born abroad, single-mother dummy, number of kids under 5, dummy kid under 6 and dummy kid under 3, and earned income from other sources).</p> <p>All mothers aged 18-56 w/ at least 1 kid younger than 6.</p>	<p><u>For all mothers w/ kid under 5:</u> Participation: all coefficients positive and significant for period 1999-2002, w/ increases by 7.6, 5.3, 8.3, and 8.1 ppts respectively. Annual hours: all coefficients positive, but only significant for 2001 and 2002: + 84, 64, 169, and 231 hours respectively Annual weeks: all coefficients positive and significant for period 1999-2002: + 3.8, 3.29, 5.09, and 5.17 weeks respectively</p> <p><u>For mothers w/ educational level <= high school</u> Participation: all coefficients positive, however only one significant at 10%-level (1999) Annual hours: all coefficients positive, however only one significant at 10%-level (2002) Annual weeks: all coefficients positive, however only one significant at 10%-level (2002)</p> <p><u>For mothers w/ educational level > high school</u> Participation: all coefficients positive, all significant but in 2001 Annual hours: all coefficients positive, significant in 2001 and 2002 Annual weeks: all coefficients positive and significant</p>	<p>The price reduction was larger for high and middle-income families, because CC subsidies for low-income families existed prior to the reform.</p>
<p>Uunk, Kalmijn, Muffels (2005), 13 EU countries, 1994-1999, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, The Netherlands, Portugal, Spain, and the UK. CC</p>	<p>Impact of the availability of CC, but also of the GDP level and of gender values (measured w/ European Values Survey questions). For each year, assess whether a child was born since the prior wave. Working hours are measured 1 year before birth and 2 years after. Multilevel regression model (random intercept model): changes in women's working hours after 1st childbirth are regressed on a CC indicator (number of public spaces per child aged 0-3), GDP in</p>	<p>1st specification w/ the CC variable and individual controls only: a 10% increase in CC availability increases mother's afterbirth labor supply by 2.9 hours (significant increase). Adding the impact of GDP in a 2nd specification leads to the conclusion that the impact is stat significant and positive; it is larger than in the 1st model: +4.72 hours. A 3rd model also includes gender values: the impact of CC availability grows even bigger +5.44%.</p>	<p>GDP has a stat significant and negative impact on mother's employment when controlling for the availability of CC slots. Gender values have an insignificant impact once controlling for CC availability.</p>

availability	<p>US\$ at price levels and exchange rates of 1995, scale results (1-4) derived from 2 attitudinal questions on gender roles, and individual control variables (mother's age, education, partner's hours, and hh income/1000 in PPPs).</p> <p>Women aged 20-40 in married or unmarried cohabitation, focus on 1st childbirth.</p>		EC: small sample 1004 observations, but OK for vote-counting procedure.
<p>Van Ham, Mulder (2005), The Netherlands, 1998.</p> <p>CC availability</p>	<p>Availability of CC, including geographical factors → depending on distance b/w home and CC facilities. Logistic regression: whether or not in paid employment for more than 12 hours is regressed on the number of institutionalized CC slots/100 kids aged 0-4 within 10 minutes' travel from the residence, the number of jobs by jobs level that can be reached by car in 15 minutes, and sociodemographic controls (age, age², education, a more-than-one-kid dummy, a single-mother dummy, additional income, a dummies for immigrant mothers and religious mothers).</p> <p>Mothers w/ children 0-6</p>	Having good access to CC has a positive and significant impact on the odds of maternal employment: One extra CC slot per 100 kids increases the odds of a mother being in paid employment by 2.2%.	
<p>Van Damme, Kalmijn, Uunk (2009), 13 countries, Denmark, UK; Belgium, Netherlands, Austria, Germany, France, Ireland, Finland, Italy, Portugal, Spain, Greece, 1994-2001.</p> <p>CC availability</p>	<p>Measuring the impact of family benefits and CC policy on the odds of after-separation employment. Simple and multinomial logit models: Outcomes are regressed on cash benefits in PPPs as the sum of 3 allowances (basic welfare + single-parent allowance + child allowance), on the number of public CC slots/100 kids under 3, macro-level controls (female unemployment rate, incidence of part-time work, and gender role values derived from a scale), and individual variables (married before separation, ex partners' income quartile, living w/ adult family e.g. mother's parents, education, a dummy for repartnered mothers, duration of inactivity for mothers who didn't work before break-up, dummies kids 0-6 and kids 7-15, dummies for # of years after separation. The allowance variable is interacted w/ 1st income quartile of ex partner and CC variable interacted w/ dummies</p>	<p><u>Women who didn't work before separation:</u></p> <p>Public CC provision has a positive and significant impact on entry odds an additional CC place increases the odds by 1.6% in the baseline model, by 1.4% in the model controlling the impact of gender role values, by 0.9% in the model where the impact of CC is interacted w/ dummies kids 0-6 and kid 7-15, and by 1.3% in the model w/ the interaction term net allowance*1st quartile</p> <p><u>Women who worked before separation (3 outcomes: increase in working hours, decrease, and exit):</u></p> <p>Public CC provision significantly increases the odds of increased working hours but also of decreased hours, as compared to stability. The odds of exit increase, but the effect</p>	The model for women who were in employment before separation: effects are weaker and less in line w/ expectations than the effects on labor market entry.

	<p>kid 0-6 and kid 7-15.</p> <p>Women aged 18-60 at the time of separation who experienced a separation during the panel period.</p>	is insignificant.	
<p>Stähli, Le Goff, Levy, Widmer (2009), Switzerland, 1998-99, CC availability</p>	<p>The reduction in labor activity (never reduced/reduced at some moment/stopped for kids but now active again/has completely stopped working) is regressed on the type of CC (collective day nursery, nanny & day mother, informal, ...), on geographical context (metropolitan, small center, periurban, etc.), age, national origin, occupational position (manager, professionals, etc.), # of kids, age of youngest kid, partner's income, feminized job (> 70% women) or masculinized or mixed, lifestyle preferences (opinion questions → home-centered, work-centered or adaptative), kind of network (sparse, friendship, interfering, etc.). Multinomial logistic regression, the reference category of the dependent variable being "homemaker".</p> <p>Mothers in married and unmarried couples w/ at least 1 child of any age.</p>	<p>Having a child in a collective day nursery has a positive and significant impact on the odds of never having reduced labor force participation (rather than leaving the labor market and still being out of it) and of having interrupted employment participation but being back in the labor market. The impact on the odds of having reduced at some moment rather than completely stopped is positive but insignificant.</p> <p>Having a kid minded by a nanny or a "day mother" significantly increases the odds of never having reduced labor force participation or having temporarily reduced it rather than completely leaving the labor market. The impact is positive but insignificant on the odds of having temporarily interrupted labor market participation rather than leaving the labor market.</p>	
<p>Rammohan, Whelan (2007), Australia, 2002, CC cost</p>	<p>Dependent variable: odds of being in full-time employment, part-time employment, and not working. Model is a structural ordered probit regression. First, labor force participation is regressed on age, age², experience, experience², a dummy partner works regular shifts, education, immigration status, region of residence, number and age of kids. A wage equation is calculated using the same variables. The cost of CC equations are calculated using age, partner works regular shifts, migration status, region, number and age of kids.</p> <p>Then, the odds of labor outcomes are regressed on predicted wage, predicted CC costs, region, and number and age of kids.</p>	<p>The (predicted) cost of CC has a negative but insignificant impact on the odds of being in part-time employment and in full-time employment. Hence, no stat significant impact on maternal employment status.</p> <p>Restricting the sample to mothers of children of preschool age yields similar results.</p>	

	Mothers w/ kids aged less than 15		
Tekin (2007), USA, 1997, CC cost and CC development fund	<p>Structural model: a multinomial logit model and two OLS equations are modeled jointly. The price of CC is regressed on state dummies and a vector of individual characteristics (mother's age, education, nonwage income, race, ethnicity, health, region of residence, presence of kids by age); the logarithm of wage rates for full-time or part-time employment is regressed on state dummies and the same set of socio-demographic characteristics. In the multinomial logit model, the outcomes are regressed on these estimated prices of CC and wage rates and on the same set of individual characteristics, plus a control for labor demand factors (unemployment rate).</p> <p>The outcomes are full-time work w/ paid care, and part-time work w/ paid care; the reference category is no employment and no CC.</p> <p>Based on regression coefficients, a a \$1 decrease in CC costs is simulated.</p> <p>Single mothers w/ kids younger than 13.</p>	<p>The price of CC has a negative but insignificant impact on part-time employment w/ paid care (vs. no employment & no CC) w/ a CC price elasticity of -0.068, and a negative and significant impact on full-time employment w/ CC (vs. no employment, no CC), w/ a CC price elasticity of -0.139.</p> <p>A simulated decrease in hourly CC price of \$1, which corresponds to an annual subsidy of \$2,080, leads to an increase in overall employment of 3.7 ppts, i.e. 5.2%.</p>	A higher price of CC is a stronger deterrent to full-time employment than it is for part-time employment

Table A8: Antipoverty effects of childcare (CC) availability and cost

Author(s), country. Evaluated program, period	Method, independent variable(s)	Antipoverty effect	Comments
<p>Kornstad, Thoresen (2006), Norway, 1998/2003. Reform aiming at reducing queues and fees.</p>	<p>The Norwegian parliament has passed a resolution to end queues in childcare centers and to reduce fees. Simulation based on parameters derived from a joint labor supply and childcare choice decision model, from a finite set of jobs and childcare arrangements (3 modes of care and 4 brackets of working hours). A multinomial logit regression model is used: the probability of choosing 1 of the 12 combinations is explained by disposable income, the number of hours worked, number of children, the number of opportunities and of jobs available. The simulation is based on 1998 data projected to 2003; the tax and benefit system in 2003 serves as a baseline.</p> <p>Married and cohabiting parents with at least one child aged 1-5.</p>	<p>The change in post-tax equivalent income due to fee reductions of around 50% amounts to approx. 3,000 Norwegian crowns (NOK) in the lowest 3 quintiles and around 4000 NOK in upper two quintiles, i.e. around US\$ 415 and \$550 respectively in 2003, from a baseline of 326,200 NOK (unequalized), i.e. an equalized disposable income of 163,100 given that the mean number of children is 2 and the equivalence scale used is the square root of the number of household members.</p> <p>Overall, an increase of 3,600 NOK, around +2.2% in disposable equalized income.</p> <p>The impact of increasing the number of spaces at childcare centers on disposable income is much smaller, namely less than 1,000 NOK in the lower 2 quintiles and virtually zero in the other three quintiles, due to the moderate impact on working hours.</p>	<p>EC: only 768 observations, hence not included in vote-counting procedure.</p> <p>Only small number of families has access to informal cares by others, especially grandparents.</p> <p>70% of kids aged 1-5 attended childcare centers in 2003 in Norway.</p>
<p>Brink, Nordblom, Wahlberg (2007), Sweden, 1999. Maximum fees reform.</p>	<p>In 2002, a maximum was introduced in Sweden. Simulations are carried out, based on parameters obtained from a sophisticated structural labor supply model. This model allows estimating pre-reform labor supply and disposable income. Then, the maximum fee is applied (3% of gross hh income for the 1st child, 2% for the 2nd and 1% for the 3rd, for family incomes below 38,000 SEK → this fee is applied to all hh). A tax-benefit simulation model from Statistics Sweden.</p> <p>Information about CC are simulated: for single mothers, number of working hours = use of CC; for couples, time in CC = working hours of the parent who works the least.</p>	<p>Single mothers: Disposable income increases by 3.7% overall, and by 3.2% in the lower income decile.</p> <p>Two-parent families: disposable income increases by 2.7%; in the lower income quartile, it increases by 1.7%.</p> <p>Distributional impact: two-parent families gain more than single mothers and high-income more than low-income families. The maximum fee reform keeps the Gini coefficient constant, but the P90/P10 ratio increases by 1,8% → reform enlarges the gap b/w low and high-income families.</p>	<p>The low cap makes the fee reduction larger for high-income families.</p>

	<p>This policy is compared with a theoretical child-benefit increase that gives the same budgetary implications as the maximum fee reform.</p> <p>Single mothers and couples w/ children born b/w 1994 and 1998.</p>		
<p>Fitzpatrick (2010), US, 2000. Universal pre-kindergarten in Georgia and Oklahoma.</p>	<p>Georgia and Oklahoma introduced universal prekindergarten for all 4-year-olds → kids who turned 4 by September 1, 2000. Program take-up is high: 50 to 60% of all 4-year-olds.</p> <p>Identification of eligible and ineligible kids in the 1999-2000 school year, kids born within 100 days before the cutoff date and 100 days after the reform. Census data.</p> <p>Outcomes are regressed on the difference b/w date of birth (DOB) and cutoff date (number of days), on a dummy “born before cutoff date”, an interaction term number of days*cutoff, and an eligibility term (born in Oklahoma and Georgia before the cutoff date) and a set of demographic controls. For the “number of days” variable and the interaction term “number of days*cutoff”, a polynomial is used (cubic).</p> <p>Outcomes pertain to maternal labor supply: employment over a year, employment last week (Probit), and hours/weeks of work (OLS).</p>	<p>The policy variable (eligibility) has a positive but insignificant impact wage and salary.</p> <p>The cutoff variable (child born before cutoff date) has a significantly negative impact (-\$1,672).</p> <p>Analyzing the effect across groups of mothers (single or married, w/ or w/o a younger child), one result is significant:</p> <p>The policy variable reduces the wage of single mothers who also have younger children</p>	<p>EC: impact on wage, not on income, hence not included in vote count</p>
<p>Misra, Moller, Budig (2007), 11 countries: Belgium, Finland, France, Germany, Luxembourg, Netherlands, Norway, Sweden, Canada, UK, USA. Mid-1990s → early 2000s.</p>	<p>Logistic regressions, w/ robust estimator (Huber-White for heteroskedasticity). Probability of poverty is regressed on family benefits (% of social insurance), on the % of 1-2-year olds in formal CC, paid leave and family leave (including family leave²) and controls: age, part-time and full-time employment, education, partnered or not, parent or not, partnered*parent.</p>	<p>W/o control for paid and family leaves, CC availability has a significant and positive antipoverty effect (poverty reduced by 0.5%). Same result when paid leave is included (-0.4%).</p> <p>When family leave and its square are entered, CC availability has a positive but insignificant effect on poverty.</p>	

CC availability	Women aged 25-59		
<p>Bäckman, Ferrarini (2009), 21 countries, 2000: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, The Netherland, Norway, Poland, Slovenia, Sweden, Switzerland, UK, US.</p> <p>Public CC coverage of kids under 3.</p>	<p>Multilevel, random intercept regression model: odds that children are poor are regressed on “traditional” policies (child allowances, tax deductions, lump sum grants), dual-earner policies (parental insurance transfers), age of family head, labor market attachment i.e. the # of earners, a female-head dummy variable, and interaction terms.</p> <p>In some specifications, the public CC coverage of kids aged 0-3 is added. Moreover, the coefficients are estimated w/ the whole sample or w/ the sample w/o postcommunist countries (and w/o Denmark which displays very specific patterns).</p> <p>HH with pre-school children</p>	<p>For the whole sample: an increase in public CC coverage has a stat significant positive antipoverty impact; conclusions are not affected if postcommunist countries are not taken into account, nor when both postcommunist countries and Denmark aren't included in the sample.</p>	
<p>Kreyenfeld, Spiess, Wagner (2000), Germany, 1996.</p> <p>CC fees</p>	<p>Day care fees are expressed as a percentage of household equivalized net income, for each income quintile.</p> <p>Families w/ kids 0-11 years old.</p>	<p>HH in the bottom quintile spend 4.1% of their income on day care fees, while this share amounts to 3.3 in the 2nd quintile, 3.3 in the 3rd, 3.0 in the 4th, and 2.3 in the 5th, although day care fees increase w/ income.</p> <p>Hence these fees could increase relative poverty as they seem to increase income inequality.</p>	<p>From the 1920s onward, municipalities started funding day care for the working class. However, slots in public funded centers are scarce.</p>

10 Appendix B: Tables used for the vote counts

Table B1: Employment effects of minimum wages (141 estimates)

Study ID	Country	Policy	Population	Employment indicator	Sign	Signif	weight
LIBERAL CLUSTER							
Sabia08	US	Min wage	Single mothers	Employment	-	NS	0.5875
Sabia08	US	Min wage	Single mothers	Weekly hours	+	NS	0.5875
Sabia08	US	Min wage	Single mothers	Weeks last year	-	NS	0.5875
Sabia08	US	Min wage	Single mothers	Annual hours	-	NS	0.5875
Sabia08	US	Min wage	Single mothers HS dropouts	Employment	-	S	0.5875
Sabia08	US	Min wage	Single mothers HS dropouts	Weekly hours	-	S	0.5875
Sabia08	US	Min wage	Single mothers HS dropouts	Weeks last year	-	S	0.5875
Sabia08	US	Min wage	Single mothers HS dropouts	Annual hours	-	S	0.5875
Sabia08	US	Min wage	Single mothers, education >= HS	Employment	-	NS	0.5875
Sabia08	US	Min wage	Single mothers education >= HS	Weekly hours	+	NS	0.5875
Sabia08	US	Min wage	Single mothers education >= HS	Weeks last year	-	NS	0.5875
Sabia08	US	Min wage	Single mothers education >= HS	Annual hours	+	NS	0.5875
VedderG02	US	Min wage	full-time full-yr workers in nonagricultural sector	hours worked	-	S	3.525
VedderG02	US	Min wage	full-time full-yr workers in nonagricultural sector	overtime hours	-	S	3.525
NeumarkA03	US	Min wage	workers in lowest decile of wage distribution	probability of being employed (contemporaneous)	-	NS	0.7833
NeumarkA03	US	Min wage	workers in lowest decile of wage distribution	probability of being employed (6 months lag)	+	NS	0.7833
NeumarkA03	US	Min wage	workers in lowest decile of wage distribution	probability of being employed (12 months lag)	+	NS	0.7833
NeumarkA03	US	Min wage	workers b/w 10th & 25th percentile	probability of being employed (contemporaneous)	+	NS	0.7833
NeumarkA03	US	Min wage	workers b/w 10th & 25th percentile	probability of being employed (6 months lag)	+	NS	0.7833
NeumarkA03	US	Min wage	workers b/w 10th & 25th percentile	probability of being employed (12 months lag)	-	NS	0.7833
NeumarkA03	US	Min wage	workers b/w 25th & 50th percentile	probability of being employed (contemporaneous)	+	NS	0.7833
NeumarkA03	US	Min wage	workers b/w 25th & 50th percentile	probability of being employed (6 months lag)	+	NS	0.7833
NeumarkA03	US	Min wage	workers b/w 25th & 50th percentile	probability of being employed (12 months lag)	+	NS	0.7833

Sabia09a	US	Min wage	Teenagers, w/o year effects, 1979-1997	employment-to-population ratio of teens	-	S	1.7625
Sabia09a	US	Min wage	Teenagers, w/o year effects 1979-2004	employment-to-population ratio of teens	-	S	1.7625
Sabia09a	US	Min wage	Teenagers, w/ year effects 1979-1997	employment-to-population ratio of teens	-	NS	1.7625
Sabia09a	US	Min wage	Teenagers, w/ year effects 1979-2004	employment-to-population ratio of teens	-	S	1.7625
KalenkoskiL07	US	Min wage	Teenagers, w/o spatial autocorrelation model	employment-to-population ratio of teens	-	S	3.525
KalenkoskiL07	US	Min wage	Teenagers, w/o spatial autocorrelation model	employment-to-population ratio of teens	-	S	3.525
AddisonBC09	US	Min wage	Overall, retail trade sector, 5 subsectors	employment, food & beverage stores	+	NS	0.705
AddisonBC09	US	Min wage	Overall, retail trade sector, 5 subsectors	employment, Supermarkets and other grocery stores	+	NS	0.705
AddisonBC09	US	Min wage	Overall, retail trade sector, 5 subsectors	employment, Convenience store	-	NS	0.705
AddisonBC09	US	Min wage	Overall, retail trade sector, 5 subsectors	employment, specialty food stores	+	NS	0.705
AddisonBC09	US	Min wage	Overall, retail trade sector, 5 subsectors	employment, Beer, wine & liquor stores	-	NS	0.705
AddisonBC09	US	Min wage	Overall, retail trade sector, 5 subsectors	employment, food & beverage stores , w/ time trends	+	S	0.705
AddisonBC09	US	Min wage	Overall, retail trade sector, 5 subsectors	employment, Supermarkets and other grocery stores , w/ time trends	+	NS	0.705
AddisonBC09	US	Min wage	Overall, retail trade sector, 5 subsectors	employment, Convenience store , w/ time trends	+	S	0.705
AddisonBC09	US	Min wage	Overall, retail trade sector, 5 subsectors	employment, specialty food stores , w/ time trends	+	NS	0.705
AddisonBC09	US	Min wage	Overall, retail trade sector, 5 subsectors	employment, Beer, wine & liquor stores , w/ time trends	+	S	0.705
Wessels07	US	Min wage	Teenagers, 1989-1992	log change in employment, w/o business cycle control	+	S	1.175
Wessels07	US	Min wage	Teenagers, 1989-1992	log change in employment, w/ business cycle control	-	NS	1.175
Wessels07	US	Min wage	Teenagers, 1995-1998	log change in employment, w/o business cycle control	-	S	1.175
Wessels07	US	Min wage	Teenagers, 1995-1998	log change in employment, w/ business cycle control	-	S	1.175
Wessels07	US	Min wage	Teenagers, 1989-1992, modified fraction affected	log change in employment, w/o business cycle control	+	S	1.175
Wessels07	US	Min wage	Teenagers, 1995-1998, modified fraction affected	log change in employment, w/ business cycle control	-	NS	1.175
Thompson09	US	Min wage	Teenagers w/o state fixed effects high vs low impact counties	teen employment share	-	S	1.7625

Thompson09	US	Min wage	Teenagers w/ state fixed effects high vs low impact	teen employment share	-	S	1.7625
Thompson09	US	Min wage	Teenagers, w/o average teen earnings	teen employment share	+	S	1.7625
Thompson09	US	Min wage	Teenagers, w/ average teen earnings	teen employment share	+	S	1.7625
OrreniusZ08	US	Min wage	20-54 natives w/o HS diploma	employment rates	-	NS	1.175
OrreniusZ08	US	Min wage	20-54 foreign born non US citizen at birth, w/o HS diploma	employment rates	+	NS	1.175
OrreniusZ08	US	Min wage	all teenagers	employment rates	-	NS	1.175
OrreniusZ08	US	Min wage	20-54 natives w/o HS diploma	average hours worked	-	NS	1.175
OrreniusZ08	US	Min wage	20-54 foreign born non US citizen at birth, w/o HS diploma	average hours worked	-	NS	1.175
OrreniusZ08	US	Min wage	all teenagers	average hours worked	-	NS	1.175
Sabia09b	US	Min wage	retail industry, 16-64 years, baseline	employment	-	S	0.705
Sabia09b	US	Min wage	retail industry, 16-64 years, state-specific trends	employment	+	NS	0.705
Sabia09b	US	Min wage	retail industry, 16-64 years, Kaitz index	employment	-	NS	0.705
Sabia09b	US	Min wage	retail industry, 16-64 years, baseline	unconditional hours	-	S	0.705
Sabia09b	US	Min wage	retail industry, 16-64 years, state-specific trends	unconditional hours	+	NS	0.705
Sabia09b	US	Min wage	retail industry, 16-64 years, baseline	conditional hours	+	NS	0.705
Sabia09b	US	Min wage	retail industry, 16-64 years, state-specific trends	conditional hours	-	NS	0.705
Sabia09b	US	Min wage	retail industry, teenagers, baseline	employment	-	S	0.705
Sabia09b	US	Min wage	retail industry, teenagers, baseline	unconditional hours	-	S	0.705
Sabia09b	US	Min wage	retail industry, teenagers, baseline	conditional hours	-	NS	0.705
Grogger03	US	Min wage	female-headed families	employment rate	-	NS	3.525
Grogger03	US	Min wage	female-headed families	number of weeks worked	-	NS	3.525
FangG09	Canada	Min wage	Older workers aged 50+, control group 1	Probability of being employed in subsequent year	+	S	0.6409
FangG09	Canada	Min wage	Older workers aged 50+ control group 2	Probability of being employed in subsequent year	+	S	0.6409
FangG09	Canada	Min wage	Older workers aged 50+ control group 3	Probability of being employed in subsequent year	+	S	0.6409
FangG09	Canada	Min wage	Older workers aged 50+ control group 4	Probability of being employed in subsequent year	+	S	0.6409
FangG09	Canada	Min wage	Older workers aged 50+ control group 5	Probability of being employed in subsequent year	+	S	0.6409

FangG09	Canada	Min wage	Older workers aged 50+ control group 6	Probability of being employed in subsequent year	+	NS	0.6409
FangG09	Canada	Min wage	Older workers aged 50+ control group 7	Probability of being employed in subsequent year	+	NS	0.6409
FangG09	Canada	Min wage	Older workers aged 50+ control group 8	Probability of being employed in subsequent year	+	NS	0.6409
FangG09	Canada	Min wage	Older workers aged 50+ control group 9	Probability of being employed in subsequent year	+	NS	0.6409
FangG09	Canada	Min wage	Older workers aged 50+ control group 10	Probability of being employed in subsequent year	+	NS	0.6409
FangG09	Canada	Min wage	Older workers aged 50+ control group 11	Probability of being employed in subsequent year	-	NS	0.6409
CampolGR06	Canada	Min wage	16-19 years old, current plus lagged effects	employment-to-population ratio for this group	-	S	0.3917
CampolGR06	Canada	Min wage	20-24 years old, current plus lagged effects	employment-to-population ratio for this group	-	S	0.3917
CampolGR06	Canada	Min wage	16-24 years old, current plus lagged effects	employment-to-population ratio for this group	-	S	0.3917
CampolGR06	Canada	Min wage	16-19 years old, current effects	employment-to-population ratio for this group	-	NS	0.3917
CampolGR06	Canada	Min wage	20-24 years old, current effects	employment-to-population ratio for this group	-	NS	0.3917
CampolGR06	Canada	Min wage	16-24 years old, current effects	employment-to-population ratio for this group	-	NS	0.3917
CampolGR06	Canada	Min wage	16-19 years old, lagged effects	employment-to-population ratio for this group	-	NS	0.3917
CampolGR06	Canada	Min wage	20-24 years old, lagged effects	employment-to-population ratio for this group	-	NS	0.3917
CampolGR06	Canada	Min wage	16-24 years old, lagged effects	employment-to-population ratio for this group	-	S	0.3917
CampolGR06	Canada	Min wage	16-19 years old, current plus lagged effects, fraction-below indicator	employment-to-population ratio for this group	-	S	0.3917
CampolGR06	Canada	Min wage	20-24 years old, current plus lagged effects, fraction below indicator	employment-to-population ratio for this group	-	S	0.3917
CampolGR06	Canada	Min wage	16-24 years old, current plus lagged effects, fraction below indicator	employment-to-population ratio for this group	-	S	0.3917
CampolGR06	Canada	Min wage	16-19 years old, current effects, fraction below indicator	employment-to-population ratio for this group	-	NS	0.3917
CampolGR06	Canada	Min wage	20-24 years old, current effects, fraction below indicator	employment-to-population ratio for this group	-	NS	0.3917
CampolGR06	Canada	Min wage	16-24 years old, current effects, fraction below indicator	employment-to-population ratio for this group	-	S	0.3917
CampolGR06	Canada	Min wage	16-19 years old, lagged effects, fraction below indicator	employment-to-population ratio for this group	-	S	0.3917
CampolGR06	Canada	Min wage	20-24 years old, lagged effects, fraction below indicator	employment-to-population ratio for this group	-	S	0.3917
CampolGR06	Canada	Min wage	16-24 years old, lagged effects, fraction below indicator	employment-to-population ratio for this group	-	S	0.3917

HyslopS05	New Zealand	Min wage	16-17 years old, 2001-2003	employment	-	NS	0.5036
HyslopS05	New Zealand	Min wage	18-19 years old, 2001-2003	employment	-	NS	0.5036
HyslopS05	New Zealand	Min wage	16-17 years old, 2001, w/ announcement effects	employment	+	NS	0.5036
HyslopS05	New Zealand	Min wage	18-19 years old, 2001, w/ announcements effects	employment	-	NS	0.5036
HyslopS05	New Zealand	Min wage	16-17 years old, 2002, w/ announcement effects	employment	+	NS	0.5036
HyslopS05	New Zealand	Min wage	18-19 years old, 2002, w/ announcements effects	employment	-	NS	0.5036
HyslopS05	New Zealand	Min wage	16-17 years old, 2003, w/ announcement effects	employment	-	S	0.5036
HyslopS05	New Zealand	Min wage	18-19 years old, 2003, w/ announcements effects	employment	-	S	0.5036
HyslopS05	New Zealand	Min wage	16-17 years old, 2001	hours worked	+	NS	0.5036
HyslopS05	New Zealand	Min wage	16-17 years old, 2002	hours worked	+	S	0.5036
HyslopS05	New Zealand	Min wage	16-17 years old, 2003	hours worked	+	NS	0.5036
HyslopS05	New Zealand	Min wage	18-19 years old, 2001	hours worked	-	NS	0.5036
HyslopS05	New Zealand	Min wage	18-19 years old, 2002	hours worked	-	NS	0.5036
HyslopS05	New Zealand	Min wage	18-19 years old, 2003	hours worked	-	NS	0.5036
CORPORATIST CONSERVATIVE & MEDITERRANEAN							
KawaguchiM09	Japan	Min wage	male teens	employment rate	-	S	1.0071
KawaguchiM09	Japan	Min wage	female teens	employment rate	-	NS	1.0071
KawaguchiM09	Japan	Min wage	male 20-24	employment rate	-	NS	1.0071
KawaguchiM09	Japan	Min wage	female 20-24	employment rate	-	NS	1.0071
KawaguchiM09	Japan	Min wage	male 60+	employment rate	-	NS	1.0071
KawaguchiM09	Japan	Min wage	female 60+	employment rate	-	NS	1.0071

KawaguchiM09	Japan	Min wage	married 20-59 women	employment rate	-	S	1.0071
Ragacs03	Austria	Collective	Aggregated data for industry, equation 1	growth rate of employment	+	NS	1.175
Ragacs03	Austria	Collective	Aggregated data for industry, equation 2	growth rate of employment	-	NS	1.175
Ragacs03	Austria	Collective	Aggregated data for industry, equation 3	growth rate of employment	-	NS	1.175
Ragacs03	Austria	Collective	Aggregated data for industry, equation 4	growth rate of employment	+	NS	1.175
Ragacs03	Austria	Collective	Aggregated data for industry, equation 5	growth rate of employment	+	NS	1.175
Ragacs03	Austria	Collective	Aggregated data for industry, equation 6	growth rate of employment	+	NS	1.175
PortugalC06	Portugal	Min wage	Teenagers' total employment 1988	overall effect: hired/separated/firms out of business/new firms	+	S	3.525
PortugalC07	Portugal	Min wage	Teenagers' total employment 1989	overall effect: hired/separated/firms out of business/new firms	-	S	3.525
AbowdKMP00	France	Min wage	Male workers w/ wage b/w old and new min wage	probability (employed in year t+1) conditional on employment in year t	-	S	3.525
AbowdKMP00	France	Min wage	Female workers w/ wage b/w old and new min wage	probability (employed in year t+1) conditional on employment in year t	-	S	3.525
SOCIAL-DEMOCRATIC CLUSTER							
BöckermanU09	Finland	Collective	Workers under 25, when subminimum removed	employment	-	S	1.7625
BöckermanU09	Finland	Collective	Workers under 25, when subminimum removed	hours	-	S	1.7625
BöckermanU09	Finland	Collective	Workers under 25, when subminimum removed	employment, interaction terms (business cycle*treatment)	-	NS	1.7625
BöckermanU09	Finland	Collective	Workers under 25, when subminimum removed	hours (business cycle*treatment)	-	NS	1.7625
Skedinger04	Sweden	Collective	Unskilled, hotels/restaurants, full sample 1979-91, min wage increases	probability not employed in next period, control vs treatment	-	S	0.8813
Skedinger04	Sweden	Collective	Unskilled, hotels/restaurants, 2-year panels, 1979-91, min wage increases	probability not employed in next period, control vs treatment	-	S	0.8813
Skedinger04	Sweden	Collective	Unskilled, hotels/restaurants, full sample 1979-91, min wage increases	", but decreases in the minimum wage	-	S	0.8813
Skedinger04	Sweden	Collective	Unskilled, hotels/restaurants, 2-year panels, 1979-91, min wage increases	", but decreases in the minimum wage	-	S	0.8813
Skedinger04	Sweden	Collective	Unskilled 20-65, hotels/restaurants, full sample 1993-1998, min wage increases	probability not employed in next period, control vs treatment	-	NS	0.8813
Skedinger04	Sweden	Collective	Unskilled 20-65, hotels/restaurants, 2-year panels, 1993-1998, min wage increases	probability not employed in next period, control vs treatment	+	S	0.8813
Skedinger04	Sweden	Collective	Unskilled 18-19, hotels/restaurants, full sample 1993-1998,	probability not employed in next period,	+	NS	0.8813

			min wage increases	control vs treatment			
Skedinger04	Sweden	Collective	Unskilled 18-19, hotels/restaurants, 2-year panels, 1993-1998, min wage increases	probability not employed in next period, control vs treatment	+	NS	0.8813

Table B2: Antipoverty effects of minimum wages (87 estimates)

Study ID	Country	Policy	Population	Poverty indicator	Sign	Signif	weight
LIBERAL CLUSTER							
Sabia08	US	Min wage	Single mothers	headcount (official line)	+	NS	0.8056
Sabia08	US	Min wage	Single mothers high school dropouts	headcount (official line)	+	NS	0.8056
Sabia08	US	Min wage	Single mothers w/ at least HS diploma	headcount (official line)	+	NS	0.8056
Sabia08	US	Min wage	Working single mothers	headcount (official line)	+	NS	0.8056
Sabia08	US	Min wage	Working single mothers HS dropouts	headcount (official line)	+	NS	0.8056
Sabia08	US	Min wage	Working single mothers w/ at least HS diploma	headcount (official line)	+	NS	0.8056
VedderG02	US	Min wage	full-time full-yr workers in nonagricultural sector	headcount (official line)	-	NS	4.8333
NeumarkW02	US	Min wage	All families, contemporaneous	Poor->non poor (official)	+	NS	0.2685
NeumarkW02	US	Min wage	All families, lagged effect	Poor->non poor (official)	+	NS	0.2685
NeumarkW02	US	Min wage	All families, total effect	Poor->non poor (official)	+	NS	0.2685
NeumarkW02	US	Min wage	All families, contemporaneous	Nonpoor->poor (official)	-	NS	0.2685
NeumarkW02	US	Min wage	All families, lagged effect	Nonpoor->poor (official)	-	S	0.2685
NeumarkW02	US	Min wage	All families, total effect	Nonpoor->poor (official)	-	S	0.2685
NeumarkW02	US	Min wage	Families w/ 1 worker in year 1, contemporaneous	Poor->non poor (official)	+	NS	0.2685
NeumarkW02	US	Min wage	Families w/ 1 worker in year 1 lagged effect	Poor->non poor (official)	-	NS	0.2685
NeumarkW02	US	Min wage	Families w/ 1 worker in year 1 total effect	Poor->non poor (official)	+	NS	0.2685
NeumarkW02	US	Min wage	Families w/ 1 worker in year 1, contemporaneous	Nonpoor->poor (official)	-	NS	0.2685
NeumarkW02	US	Min wage	Families w/ 1 worker in year 1 lagged effect	Nonpoor->poor (official)	-	S	0.2685
NeumarkW02	US	Min wage	Families w/ 1 worker in year 1 total effect	Nonpoor->poor (official)	-	S	0.2685
NeumarkW02	US	Min wage	Families w/o worker in year 1, contemporaneous	Poor->non poor (official)	+	NS	0.2685

NeumarkW02	US	Min wage	Families w/o worker in year 1 lagged effect	Poor->non poor (official)	-	NS	0.2685
NeumarkW02	US	Min wage	Families w/o worker in year 1 total effect	Poor->non poor (official)	+	NS	0.2685
NeumarkW02	US	Min wage	Families w/o worker in year 1, contemporaneous	Nonpoor->poor (official)	+	NS	0.2685
NeumarkW02	US	Min wage	Families w/o worker in year 1 lagged effect	Nonpoor->poor (official)	-	NS	0.2685
NeumarkW02	US	Min wage	Families w/o worker in year 1 total effect	Nonpoor->poor (official)	+	NS	0.2685
HellerClain07	US	Min wage	County population, fixed-effects	headcount (official line)	+	NS	2.4167
HellerClain07	US	Min wage	County population, diff-in-diff model	headcount (official line)	+	NS	2.4167
BurkhauserS07	US	Min wage	State population	headcount (official line)	+	NS	1.2083
BurkhauserS07	US	Min wage	State working population	headcount (official line)	+	NS	1.2083
BurkhauserS07	US	Min wage	Single mothers	headcount (official line)	+	NS	1.2083
BurkhauserS07	US	Min wage	Working single mothers	headcount (official line)	-	NS	1.2083
GundersenZ04	US	Min wage	All families	Foster-Greer-Thorbecke ($\alpha=0$)	+	S	0.4833
GundersenZ04	US	Min wage	All families	Foster-Greer-Thorbecke ($\alpha=2$)	+	NS	0.4833
GundersenZ04	US	Min wage	Female-headed families	Foster-Greer-Thorbecke ($\alpha=0$)	+	NS	0.4833
GundersenZ04	US	Min wage	Female-headed families	Foster-Greer-Thorbecke ($\alpha=2$)	+	NS	0.4833
GundersenZ04	US	Min wage	Married-couple families	Foster-Greer-Thorbecke ($\alpha=0$)	+	NS	0.4833
GundersenZ04	US	Min wage	Married-couple families	Foster-Greer-Thorbecke ($\alpha=2$)	-	NS	0.4833
GundersenZ04	US	Min wage	White families	Foster-Greer-Thorbecke ($\alpha=0$)	+	S	0.4833
GundersenZ04	US	Min wage	White families	Foster-Greer-Thorbecke ($\alpha=2$)	-	NS	0.4833
GundersenZ04	US	Min wage	Black families	Foster-Greer-Thorbecke ($\alpha=0$)	+	NS	0.4833
GundersenZ04	US	Min wage	Black families	Foster-Greer-Thorbecke ($\alpha=2$)	-	NS	0.4833
NeumarkA03	US	Min wage	All families	P(family income < official poverty line)	+	S	1.6111
NeumarkA03	US	Min wage	All families, 6-month lag	P(family income < official poverty line)	+	NS	1.6111
NeumarkA03	US	Min wage	All families, 12-month lag	P(family income < official poverty line)	+	NS	1.6111
NeumarkSW05	US	Min wage	All families	Proportion of income-to-needs ratio b/w 0-0.5	-	NS	1.6111
NeumarkSW05	US	Min wage	All families	Proportion of income-to-needs ratio b/w 0.5-1	-	NS	1.6111
NeumarkSW05	US	Min wage	All families	Proportion of income-to-needs ratio b/w 0-1	-	NS	1.6111
VedderG01	US	Min wage	Overall poverty	headcount (official line)	+	NS	2.4167
VedderG01	US	Min wage	Overall poverty, 1st difference estimator	headcount (official line)	missing	NS	2.4167

Grogger03	US	Min wage	Female-headed families	Income	+	NS	2.4167
Grogger03	US	Min wage	Female-headed families	Log income	-	NS	2.4167
MorganK01	US	Min wage	Children, no state dummies	child poverty rate (official threshold)	+	S	2.4167
MorganK01	US	Min wage	Children, state dummies	child poverty rate (official threshold)	+	S	2.4167
GiannarelliMW07	US	Min wage	Workers	headcount (ad hoc threshold yielding rates similar to official figures)	+	- 6.30%	4.8333
NeumarkW01	US	min wage	All families, contemporaneous	P(nonpoor at t+1, poor at t) pre-tax	+	NS	0.3021
NeumarkW01	US	min wage	All families, lagged effect	P(nonpoor at t+1, poor at t) pre-tax	+	NS	0.3021
NeumarkW01	US	min wage	Families w/ kids, contemp.	P(nonpoor at t+1, poor at t) pre-tax	+	S	0.3021
NeumarkW01	US	min wage	Families w/ kids, lagged effect	P(nonpoor at t+1, poor at t) pre-tax	+	S	0.3021
NeumarkW01	US	min wage	Families w/ kids & no worker at t, contemp.	P(nonpoor at t+1, poor at t) pre-tax	+	NS	0.3021
NeumarkW01	US	min wage	Families w/ kids & no workers, lagged effect	P(nonpoor at t+1, poor at t) pre-tax	+	S	0.3021
NeumarkW01	US	min wage	Families w/ kids & at least 1 worker at t, contemp.	P(nonpoor at t+1, poor at t) pre-tax	+	S	0.3021
NeumarkW01	US	min wage	Families w/ kids & at least 1 workers, lagged effect	P(nonpoor at t+1, poor at t) pre-tax	+	NS	0.3021
NeumarkW01	US	min wage	All families, contemporaneous	Change in income-to-needs ratio (pre-tax)	+	NS	0.3021
NeumarkW01	US	min wage	All families, lagged effect	Change in income-to-needs ratio (pre-tax)	+	NS	0.3021
NeumarkW01	US	min wage	Families w/ kids, contemp.	Change in income-to-needs ratio (pre-tax)	+	S	0.3021
NeumarkW01	US	min wage	Families w/ kids, lagged effect	Change in income-to-needs ratio (pre-tax)	+	NS	0.3021
NeumarkW01	US	min wage	Families w/ kids & no worker at t, contemp.	Change in income-to-needs ratio (pre-tax)	-	NS	0.3021
NeumarkW01	US	min wage	Families w/ kids & no workers, lagged effect	Change in income-to-needs ratio (pre-tax)	+	NS	0.3021
NeumarkW01	US	min wage	Families w/ kids & at least 1 worker at t, contemp.	Change in income-to-needs ratio (pre-tax)	+	S	0.3021
NeumarkW01	US	min wage	Families w/ kids & at least 1 workers, lagged effect	Change in income-to-needs ratio (pre-tax)	+	NS	0.3021
Bargain09	UK	Min wage	Population	Foster-Greer-Thorbecke ($\alpha=0$, 60% of median income)	+	- 4.60%	1.6111
Bargain09	UK	Min wage	Population	Foster-Greer-Thorbecke ($\alpha=1$, 60% of median income)	zero	zero	1.6111
Bargain09	UK	Min wage	Population	Foster-Greer-Thorbecke ($\alpha=2$, 60% of median income)	zero	zero	1.6111
Sutherland01	UK	Min wage	people in working-age family	headcount (poverty line=60% median)	+	- 1.20%	1.6111
Sutherland01	UK	Min wage	single people	headcount (poverty line=60% median)	+	- 3.70%	1.6111

Sutherland01	UK	Min wage	couples with children	headcount (poverty line=60% median)	+	- 7.10%	1.6111
HyslopS05	NZ	Min wage	16-17 years old, 2001	log weekly income	+	NS	0.8056
HyslopS05	NZ	Min wage	16-17 years old, 2002	log weekly income	+	NS	0.8056
HyslopS05	NZ	Min wage	16-17 years old, 2003	log weekly income	+	NS	0.8056
HyslopS05	NZ	Min wage	18-19 years old, 2001	log weekly income	+	NS	0.8056
HyslopS05	NZ	Min wage	18-19 years old, 2002	log weekly income	+	NS	0.8056
HyslopS05	NZ	Min wage	18-19 years old, 2003	log weekly income	-	NS	0.8056
CORPORATIST CONSERVATIVE & MEDITERRANEAN							
MüllerS08	Germany	Collective	Household affected by min wage of 7.5€/hour	Foster-Greer-Thorbecke ($\alpha=0$, poverty= below 50% of median income)	+	- 1.60%	1.6111
MüllerS08	Germany	Collective	Household affected by min wage of 7.5€/hour	Foster-Greer-Thorbecke ($\alpha=1$, poverty= below 50% of median income)	+	- 1.60%	1.6111
MüllerS08	Germany	Collective	Household affected by min wage of 7.5€/hour	Foster-Greer-Thorbecke ($\alpha=2$, poverty= below 50% of median income)	+	- 1.80%	1.6111
GerfinLBT02	CH	Min wage 1	Poverty rate among HH w/ at least full-time job	poverty rate	+	- 22.7%	2.4167
GerfinLBT02	CH	Min wage 2	Poverty rate among HH w/ at least full-time job	poverty rate	+	- 18.2%	2.4167

Table B3: Employment effects of tax credits (162 estimates)

Study ID	Country	Policy	Population	Employment indicator	Sign	Signif.	weight
LIBERAL CLUSTER							
Ellwood00	US	EITC	Single mothers 18-44	Employment difference b/w skill quartiles	+	S	3.17647
Ellwood00	US	EITC	Married mothers 18-44	Employment difference b/w skill quartiles	-	S	3.17647
Ellwood00	US	EITC	All mothers	Employment	+	S	3.17647
NeumarkW01	US	EITC	Families with children , state EITC	P(add an adult worker if no worker in year 1)	+	S	1.19118
NeumarkW01	US	EITC	Families with children, federal EITC	P(add an adult worker if no worker in year 1)	+	S	1.19118
NeumarkW01	US	EITC	Families with children , state EITC	P(add an adult worker if 1 worker in year 1)	+	NS	1.19118
NeumarkW01	US	EITC	Families with children, federal EITC	P(add an adult worker if 1 worker in year 1)	-	NS	1.19118
NeumarkW01	US	EITC	Families with children , state EITC	Change in total hours if no adult worker in year	+	NS	1.19118

				1			
NeumarkW01	US	EITC	Families with children, federal EITC	Change in total hours if no adult worker in year 1	+	S	1.19118
NeumarkW01	US	EITC	Families with children , state EITC	Change in total hours if 1 adult worker in year 1	+	NS	1.19118
NeumarkW01	US	EITC	Families with children, federal EITC	Change in total hours if 1 adult worker in year 1	-	S	1.19118
EissaH04	US	EITC	Married women with children	Labor force participation rates	-	S	2.38235
EissaH04	US	EITC	Married women with 2+ children	Labor force participation rates	-	S	2.38235
EissaH04	US	EITC	Married men with children	Labor force participation rates	+	NS	2.38235
EissaH04	US	EITC	Married men with 2+ children	Labor force participation rates	+	NS	2.38235
Grogger03	US	EITC	female-headed families	Employment rate	+	S	4.76471
Grogger03	US	EITC	female-headed families	Weeks worked	+	S	4.76471
Herbst08	US	EITC	Single mothers w/ at least 1 child	Work	+	S	1.58824
Herbst08	US	EITC	Single mothers w/ at least 1 child	Full-time full-year work	-	S	1.58824
Herbst08	US	EITC	", education<= HS, unemployt<26th	Work	+	S	1.58824
Herbst08	US	EITC	", education<= HS, unemployt<26th	Full-time full-year work	-	NS	1.58824
Herbst08	US	EITC	", education<= HS, unemployt>75th	Work	+	S	1.58824
Herbst08	US	EITC	", education<= HS, unemployt>75th	Full-time full-year work	-	NS	1.58824
NoonanSC07	US	EITC	Single mothers	Employment	+	S	1.90588
NoonanSC07	US	EITC	Single mothers*HS dropouts	Employment	+	S	1.90588
NoonanSC07	US	EITC	Single mothers*HS	Employment	+	S	1.90588
NoonanSC07	US	EITC	Single mothers*Some college	Employment	+	S	1.90588
NoonanSC07	US	EITC	Single mothers*College	Employment	+	NS	1.90588
MeyerR01	US	EITC	All single mothers	Probability of employment (year)	+	S	1.58823
MeyerR01	US	EITC	All single mothers	Probability of employment (last week)	+	S	1.58823
MeyerR01	US	EITC	single mothers, < 12 years of education	Probability of employment (year)	+	S	1.58823
MeyerR01	US	EITC	single mothers, < 12 years of education	Probability of employment (last week)	+	S	1.58823
MeyerR01	US	EITC	single mothers, >= 12 years of education	Probability of employment (year)	+	S	1.58823
MeyerR01	US	EITC	single mothers, >= 12 years of education	Probability of employment (last week)	+	S	1.58823

Blundell06	UK	WFTC	Single mothers under 45	Employment	+	S	0.79412
Blundell06	UK	WFTC	Single mothers under 45	Hours worked	+	S	0.79412
Blundell06	UK	WFTC	Single mothers under 45	Employment	+	S	0.79412
Blundell06	UK	WFTC	Single mothers under 45	Hours worked	+	S	0.79412
Blundell06	UK	WFTC	Single mothers under 45, youngest child 0-2	Employment	+	S	0.79412
Blundell06	UK	WFTC	Single mothers under 45, youngest child 0-2	Hours worked	+	S	0.79412
Blundell06	UK	WFTC	Single mothers under 45 youngest child 3-4	Employment	+	S	0.79412
Blundell06	UK	WFTC	Single mothers under 45 youngest child 3-4	Hours worked	+	S	0.79412
Blundell06	UK	WFTC	Single mothers under 45 youngest child 5-10	Employment	+	S	0.79412
Blundell06	UK	WFTC	Single mothers under 45 youngest child 5-10	Hours worked	+	S	0.79412
Blundell06	UK	WFTC	Single mothers under 45 youngest child 11-18	Employment	+	S	0.79412
Blundell06	UK	WFTC	Single mothers under 45 youngest child 11-18	Hours worked	+	S	0.79412
BrewerDSS06	UK	WFTC	Lone mothers	Employment rate	+	11.30%	1.05882
BrewerDSS06	UK	WFTC	Lone mothers	Average weekly hours (unconditional)	+	12.50%	1.05882
BrewerDSS06	UK	WFTC	Lone mothers	Average weekly hours (workers)	+	2.70%	1.05882
BrewerDSS06	UK	WFTC	Mothers in couples	Employment rate	-	-	0.80%
BrewerDSS06	UK	WFTC	Mothers in couples	Average weekly hours (unconditional)	-	-	0.90%
BrewerDSS06	UK	WFTC	Mothers in couples	Average weekly hours (workers)	-	0	1.05882
BrewerDSS06	UK	WFTC	Fathers in couples	Employment rate	+	0.80%	1.05882
BrewerDSS06	UK	WFTC	Fathers in couples	Average weekly hours (unconditional)	-	0.70%	1.05882
BrewerDSS06	UK	WFTC	Fathers in couples	Average weekly hours (workers)	+	0	1.05882
Blundell00	UK	WFTC	Lone parents	Employment	+	2.20%	1.58823
Blundell00	UK	WFTC	Married women, partner not working	Employment	+	1.32%	1.58823
Blundell00	UK	WFTC	Married women, partner working	Employment	-	-	0.57%
Blundell00	UK	WFTC	Married men, partner not working	Employment	+	0.37	1.58823
Blundell00	UK	WFTC	Married men, partner working	Employment	-	-	0.30%

Blundell00	UK	WFTC	Workerless families	Employment	+	- 57,000 familie s	1.58823
FrancescRK09	UK	WFTC	Married women	P(working 16+ hours)	+	NS	0.39706
FrancescRK09	UK	WFTC	Married women	P(working 30+ hours)	+	NS	0.39706
FrancescRK09	UK	WFTC	Married women, partner works 0-16 hrs	P(working 16+ hours)	+	S	0.39706
FrancescRK09	UK	WFTC	Married women, partner works 0-16 hrs	P(working 30+ hours)	+	NS	0.39706
FrancescRK09	UK	WFTC	Married women, partner works 16+ hrs	P(working 16+ hours)	+	NS	0.39706
FrancescRK09	UK	WFTC	Married women, partner works 16+ hrs	P(working 30+ hours)	+	NS	0.39706
FrancescRK09	UK	WFTC	Married women, low educational level	P(working 16+ hours)	+	NS	0.39706
FrancescRK09	UK	WFTC	Married women, low educational level	P(working 30+ hours)	+	S	0.39706
FrancescRK09	UK	WFTC	Married women, low educational level, partner works 0-16 hrs	P(working 16+ hours)	+	S	0.39706
FrancescRK09	UK	WFTC	Married women, low educational level, partner works 0-16 hrs	P(working 30+ hours)	+	NS	0.39706
FrancescRK09	UK	WFTC	Married women, low educational level, partner works 16+ hrs	P(working 16+ hours)	+	NS	0.39706
FrancescRK09	UK	WFTC	Married women, low educational level, partner works 16+ hrs	P(working 30+ hours)	+	NS	0.39706
FrancescRK09	UK	WFTC	Married women, high educational level	P(working 16+ hours)	+	NS	0.39706
FrancescRK09	UK	WFTC	Married women, high educational level	P(working 30+ hours)	+	NS	0.39706
FrancescRK09	UK	WFTC	Married women, high educational level, partner works 0-16 hrs	P(working 16+ hours)	+	NS	0.39706
FrancescRK09	UK	WFTC	Married women, high educational level, partner works 0-16 hrs	P(working 30+ hours)	+	NS	0.39706
FrancescRK09	UK	WFTC	Married women, high educational level, partner works 16+ hrs	P(working 16+ hours)	+	NS	0.39706
FrancescRK09	UK	WFTC	Married women, high educational level, partner works 16+ hrs	P(working 30+ hours)	+	NS	0.39706
FrancescRK09	UK	WFTC	Married men	P(working 16+ hours)	+	NS	0.39706
FrancescRK09	UK	WFTC	Married men	P(working 30+ hours)	+	NS	0.39706
FrancescRK09	UK	WFTC	Married men, partner works 0-16 hrs	P(working 16+ hours)	+	NS	0.39706
FrancescRK09	UK	WFTC	Married men, partner works 0-16 hrs	P(working 30+ hours)	+	NS	0.39706

FrancescRK09	UK	WFTC	Married men, partner works 16+ hrs	P(working 16+ hours)	+	NS	0.39706
FrancescRK09	UK	WFTC	Married men, partner works 16+ hrs	P(working 30+ hours)	+	NS	0.39706
GreggHS09	UK	WFTC	Lone mothers (vs. Single women)	P(being employed)	+	S	1.19118
GreggHS09	UK	WFTC	Lone parents (vs. Single adults no child)	P(being employed)	+	S	1.19118
GreggHS09	UK	WFTC	Lone mothers (vs. Mothers in couples)	P(being employed)	+	S	1.19118
GreggHS09	UK	WFTC	Lone parents (vs. Parents in couple)	P(being employed)	+	S	1.19118
GreggHS09	UK	WFTC	Single mothers not working at t-1 (vs. Childless single women)	P(entering employment)	+	S	1.19118
GreggHS09	UK	WFTC	Single mothers not working at t-1 (vs. Mothers in couples)	P(entering employment)	+	NS	1.19118
GreggHS09	UK	WFTC	Single mothers not working at t-1 (vs. Childless single women)	P(exiting employment)	+	S	1.19118
GreggHS09	UK	WFTC	Single mothers not working at t-1 (vs. Mothers in couples)	P(exiting employment)	+	S	1.19118
ScarthT08	Canada	Working Income Tax Benefit	Poorest decile of income distribution, setting 1	Unemployment rate	+	- 2.80%	2.38235
ScarthT08	Canada	Working Income Tax Benefit	Poorest decile of income distribution, setting 2	Unemployment rate	+	- 3.30%	2.38235
ScarthT08	Canada	Working Income Tax Benefit	Poorest decile of income distribution, setting 3	Unemployment rate	+	- 2.80%	2.38235
ScarthT08	Canada	Working Income Tax Benefit	Poorest decile of income distribution, setting 4	Unemployment rate	+	- 3.30%	2.38235
CORPORATIST CONSERVATIVE & MEDITERRANEAN							
BargainO05	France	WFTC	Married women	Overall (Non-work to work and work to non-work)	-	- 4.32%	1.05882
BargainO05	France	WFTC	Single women	Overall (Non-work to work and work to non-work)	+	0.51%	1.05882
BargainO05	Germany	WFTC	Married women	Overall (Non-work to work and work to non-work)	-	- 1.43%	1.05882
BargainO05	Germany	WFTC	Single women	Overall (Non-work to work and work to non-work)	+	1.72%	1.05882

BargainO05	France	WFTC	Women	Overall (Non-work to work and work to non-work)	-	-	3.00%	1.05882
BargainO05	Germany	WFTC	Women	Overall (Non-work to work and work to non-work)	-	-	0.60%	1.05882
HaanM07	Germany	WTC	Single childless women, West	Change in employment	zero	0.02%	0.26471	
HaanM07	Germany	WTC	Single mothers, West	Change in employment	+	6.47%	0.26471	
HaanM07	Germany	WTC	Single childless women, East	Change in employment	+	0.36%	0.26471	
HaanM07	Germany	WTC	Single mothers, East	Change in employment	+	15.00%	0.26471	
HaanM07	Germany	WTC	single women	Change in employment	+	5.00%	0.26471	
HaanM07	Germany	WTC	single men w/o children (West+East)	Change in employment	+	0.27%	0.26471	
HaanM07	Germany	WTC	single men w/ children (West+East)	Change in employment	+	1.73%	0.26471	
HaanM07	Germany	WTC	Single men	Change in employment	+	0.44%	0.26471	
HaanM07	Germany	WTC	Childless women in couples, West	Change in employment	zero	0.01%	0.26471	
HaanM07	Germany	WTC	Mothers in couples, West	Change in employment	-	1.33%	0.26471	
HaanM07	Germany	WTC	childless women in couples, East	Change in employment	zero	0.00%	0.26471	
HaanM07	Germany	WTC	Mothers in couples, East	Change in employment	-	1.50%	0.26471	
HaanM07	Germany	WTC	Women in couples	Change in employment	-	0.81%	0.26471	
HaanM07	Germany	WTC	Childless men in couples, West	Change in employment	zero	0.00%	0.26471	
HaanM07	Germany	WTC	Fathers in couples, West	Change in employment	zero	0.04%	0.26471	
HaanM07	Germany	WTC	childless men in couples, East	Change in employment	zero	0.02%	0.26471	
HaanM07	Germany	WTC	Fathers in couples, East	Change in employment	-	1.27%	0.26471	
HaanM07	Germany	WTC	Men in couples	Change in employment	-	0.16%	0.26471	
HaanM07	Germany	WTC	Single childless women, West	Change in number of hours	zero	0.04%	0.26471	
HaanM07	Germany	WTC	Single mothers, West	Change in number of hours	+	5.95%	0.26471	
HaanM07	Germany	WTC	Single childless women, East	Change in number of hours	+	0.59%	0.26471	
HaanM07	Germany	WTC	Single mothers, East	Change in number of hours	+	15.17	0.26471	

						%	
HaanM07	Germany	WTC	single women	Change in number of hours	+	2.58%	0.26471
HaanM07	Germany	WTC	single men w/o children (West+East)	Change in number of hours	+	0.27%	0.26471
HaanM07	Germany	WTC	single men w/ children (West+East)	Change in number of hours	+	1.18%	0.26471
HaanM07	Germany	WTC	Single men	Change in number of hours	+	0.31%	0.26471
HaanM07	Germany	WTC	Childless women in couples, West	Change in number of hours	zero	0.01%	0.26471
HaanM07	Germany	WTC	Mothers in couples, West	Change in number of hours	-	1.41%	0.26471
HaanM07	Germany	WTC	childless women in couples, East	Change in number of hours	zero	0.01%	0.26471
HaanM07	Germany	WTC	Mothers in couples, East	Change in number of hours	-	2.17%	0.26471
HaanM07	Germany	WTC	Women in couples	Change in number of hours	-	0.85%	0.26471
HaanM07	Germany	WTC	Childless men in couples, West	Change in number of hours	zero	0.01%	0.26471
HaanM07	Germany	WTC	Fathers in couples, West	Change in number of hours	zero	0.49%	0.26471
HaanM07	Germany	WTC	childless men in couples, East	Change in number of hours	zero	0.02%	0.26471
HaanM07	Germany	WTC	Fathers in couples, East	Change in number of hours	-	1.71%	0.26471
HaanM07	Germany	WTC	Men in couples	Change in number of hours	-	0.05%	0.26471
Stancanell08	France	PPE	Married women, logit	P(employment)	-	S	0.79412
Stancanell08	France	PPE	Cohabiting women, logit	P(employment)	+	NS	0.79412
Stancanell08	France	PPE	Single women, logit	P(employment)	-	NS	0.79412
Stancanell08	France	PPE	Women, logit	P(employment)	-	NS	0.79412
Stancanell08	France	PPE	Married women, random effect logit	P(employment)	-	NS	0.79412
Stancanell08	France	PPE	Cohabiting women, random effect logit	P(employment)	+	NS	0.79412
Stancanell08	France	PPE	Single women, random effect logit	P(employment)	-	NS	0.79412
Stancanell08	France	PPE	Women, random effect logit	P(employment)	+	NS	0.79412
Stancanell08	France	PPE	Married women against cohabitants	P(employment)	-	S	0.79412
Stancanell08	France	PPE	", random effect logit	P(employment)	-	S	0.79412

Stancanello08	France	PPE	Lone parents vs childless single women	P(employment)	-	NS	0.79412
Stancanello08	France	PPE	", random effect logit	P(employment)	zero	NS	0.79412
BloemenS07	France	PPE	All women	Employment probability	-	NS	1.19118
BloemenS07	France	PPE	Married women	Employment probability	-	NS	1.19118
BloemenS07	France	PPE	Cohabiting women	Employment probability	-	NS	1.19118
BloemenS07	France	PPE	Single women	Employment probability	-	NS	1.19118
BloemenS07	France	PPE	All women	Working hours	-	NS	1.19118
BloemenS07	France	PPE	Married women	Working hours	+	NS	1.19118
BloemenS07	France	PPE	Cohabiting women	Working hours	-	NS	1.19118
BloemenS07	France	PPE	Single women	Working hours	-	NS	1.19118
BargainO05	Finland	WFTC	Women	Overall (Non-work to work and work to non-work)	+	0.14%	1.05882
BargainO05	Finland	WFTC	Married women	Overall (Non-work to work and work to non-work)	-	1.17%	1.05882
BargainO05	Finland	WFTC	Single women	Overall (Non-work to work and work to non-work)	+	1.85%	1.05882

Table B4: Antipoverty effects of tax credits (51 estimates)

Study ID	Country	Policy	Population	Poverty indicator	Sign	Signif	weight
UNITED STATES							
GundersenZ04	US	state-federal EITC	All families	Foster-Greer-Thorbecke ($\alpha=0$)	-	NS	0.51
GundersenZ04	US	state-federal EITC	All families	Foster-Greer-Thorbecke ($\alpha=2$)	-	NS	0.51
GundersenZ04	US	state-federal EITC	Female-headed families	Foster-Greer-Thorbecke ($\alpha=0$)	-	NS	0.51
GundersenZ04	US	state-federal EITC	Female-headed families	Foster-Greer-Thorbecke ($\alpha=2$)	-	NS	0.51
GundersenZ04	US	state-federal EITC	Married-couple families	Foster-Greer-Thorbecke ($\alpha=0$)	-	NS	0.51
GundersenZ04	US	state-federal EITC	Married-couple families	Foster-Greer-Thorbecke ($\alpha=2$)	-	NS	0.51

		EITC					
GundersenZ04	US	state-federal EITC	White families	Foster-Greer-Thorbecke ($\alpha=0$)	+	NS	0.51
GundersenZ04	US	state-federal EITC	White families	Foster-Greer-Thorbecke ($\alpha=2$)	+	NS	0.51
GundersenZ04	US	state-federal EITC	Black families	Foster-Greer-Thorbecke ($\alpha=0$)	-	NS	0.51
GundersenZ04	US	state-federal EITC	Black families	Foster-Greer-Thorbecke ($\alpha=2$)	-	NS	0.51
MorganK01	US	EITC	Children, no state dummies	child poverty rate (official threshold)	+	S	2.55
MorganK01	US	EITC	Children, state dummies	child poverty rate (official threshold)	+	NS	2.55
NeumarkW01	US	Federal EITC	All families	P(nonpoor at t, poor at t-1), pre-tax income	+	NS	0.31875
NeumarkW01	US	Federal EITC	Families w/ kids	P(nonpoor at t, poor at t-1), pre-tax income	+	NS	0.31875
NeumarkW01	US	State EITC	All families	P(nonpoor at t, poor at t-1), pre-tax income	-	NS	0.31875
NeumarkW01	US	State EITC	Families w/ kids	P(nonpoor at t, poor at t-1), pre-tax income	-	S	0.31875
NeumarkW01	US	Federal EITC	All families	Change in income-to-needs ratio (pre-tax)	-	NS	0.31875
NeumarkW01	US	Federal EITC	Families w/ kids	Change in income-to-needs ratio (pre-tax)	-	NS	0.31875
NeumarkW01	US	State EITC	All families	Change in income-to-needs ratio (pre-tax)	+	S	0.31875
NeumarkW01	US	State EITC	Families w/ kids	Change in income-to-needs ratio (pre-tax)	+	S	0.31875
NeumarkW01	US	Federal EITC	Families w/ kids & no worker at t	P(nonpoor at t, poor at t-1), pre-tax income	-	NS	0.31875
NeumarkW01	US	Federal EITC	Families w/ kids & at least 1 worker at t	P(nonpoor at t, poor at t-1), pre-tax income	-	NS	0.31875
NeumarkW01	US	State EITC	Families w/ kids & no worker at t	P(nonpoor at t, poor at t-1), pre-tax income	+	S	0.31875
NeumarkW01	US	State EITC	Families w/ kids & at least 1 worker at t	P(nonpoor at t, poor at t-1), pre-tax income	+	S	0.31875
NeumarkW01	US	Federal EITC	Families w/ kids & no worker at t	Change in income-to-needs ratio (pre-tax)	+	NS	0.31875
NeumarkW01	US	Federal EITC	Families w/ kids & at least 1 worker at t	Change in income-to-needs ratio (pre-tax)	-	NS	0.31875
NeumarkW01	US	State EITC	Families w/ kids & no worker at t	Change in income-to-needs ratio (pre-tax)	+	S	0.31875
NeumarkW01	US	State EITC	Families w/ kids & at least 1 worker at t	Change in income-to-needs ratio (pre-tax)	+	S	0.31875

Grogger03	US	EITC	Female-headed families	Income	+	NS	2.55
Grogger03	US	EITC	Female-headed families	Log(income)	-	NS	2.55
GianarellMW07	US	EITC extension	Workers	headcount (ad hoc threshold yielding rates similar to official figures)	+	-6%	5.1
OTHER LIBERAL COUNTRIES							0
ScarthT08	Canada	Working Income Tax Benefit	Poorest decile of income distribution, setting 1	Average income	+	3.90%	1.275
ScarthT08	Canada	Working Income Tax Benefit	Poorest decile of income distribution, setting 2	Average income	+	4.30%	1.275
ScarthT08	Canada	Working Income Tax Benefit	Poorest decile of income distribution, setting 3	Average income	+	8.10%	1.275
ScarthT08	Canada	Working Income Tax Benefit	Poorest decile of income distribution, setting 4	Average income	+	8.60%	1.275
Bargain09	UK	WFTC	Population	Foster-Greer-Thorbecke ($\alpha=0$, 60% of median income)	+	-	1.7
Bargain09	UK	WFTC	Population	Foster-Greer-Thorbecke ($\alpha=1$, 60% of median income)	+	-	1.7
Bargain09	UK	WFTC	Population	Foster-Greer-Thorbecke ($\alpha=2$, 60% of median income)	0	0	1.7
Continental Europe (+ Finland)							0
BargainO05	France	WFTC	Overall poverty rate	Poverty rate (60% median)	+	-	0.56667
BargainO05	France	WFTC	Overall poverty rate	Poverty rate (50% median)	+	12.40%	0.56667
BargainO05	France	WFTC	Overall poverty rate	Poverty rate (40% median)	+	9.70%	0.56667
BargainO05	Germany	WFTC	Overall poverty rate	Poverty rate (60% median)	+	6.60%	0.56667
BargainO05	Germany	WFTC	Overall poverty rate	Poverty rate (50% median)	+	5.60%	0.56667
BargainO05	Germany	WFTC	Overall poverty rate	Poverty rate (40% median)	+	4.40%	0.56667
BargainO05	Germany	WFTC	Overall poverty rate	Poverty rate (40% median)	+	-	0.56667

						3.70%	
BargainO05	Finland	WFTC	Overall poverty rate	Poverty rate (60% median)	+	- 3.60%	0.56667
BargainO05	Finland	WFTC	Overall poverty rate	Poverty rate (50% median)	+	- 0.90%	0.56667
BargainO05	Finland	WFTC	Overall poverty rate	Poverty rate (40% median)	+	...	0.56667
BargainT02	France	PPE (2003)	Overall poverty rate	Poverty rate (50% median)	+	- 0.60%	2.55
BargainT02	France	PPE (2003)	Overall poverty rate	Poverty rate (60% median)	+	- 0.20%	2.55
GerfinLBT02	Switzerland	EITC	Poverty rate among HH w/ at least full-time job	Poverty rate	0	0	2.55
GerfinLBT02	Switzerland	WFTC	Poverty rate among HH w/ at least full-time job	Poverty rate	-	4.50%	2.55

Table B5: Employment effects of family cash benefits (66 estimates)

Study ID	Country	Policy	Population	Employment indicator	Sign	Signif	weight
WHOLE SAMPLE							
DelBocaPP08	BE,DK,F,I, NL,ESP,UK	Family allowances	married/cohabiting women 21-45	Probability of working	-	S	1.99999 998
DelBocaPP08	BE,DK,F,I, NL,ESP,UK	Family allowances	", with tertiary education	Probability of working	-	NS	1.99999 998
DelBocaPP08	BE,DK,F,I, NL,ESP,UK	Family allowances	", with less than tertiary education	Probability of working	-	S	1.99999 998
SanchezMSM08	Spain	Empl-conditional child benefit	married women under 45	Probability of employment	+	S	1.5
SanchezMSM08	Spain	Empl-conditional child benefit	", elementary educational level	Probability of employment	+	NS	1.5
SanchezMSM08	Spain	Empl-conditional child benefit	", secondary	Probability of employment	+	S	1.5

SanchezMSM08	Spain	Empl-conditional child benefit	", tertiary	Probability of employment	+	NS	1.5
Berninger09	Germany	Family transfers	Mothers of children <16, aged 25-60	Odds employment	-	NS	6
MilliganS07	Canada	Clawback state*NCB	Single women on welfare	P(+ earnings)	+	S	0.66666 6
MilliganS07	Canada	Clawback state*NCB	all singles on welfare	P(+ earnings)	+	S	0.66666 6
MilliganS07	Canada	Clawback state*NCB	all singles on welfare, specification2	P(+ earnings)	+	S	0.66666 6
MilliganS07	Canada	Clawback state*NCB	Single women on welfare	Weeks worked	+	NS	0.66666 6
MilliganS07	Canada	Clawback state*NCB	all singles on welfare	Weeks worked	+	NS	0.66666 6
MilliganS07	Canada	Clawback state*NCB	all singles on welfare, specification2	Weeks worked	+	NS	0.66666 6
MilliganS07	Canada	Clawback state*NCB	Single women on welfare	Hours worked	+	S	0.66666 6
MilliganS07	Canada	Clawback state*NCB	all singles on welfare	Hours worked	+	NS	0.66666 6
MilliganS07	Canada	Clawback state*NCB	all singles on welfare, specification2	Hours worked	+	S	0.66666 6
Naz2004	Norway	Cash-for-care	Married/cohabiting couples w/ kid 1-6	Specialization	+	S	0.49999 9
Naz2004	Norway	Cash-for-care	Married/cohabiting couples w/ kid 1-6	Market intensity	-	S	0.49999 9
Naz2004	Norway	Cash-for-care	Married/cohabiting couples w/ kid 1-6	wife's hours	-	S	0.49999 9
Naz2004	Norway	Cash-for-care	Married/cohabiting couples w/ kid 1-7	husband's hours	+	NS	0.49999 9
Naz2004	Norway	Cash-for-care	", wife university degree	Specialization	+	S	0.49999 9
Naz2004	Norway	Cash-for-care	", wife's education < tertiary	Specialization	+	NS	0.49999 9
Naz2004	Norway	Cash-for-care	", wife university degree	Market intensity	-	NS	0.49999 9
Naz2004	Norway	Cash-for-care	", wife's education < tertiary	Market intensity	-	NS	0.49999

							9
Naz2004	Norway	Cash-for-care	", wife university degree	wife's hours	-	S	0.49999 9
Naz2004	Norway	Cash-for-care	", wife's education < tertiary	wife's hours	-	NS	0.49999 9
Naz2004	Norway	Cash-for-care	", wife university degree	husband's hours	+	NS	0.49999 9
Naz2004	Norway	Cash-for-care	", wife's education < tertiary	husband's hours	+	NS	0.49999 9
BrinkNW07	Sweden	child benefit +60%	single mothers, kids under 5	labor force participation	-	-1%	0.49999 9
BrinkNW07	Sweden	child benefit +60%	", lower income quartile	labor force participation	-	6.50%	0.49999 9
BrinkNW07	Sweden	child benefit +60%	single mothers, kids under 5	Hours worked	-	2.40%	0.49999 9
BrinkNW07	Sweden	child benefit +60%	", lower income quartile	Hours worked	-	5.40%	0.49999 9
BrinkNW07	Sweden	child benefit +60%	two-parent couples	husband's labor force participation	zero	NS	0.49999 9
BrinkNW07	Sweden	child benefit +60%	two-parent couples, lower quartile	husband's labor force participation	zero	NS	0.49999 9
BrinkNW07	Sweden	child benefit +60%	two-parent couples	husband's hours of work	zero	NS	0.49999 9
BrinkNW07	Sweden	child benefit +60%	two-parent couples, lower quartile	husband's hours of work	zero	NS	0.49999 9
BrinkNW07	Sweden	child benefit +60%	two-parent couples	wife's labor force participation	zero	NS	0.49999 9
BrinkNW07	Sweden	child benefit +60%	two-parent couples, lower quartile	wife's labor force participation	zero	NS	0.49999 9
BrinkNW07	Sweden	child benefit +60%	two-parent couples	wife's hours of work	zero	NS	0.49999 9
BrinkNW07	Sweden	child benefit +60%	two-parent couples, lower quartile	wife's hours of work	zero	NS	0.49999 9
vDammeKU09	13 EU countries	welfare+child allowance+single-parent allowance	separated women,didn't work before breakup	odds(entry into employment)	-	S	1.2
vDammeKU09	13 EU	welfare+child	", controlling for gender values	odds(entry into employment)	-	S	1.2

	countries	allowance+single-parent allowance					
vDammeKU09	13 EU countries	welfare+child allowance+single-parent allowance	", control: allowance*ex-partner bottom income quartile	odds(entry into employment)	-	NS	1.2
vDammeKU09	13 EU countries	welfare+child allowance+single-parent allowance	", control: CC*kid 0-6/kid 7-15	odds(entry into employment)	-	S	1.2
vDammeKU09	13 EU countries	welfare+child allowance+single-parent allowance	separated women, worked before breakup	odds (exit)	-	NS	1.2
Herbst 2008	US	AFDC/TANF max, non working mother	Single mothers w/ at least 1 child	Work	-	S	0.99999 96
Herbst 2008	US	AFDC/TANF max, non working mother	Single mothers w/ at least 1 child	Full-time full-year work	-	S	0.99999 96
Herbst 2008	US	AFDC/TANF max, non working mother	", education<= HS, unemployt<26th	Work	-	NS	0.99999 96
Herbst 2008	US	AFDC/TANF max, non working mother	", education<= HS, unemployt<26th	Full-time full-year work	-	NS	0.99999 96
Herbst 2008	US	AFDC/TANF max, non working mother	", education<= HS, unemployt>75th	Work	-	NS	0.99999 96
Herbst 2008	US	AFDC/TANF max, non working mother	", education<= HS, unemployt>75th	Full-time full-year work	-	NS	0.99999 96

MeyerR01	US	max AFDC/FSP	single women	P(employment last week)	-	S	0.75
MeyerR01	US	max AFDC/FSP	", education < 12 years	P(employment last week)	-	NS	0.75
MeyerR01	US	max AFDC/FSP	", education = 12 years	P(employment last week)	-	NS	0.75
MeyerR01	US	max AFDC/FSP	", education > 12 years	P(employment last week)	-	NS	0.75
MeyerR01	US	max AFDC/FSP	single women	P(employment last year)	-	S	0.75
MeyerR01	US	max AFDC/FSP	", education < 12 years	P(employment last year)	-	NS	0.75
MeyerR01	US	max AFDC/FSP	", education = 12 years	P(employment last year)	-	NS	0.75
MeyerR01	US	max AFDC/FSP	", education > 12 years	P(employment last year)	-	NS	0.75
Cho06	Korea	Child allowances	Women aged 20-40 w/ at least 1 child	Employment rate	-	5.40%	3
Cho06	Korea	Child allowances	", within 6 years since birth	Employment rate	-	13.90 %	3
Jaeger10	10 countries	Family cash benefits	Mothers aged 25-40 or 25-54	labor force participation	-	NS	1.5
Jaeger10	10 countries	Family cash benefits	Mothers aged 25-40 or 25-54	Full-time work	-	S	1.5
Jaeger10	10 countries	Family cash benefits	", w/ interaction terms	labor force participation	-	NS	1.5
Jaeger10	10 countries	Family cash benefits	", w/ interaction terms	Full-time work	-	S	1.5

Table B6: Antipoverty effects of family cash benefits (29 estimates)

Study ID	Country	Policy	Population	Poverty indicator	Sign	Signif	weight
WHOLE SAMPLE							
MilliganS07	Canada	Clawback state*NCB	Single women on welfare	Change in total income	+	NS	1.38095 2
MilliganS07	Canada	Clawback state*NCB	all singles on welfare	Change in total income	+	S	1.38095 2
MilliganS07	Canada	Clawback state*NCB	all singles on welfare, specification2	Change in total income	+	S	1.38095 2
BrinkNW07	Sweden	child benefit +60%	single mothers, kids under 5	disposable income	+	4.60%	1.03571 4
BrinkNW07	Sweden	child benefit +60%	", ", lower income quartile	disposable income	+	4.30%	1.03571 4
BrinkNW07	Sweden	child benefit +60%	two-parent couples	disposable income	+	1.50%	1.03571 4
BrinkNW07	Sweden	child benefit +60%	two-parent couples, lower quartile	disposable income	+	2.30%	1.03571 4
MisraMB07	11 countries	Family benefits (% total social insurance)	Women aged 25-59, control: CC availability	p(poverty)	+	S	1.03571 4
MisraMB07	11 countries	Family benefits (% total social insurance)	", ", further control: paid leave	p(poverty)	+	NS	1.03571 4
MisraMB07	11 countries	Family benefits (% total social insurance)	", ", further: family leave	p(poverty)	+	S	1.03571 4
MisraMB07	11 countries	Family benefits (% total social insurance)	", ", further: family leave squared	p(poverty)	+	NS	1.03571 4
GiannarelliMW07	USA	Child tax credit full refundable	workers, no employment effect	number of poor	+	9.30%	1.38095 2
GiannarelliMW07	USA	CC subsidies & CCTC	workers, no employment effects	number of poor	+	2.80%	1.38095 2
GiannarelliMW07	USA	CC subsidies & CCTC	workers, employment effects accounted for	number of poor	+	-	1.38095 2

						7.60%	
MorganK01	USA	average AFDC/FSP	children, no state dummies	child poverty rate	-	NS	1.38095 2
MorganK01	USA	average AFDC/FSP	children, state dummies	child poverty rate	+	NS	1.38095 2
MorganK01	USA	average AFDC/FSP	children, only significant state dummies	child poverty rate	+	S	1.38095 2
BäckmanF09	21 countries	parental insurance transfers	male breadwinner+homemaker, 2 kids	odds(child poverty)	+	NS	0.41428 5
BäckmanF09	21 countries	parental insurance transfers	", control for # of earners	odds(child poverty)	+	NS	0.41428 5
BäckmanF09	21 countries	parental insurance transfers	", male vs. female head	odds(child poverty)	+	NS	0.41428 5
BäckmanF09	21 countries	parental insurance transfers	", ", interaction terms	odds(child poverty)	+	NS	0.41428 5
BäckmanF09	21 countries	parental insurance transfers	", ", interaction terms 2	odds(child poverty)	+	NS	0.41428 5
BäckmanF09	21 countries	parental insurance transfers	", control for public CC coverage of kids<3	odds(child poverty)	+	S	0.41428 5
BäckmanF09	21 countries	parental insurance transfers	", w/o postsocialist EU countries	odds(child poverty)	+	NS	0.41428 5
BäckmanF09	21 countries	parental insurance transfers	", ", control for CC coverage	odds(child poverty)	+	S	0.41428 5
BäckmanF09	21 countries	parental insurance transfers	", w/o postsocialist & Denmark	odds(child poverty)	+	NS	0.41428 5
BäckmanF09	21 countries	parental insurance transfers	", ", control for CC coverage	odds(child poverty)	+	S	0.41428 5

Frick07	15 countries	Family benefits (% GDP)	kids who're poor w/o family benefits	poverty severity reduction (FGT)	+	S	2.071428
Frick07	15 countries	Family benefits (% GDP)	", welfare regimes instead of countries	poverty severity reduction (FGT)	+	S	2.071428

Table B7: Employment effects of childcare availability and cost (171 estimates)

Study ID	Country	Policy	Population	Employment indicator	Sign	Signif	weight
WHOLE SAMPLE							
DelBocaPP08	BE,DK,F,I,NL,ESP,U K	CC availability (% of 0-2)	married/cohabiting women 21-45	Probability of working	+	S	2.84999997
DelBocaPP08	BE,DK,F,I,NL,ESP,U K	CC availability (% of 0-2)	", with tertiary education	Probability of working	+	S	2.84999997
DelBocaPP08	BE,DK,F,I,NL,ESP,U K	CC availability (% of 0-2)	", with less than tertiary education	Probability of working	+	S	2.84999997
Berninger09	Germany	CC availability (% of 0-3)	Mothers of children <16, aged 25-60	odds (employment)	+	S	2.84999997
Berninger09	Germany	CC availability (% of 0-3)	", specification 2	odds (employment)	+	S	2.84999997
Berninger09	Germany	CC availability (% of 0-3)	", specification 3	odds (employment)	+	S	2.84999997
DelBocaV07	Italy	CC availability	Married mothers w/ youngest kid<3	P(mother works)	+	S	1.71
DelBocaV07	Italy	CC costs	Married mothers w/ youngest kid<4	P(mother works)	-	NS	1.71
DelBocaV07	Italy	CC availability&cost	Married mothers w/ youngest kid<5	P(mother works)	-	S	1.71
DelBocaV07	Italy	CC availability	", no interaction term	P(mother works)	+	S	1.71
DelBocaV07	Italy	CC costs	", no interaction term	P(mother works)	-	NS	1.71
BlauT07	USA	CC subsidy	single mothers, kids under 13	P(employment)	+	S	4.275

BlauT07	USA	CC subsidy	", w/ lagged variables	P(employment)	+	S	4.275
BrinkNW07	Sweden	CC fees	single mothers, kids under 5	labor force participation	+	0.70%	0.7125
BrinkNW07	Sweden	CC fees	", lower income quartile	labor force participation	+	4.60%	0.7125
BrinkNW07	Sweden	CC fees	single mothers, kids under 5	hours worked	+	1.40%	0.7125
BrinkNW07	Sweden	CC fees	", lower income quartile	hours worked	+	16.50%	0.7125
BrinkNW07	Sweden	CC fees	two-parent couples	husband's labor force participation	+	0.20%	0.7125
BrinkNW07	Sweden	CC fees	two-parent couples, lower quartile	husband's labor force participation	+	1.30%	0.7125
BrinkNW07	Sweden	CC fees	two-parent couples	husband's hours of work	zero	NS	0.7125
BrinkNW07	Sweden	CC fees	two-parent couples, lower quartile	husband's hours of work	+	0.30%	0.7125
BrinkNW07	Sweden	CC fees	two-parent couples	wife's labor force participation	+	0.40%	0.7125
BrinkNW07	Sweden	CC fees	two-parent couples, lower quartile	wife's labor force participation	+	2.50%	0.7125
BrinkNW07	Sweden	CC fees	two-parent couples	wife's hours of work	+	0.50%	0.7125
BrinkNW07	Sweden	CC fees	two-parent couples, lower quartile	wife's hours of work	+	3.10%	0.7125
BakerGM08	Canada/QC	\$5 fee for all <5	mothers in 2-parent families	maternal employment	+	S	1.425
BakerGM08	Canada/QC	\$5 fee for all <5	", kids 0-2	maternal employment	+	S	1.425
BakerGM08	Canada/QC	\$5 fee for all <5	", kids 3-4	maternal employment	+	S	1.425
BakerGM08	Canada/QC	\$5 fee for all <5	single mothers	maternal employment	+	NS	1.425
BakerGM08	Canada/QC	\$5 fee for all <5	mothers 2-parent families, <=high school	maternal employment	+	NS	1.425
BakerGM08	Canada/QC	\$5 fee for all <5	", some post-high school	maternal employment	+	S	1.425
LundinMÖ08	Sweden	CC fees	Two-parent hh w/ at least 1 child 1-9	P(mother in employment)	-	S	1.425
LundinMÖ08	Sweden	CC fees	Two-parent hh w/ at least 1 child 1-9	% of full-time	-	NS	1.425
LundinMÖ08	Sweden	CC fees	", w/ hh type fixed effects	P(mother in employment)	-	NS	1.425
LundinMÖ08	Sweden	CC fees	", w/ hh type fixed effects	% of full-time	-	NS	1.425
LundinMÖ08	Sweden	CC fees	", ", w/interaction terms	P(mother in employment)	-	NS	1.425
LundinMÖ08	Sweden	CC fees	", ", w/interaction terms	% of full-time	-	NS	1.425

PettitHk2005	19 countries	CC availability (% of 0-2)	Women 18-65, OLS	impact of marriage on P(employmt)	+	S	0.7125
PettitHk2005	19 countries	CC availability (% of 0-2)	Women 18-65, OLS	impact of kid 0-3 on P(employmt)	+	S	0.7125
PettitHk2005	19 countries	CC availability (% of 0-2)	Women 18-65, OLS	impact of kid 4-6 on P(employmt)	+	S	0.7125
PettitHk2005	19 countries	CC availability (% of 0-2)	Women 18-65, OLS	impact of kid on P(employmt)	+	NS	0.7125
PettitHk2005	19 countries	CC availability (% of 0-2)	Women 18-65, random effects	impact of marriage on P(employmt)	+	S	0.7125
PettitHk2005	19 countries	CC availability (% of 0-2)	Women 18-65, random effects	impact of kid 0-3 on P(employmt)	+	NS	0.7125
PettitHk2005	19 countries	CC availability (% of 0-2)	Women 18-65, random effects	impact of kid 4-6 on P(employmt)	+	NS	0.7125
PettitHk2005	19 countries	CC availability (% of 0-2)	Women 18-65, random effects	impact of kid on P(employmt)	+	S	0.7125
PettitHk2005	19 countries	CC availability (% of 0-2)	Women 18-65, 3rd specification	impact of marriage on P(employmt)	+	S	0.7125
PettitHk2005	19 countries	CC availability (% of 0-2)	Women 18-65, 3rd specification	impact of kid 0-3 on P(employmt)	+	NS	0.7125
PettitHk2005	19 countries	CC availability (% of 0-2)	Women 18-65, 3rd specification	impact of kid 4-6 on P(employmt)	+	S	0.7125
PettitHk2005	19 countries	CC availability (% of 0-2)	Women 18-65, 3rd specification	impact of kid on P(employmt)	+	S	0.7125
Fitzpatrick10	USA	universal pre-K, 4 yrs old	kids born 100 days before/after cutoff date	work in previous year	-	NS	1.06875
Fitzpatrick10	USA	universal pre-K, 4 yrs old	kids born 100 days before/after cutoff date	work in previous year	-	NS	1.06875
Fitzpatrick10	USA	universal pre-K, 4 yrs old	kids born 100 days before/after cutoff date	work in previous week	-	NS	1.06875
Fitzpatrick10	USA	universal pre-K, 4 yrs old	kids born 100 days before/after cutoff date	work in previous week	-	NS	1.06875
Fitzpatrick10	USA	universal pre-K, 4 yrs old	kids born 100 days before/after cutoff date	hours per week	-	NS	1.06875
Fitzpatrick10	USA	universal pre-K, 4 yrs old	kids born 100 days before/after cutoff date	hours per week	-	NS	1.06875
Fitzpatrick10	USA	universal pre-K, 4 yrs old	kids born 100 days before/after cutoff date	weeks worked	+	NS	1.06875

Fitzpatrick10	USA	universal pre-K, 4 yrs old	kids born 100 days before/after cutoff date	weeks worked	-	S	1.06875
LefebvreMV09	Canada/QC	\$5 fee for all <5	Mothers w/ at least 1 kid 6-11 & none<6	labor force participation 2002	+	S	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	Mothers w/ at least 1 kid 6-11 & none<6	labor force participation 2003	+	S	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	Mothers w/ at least 1 kid 6-11 & none<6	labor force participation 2004	+	S	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	Mothers w/ at least 1 kid 6-11 & none<6	weeks worked 2002	+	S	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	Mothers w/ at least 1 kid 6-11 & none<6	weeks worked 2003	+	S	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	Mothers w/ at least 1 kid 6-11 & none<6	weeks worked 2004	+	S	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	Mothers w/ at least 1 kid 6-11 & none<6	hours of work 2002	+	S	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	Mothers w/ at least 1 kid 6-11 & none<6	hours of work 2003	+	S	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	Mothers w/ at least 1 kid 6-11 & none<6	hours of work 2004	+	S	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	", <= high school	labor force participation 2002	+	S	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	", <= high school	labor force participation 2003	+	S	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	", <= high school	labor force participation 2004	+	S	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	", > high school	labor force participation 2002	-	NS	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	", > high school	labor force participation 2003	-	NS	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	", > high school	labor force participation 2004	-	NS	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	", <= high school	weeks worked 2002	+	S	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	", <= high school	weeks worked 2003	+	S	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	", <= high school	weeks worked 2004	+	S	0.31666 667

LefebvreMV09	Canada/QC	\$5 fee for all <5	", > high school	weeks worked 2002	-	NS	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	", > high school	weeks worked 2003	-	NS	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	", > high school	weeks worked 2004	+	NS	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	", <= high school	hours of work 2002	+	S	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	", <= high school	hours of work 2003	+	S	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	", <= high school	hours of work 2004	+	S	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	", > high school	hours of work 2002	+	NS	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	", > high school	hours of work 2003	-	NS	0.31666 667
LefebvreMV09	Canada/QC	\$5 fee for all <5	", > high school	hours of work 2004	+	NS	0.31666 667
KalbWSL08	Australia	10% increase in net costs	Lone parents, kids under 12	hours of work	+	1.40%	- 0.7125
KalbWSL08	Australia	10% increase in net costs	Lone parents, kids under 12	participation	+	1.50%	- 0.7125
KalbWSL08	Australia	10% increase in net costs	Fathers in couples, kids under 12	hours of work	zero	NS	0.7125
KalbWSL08	Australia	10% increase in net costs	Fathers in couples, kids under 12	participation	zero	NS	0.7125
KalbWSL08	Australia	10% increase in net costs	Mothers in couples, kids under 12	hours of work	+	0.30%	- 0.7125
KalbWSL08	Australia	10% increase in net costs	Mothers in couples, kids under 12	participation	+	0.20%	- 0.7125
KalbWSL08	Australia	gross hourly cost +10%	Lone parents, kids under 12	hours of work	+	1.60%	- 0.7125
KalbWSL08	Australia	gross hourly cost +10%	Lone parents, kids under 12	participation	+	1.90%	- 0.7125
KalbWSL08	Australia	gross hourly cost +10%	Fathers in couples, kids under 12	hours of work	zero	NS	0.7125
KalbWSL08	Australia	gross hourly cost +10%	Fathers in couples, kids under 12	participation	zero	NS	0.7125

KalbWSL08	Australia	gross hourly cost +10%	Mothers in couples, kids under 12	hours of work	zero	NS	0.7125
KalbWSL08	Australia	gross hourly cost +10%	Mothers in couples, kids under 12	participation	zero	NS	0.7125
VanHamM05	Netherlands	# of CC slots within 10 minutes' travel	Mothers w/ kids 0-6	log odds(work >12 hrs/week)	+	S	8.55
UunkKM05	13 EU countries	# public spaces/kid 0-3	Women 20-40 married/cohabiting, 1st childbirth	Δ working hours after 1st child	+	S	2.1375
UunkKM05	14 EU countries	# public spaces/kid 0-4	", controlling for GDP	Δ working hours after 1st child	+	S	2.1375
UunkKM05	15 EU countries	# public spaces/kid 0-5	", controlling for gender values	Δ working hours after 1st child	+	NS	2.1375
UunkKM05	16 EU countries	# public spaces/kid 0-6	", controlling for GDP and gender values	Δ working hours after 1st child	+	S	2.1375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	mothers 18-56 w/ at least 1 kid <6 years, 1999	participation	+	S	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", 2000	participation	+	NS	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", 2001	participation	+	S	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", 2002	participation	+	S	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	mothers 18-56 w/ at least 1 kid <6 years, 1999	annual hours	+	NS	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", 2000	annual hours	+	NS	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", 2001	annual hours	+	S	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", 2002	annual hours	+	S	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	mothers 18-56 w/ at least 1 kid <6 years, 1999	annual weeks	+	S	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", 2000	annual weeks	+	S	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", 2001	annual weeks	+	S	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", 2002	annual weeks	+	S	0.2375

		<5 years					
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", education<= high school, 1999	participation	+	NS	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", ", 2000	participation	+	NS	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", ", 2001	participation	+	NS	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", ", 2002	participation	+	NS	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", education<= high school, 1999	annual hours	+	NS	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", ", 2000	annual hours	+	NS	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", ", 2001	annual hours	+	NS	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", ", 2002	annual hours	+	NS	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", education<= high school, 1999	annual weeks	+	NS	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", ", 2000	annual weeks	+	NS	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", ", 2001	annual weeks	+	NS	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", ", 2002	annual weeks	+	NS	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", education > high school, 1999	participation	+	NS	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", ", 2000	participation	+	NS	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", ", 2001	participation	+	NS	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", ", 2002	participation	+	NS	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", education > high school, 1999	annual hours	+	NS	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", ", 2000	annual hours	+	NS	0.2375

LefebvreM08	Canada/QC	\$5 fee for all <5 years	", ", 2001	annual hours	+	S	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", ", 2002	annual hours	+	S	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", education > high school, 1999	annual weeks	+	NS	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", ", 2000	annual weeks	+	NS	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", ", 2001	annual weeks	+	S	0.2375
LefebvreM08	Canada/QC	\$5 fee for all <5 years	", ", 2002	annual weeks	+	S	0.2375
vDammeKU0 9	13 EU countries	# public CC slots/100 kids<3	separated women,didn't work before breakup	odds(entry into employment)	+	S	1.22142 821
vDammeKU0 9	13 EU countries	# public CC slots/100 kids<3	", controlling for gender values	odds(entry into employment)	+	S	1.22142 821
vDammeKU0 9	13 EU countries	# public CC slots/100 kids<3	", control: allowance*ex-partner bottom income quartile	odds(entry into employment)	+	S	1.22142 821
vDammeKU0 9	13 EU countries	# public CC slots/100 kids<3	", control: CC*kid 0-6/kid 7-15	odds(entry into employment)	+	S	1.22142 821
vDammeKU0 9	13 EU countries	# public CC slots/100 kids<3	separated women, worked before breakup	odds (increase in hours)	-	S	1.22142 821
vDammeKU0 9	13 EU countries	# public CC slots/100 kids<3	separated women, worked before breakup	odds (decrease in hours)	+	S	1.22142 821
vDammeKU0 9	13 EU countries	# public CC slots/100 kids<3	separated women, worked before breakup	odds (exit)	+	NS	1.22142 821
RamohanW07	Australia	CC costs	Mothers w/ kids aged less than 15	P(full time)	-	NS	2.85
RamohanW07	Australia	CC costs	Mothers w/ kids aged less than 15	P(part time)	-	NS	2.85
RamohanW07	Australia	CC costs	Mothers w/ kids aged less than 15	P(not working)	-	NS	2.85
StähliLGLW0	Switzerland	CC	Mothers in couples >=1 child, day nurseries	odds(never reduced vs. homemaker)	+	S	1.425

9		availability/use					
StähliLGLW09	Switzerland	CC availability/use	Mothers in couples >=1 child, day nurseries	odds(reduced vs. homemaker)	+	NS	1.425
StähliLGLW09	Switzerland	CC availability/use	Mothers in couples >=1 child, day nurseries	odds (stopped but active now vs. homemaker)	+	S	1.425
StähliLGLW09	Switzerland	CC availability/use	", nanny or "day mother"	odds(never reduced vs. homemaker)	+	S	1.425
StähliLGLW09	Switzerland	CC availability/use	", nanny or "day mother"	odds(reduced vs. homemaker)	+	S	1.425
StähliLGLW09	Switzerland	CC availability/use	", nanny or "day mother"	odds (stopped but active now vs. homemaker)	+	NS	1.425
Tekin07	USA	CC costs	Single mothers w/ kids younger than 13	odds(full-time vs. no employmt)	-	S	2.1375
Tekin07	USA	CC costs	Single mothers w/ kids younger than 13	odds(part-time vs. no employmt)	-	NS	2.1375
Tekin07	USA	decrease:\$1/hour	Single mothers w/ kids younger than 13	full-time employment	+	6.10%	2.1375
Tekin07	USA	decrease:\$1/hour	Single mothers w/ kids younger than 13	part-time employment	+	0.50%	2.1375
Herbst 2008	US	CC funding/kids 0-12	Single mothers w/ at least 1 child	Work	+	S	1.425
Herbst 2008	US	CC funding/kids 0-12	Single mothers w/ at least 1 child	Full-time full-year work	-	S	1.425
Herbst 2008	US	CC funding/kids 0-12	", education<= HS, unemployt<26th	Work	+	S	1.425
Herbst 2008	US	CC funding/kids 0-12	", education<= HS, unemployt<26th	Full-time full-year work	-	NS	1.425
Herbst 2008	US	CC funding/kids 0-12	", education<= HS, unemployt>75th	Work	+	S	1.425
Herbst 2008	US	CC funding/kids 0-12	", education<= HS, unemployt>75th	Full-time full-year work	-	NS	1.425
MeyerR01	US	CC expenditure + \$500/single	single women	P(employment last week)	+	S	1.06875

		mom					
MeyerR01	US	CC expenditure + \$500/single mom	", education < 12 years	P(employment last week)	+	NS	1.06875
MeyerR01	US	CC expenditure + \$500/single mom	", education = 12 years	P(employment last week)	+	NS	1.06875
MeyerR01	US	CC expenditure + \$500/single mom	", education > 12 years	P(employment last week)	+	NS	1.06875
MeyerR01	US	CC expenditure + \$500/single mom	single women	P(employment last year)	+	S	1.06875
MeyerR01	US	CC expenditure + \$500/single mom	", education < 12 years	P(employment last year)	+	NS	1.06875
MeyerR01	US	CC expenditure + \$500/single mom	", education = 12 years	P(employment last year)	+	NS	1.06875
MeyerR01	US	CC expenditure + \$500/single mom	", education > 12 years	P(employment last year)	+	NS	1.06875

Table B8: Antipoverty effects of childcare availability and cost (12 estimates)

Study ID	Country	Policy	Population	Poverty indicator	Sign	Signif	weight
WHOLE SAMPLE							
BrinkNW07	Sweden	CC fees	single mothers, kids under 5	disposable income	+	3.70%	0.75
BrinkNW07	Sweden	CC fees	", lower income quartile	disposable income	+	3.20%	0.75
BrinkNW07	Sweden	CC fees	two-parent couples	disposable income	+	2.70%	0.75
BrinkNW07	Sweden	CC fees	two-parent couples, lower quartile	disposable income	+	1.70%	0.75

MisraMB07	11 countries	% 0-2 in formal CC	Women aged 25-59, control: CC availability	P(poverty)	+	S	0.75
MisraMB07	12 countries	% 0-2 in formal CC	", ", further control: paid leave	P(poverty)	+	S	0.75
MisraMB07	13 countries	% 0-2 in formal CC	", ", further: family leave	P(poverty)	+	S	0.75
MisraMB07	14 countries	% 0-2 in formal CC	", ", ", further: family leave squared	P(poverty)	+	NS	0.75
BäckmanF09	21 countries	CC coverage 0-3 years	male breadwinner+homemaker, 2 kids	odds (child poverty)	+	S	1
BäckmanF09	16 countries	CC coverage 0-3 years	", w/o postsocialist EU countries	odds (child poverty)	+	S	1
BäckmanF09	15 countries	CC coverage 0-3 years	", w/o postsocialist & Denmark	odds (child poverty)	+	S	1
KreyenfeldSW00	Germany	CC fees	Families w/ kids 0-11	Income inequality	-	n/a	3

11 References

(Articles used for the meta-analysis are listed separately: see bottom)

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Meta-analysis

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