Data Observer

Robin Tillmann*, Marieke Voorpostel, Erika Antal, Nora Dasoki,
Hannah Klaas, Ursina Kuhn, Florence Lebert,
Gian-Andrea Monsch and Valérie-Anne Ryser

The Swiss Household Panel (SHP)

Abstract: Collecting data on households and individuals since 1999, the Swiss
Household Panel (SHP) is an ongoing, unique, large-scale, nationally representa-
tive, longitudinal study in Switzerland ($N = 9828$ households and $N = 15,882$ persons
interviewed in 2020). The SHP aims to provide both continuity and innovation
in measurement and data collection. Examples of innovation are the combination
of retrospective and prospective longitudinal data, the combination of survey
modes notably in refreshment samples and additional studies oversampling
specific population groups. This article provides an overview of the SHP – focusing
on the survey's key design features, content, data collection and adjustments,
possibilities for cross-national comparisons, data use and accomplishments.

1 Introduction

The Swiss Household Panel (SHP)[1] is a study of major importance in the Swiss
social survey landscape with scope for international comparisons (Tillmann et al.
2016). Collecting longitudinal data on households and individuals since 1999, the

---

1 www.swisspanel.ch.

*Corresponding author: Robin Tillmann, Swiss Centre of Expertise in the Social Sciences FORS,
Lausanne, Switzerland, E-mail: robin.tillmann@fors.unil.ch
**Marieke Voorpostel, Erika Antal, Nora Dasoki, Hannah Klaas, Ursina Kuhn, Florence Lebert,
Gian-Andrea Monsch and Valérie-Anne Ryser,** Swiss Centre of Expertise in the Social Sciences
FORS, Lausanne, Switzerland

SHP allows for the analysis of mid- to long-term micro and meso social change on a wide variety of domains and topics. This makes the SHP a valuable source of information for studies in different research fields and allows for cross-domain and interdisciplinary analyses. Another strong feature of the SHP is that all members of the households in the panel are interviewed, making it possible to study intra-household and intergenerational interdependencies and processes, such as the study of mutual influence of household members' attitudes and behaviours over time. Together with a few other nationally representative household panels from other nations, the SHP provides unique analytical opportunities to researchers in the social sciences. The SHP allows for longitudinal analysis over a period of more than 20 years. Additional research instruments, such as biographical questionnaires, provide an even longer-term context.

The Swiss Priority Program "Switzerland Towards the Future" (which was at that time the largest social scientific program ever run in Switzerland with more than 100 projects during a period of eight years) implemented the SHP as one of its key structural measures in 1999 (Joye and Scherpenzeel 1997). Experiences made from existing European panel surveys informed the SHP's design, notably, the German Socio-Economic Panel (SOEP) (Goebel et al. 2019) and the British Household Panel Study (BHPS), which is now integrated into Understanding Society, the UK Household Longitudinal Survey (UKHLS) (Buck and McFall 2011).

Initially, the SHP was a joint project run by the Swiss National Science Foundation, the Swiss Federal Statistical Office and the University of Neuchâtel. Between 2004 and 2007 the SHP developed a joint venture project aimed at conducting a pilot study of the Statistics of Income and Living Conditions 2004–2005 survey in collaboration with the Swiss Federal Statistical Office. Since 2008, still funded by the Swiss National Science Foundation, the SHP has been integrated into the Swiss Centre of Expertise in the Social Sciences (FORS) hosted by the University of Lausanne.

This paper provides an overview of the SHP – focusing on the survey's key design features, content, data collection and adjustments, possibilities for cross-national comparisons, data use and accomplishments.

2 Key Features

2.1 General Design

There are four types of questionnaires in the SHP: a household grid questionnaire to assess household composition, a household questionnaire, an individual questionnaire and a proxy questionnaire. All household members aged 14 or older

are eligible to answer the individual questionnaire. Each household has a reference person who completes the household grid and the household questionnaire. The household reference person also completes the proxy questionnaire to gather information on household members younger than 14 years, those who are absent for the time of the fieldwork or those who are unable to respond themselves due to illness or disability.

At present, the SHP comprises four samples: the SHP_I (5074 households and 7799 individuals interviewed first in 1999), the SHP_II (2538 households and 3654 individuals interviewed first in 2004), the SHP_III (3989 households and 6090 individuals interviewed first in 2013) and the SHP_IV (4380 households and 7557 individuals interviewed first in 2020).

For the first sample, all households that were interviewed in the first wave (with at least the household questionnaire and one individual questionnaire completed) formed the initial panel to be followed over time. For the later samples, all households that completed at least the grid questionnaire in the corresponding first waves were approached again. Households that were not reached at all during the first wave or those that did not supply any information at the time of the first wave were not included in the panel in later waves. Households were no longer approached if they leave the target population (e.g., in the case of death, move out of Switzerland or institutionalisation), could not be contacted for seven waves or refused to participate any longer. Initially, the SHP only followed original sample members[2] (OSMs) from the first wave and their children at the individual level. OSMs were included as new households if they left the original household, while cohabitants[3] were only (re-)interviewed as long as they lived with an OSM. Since 2007, cohabitants are also followed when they leave the original household.

2.2 Sampling and Weighting

The SHP's reference population includes all private households whose members represent the non-institutional resident population in Switzerland. Individuals living in old peoples' homes, institutions or prisons, are not part of the reference population. To compensate for selective nonresponse and attrition (e.g., deaths, hospitalisation or migration) and to include new population groups, the SHP

---

2 These include all eligible household members living in the selected households in the first wave (in 1999, 2004 or 2013).
3 Cohabitants are persons who entered the selected households after the first wave, and who are not children of any OSM.

included three refreshment samples, starting in 2004 (SHP_II), 2013 (SHP_III) and 2020 (SHP_IV).

The samples for the SHP were drawn from the sampling frames of the Swiss Federal Statistical Office (SFSO). For the first and second samples in 1999 (SHP_I) and 2004 (SHP_II), the sampling frame consisted of private households included in the Swiss telephone directory, which had a coverage rate of about 95 and 92% at the time, respectively. Since the landline coverage in Switzerland has strongly decreased, the original sampling frame was no longer adequate. The two most recent refreshment samples were drawn from the current SFSO's sampling frame consisting of the cantonal and communal register of residents and providing almost complete coverage of the target population. As this sampling frame is on an individual basis, the selection units of the SHP_III (added in 2013) and SHP_IV (added in 2020) were individuals rather than households. The complete households of the selected individuals were subsequently included in the sample. The four random samples are stratified by the seven major statistical regions of Switzerland. Within each major geographic region, each household (SHP_I and SHP_II) or individual (SHP_III and SHP_IV) had the same inclusion probability.

Longitudinal household panels like the SHP have complex weighting schemes. Longitudinal surveys' main objective is to analyse change over time, for which longitudinal weights on the individual level are required. These weights refer to the population in the first wave of a particular panel (1999, 2004, 2013 and 2020 for SHP_I, SHP_II, SHP_III and SHP_IV, respectively). As the household composition changes over time, households do not receive longitudinal weights. Longitudinal surveys are also used for cross-sectional analyses. Therefore, cross-sectional weights referring to the population in any given year are provided. These cross-sectional weights are developed for households and individuals. The SHP additionally developed cross-sectional weights for the children (<15 years old) living in the SHP households. For each of the types of weights, the SHP provides two versions: one weight to inflate the sample to the size of the Swiss population and one to maintain the sample size.

The weights are constructed in four main steps. First, the inverse of the inclusion probability is taken as the initial weight for each respondent. In a second step, the weights are adjusted for non-response, both in the initial wave and in later waves, using the method of analysis by segmentation, as proposed by Kass (1980). Information on the non-respondents comes from the official registers from which the samples were drawn, and from questionnaires completed in previous waves. To obtain weights for OSMs' cohabitants – whose inclusion probability is unknown – the generalised weight share method is used for the cross-sectional individual weight and the household weight (Lavallée 2002). The third step consists of combining the four panels using a factor allocating relative importance to

each of the samples based on its size. Finally, all weights are adjusted so that the estimated population sums are equal to the actual sums of the non-institutionalised Swiss population. In rare cases, Winsorisation (Hastings et al. 1947) is needed to correct for negative or extreme weights.

The longitudinal weights delivered with the data are appropriate when analysing change since the first wave of any given panel (SHP_I, SHP_II, SHP_III and SHP_IV), but they are not suitable if the period analysed starts at a later wave. For the analysis of longitudinal samples that do not include the first wave of the sample, "transitional factors" are provided. These "transitional factors" enable the researcher to create custom-made individual longitudinal weights over several consecutive waves. Determining these "transitional factors" is a two-step process. First, segmentation is used to model response to the grid at wave t given response to the individual questionnaire in wave t-1. Second, response to the individual questionnaire in wave t is modelled given response to the grid at the same wave. These factors are especially useful when combining a limited number of waves (three consecutive years), but they may become problematic when many waves are strung together.

2.3 Survey Modes, Data Collection and Incentives

The panel survey is conducted annually from September to February by the institute M.I.S. Trend in Lausanne and Bern. Interviews are conducted in (Swiss) German, French and Italian. The standard interviews require around 15 min to administer the grid and the household questionnaire and around 35 min to complete the individual questionnaire. The main mode of the interview is computer-assisted telephone interviewing (CATI). Since 2010 (wave 12), the SHP also offered computer-assisted personal interviewing (CAPI) and computer-assisted web interviewing (CAWI) as alternative survey modes to those who initially refused to participate.

Alternative modes were also offered in the first wave of the SHP_III sample, which was no longer based on the telephone registry; if no telephone number was available, an interviewer visited the home and respondents completed the household questionnaire by CAPI. The biographical questionnaire (Life History Calendar) in the first wave of the SHP_III (see also Section 3.3) was self-administered or administered with an interviewer present.

A two-wave pilot study was conducted in 2017 and 2018, designed to test the consequences of including the web as the main mode in the data collection in terms of data quality and comparability between modes (see also Section 5.1). Following the study, SHP_IV was launched in mixed mode CATI-CAWI (about half

and half) in 2020: households with a known telephone number are approached for a telephone interview and if no number is available, they are invited to complete the questionnaires by web.

The fieldwork starts with sending a letter to the participating households informing them of the upcoming interviews. Enclosed with this letter, participants receive a newsletter containing some results of recent analyses of the SHP data. Since 2010, to enhance survey participation, each eligible respondent has received an *unconditional* incentive enclosed with the preliminary letter. This was a 20 CHF voucher for a popular chain of supermarkets for the SHP_I and the SHP_II, and a 10 CHF voucher for the SHP_III and the SHP_IV, for budgetary reasons. Since 2020, all incentives are distributed in cash. Between wave 12 and wave 14, an additional incentive was offered to *complete households* for households of at least two eligible persons where all eligible household members had completed the individual questionnaire. This additional incentive (50 CHF) was given to the participants at the end of the fieldwork. For budgetary reasons, the additional incentive was dropped in 2013.

To guarantee the smooth functioning of the fieldwork, M.I.S. Trend ensures a strict selection of only experienced interviewers who are native speakers. To increase the interviewers' motivation, they can earn two collective bonuses. One bonus is based on the general response rate: all interviewers together have to add up to at least 95% of the number of interviews carried out in the previous wave. The second bonus is geared towards interviewers who are engaged in refusal calls; it is based on the refusal conversion rate.

The SHP invests significantly in refusal conversion and makes great efforts to maintain contact with the households. Experienced interviewers who are specifically trained for this task re-approach households that have not participated for at least one year with the request to take part in the study again. Interviewers trained in refusal conversion re-contact households and individuals who refuse at a later stage in the fieldwork period. This has resulted in a high refusal conversion rate; for example, in 2020 about 43% of these households that initially declined to participate eventually took part in the survey.

The SHP has put several measures in place to ensure that contact with households can be re-established in later waves. First, respondents are asked to provide their mobile number and their e-mail address. Second, if respondents are not willing to give this information or do not have a mobile number or e-mail address, they are asked to leave the address of an auxiliary (e.g., a family member living outside the household or a close friend) who can help in case of losing track of the respondent. Third, during the fieldwork period, households are called on different days of the week and at different times during the day to minimise non-contact. Fourth, a bilingual interviewer is responsible for relocating lost

respondents. This interviewer tries to contact the respondent by mobile phone, e-mail or through the auxiliary, searching different directories and registers to locate the respondent.

3 Content

The household and individual questionnaires cover a broad range of topics. They are also designed to collect both 'objective' data, such as financial resources, job characteristics and participation, and subjective data, such as satisfaction scores, values and attitudes. The whole constitutes an operationalisation of different elements on the micro-social level: living conditions, life events, attitudes, perceptions and lifestyles (Budowski et al. 1998).

3.1 Household Interview

The questionnaire at *the household level* (grid and household questionnaire) covers the following areas: (1) *composition of the household* (basic information about all the members of the household and their relations); (2) *accommodation* (characteristics, homeownership or tenancy, cost of and/or the subsidies received for housing, satisfaction and evaluation of the state of the accommodation); (3) *standard of living* (possession of various goods and participation in various activities and the reasons households do not have these goods or carry out these activities); (4) *financial situation* (financial difficulties, indebtedness, income and wealth, expenses, satisfaction with income and assessment of the evolution of the financial situation) and (5) *household and family* organisation (external help available for housework, childcare or care for other household members, division of housework and childcare and decision-making within the household).

3.2 Individual Interview

The *individual questionnaires* cover the following topics: (1) *household and family* (information on children living outside the household, time spent on housework and satisfaction with private life and the share of housework); (2) *life events* (occurrence of events such as the termination of relationships, deaths of family or friends and conflicts with relatives); (3) *health and quality of life* (general illness and health problems, doctor and hospital visits, long-term handicaps, threats or attacks endured, self-perceived state of health, estimated evolution of the state of

health, satisfaction with health and with life in general, feelings of safety, to-bacco consumption, health insurance and physical activities); (4) *social origin* (information related to each respondent's parents, including profession, professional position, educational level, political positioning, nationality and any financial difficulties in the family of origin at the reference age of 15); (5) *education* (the respondent's native language(s), level of education completed, education currently being pursued, participation in on-the-job training and aspirations); (6) *employment* (information on the respondent's profession, such as working conditions, number of hours worked, work schedule, atypical work, status in the labour market, previous jobs, job satisfaction, job insecurity, personal qualifications and an occupational calendar); (7) *income* (total personal income, total professional income, social security pensions, social and private transfers, rental income, interest and dividend and other income, plus satisfaction with the financial situation and evaluation of changes in it); (8) *participation, integration and networks* (frequency of social contacts, unremunerated work outside the home, participation in associations, membership of and participation in groups, assessment of social capital by means of evaluation of potential practical help and emotional support from various social network ties and general trust in people); (9) *politics and values* (political participation, membership, party identification, political positioning, satisfaction with the political system, issues and political values, environmental behaviour and values, gender equality tolerance towards religions); (10) *leisure and media* (leisure and cultural activities, holidays, amount of leisure and holiday time, use of various media and satisfaction with leisure and free time) and (11) *psychological scales* (dimensions of self-perception, such as positive and negative emotions, self-mastery and self-esteem and other aspects like the Big Five personality traits).

Until 2008, questions were asked generally annually. In 2009, the SHP introduced a new system of modularization for the individual questionnaire. Survey questions were included either in the *core* asked each wave or in the *rotating core* asked every three years. The modularisation allowed the inclusion of more detailed questions for each of the domains in the rotating core. Questions referring to time-invariant characteristics (last job, social origin and first language) are only asked once, usually in the first interview.

Table 1 shows the three types of questions currently in the SHP.

3.3 Life History Calendar

The questionnaires used in the first wave of the SHP_III in 2013 differed from those used in other samples and other waves. Instead of the individual interview,

Table 1: Questionnaire content.

Topics	Unique	Core	Rotating core (since 2009)
Last job[a]	✗		
Social origin	✗		
Socio-demographics		✗	
Life events		✗	
Health		✗	
Education		✗	
Current job		✗	
Occupational calendar		✗	
Income		✗	
Social network			✗
Leisure			✗
Social participation			✗
Politics			✗
Religion			✗
Psychological scales			✗

[a]Last job refers to the last job held prior to entering the panel for those respondents who were not employed at the time of the first interview.

retrospective individual biographical data were collected. Respondents completed a life history calendar covering their entire life course starting from birth.

The SHP_III life history calendar is presented as a two-way grid on paper with the temporal dimension (in years) for the rows and various life domains in the columns. Respondents were asked to report events for each domain in this grid. This questionnaire was developed with the NCCR LIVES, a Swiss National Centre of Competence dedicated to life course research. Thus, the SHP_III has an original design, combining retrospective biographical data with prospective longitudinal data. The life history calendar covers the following domains of life: (1) *residential trajectory*: residential mobility; (2) *residence permit*: the different residence permits of non-Swiss respondents; (3) *living arrangements*: with whom the respondent lived during the life course; (4) p*artner relationships*: partner relationships and changes in civil status; (5) *family events*: the occurrence and timing of family-related events such as births of children, parents' separation or divorce and deaths of family members; (6) *professional activities*: professional activities and periods during which the respondent received social benefits and (7) *health*: the occurrence and duration of different health problems. The grid and household questionnaires were carried out regularly.

Retrospective data also exist on a subsample of the SHP_I respondents (n = 5560). In 2001–2002, all SHP_I respondents were approached by mail with a

self-completion biographical questionnaire. This questionnaire collected information on education, work and family history.

4 Data Quality

4.1 Response Rates

Initial response rates (in the first wave) at the household level were 64% for SHP_I, 65% for SHP_II, 60% for SHP_III and 52% for SHP_IV. On the individual level, initial response rates (conditional upon household participation) were 85, 76, 81 and 74%, respectively. Figures 1 and 2 indicate the number of interviewed households and persons for the years 1999–2020 for all SHP samples.[4]

4.2 Quality Control and Data Cleaning

Prior to each wave, extensive pre-tests are carried out, checking correct technical functioning of filters and new items and running different scenarios. After the
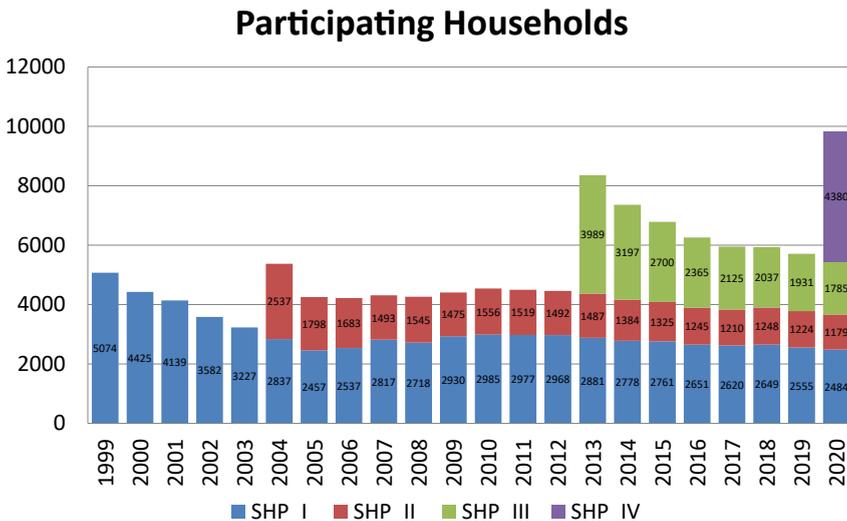
Figure 1: Participation at the household level.

---

4 Between 2006 and 2010 the number of respondents increased due to a change in how the SHP approached the formerly refusing households/individuals.

Participating Individuals
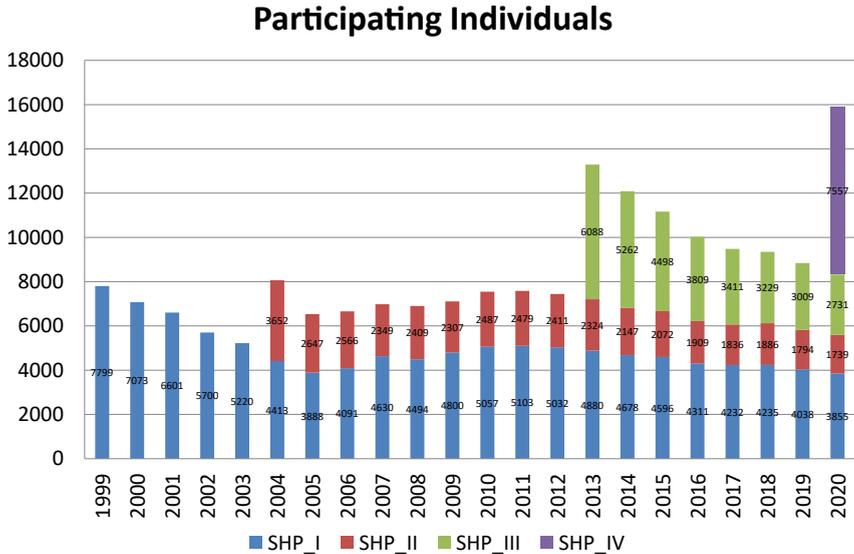
Figure 2: Participation at the individual level.

training of supervisors and interviewers, the fieldwork agency monitors the interviewer performance during the fieldwork: supervisors listen in to the interviews, evaluate interviewers on several criteria (e.g. accurateness and pace of reading, argumentation), document performance and give feedback to the interviewers. M.I.S. The trend carries out the training and monitoring of interviewers in collaboration with the SHP-Team.

The SHP-Team conducts the following consistency checks before the data release. First, the correct use of the filters in the questionnaire is checked. Second, the SHP-Team verifies the value range of all categorical variables. Values out of range are usually the result of recoding mistakes and are corrected. The value ranges of open questions are not scrutinized, because setting a limit beyond which point values become highly unlikely is always arbitrary.[5] Third, the SHP-Team checks whether there is information on all household members, and whether the number of household members adds up to the same number as in the household questionnaire. Finally, gender, date of birth and civil status are checked for consistency with earlier waves. For other variables the general rule is not to make changes retrospectively, i.e. when in a later wave of data collection an error is

---

5 For a number of questions the interviewer is prompted to verify the answer if the respondent gives an extreme value, notably with respect to questions on income.

found in an earlier wave, this is not corrected for the earlier wave (with the exception of constructed income variables, and constructed variables that have been verified during a later interview).

5 Enriching the SHP Data

5.1 SHP-Related Studies

The LIVES-FORS Cohort and SHP LIVES-Vaud surveys are separate studies but form additional samples of the SHP and can be combined with the SHP main samples. The studies have run in parallel and share most of the questions and modules.

The SHP LIVES-Vaud Survey is a stratified sample of the population in the canton of Vaud with an over-representation of low-income households. It was conducted annually from 2013 to 2018. The SHP LIVES-Vaud Survey uses the same design as the SHP and interviews all people older than 14 years in the household (1253 individuals were interviewed in the first wave). It is managed as a collaboration between the Department of Health and Social Action of the canton of Vaud, FORS and LIVES. In addition to the regular SHP questionnaire, the study included specific questions on social policies, welfare transfers and the financial situation of the household.

The LIVES-FORS Cohort aimed to build an extensive sample of second-generation immigrants across Switzerland. It ran for seven waves (from 2013 to 2019) and includes individuals born between 1988 and 1997 residing in Switzerland on the first of January 2013 and schooled in Switzerland prior to the age of 10. The sample over-represents second-generation immigrants (individuals whose parents were both born abroad and arrived in Switzerland after the age of 18 years). Starting from a stratified random sample, the selection process used a controlled network sampling method. Only the targeted member of the household completed an individual questionnaire (and not all household members as in the SHP). 1691 individuals were interviewed in the first wave.

In preparation for the refreshment sample SHP_IV, the SHP ran a two-wave pilot study in 2017 and 2018 to test the ways in which offering web as an alternative mode affects response rates, sample composition and measurement. The pilot study compared the standard SHP CATI-based fieldwork (and recruitment) strategy with two online alternatives: a mixed-mode group (telephone for the household-level questionnaires plus web for the individual questionnaires) and a web-only group. In all, 3384 individuals were interviewed in the first wave. The data of the pilot are especially suited to answer methodological research questions

related to interview mode in household panels. As the study is based on a stratified random sample and uses the complete SHP questionnaires, the data can also be used for substantive analysis. It is important to note, however, that the weights provided with the data do not weigh for the mode of data collection and the sample of the pilot cannot be easily combined with the main samples of the SHP.

5.2 SHP Covid-19 Supplemental Study

The outbreak of the coronavirus disease 2019 (Covid-19) pandemic in 2020 and the economic crisis that followed has had a profound global impact. To get more insight into how the population has been affected by and fared during the first lockdown, the SHP conducted an additional wave of data collection between Wave 21 and 22 (May-June 2020). 5843 individuals were interviewed. The SHP Covid-19 Study questionnaire was administered using web and paper questionnaires and covered the following topics: (1) Health, (2) employment, (3) financial situation, (4) homeschooling from the perspective of pupils/students, (5) time use, (6) reconciliation of work and family, (7) wellbeing, (8) social cohesion, (9) evaluations of government policies and (10) social support from the perspective of older people. The Covid-19 Study questionnaire included a number of questions taken from the main SHP questionnaire as well as additional measures specific to the situation experienced in relation to the pandemic. The information collected in the Covid-19 Study can be linked to past and future waves of the SHP, allowing longitudinal analyses on the consequences of the pandemic in the short- and longer-term. In such longitudinal analyses, it is important to account for a change in mode to obtain reliable conclusions.

5.3 Enhancing the SHP with Additional Variables

There are possibilities for users to link SHP data with contextual variables. For example, the SHP provides the occupational classification of employed persons following the International Standard Classification of Occupations (ISCO). The ISCO code allows researchers to link SHP data with further information on job-specific tasks.

The SHP also offers possibilities for spatial analyses. With information on the residences of SHP respondents, it is possible to link cases with spatial indicators at various spatial levels, such as municipalities and postal codes. Moreover, the use of the exact geo-location is possible under certain conditions.

In the future, a challenge for the SHP lies in the potential use and dissemination of administrative data. This type of data linkage aims at obtaining high-quality information from existing registered data. Data linkage presents several advantages. For instance, questions related to income, insurance or educational and professional trajectories might be more precise through registered information than through individual answers. However, the main difficulty of data linkage is to comply with existing procedures and legislation of data protection, security, data access and data archiving.

5.4 Analyzing SHP in a Comparative Perspective

Since 2008 the SHP participates in the Cross-National Equivalent File (CNEF). The CNEF contains equivalently defined variables for the American Panel Study of Income Dynamics (PSID), the German SOEP, BHPS/UKHLS, the Household Income and Labour Dynamics in Australia (HILDA), the Canadian Survey of Labour and Income Dynamics (SLID), the Korea Labor and Income Panel Study (KLIPS), the Japan Household Panel Survey (JHPS), the SHP and the Russia Longitudinal Monitoring Survey (RLMS). The data are designed to allow cross-national researchers access to harmonized versions of these panels.

Moreover, the SHP data are also included in the Comparative Panel File (CPF). CPF harmonizes the world's largest and longest-running household panel surveys from seven countries: Australia (HILDA), Germany (SOEP), United Kingdom (BHPS and UKHLS), South Korea (KLIPS), Russia (RLMS), Switzerland (SHP) and the United States (PSID). The project aims to support the social science community in the analysis of comparative life course data.

Moreover, the SHP contains variables in various domains that can be compared with other panels, such as political behaviour and values (for example, the left-right self-placement scale, interest in politics, participation in polls and general trust in people), social participation (for example, participation in sport/leisure associations, unions, political parties or charitable organisations), leisure and culture (different items broadly comparable with those of the SOEP and the UKHLS), religion (with usual questions on religious affiliation and participation in religious services) and psychological scales (for example, the Morally Debatable Behaviour Scale, subjective wellbeing scales, sense of control or personality traits). In addition, the SHP provides internationally comparable constructed variables for research in social stratification in particular (such as Treiman's prestige scale or the European Socio-Economic Classification (ESeC)).

6 Scientific Impact

The value of the SHP as a tool to investigate social change is also demonstrated in the large number of publications in various disciplines that have been based on the data. These studies have addressed a wide variety of topics, including for example changes in wellbeing following major life events (Anusic et al. 2014); changes in social contacts over the life course (Kalmijn 2012); mutual influence between mothers, fathers and children with respect to support for political parties (Fitzgerald 2011); the impact of parental divorce on political and civic participation (Voorpostel and Coffé, 2014); the relation between conspicuous consumption in the neighbourhood and income satisfaction (Winkelmann 2012); the determinants of change in physical activity levels in young adults (Zimmermann-Sloutskis et al. 2010); the perceptions of job insecurity among employees (Baruffini 2019); lone mothers' employment trajectories (Struffolino et al. 2020); the consequences of unemployment for social networks (Rözer et al. 2020); and the effects of self-mastery on adolescent and parental mental health (Filipponi et al. 2020). The SHP has also featured in many cross-national comparative studies. Examples include studies on the causal connection between civic engagement and generalised trust in several countries (van Ingen and Bekkers 2015); the stability of political interest over time in different countries (Prior 2010); the relationship between unemployment and wellbeing in Germany and Switzerland (Oesch and Lipps 2012); the impact of political discord in the family on engagement in politics in Switzerland, Germany, and the UK (Fitzgerald and Curtis 2012), the stability of loneliness across the life span in Germany, Switzerland, Australia and the Netherlands (Mund et al. 2020), the comparison of age and period effects on levels of subjective well-being in Australia and Switzerland (Chesters et al. 2021), and the consequences of intergenerational social mobility for the transmission of political ideology in Switzerland and Germany (Van Ditmars 2020).

A recently published volume also shows the variety of topics that can be addressed from the data (see Social Dynamics in Swiss Society) (Figure 3).

In addition, SHP data are used by important institutions in Switzerland such as the State Secretariat for Economic Affairs, the Federal Statistical Office, the Swiss Health Observatory and the Federal Social Insurance Office.

7 Data Access

The SHP data and documentation (questionnaires, User guide, etc.) are available at no charge through FORSbase. Users must sign a user agreement to get access to

SHP publications cumulated
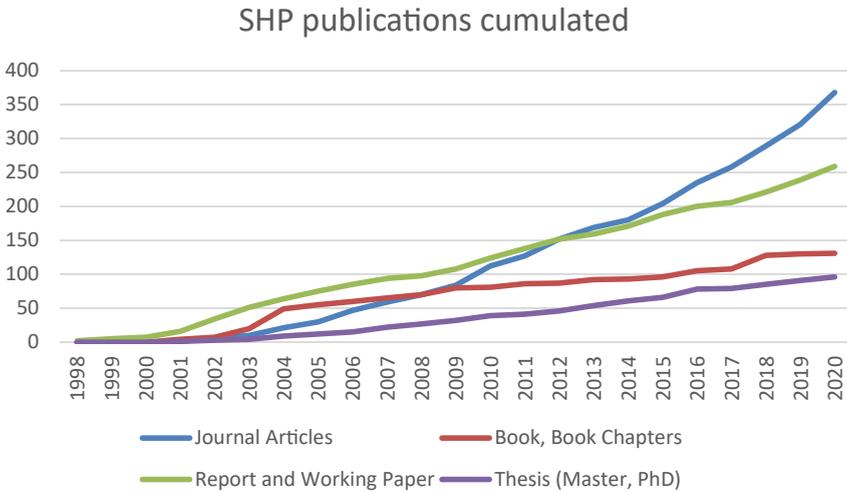
Figure 3: Shows the number of SHP cumulated publications by types for the years 1998–2020.

the data. The data are also available for teaching. The procedure is explained on the SHP website, with a link to FORSbase: https://forscenter.ch/projects/swiss-household-panel/data/.

Link to SHP data and documentation: https://forsbase.unil.ch/project/study-public-overview/17411/0/.

Link to SHP-Vaud data and documentation: https://forsbase.unil.ch/project/study-public-overview/13493/0/.

Link to LIVES-FORS Cohort data and documentation: https://forsbase.unil.ch/project/study-public-overview/15638/0/.

Link to SHP_IV Pilot Study data and documentation: https://forsbase.unil.ch/project/study-public-overview/16977/0/.

8 Concluding Remarks

This paper described the main aspects of the SHP and analysed how it is distinctive as a long-term longitudinal survey. The SHP has been collecting high-quality data on Swiss households for 22 years, and it has good prospects to continue for many more years to come. With 22 years of observation, the SHP is an extremely valuable source of data for researchers in the social sciences in Switzerland and abroad. The SHP aims to provide both continuity and innovation in measurement and data collection. Notable innovations were the design of the SHP_III, which combined

retrospective and prospective longitudinal data, the implementation of a mixed-mode survey for the SHP_IV, and additional studies oversampling specific population groups.

The importance of the SHP for the research community is borne out by its large number of active data users, who have contributed to an impressive list of publications based on the SHP data, covering a very broad spectrum of research domains. This is a strong indication that the multidisciplinary SHP survey serves the research needs of a diverse and interdisciplinary academic community, both nationally and internationally.

References

Anusic, I., Yap, S.Y., and Lucas, R. (2014). Testing set-point theory in a Swiss national sample: reaction and adaptation to major life events. Soc. Indicat. Res. 119: 1265–1288.

Baruffini, M. (2019). Perceptions of job insecurity in Switzerland: evidence using verbal and numerical descriptors. Int. J. Environ. Res. Publ. Health 16: 1785.

Buck, N. and McFall, S. (2011). Understanding Society: design overview. Longitud. Life Course Stud. 3: 5–17.

Budowski, M., Niklowitz, M., Scherpenzeel, A., Tillmann, R., Wernli, B., and Zimmermann, E. (1998). *Aims and architecture of the Swiss household panel*. Neuchatel: Swiss Household Panel.

Chesters, J., Simona, J., and Suter, C. (2021). Cross-national comparison of age and period effects on levels of subjective well-being in Australia and Switzerland during volatile economic times (2001–2016). Soc. Indicat. Res. 154: 361–391.

Filipponi, C., Schulz, P., and Petrocchi, S. (2020). Effects of self-mastery on adolescent and parental mental health through the mediation of coping ability applying dyadic analysis. Behav. Sci. 10: 182.

Fitzgerald, J. (2011). Family dynamics and Swiss parties on the rise: exploring party support in a changing electoral context. J. Polit. 73: 783–796.

Fitzgerald, J. and Curtis, K.A. (2012). Partisan discord in the family and political engagement: a comparative behavioral analysis. J. Polit. 74: 129–141.

Goebel, J., Grabka, M.M., Liebig, S., Kroh, M., Richter, D., Schröder, C., and Schupp, J. (2019). The German Socio-economic panel (SOEP). J. Econ. Stat. 239: 345–360.

Hastings, C., Mosteller, F., Tukey, J.W., and Winsor, C.P. (1947). Low moments for small samples: a comparative study of order Statistics. Ann. Math. Stat. 18: 413–426.

Joye, D. and Scherpenzeel, A. (1997). *Observation à long terme: Projet de panel. Programme Prioritaire Demain la Suisse*. Bern: Swiss National Science Foundation.

Kalmijn, M. (2012). Longitudinal analyses of the effects of age, marriage, and parenthood on social contacts and support. Adv. Life Course Res. 17: 177–190.

Kass, G. (1980). An exploratory technique for investigating large quantities of categorical data. Appl. Stat. 29: 119–127.

Lavallée, P. (2002). *Le sondage indirect ou la méthode généralisée du partage des poids*. Paris: Ellipses.

Mund, M., Lüdtke, O., and Neyer, F.J. (2020). Owner of a lonely heart: the stability of loneliness across the life span. J. Pers. Soc. Psychol. 119: 497–516.

Oesch, D. and Lipps, O. (2012). Does unemployment hurt less if there is more of it around? A panel analysis of life satisfaction in Germany and Switzerland. Eur. Socio Rev. 29: 955–967.

Prior, M. (2010). You've either got it or you don't? The stability of political interest over the life cycle. J. Polit. 72: 747–766.

Rözer, J., Hofstra, B., Brashears, M., and Volker, B. (2020). Does unemployment lead to isolation? The consequences of unemployment for social networks. Soc. Network. 63: 100–111.

Struffolino, E., Bernardi, L., and Larenza, O. (2020). Lone mothers' employment trajectories: a longitudinal mixed-method study. Comp. Popul. Stud. 45: 265–298.

Tillmann, R., Voorpostel, M., Kuhn, U., Lebert, F., Ryser, V.-A., Lipps, O., Wernli, B., and Antal, E. (2016). The Swiss household panel study: observing social change since 1999. Longitud. Life Course Stud. 7: 64–78.

van Ditmars, M. (2020). Opposing forces? Intergenerational social mobility and the transmission of political ideology. Swiss J. Sociol 46: 369–395.

van Ingen, E. and Bekkers, R. (2015). Generalized trust through civic engagement? Evidence from five national panel studies. Polit. Psychol. 36: 277–294.

Voorpostel, M. and Coffé, H. (2014). The effect of parental separation on young adults' political and civic participation. Soc. Indicat. Res. 124: 295–316.

Winkelmann, R. (2012). Conspicuous consumption and satisfaction. J. Econ. Psychol. 33: 183–191.

Zimmermann-Sloutskis, D., Wanner, M., Zimmermann, E. and Martin, B.W. (2010). Physical activity levels and determinants of change in young adults: a longitudinal panel study. Int. J. Behav. Nutr. Phys. Activ. 7: 1–13.