Chapter 9 Trajectories of Vulnerability: A Sequence-Analytical Approach



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Dynamics of Vulnerability

A growing proportion of the European population faces situations of vulnerability. Stable employees feel more and more at risk of losing their job or of experiencing a deterioration of their employment situation (Gallie et al. 1998). The share of standard employment relationships are declining, whereas atypical and precarious employment is on the rise (Rodgers & Rodgers, 1989; Hipp et al. 2015). In addition, joblessness in different forms—invalidity insurance, social assistance, early retirement—has also grown in recent decades (Paugam 2005). One of the unresolved issues is the relative scope of these phenomena. First, the advocates of what we could call exclusion thesis contend that only a small and marginal group is touched by material poverty and that this deprivation is inherently accompanied by isolation and segregation (Paugam 2005). A second approach, most famously brought forward by Robert Castel (2002), contends that not only the margins but also the larger zones of the labour market are characterised by precariousness. In a third perspective, it is asserted that work, even in formerly prestigious and well-paid occupations, is less and less socially recognised (Bourdieu 1999; Paugam 2000).

We argue that none of these three perspectives alone appropriately describes the current situation. They ought not to be conceived as alternative conceptual framings, but as facets of the same phenomenon. Life course sociology seems to be a particularly promising approach to link these facets of vulnerability together. In this contribution, we relate the different expressions of vulnerability to each other through the use of sequence analysis and investigate the development of the share of

individuals in precarious jobs, unemployment, and situations of exclusion during the period from 2000–2010 in Switzerland. Event mining techniques are used to investigate the odds of transition between crucial states of vulnerability and precariousness. Finally, we examine how the membership to different trajectories of vulnerability is influenced by cohort, gender, educational level or ethnic origin.

This chapter begins with a discussion of the three mentioned facets of vulnerability and an explanation of how they can fruitfully be linked together by a biographical approach. Then, we present the data and the Swiss case and discuss the results at greater length. In the concluding section, the findings and the heuristic value of the employed research strategy are discussed.

A Biographical Approach to Vulnerability

Subjective insecurity, precariousness, and exclusion are phenomena that emerge as the result of the interplay between the dynamics of the labour market and welfare policies. In this article, we seek to bring together the literatures addressing each of the issues and then discuss how they can be blended into a biographical approach.

The first step towards vulnerability is often a certain feeling of insecurity in an otherwise stable job. This subjective impression of job insecurity can be approached, for example, by the premonition that one will lose one's job within the next 12 months. According to Gallie et al. (1998), insecurity has become, in recent years, an increasingly relevant dimension of the well-being *at* and the satisfaction *with* work. It can be hypothesised that the feeling of job insecurity depends on the subjective impression of being in danger of becoming unemployed, previous spells of unemployment or the salience of unemployment as an issue in the media or personal entourage. Regardless of whether the threat behind this feeling is real, it can have psychological consequences and lead to a generalised hunch that one's work performance is not adequately rewarded (Paugam 2000).

When insecurity ceases to be a feeling but becomes linked to precarious employment conditions, we can speak of precariousness. Precarious employment embraces a large number of situations that differ from the male standard employment situation: part time employment fixed-term and otherwise temporary contracts, work at home, work in pseudo self-employment, on-call work (and all other forms of forced flexibility), night and weekend work, several employments, poorly paid jobs, or underemployment (Kalleberg 2000; 2009; Hipp et al. 2015). Night, weekend, or on-call work may prevent people from enjoying their social lives, meeting friends, and participating in clubs and associations. Others, such as temporary and fixed-term contracts, make it difficult for people to plan ahead and schedule important events, such as having children or buying a house.

Exclusion became a major analytical category at the beginning of the 1990s, first in France, later also in the German context (Kronauer 1996). In France, it developed jointly with concepts such as "precariousness" and "new poverty" (Paugam 2005). When, in the early 1990s, the unemployment rate and the number of those dependence.

dent on social assistance rose dramatically in almost all European countries, a growing group of "excluded" or "dispensables" people emerged. As a consequence of the enduring absence from the labour market, these people were unable to provide for the living cost of their households and depended on social assistance or invalidity insurance (Kronauer 1996). Not surprisingly, exclusion renders it difficult to live according to socially and culturally recognised norms and therefore often leads to social stigmatisation.

According to Castel (2002), different degrees or zones of precariousness are related to each other. The reserve army of the excluded put pressure on both groups in the zones of vulnerability and security. Those who are in the zone of vulnerability may want to move to the zone of security because they are afraid of falling back into the zone of exclusion. From a biographical angle, the fears that are typical for each zone, may be based on personal experiences and biographical mobility between one or several of these zones. A biographical approach, focused on how people pass through different forms of vulnerability, is, therefore, a simple but effective strategy to get a comprehensive glance at all these phenomena. We can reasonably assume that during their life courses, the same people go through situations of subjective insecurity, precariousness, and exclusion. As in theories of labour market segmentation, these zones may be defined by an absence of mobility between them and a large amount of mobility within them. Biographical mobility between groups is an important aspect of the activation, maintenance and reinforcement of boundaries between different welfare categories at the margins of the labour market (Lamont and Molnàr 2002; Scherschel et al. 2012). By studying the individual boundary crossing through entry into (or exit from) different situations of vulnerability, it is possible to understand the meaning of these boundaries as well as the categories of people who are labelled as "precarious" or "excluded." Situations of vulnerability, which are easily and regularly crossed by biographical movements, might lose their symbolic power of distinction, demarcation, and discrimination. They will be considered permeable and biographically reversible.

It has insistently been argued that precariousness or exclusions should be considered dynamically, not statically (Bane and Ellwood 1983; Leisering and Leibfried 1999). However, despite the progress made in dynamic poverty research, we believe the dynamic character of vulnerability can still be explored further. The studies of poverty spells tell little about the order and the velocity of the processes with which a person passes through a situation of vulnerability. Hence, it is different to be excluded all of a sudden to go through a long and slow process of precariousness. What is more, we can assume that a short precarious situation may remain ephemeral, whereas a longer spell in the same situation can lead to psychological and social repercussions. A biographical approach is, therefore, a promising strategy to gain a comprehensive and relational perspective on these three forms of vulnerability. Our inquiry will be guided by three research questions: (a) What is the overall and comparative proportion of individuals feeling insecure, employed in precarious jobs, or finding themselves in situations of exclusion during the period from 2000–2010? (b) What transition and mobility patterns can we observe between different

situations of vulnerability? (c) Which typical trajectories of vulnerability can we distinguish, and how can these types be explained by cohort, gender, educational level, or ethnic origin?

Data and Method

Analysis of trajectories of vulnerability must rely on longitudinal data. Therefore, this article is based on data from the Swiss Household Panel (SHP) (Voorpostel et al. 2011). As the same respondents are interviewed every year, it is possible with these data to construct trajectories of a certain length. In the present case, we have used the waves 2 to 11, covering the years 2000–2010 in yearly intervals. This period covers both the relatively prosperous early 2000s and the years of crisis from 2008 to 2010. The analysis has been limited to the population aged between 20 and 65 years in all waves. This means that the sample is constrained to those who, in 2010, were between 30 and 65 years old. In general, we must assume that those in vulnerable situations are underrepresented in the SHP and more concerned by attrition (Voorpostel et al. 2011). In addition, we have excluded all trajectories with more than three missing years. This leaves us with 1332 individuals. The following table compares our subsample to the entire sample concerning a series of key socio-demographic variables (Table 9.1).

Groups, which according to the literature are threatened by vulnerability, are slightly underrepresented in the sequential sub-sample (immigrants, people with only compulsory education, younger cohorts)—very likely as a consequence of a higher attrition rate of these groups. However, other potentially vulnerable groups

	Table 9.1	Comparison of Sub-sample and SHP Sample
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	Sub-sample (30–65 year		SHP Sample 2010 (30–65 years)	
	%	n	%	n
Women	58.3	777	52.8	2938
Foreigners	8.9	119	12.6	4862
Compulsory education	5.0	66	8.2	452
30–39 years	12.9	172	19.5	1086
40–49 years	38.7	515	35.1	1953
50–64 years	48.4	645	45.4	2527
Total	100	1332	100	5566

¹The first wave in 1999 features not all variables on social assistance and invalidity and was thus not taken into account.

²An alternative would have been to use techniques of multiple imputation (see Halpin 2016). Because of the relative large number of missing values we have to be aware of possible selection effects and interpret the results cautiously.

are overrepresented (women) or fairly well represented (50–65 year old people). In general, the differences between the sub-sample and the whole SHP sample are not very large. It is also noteworthy that for the year 2006, we must deal with a filter error for one of the central variables (time limited contracts) and have about 5% more missing values compared to the other years.

The construction of the variables draws on the gradual conceptualisation of precariousness proposed by Paugam (2000), but differs on important point from it. As opposed to France, Switzerland has a relatively liberal labour law and lacks, in particular, a strong legal protection of categories considered as the stable core of the labour market. Therefore, less stable labour contracts, such as fixed-term contracts or temporary contracts are not as strongly opposed to permanent contracts. As a consequence, certain categorical adjustments were made. Categories were constructed based on the question on the risk of becoming unemployed in the next 12 months, the temporal limitation of the employment contract, and questions about unemployment, social assistance, invalidity insurance, and pre-retirement schemes. We present them here in an order of decreasing security:

- Stable and secure employment (31%)³: People in this situation possess a formally stable contract (no temporary or fixed-term employment) and they indicate also that they feel subjectively sure (risk of becoming unemployed estimated at 0 on an 11-item scale from 0 to 10).
- Stable and insecure employment (36%): This group enjoys a formally stable employment, but is considered to be at risk of becoming unemployed in the next 12 months (risk estimated at 1 to 5 on a scale from 0 to 10).
- Stable and very insecure employment (6%): Identical to the second group, except that the risk of becoming unemployed is estimated rather high (6 to 10 on a scale from 0 to 10).
- Unstable but secure employment (2%): Despite experiencing a situation of formal employment precariousness, this group feels subjectively secure.
- Unstable and insecure employment (4%): More consistent, these individuals are both formally and subjectively insecure. Not only is their employment contract non-permanent, but they are considered at risk of becoming unemployed in the next 12 months (1 to 10 on a scale from 0 to 10).
- Registered as unemployed (2%): These people report not being employed at the
 moment and are officially registered at a Swiss unemployment office. In other
 words, they are ready and willing to work if they find a job.
- Social assistance, invalidity insurance, pre-retirement (6%): This group is defined
 as people under 65 who are out of the workforce and simultaneously receive an
 old-age pension, a payment from the invalidity insurance, or a payment from
 social assistance.
- Out of workforce (13%): This group is not employed, but, at the same time, declares itself neither unemployed, nor dependent on contributions from one of the aforementioned insurances. Even though the status of this group is probably

³These percentages are average values over the period 2000–2010.

heterogeneous, we can assume that its members have left (or never entered) the labour market voluntarily.

In addition, we will test the composition of the trajectories with respect to some basic socio-demographic factors. Therefore, we have defined the following variables: sex (male and female), birth cohort (30–39 years; 40–49 years; 50–65 years), highest educational level (compulsory education; apprenticeship/high school; higher educational education; university/applied university) and nationality (rich countries, southern countries, Swiss).⁴

To respond to our research questions, we used transition mining, sequence analyses, and a multinomial regression model. To examine the transition between different forms of vulnerability, we searched for and counted all transitions and compared their frequency to an expected frequency, based on the proportion of a single state among all the possible states. To study the trajectories of vulnerability, we carried out a sequence analysis conducted with the R-libraries TraMineR (Gabadinho et al. 2009) and WeigthedCluster (Studer 2013). This method, popularised by Abbott, allows the researcher to display trajectories graphically, group them into types according to similarity, and link them to explanatory factors by the means of multinomial logistic regression models or discrepancy analysis (Abbott and Hrycak 1990; Aisenbrey and Fasang 2010; Studer et al. 2011). We used an optimal matching algorithm by calculating the substitution costs empirically and setting the insertion-delition costs at 1.5. Further, we used weighted Ward clustering and decided on the number of solutions on the basis of an extensive evaluation of cluster quality (Studer 2013). The six clusters are represented by a distribution plot, which gives an aggregate overview of the trajectories. Finally, we applied a multinomial regression analysis on the six clusters in order to understand which social categories trajectories are typical.

The Historical Dynamic of Vulnerability (2000–2010)

In a first step, we seek to trace the overall evolution of the above defined forms of vulnerabilities for the period from 2000–2010. Compared to most of the European countries, Switzerland's labour market remained for a long time spared from major crisis in the form of mass unemployment. Even when, in the early 1990s, the unemployment rate rose, its increase was gentler than in many other Western countries. This has specific reasons: unemployment was, for a long time, buffered by the periodic pushing out of the labour market of the foreign workforce and women

⁴In Switzerland the traditional working-class migration from southern countries between 1960-1980s has recently been completed by a group of better educated immigrants from northern European countries. We defined Italy, Portugal, Spain Ex-Yugoslavia as "southern countries" and Germany, France, USA and the UK as "rich countries".

(Streckeisen 2012).⁵ In the early 1990s, as women would increasingly crowd into the labour market and the yearly regulation of labour immigration was abandoned, the economic crisis caused a rise in the unemployment rate from about 1% to 4%. Long-term unemployment rose from 20% of the unemployed to over 30% in 1995 and 40% in 1999 (Bühlmann et al. 2012). In addition and as a consequence of the increasing long-term character of unemployment rates, recipients of invalidity insurance and social assistance rose in the 1990s and then particularly in the early 2000s. These two insurance systems, structurally conceived as support of the last order, became the collecting tank of those who were no longer supported by the regular unemployment insurance.

Beyond the increase of those durably excluded from the labour market, we can also trace the rise of precarious jobs through the same period. An increasing proportion of the workforce labours in fixed-term contracts, with temporary agencies, on call or in part-time arrangements. Whereas, for instance, only about 4500 people were working for a temporary agency in 1993, this number rose to 46,000 in 1997, 201,000 in 2003 and even 236,000 in 2009. Also the proportion of employees in fixed-term contracts and employment on call increased about 35%, respectively 38% between 2001 and 2009. This contrasts rather strongly with the stagnation or slight decrease of both full-time jobs and permanent employment during the period of 2001–2009.6 The parallel rise of exclusion and precarious employment is no coincidence. It has strong institutional links. Beyond new recruitment and personnel administration policies of firms, it was also novel social policies that contributed to the rise of precarious employment. Modification of the unemployment law in the spirit of the "activation policies" reduced the period of unemployment support (especially for younger people), enlarged the definition of jobs that must be accepted, and created a series of re-integration courses and programs, some of which corresponded to precarious forms of employment (Bonvin 2008; Tabin 2000; Streckeisen 2008). How are these official data from the Swiss Labour Force Survey now reflected in the data used for this study? (Fig. 9.1).

The period between 2000 and 2010 was characterised by a massive growth of subjective employment insecurity. This sharp rise, which is not documented in official data as discussed above, has much larger amplitude than the increase of precarious employment conditions. We may speak of a creeping general vulnerability, a growing destabilisation of otherwise stable jobs. This surge in employment insecurity means the proportion of people with a stable and secure job, a situation that is supposed to represent the male norm of the post-war period, became a minority. For the years 2009 and 2010, it amounts to less than 30% of the age group between 20 and 65. More generally, we can observe a rather consistent overall trend towards

⁵The so called « Saisonnierstatut », which allowed Switzerland to limit the number of foreign workers per year at will, and which gave virtually no labour rights to this important foreign part of the workforce, was abandoned in 1991 for non-EU citizens and 2002 also for citizens of the European Union.

⁶These numbers draw on the Swiss Labour Force Survey. See also Pelizzari (2009) for the period 2001–2006.

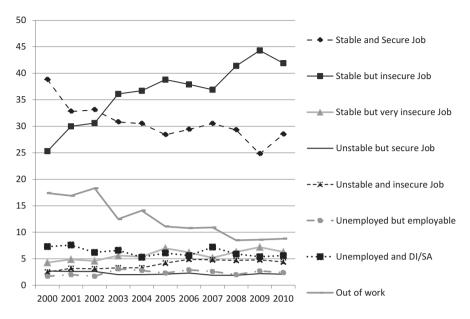


Fig. 9.1 Development of situations of vulnerability in Switzerland, 2000–2010

less security and stability in employment. Most categories of unstable and insecure jobs are on the rise. It is important not to over-interpret this trend though; the most significant rise concerns those who feel *slightly* instable in their job. Very insecure jobs and combinations of insecure and instable jobs do not increase as strongly. In other words, there is a widespread uncertainty in the Swiss society, but this uncertainty is comparatively superficial. To understand how biographical dynamics contribute to this rise of vulnerability in Swiss society, we examine the transition between different states of vulnerability and then carry out a sequence analysis to identify typical trajectories of vulnerability.

Mobility Between Different Forms of Vulnerability

By studying the relative chances of transition between the eight states of vulnerability we have defined, we will first examine whether the pathways into and out of insecurity (respectively, precariousness or exclusion) are abrupt or rather gradual. Second, we ask whether we can identify certain segments of vulnerability *within* which mobility is common, while at the same time mobility *between* these segments is rare. This will shed light on the social boundaries that potentially enclose different situations of vulnerability.

We mine for transition between the states and calculate the relative chances to accede to each of the states from each other state (odds ratios). These odds ratios result from a calculation of the relative chances to move to a state (measured by the share of this state among all states) and the real share of people within the specific

state who moved to this state. A value of 1 means that the comparative chances to move to this state equal the chances under a uniform distribution. A value of 0.5 means that the chances are only half what they should be under conditions of a uniform distribution. A value of 2 means that the chances are two times higher than with a uniform distribution (Table 9.2).

In the light grey upper part of the table, the odds of transitions are displayed from relatively stable and secure situations on the left to more and more insecure and excluded situations on the right. The results confirm the trend found on the individual level: generally, people move away from "stable and secure jobs" towards less stable or secure types of employment. Second, we find it more likely to move to a neighbouring state than to "jump" to states that are farther away on the scale of vulnerability. This means the trajectories of vulnerability are rather regular and gradual. It is conspicuous, that there is no specific threshold between unstable jobs and registered unemployment. Moves in and out of unemployment are, thus, relatively common.⁷ Third, we can identify a certain caesura between the states "invalidity and social assistance" and "out of workforce" versus all other states. Direct moves to these states of exclusions are relatively rare.

The lower part of the matrix displays the odds to move from marginal and unstable states to more stable forms of employment. Mirror-inverted to the findings above, shifts to secure and stable forms of employment were generally rare in the period of 2000 to 2010. Also in the inverse direction, gradual moves to neighbouring state are more likely than jumps from total exclusion to total stability. It is very unlikely to shift from registered unemployment or social assistance directly to a stable and secure job. The chances to move to a better situation along the scale diminish the better the conditions are in comparison. Third, the only situations that offer relatively good chances to move to stable and secure jobs is from stable but insecure jobs. When it comes to upwards mobility, these two states at the stable pole of the scale seem to constitute a homogenous zone.

Biographical Dynamics of Vulnerability

As a further step, a sequence analysis was carried out to identify and represent seven typical trajectories graphically. The following distribution plots represent the years between 2000 and 2010 as pillars on the x-axis. For each year, the proportional distribution of the states is displayed (Fig. 9.2).

The first type, *stable but insecure jobs* (n = 458), corresponds to a continuous trajectory of employment in formally permanent but subjectively insecure jobs. Even if these jobs are not contractually limited in time, this group feels there is a certain risk that they will become unemployed in the next 12 months. This type is by far the largest group in contemporary Switzerland. Even when there are no formal reasons to feel vulnerable in a job, the very low legal obstacles to lay off people

⁷This is among other things a consequence of the liberal Swiss labour law and is unlikely to happen in other countries which have a stronger protection of permanent labour status.

Table 9.2 Odds ratios of transitions between different states of vulnerability

			Stable but					
	Stable and	Stable but	very insecure	Unstable but	Unstable and	Unemployed	Unemployed	Out of
	secure job	insecure job	job	secure job	insecure job	registred	DI/SA	work force
Stable and secure job	0.00	1.73	3.82	3.30	2.22	1.74	1.29	99.0
Stable but insecure job	2.03	0.00	5.57	3.30	2.56	2.35	96.0	99.0
Stable but very insecure job	69.0	1.16	0.00	3.30	2.91	2.35	0.63	0.57
Unstable but secure job	0.73	0.50	3.29	0.00	6.91	1.74	0.63	0.85
Unstable and insecure job	0.58	0.64	2.79	10.20	0.00	4.24	1.29	0.75
Unemployed registred	0.33	0.56	2.79	2.61	6.03	0.00	1.98	1.79
Unemployed and DI/SA	0.42	0.22	0.78	2.61	2.91	1.63	0.00	92.9
Out of work force	0.45	0.30	0.98	3.30	3.64	3.60	18.24	0.00

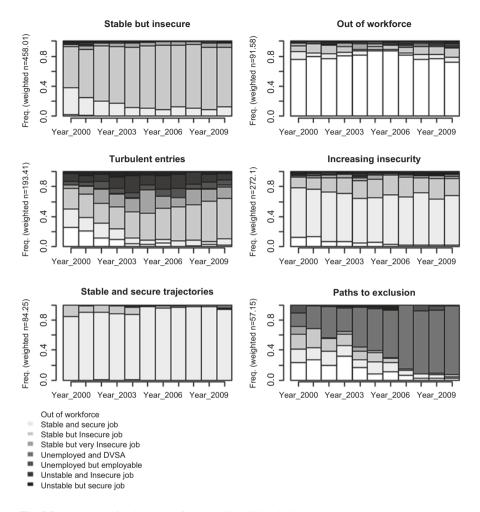


Fig. 9.2 Typology of trajectories of vulnerability 2000–2010

in Switzerland seems to create a widespread fear of losing one's job. Also the individuals in the second cluster, *out of workforce* (n = 92), remain essentially stable over the whole period of 2000 to 2010. This group refrains from participating in the labour market. At the same time, it does not declare itself as unemployed or dependent on social assistance. We can assume that the member of this cluster remain voluntarily out of the labour market. It is probably mainly composed of women who, permanently or for a child rearing period, decide (or are forced) to live a life as a homemaker. *Turbulent entries* (n = 193) include pathways that change between different forms of unsteady employment. Typically, short periods of insecure or unstable employment alternate with spells of unemployment, as well as with stable but insecure jobs. What is conspicuous is the high volatility between different states

and the permanence of vulnerability; the members of this type never really reach a secure shore in the form of stable and secure jobs. This trajectory seems to be typical for labour market entries between 2000 and 2010. It includes a certain share that, in the beginning, is out of the workforce and then enters the labour market.

The fourth trajectory (labelled *increasing insecurity*) assembles 272 individuals who are first in stable and secure job and then slowly move towards jobs that they deem exposed to the risk of becoming unemployed even though the formal status of these employments is not changing. These people went through a kind of subjective vulnerabilisation of their employment situation between 2000 and 2010. The trajectory-type, which was supposedly the norm for men during the economically golden post-war years, has survived, but concerns only a rather small group. 84 individuals can be found in the stable and secure trajectories cluster. These trajectories are characterised by a continuous sequence of stable and secure employment situations. In some cases, people feel insecure in the beginning and then become increasingly sure towards the end of the ten-year period. The last type is best characterised as paths of exclusion (n = 57). Its members were employed or out of work in the early 2000s and then successively fell out of the labour market and are taken care of by the either invalidity insurance, social assistance, or early retirement schemes. Returns from this state to the labour market are rare, even in the form of insecure or instable jobs. Invalidity insurance or social assistance seems, thus, to be an irreversible state.

Explaining Trajectories of Vulnerability

In order to characterise these six trajectory-types socially, we carried out a multinomial regression analysis. This method allows us to characterise the cluster membership by a series of simple socio-demographic variables, such as gender, age group, ethnic origin, and educational level. Stable and secure trajectories were chosen as the reference group. Table 9.3 displays the results of these analyses. Because of the relatively large number of missing values in our analytical sample, the results of this regression analysis have to be interpreted with caution.

Stable but insecure trajectories are common among younger men aged 30–40 and 40–50. Surprisingly, those with a basic education or migrants do not feel particularly threatened. Trajectories out of workforce are above all female trajectories. Virtually no men move voluntarily out of the employment system. This is confirmed by other longitudinal studies on male work trajectories (Widmer et al. 2003) Second,

⁸We deliberately refrained from using variables which do not apply to all types (such as occupation, which makes no sense for people out of the workforce) or which are ambivalent according to their temporal-causal relationship with reference to the trajectories.

		Stable but insecure	Out of Workforce	Turbulent entries	Increasing insecurity	Paths to exclusion
Sex	Men	1.55°	0.07**	1.03	1.15	0.94
	Women	_	_	_	_	_
Cohort	30–40	2.30*	1.21	2.11*	2.33*	0.20°
	41–50	3.01**	1.98°	2.89**	3.17**	0.78
	51–65	_	_	_	_	_
Education	Compulsory	2.94	10.28*	1.50	9.12*	20.10**
	Apprenticeship	1.10	2.85*	0.90	1.40	3.28*
	Higher vocational	1.63	0.56	0.78	1.59	0.92
	University	_	_	_	_	_
Ethnic	Swiss	0.52	0.72	0.27*	0.56	0.40
origin	Rich countries	0.94	1.54	0.40	0.42	0.52
	Poor countries	_	_	_	_	_

Table 9.3 Multinomial regression – factors explaining the trajectory of vulnerability (odds ratios)

we see that those with only a compulsory education or an apprenticeship stay for long periods out of the labour market. We can make the hypothesis that rather than women in general, it is women with a small amount of educational capital, who refrain from labour market participation. Women who invested more into education may want to "capitalise" that investment.

When it comes to turbulent entries, we see that these concern above all younger people who make their entry into the labour market. However, with our data it is not possible to compare the labour market entry of different cohorts. Therefore we are not able to say if the labour market entry is more turbulent for the younger cohorts. It seems also that turbulent entries are less prevalent among Swiss citizens than among foreigners from poor countries. However, they are not particularly bound to any educational level: they occur to a broad range of young adults. This is surprising. We would have to dig deeper in order to examine whether this form of vulnerable trajectories may are typical for project-oriented and voluntarily flexible occupations (such as graphic designer, architects or journalists). Paths to exclusion threatens those who only possess a compulsory school degree, those with an apprenticeship, and, much less, those holding a higher vocational degree or a university degree. In addition, similarly to what has been found in other studies, it touches particularly the older cohorts (Oesch and Baumann 2014): it is particularly widespread among poorly trained older workers.

 $^{^{\}circ}$ < 0.1; * < 0.05; ** < 0.01.

Conclusions

The fear of losing one's job, precarious employment, or long-term exclusion from the labour market have become more urgent over the last decades. However, the real scope of the phenomenon and the angle from which to approach it remain controversial. While certain scholars consider the economic and social exclusion of a minority as the main problem, others frame the issue in terms of precarious employment situations. Still, others deem the declining subjective employment security as the main problem. In this contribution, we sought to relate these three forms of vulnerability with a biographical approach.

A comparative examination of different forms of vulnerability shows that in Switzerland only a minority held a secure and stable job in 2010. Even within a sample such as the SHP, in which marginalised actors tend to be under-represented, less than 30% enjoy stable and secure employment conditions. More severe forms of vulnerability, unstable and insecure jobs, for instance, have also risen, but on a lower initial level and in a much less spectacular way. Subjective insecurity touches a wide range of the Swiss population and increases steeply between 2000 and 2010. It is particularly widespread among young (men). Possibly, the "objectively" turbulent entries into the labour market of those aged between 30–40 years one reason for this subjective feeling of insecurity.

Through an analysis of the transitions between the different forms of vulnerability, we can observe certain social boundaries beyond which circulation is rare (Lamont and Molnár 2002). The findings show that the pathways to precariousness or exclusion are rather incremental. This also means that in countries such as Switzerland, there is no specific protection threshold against unemployment. The only boundaries between zones are constructed by social policies that actually direct mobility. Movements to situations of social assistance or invalidity often make it necessary to pass first through a longer period of unemployment. On the other hand, once somebody finds him- or herself in a situation of unemployment or precarious employment, the way back to stable and secure employment is boarded-up.

A biographical analysis reveals that the younger generation seems to be particularly concerned by vulnerability. Increasing insecurities and turbulent entries, spells of unemployment, and late access to secure jobs are common among the younger generation. When we examine the older age class, it seems that, on one hand, its poorly trained fraction is clearly more in danger of becoming irreversibly excluded. On the other hand, older people are also well represented among the cluster of stable and secure trajectories. Either because they are towards the end of a long career and have achieved positions that are more secure or because they have never gone in their younger years through turbulent phases they seem to feel more confidence about the security of their job.

References

- Abbott, A., & Hrycak, A. (1990). Measuring resemblance in sequence analysis: An optimal matching analysis of musicians careers. *American Journal of Sociology*, 96(1), 144–185.
- Aisenbrey, S., & Fasang, A. E. (2010). New life for old ideas: The 'second Wave' of sequence analysis bringing the "course" back into the life course. *Sociological Methods and Research*, 38(3), 430–462.
- Bane, M. J., & Ellwood, D. T. (1983). *Slipping into and out of poverty: The dynamics of spells*. Cambridge, MA: National Bureau of Economic Research.
- Bonvin, J.-M. (2008). Activation policies, new modes of governance and the issue of responsibility. *Social Policy and Society*, 7(3), 367–377.
- Bourdieu, P. (1999). Weight of the world: Social suffering in contemporary society. Cambridge: Polity Press.
- Bühlmann, F., Schmid Botkine, C., Farago, P., Höpflinger, F., Joye, D., Levy, R., Perrig-Chiello, P., & Suter, C. (2012). Swiss social report 2012: Generations in perspective. Zürich: Seismo.
- Castel, R. (2002). From manual workers to wage laborers: Transformation of the social question. New Brunswick: Transaction.
- Gabadinho, A., Ritschard, G., Studer, M., & Müller, N. S. (2009). *Mining sequence data in R with the TraMineR package: A user's guide*. Geneva: University of Geneva.
- Gallie, D., White, M., Cheng, Y., & Tomlinson, M. (1998). Restructuring the employment relationship. Oxford: Oxford University Press.
- Halpin, B. (2016). Multiple imputation for categorical time series. *Stata Journal*, 16(3), 590–612.
- Hipp, L., Bernhardt, J., & Allmendinger, J. (2015). Institutions and the prevalence of nonstandard employment. *Socio-Economic Review*, 13(2), 351–377.
- Kalleberg, A. L. (2000). Nonstandard employment relations: Part-time, temporary and contract work. *Annual Review of Sociology*, 26, 341–365.
- Kalleberg, A. L. (2009). Precarious work, insecure workers: Employment relations in transition. *American Sociological Review, 74*(1), 1–22.
- Kronauer, M. (1996). Soziale Ausgrenzung" und "Underclass": Über neue Formen der gesellschaftlichen Spaltung. Sofi-Mitteilungen, 24, 53–69.
- Lamont, M., & Molnár, V. (2002). The study of boundaries in the social sciences. Annual Review of Sociology, 28, 167–195.
- Leisering, L., & Leibfried, S. (1999). *Time and poverty in western Germany: United Germany in perspective*. Cambridge: Cambridge University Press.
- Oesch, D., & Baumann, I. (2014). Smooth transition or permanent exit? Evidence on job prospects of displaced industrial workers. *Socio-Economic Review, 13*(1), 101–123.
- Paugam, S. (2000). Le salarié de la précarité. Les nouvelles formes de l'intégration professionnelle. Paris: PUF.
- Paugam, S. (2005). Les formes élémentaires de la pauvreté. Paris: PUF.
- Pelizzari, A. (2009). Dynamiken der Prekarisierung. Atypische Erwerbsverhältnisse und milieuspezifische Unsicherheitsbewältigung. Konstanz: UVK.
- Rodgers, G., & Rodgers, J. (1989). Precarious jobs in labour market regulation: The growth of atypical employment in Western Europe. Geneva: International Institute for labour studies.
- Scherschel, K., Streckeisen, P., & Krenn, M. (Eds.). (2012). Neue Prekarität. Die Folgen aktivierender Arbeitsmarktpolitik europäische Länder im Vergleich. Frankfurt: Campus.
- Streckeisen, P. (2008). Die zwei Gesichter der Qualifikation. Eine Fallstudie zum Wandel von Industriearbeit. Konstanz: UVK Verlag.

Streckeisen, P. (2012). Steigende Erwerbslosigkeit und Prekarität in der Schweiz: Das Ende eines "Sonderfalls". In K. Scherschel, P. Streckeisen, & M. Krenn (Eds.), *Neue Prekarität. Die Folgen aktivierender Arbeitsmarktpolitik – europäische Länder im Vergleich* (pp. 47–73). Frankfurt: Campus.

- Studer, M., Ritschard, G., Gabadinho, A., & Müller, N. S. (2011). Discrepancy analysis of state sequences. *Sociological Methods & Research*, 40(3), 471–510.
- Studer, M. (2013). WeightedCluster library manual: A practical guide to creating typologies of trajectories in the social sciences with R (Vol. 24). Lausanne: LIVES Working Papers.
- Tabin, J. P. (2000). Les politiques actives du marché du travail. Les Politiques sociales / Collège international pour l'étude du changement dans les politiques sociales, 3–4, 38–54.
- Voorpostel, M., Tillmann, R., Lebert, F., Weaver, B., Kuhn, U., Lipps, O., Ryser, V. A., Schmid, F., Rothenbühler, M., & Wernli, B. (2011). Swiss household panel userguide (1999–2010), Wave 12. Lausanne: FORS.
- Widmer, E., Levy, R., Pollien, A., Hammer, R., & Gauthier, J. A. (2003). Entre standardisation, individualisation et sexuation: une analyse des trajectoires personnelles en Suisse. *Schweizerische Zeitschrift für Soziologie*, 29(1), 35–68.

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