

Swiss Household Panel (SHP) Methodological Workshop **An introduction to the SHP and data management using R**

September 13-15, 2021

University of Lausanne,

Anthropole, room 2012 (Sept. 13, morning)

Géopolis, room 2145 (Sept. 13, afternoon – Sept. 15 2021)

Summary

This course is an introduction to the management and exploration of the various types of Swiss Household Panel (SHP) data, using R and the R-Studio environment.

The first day is an introduction to the SHP survey and data structure and to the R environment. Valérie-Anne Ryser will present the SHP, an ongoing, unique, large-scale, nationally representative, and longitudinal survey in Switzerland that has been collecting data on households and individuals since 1999. After the overview of the SHP data types (e.g., yearly personal and household files, life calendar files, additional studies) and their structure, Erika Antal, Hannah Klaas and Sandrine Morel will present the R environment and some basic commands.

From day 2, participants will tackle the challenges that data management of the SHP represents. Erika Antal, Hannah Klaas and Sandrine Morel will accompany the participants in this process. During the second day, participants will create a data file in the R environment, and discover solutions to the various problems encountered when importing, creating, merging and reshaping data files.

The third day, participants will explore the data file they have created, using commands for descriptive and inference statistics. Finally, they will get the opportunity to produce a data file that matches their own research question.

Course prerequisites

No previous knowledge of the SHP data or the R environment is required, but participants should be familiar with the basics of statistics and quantitative data management. The course is particularly adapted to PhD students or advanced researchers who are considering analyzing the SHP data with R.

To access the SHP Data, participants will need to register on [FORSbase](#) and complete the SHP data user agreement. To access the data, please register on [FORSbase](#) at least 24h before the workshop starts.

Format of the workshop

The course will be given in a computer lab – bring a memory stick to save your work.

If you prefer, bring your own laptop. Please make sure that you have already installed R and R-Studio on your computer before the start of the workshop (<https://www.r-project.org/> and <https://www.rstudio.com/products/rstudio/download/>) and that your versions are up to date.

Short biographies

Dr. Valérie-Anne Ryser, FORS

Valérie-Anne Ryser holds a PhD in social sciences from the University of Lausanne. At the Swiss Household Panel (SHP) since 2008, she is involved in data control and data cleaning activities for the yearly survey. Adopting a life course perspective, Valérie-Anne Ryser's research interests focus on family transitions and processes of regulations in old and very old age.

Dr. Erika Antal, FORS

Erika Antal's research interests are in the field of Survey Sampling Methods. Being responsible for the weighting system of the SHP, she builds up the different weights applying and adapting novice methods. She also contributes to the development of sampling strategies for other SHP related surveys (LIVES FORS Cohort Survey and the additional SHP LIVES Vaud data). She uses R to find simple solutions to complicated and time-consuming problems.

Dr. Hannah Klaas, FORS, LIVES Centre

Hannah Klaas' research combines perspectives from clinical, health and social psychology, sociology, and the life course. She is interested in the interplay between people's health and social variables (e.g., social integration, social categories or identities, social norms). She discovered the numerous advantages of R when she started her PhD using SHP data and related surveys 8 years ago. Since then, she has never regretted having abandoned SPSS.

Sandrine Morel, UNIL-LINES, FORS-SSP scientific research Programme

Sandrine Morel is a PhD Candidate at the Life Course and Inequality Research Centre and a teaching assistant at the Institute of Social Sciences of the University of Lausanne. Besides, she contributes to the FORS-SSP scientific research Program through collaborations with the SHP-Team, notably the development of a new household typology. Her interests focus on the family life course and social norms, investigated on a general level and more specifically in relation to union dissolution. For analysing SHP Data from different files (annual individual and household questionnaires, biographical questionnaires, social origin files, ...), she uses R and the R-Studio environment, discovered for the first time during her bachelor's degree. Since that time, she keeps learning new features of these powerful and free tools.

Program

Day 1 Monday, Sept 13	Introduction to the Swiss Household Panel (SHP) and data management using R
09:00 - 17:00	<p>Morning, Anthropole building, room 2012</p> <p>Learn about the SHP Dr. Valérie-Anne Ryser (FORS)</p> <ul style="list-style-type: none">• General introduction to the Swiss Household Panel (SHP)• What are the main aims of the SHP?• How to collect longitudinal data on individuals and households?• Presentation of the structure of the data and data organization• How to store organized complex data at different levels (individuals, households) <p><i>We will take you to the Géopolis building in a 5 minutes' walk where we can have lunch and where the rest of the workshop will take place.</i></p> <p>Afternoon, Géopolis building, room 2145</p> <p>Discover the R environment Dr. Erika Antal (FORS), Dr. Hannah Klaas (FORS, LIVES Centre), Sandrine Morel (UNIL-LINES)</p> <ul style="list-style-type: none">• General introduction to the R environment• Introduction of basic commands

Dr. Erika Antal (FORS), Dr. Hannah Klaas (FORS, LIVES Centre) and Sandrine Morel (UNIL-LINES) will lead through days 2 and 3 at **Géopolis building, room 2145**.

Day 2 Tuesday, Sept 14	Data file creation and management using R – from simple but slow to complex but fast solutions
09:00 - 17:00	<p>Morning</p> <p>Create data files</p> <ul style="list-style-type: none"> • Data importation • Variable selection • Data subsets <p>Afternoon</p> <p>Transform data files</p> <ul style="list-style-type: none"> • Matching files (personal and household; partner; several years; life calendar data) • Reshaping files (creating long files)
Day 3 Wednesday, Sept 15	Exploration and applications
09:00 - 17:00	<p>Morning</p> <p>Explore and analyse the data</p> <ul style="list-style-type: none"> • Basic descriptive and inference analyses • Presentation of the SHP weighting scheme <p>Afternoon</p> <p>Create your own data file</p> <ul style="list-style-type: none"> • Each participant applies the commands for his/her own research • Questions and answers

Location

The workshop is hold at the University of Lausanne, Building Anthropole, room 2012 and Géopolis, room 2145. The UNIL Campus is easily accessible:

- **By public transports (train/metro/bus)**

From **Lausanne** railway station: take the metro M2 in direction Croisettes (or Sallaz) for one stop (Lausanne-Flon). There, take the metro M1 in direction of Renens (or EPFL) and get off at UNIL-Chamberonne for the Anthropole building and UNIL-Mouline for the Géopolis building.

From **Renens** railway station: take the metro M1 in direction of Lausanne-Flon and get off at UNIL-Chamberonne for the Anthropole building and UNIL-Mouline for the Géopolis building. From Renens railway station you can also take the bus 31 going to Venoges sud and get off at UNIL-Mouline.

- **By car**

Take the motorway in direction of “Lausanne-Sud”, leave at “UNIL-EPFL” and follow “UNIL” to Chamberonne respectively Mouline quarter. Please note that there is no free car park.

Lausanne has several long-term Parking+Relay lots (P+R) that you can use in combination to public transports (bus and/or metro). See [Lausanne website](#) for more information (only in French).

