

Adding household surveys to the behavioral economics toolbox: Insights from the SOEP Innovation Sample

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Veröffentlichungsversion / Published Version

Arbeitspapier / working paper

Zur Verfügung gestellt in Kooperation mit / provided in cooperation with:

Wissenschaftszentrum Berlin für Sozialforschung (WZB)

Empfohlene Zitierung / Suggested Citation:

Fischbacher, U., Neyse, L., Richter, D., & Schröder, C. (2022). *Adding household surveys to the behavioral economics toolbox: Insights from the SOEP Innovation Sample*. (Discussion Papers / Wissenschaftszentrum Berlin für Sozialforschung, Forschungsschwerpunkt Markt und Entscheidung, Abteilung Verhalten auf Märkten, SP II 2022-201). Berlin: Wissenschaftszentrum Berlin für Sozialforschung gGmbH. <http://hdl.handle.net/10419/251788>

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Working Paper

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WZB Discussion Paper, No. SP II 2022-201

Provided in Cooperation with:
WZB Berlin Social Science Center

Suggested Citation: Fischbacher, Urs; Neyse, Levent; Richter, David; Schröder, Carsten (2022) : Adding household surveys to the behavioral economics toolbox: Insights from the SOEP Innovation Sample, WZB Discussion Paper, No. SP II 2022-201, Wissenschaftszentrum Berlin für Sozialforschung (WZB), Berlin

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Wissenschaftszentrum Berlin
für Sozialforschung



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SP II 2022–201

March 2022

Social Science Research Center Berlin (WZB)

Research Area

Markets and Politics

Research Unit

Market Behavior

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Adding household surveys to the behavioral economics toolbox: Insights from the SOEP Innovation Sample

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Abstract

Integrating economic experiments into household surveys provides unique possibilities. We introduce the German Socio-Economic Panel's Innovation Sample (SOEP-IS), which offers researchers detailed panel data and the possibility to collect personalized experimental and survey data for free. We present the options that this provides and give examples illustrating these options.

Keywords: Experiments, Household Survey, Panel Study, Economic Methods, Economic Preferences, Behavioral Economics, SOEP

JEL Codes: C83, C9, D1, D9

1 Introduction

Laboratory experiments are one of the most important methods in the toolbox of behavioral economics as they offer a highly controlled environment to understand economic behavior. One of the most important advantages lies in the possibility to use monetary incentives to set up specific controlled economic environments. This allows constructs to be defined in a parametric way and, in particular, it allows measuring economic preferences. Despite their strengths, laboratory experiments have certain limitations. They are not based on representative samples and have no panel dimension. There is also limited data on participants available (e.g., health, income, wealth, or family background). Some of these shortcomings are tackled by approaches such as field or online experiments.

In this article we discuss what household panels can offer behavioral economists. Clearly, integrating experiments into panel studies is not a new approach in behavioral research. There are many important studies that benefited from household survey data (e.g. Bellemare and Kröger, 2007; Bellemare et al., 2008; Dimmock et al., 2016; Dohmen et al., 2011; Falk et al., 2018; Fehr et al., 2003; Von Gaudecker et al., 2011 and a large proportion of those studies use data from German Socio-Economic Panel (SOEP), one of the longest-running socio-economic panels in the world.¹ Our aims are twofold in this paper: First, we introduce SOEP-Innovation Sample (IS) to behavioral economists, which offers rich, free-of-charge panel data to the research community and also the possibility to integrate economic experiments and surveys. Our second aim is to provide insights on study designs for behavioral economists in this context. To do so, we present a selection of studies that use SOEP-IS data with various designs that would be rather difficult to collect in the standard laboratory or field settings.

¹See Table A3 for a list of frequently used panel studies on national level.

2 The SOEP Innovation Sample

2.1 Overview of SOEP-IS

The SOEP-IS is a panel study that has been running since 2012. It offers researchers the opportunity to collect data tailored to their specific research questions (see Richter, Schupp, et al., 2015). As a result, in addition to containing a broad set of standard survey questions on socio-economic and socio-demographic background, SOEP-IS incorporates data gathered through user-designed surveys and experimental modules.

Every year, interested researchers can propose their projects to SOEP survey management. Additionally, all SOEP-IS data and the past innovation modules that are not in an embargo period are available to researchers, even if they have never proposed any innovation modules.

2.2 Sample and interview procedure

SOEP and SOEP-IS are random samples of German households. In 2011, the number of respondents in SOEP-IS was 2,506 (1,504 households), with additional boost samples increasing this number to 5,633 (3,717 households) in 2018.

In 2018, the sample covered the whole adult age range from 17 to 97 years, comprising respondents with differing levels of education (15% low education; 56% medium education; and 29% high education), work situations (35% working full-time, 15% working part-time, 23% retired, 27% not working), and marital statuses (23% single, 56% married, 13% divorced, 8% widowed). In addition, 28% of respondents lived in households with children aged 16 years or younger, and in these households, the primary caregiver (usually the mother) provided yearly information on their children's development.

The whole pool of SOEP-IS participants, or a subsample thereof, can participate in a newly proposed module. In either case, the sample size requirements should be reported and justified (e.g., with power analysis) in the application. Data collection is done through computer-assisted personal interviewing (CAPI). This means that interviewers visit households personally to collect the data with the help of portable devices (e.g.,

laptops or tablets). In the case of tasks where anonymity is required, such as economic experiments, interviewers leave the room or home, giving the respondents space to make decisions on their own.

2.3 Module submission and evaluation

Survey questions and experiments from accepted proposals (acceptance rate is around 25%) are introduced into SOEP-IS at no additional cost. Yet, applicants are expected to secure outside funding to cover the costs of any incentives for behavioral experiments or the collection of biomarkers (e.g., saliva) if envisioned by the proposal. Applicants who plan to apply for outside funding for a module can ask for a support letter from SOEP-IS. Furthermore, modules that are funded by the German Research Foundation (DFG) usually have an advantage in the selection process. All proposals are evaluated according to scientific quality, suitability, and feasibility. Table A1 presents the usual timeline for SOEP-IS applications.²

2.4 Content

SOEP-IS contains modules from various academic disciplines. With these modules, behavioral economists can address countless interdisciplinary research questions. In Table 1, we present a small set of variables that would interest behavioral economists. We also present a standard set of socio-economic variables in Table 2. The complete list of previous innovation modules and details of experiments conducted in SOEP-IS can be found in the regularly updated Kara et al. (2021).

²Extensive information on SOEP-IS is provided on the website (<http://www.diw.de/soep-is>) and in an online resource, the SOEP-IS-Companion (<http://companion-is.soep.de>). The SOEP-IS-Companion is both a reference book and a practical guide. It provides information about the different questionnaires, the composition of the sample, and the structure of the data.

Table 1: A selection of focal variables relevant for behavioral economists

Behavioral variables		Year / N	Notes
1	Risk attitudes	Every Year / Full Sample	Self-reported Likert scale
2	Time preferences	2014 / Full sample	Self-reported Likert scale
3	Patience / impulsivity	2013, 2018 / Full sample	Self-reported Likert scale
4	Reciprocity	2015 / Full Sample	Self-reported Likert scale
5	Locus of control	2017 / Full Sample	Self-reported Likert scale
6	Trust	2013, 2018 / Full Sample	Self-reported Likert scale
7	Life satisfaction in different domains	Every Year / Full Sample	Self-reported Likert scale
8	Cognitive abilities	2020 / Full Sample	3 Item CRT; procedure includes beliefs about self and others
9	Personality scales	2013, 2015, 2017 / Full Sample	Big-5
10	Overconfidence in different life domains	2014 / Full Sample	Non-incentivized overplacement questions in different domains
11	Domain-specific risk preferences	2014 / Full Sample	Self-reported Likert scale
12	Honesty	2020 / N \sim 2, 200	Dice-rolling game (incentivized)
13	Social comparison	2018 / N \sim 1, 500	INCOM social comparison scale

Table 2: A selection of background socio-economic variables

1	Date of birth	9	Children
2	Gender	10	Job experience
3	Education	11	Region of residence
4	Occupation	12	Working hours
5	Household income	13	Details on income
6	Individual income		(e.g. social support, pensions)
7	Household size	14	Living in an urban area
8	Marital status	15	Detailed health questions

2.5 Data access and documentation

The SOEP Research Data Center distributes the SOEP-IS data as an independent dataset to researchers at universities and research institutes around the world for research and teaching purposes. The data from SOEP-IS modules are provided exclusively to those researchers who submitted the respective proposals up to the end of the embargo period of 12 months. After that point in time, the data are released to the entire SOEP user community for secondary analysis.

The direct use of SOEP-IS data is subject to the strict provisions of German data protection law. Therefore, a signed SOEP data distribution contract is therefore a precondition for working with SOEP-IS data (<http://www.diw.de/soep-contractmanagement>). After the application for data use has been approved, users can download the data from SOEP servers through a secure data transfer system. The average duration of the process is 1 day.

2.6 Delivery of the data

The datasets can be provided to researchers in various data formats depending on their needs. The relevant socio-economic variables and standard self-reported attitude and well-being variables (e.g., subjective well-being in different life domains, risk attitudes, patience, health conditions, etc.) are already included in the datasets released to users in “long” format (i.e., data from all survey years in a single dataset). All data from the SOEP-IS modules are in a separate dataset, which is provided in “long” format as well.

3 Specific advantages of SOEP-IS and panel studies

In this section we summarize specific advantages of SOEP-IS. Although our main focus is SOEP-IS in this discussion, other panel studies share some of these advantages too.

1– *The possibility to integrate new modules (i.e., questions and incentivized experiments)*: While standard panel items, such as questions on socio-economic status, life satisfaction, and risk attitudes, constitute about half of the annual survey, the other half is reserved for the selected innovation modules. The combination of these two sets of variables makes it possible to investigate relationships between socio-economic variables and the module contents. Further, the panel structure and the possibility to re-run certain innovation modules enable researchers to study intertemporal relationships. Because information on respondents is available from previous years, it is also possible to distribute differently framed modules and treatments to various subpopulations.

A major strength of panel data is the fact that panel studies collect the same content over and over again in a comparable manner over time. This enables reliable analyses over time, but also results in a weakness of panel data: comparatively rigid content. SOEP-IS overcomes this by allowing the integration of new content, from questions to more complex experiments developed by users themselves.

2– *Annually collection of longitudinal data:* Panel data on stated preferences can be used to study whether the assumption of time-invariant exogenous preference parameters is correct. SOEP-IS also allows researchers to track respondents over their life courses and to combine this information with specific complementary information from innovative modules or experiments. It thus allows assessments of whether the estimated parameters explain people’s decisions across the life course. Panel attrition is generally low in the SOEP (below 10% per year) and the same is true for SOEP-IS.³ In addition, the characteristics of drop-outs can be analyzed based on the data gathered in the survey years before the drop-out. Last, not but not least, the panel structure allows for causal estimation (e.g. difference in difference, regression discontinuity design or fixed effects estimation).

3– *Representative & broad respondent base allowing for targeted selection (i.e., preloading) and assignment to treatments :* SOEP-IS offers a special feature: Because of its panel dimension, different characteristics of respondents are known. This content can be used, for example, to design group-specific vignettes or experiments. For example, by means of a preload, a labor market experiment could be differentiated depending on respondents’ employment status in the previous period, hourly wages, or qualifications.

³Only special-interest samples (e.g., refugees or high-wealth samples) have higher drop-out rates.

4– *Combining household panel and experiment data*

4a– *Cross-validation of information from survey questions and experimental settings:*

It is sometimes argued that the contents of simple surveys may be invalid because people do not always mean what they say (Bertrand and Mullainathan, 2001). Therefore, it is important to check construct validity using incentive-compatible survey forms. Here, panel studies offer a variety of options, such as a split design with incentivization of a subsample.

4b– *Possibility to measure preference parameters (e.g. risk or time preferences) and link them to economic variables in the panel:* SOEP-IS can be used to test whether stated preferences have an effect on behavior—for example, whether risk or time preferences affect savings behavior or investments. Rich content of the panel enables detailed analyses to infer causal relationships and control for numerous other factors that can affect the examined relationships.

4c– *Replication and external validation of lab experiments:* Laboratory experiments face two questions of generalizability: First, can the results in the laboratory situation be transferred to a real-life situation —Is behavior in a real effort task in the lab comparable to behavior in the workplace? Second, can the laboratory experiments, which are usually based on small (selective) samples, be generalized to the population? SOEP-IS has comparative strengths in both respects: On the one hand, participants are familiar with the survey environment and, on the other hand, the sample is large and random. Thus, SOEP-IS provides an important option for large-scale replication of laboratory experiments.

As a supporter of good scientific practice and open science, SOEP-IS invites (but not obliges) applicants whose proposals have been accepted to pre-register their hypotheses and pre-analysis plans in an online repository. In line with this view, the standard SOEP-IS module application requires certain details of the modules to be specified, including the dependent and independent variables, planned analyses, and power calculations. These requirements aim to encourage researchers to plan their study even before data collec-

tion. One of the key concerns of the SOEP-IS team is that the data are abandoned, for example, in case of a null result. To tackle this issue, the team allocates these modules to graduate students and young researchers after the embargo period and supports them in writing their own articles with the data. If they choose not to write papers with the data, SOEP-IS stores the cleaned data and analysis code for future users.

5– *Permanent scientific data infrastructure:* The data are collected, processed, and archived anew every year. As a result, the time frame over which respondents can be observed expands over time. This increases the potential for intertemporal analysis. With the data, it is now even possible to implement analysis concepts in which stated preference parameters measured “today” are explained by respondents’ histories, and in which both serve as explanatory variables for decisions in later years. For example, behavioral questions such as “How is support for higher taxes shaped by income changes and risk preferences?” or “How do risk preferences and income interact over the life course?” can easily be investigated in a panel study. The appendix provides an illustration of an analysis based on SOEP-IS data on income redistribution.

6– *Providing data that are shared by several disciplines fosters interdisciplinary research:* Although scientists often have excellent subject-specific knowledge, they sometimes overlook what is happening in other disciplines. In fields such as behavioral economics and psychology, as well as at the interface between educational science, economics, and sociology, a look at neighboring disciplines can often provide new impulses. SOEP-IS offers researchers from all disciplines the opportunity to jointly develop and evaluate survey content, thereby gaining more comprehensive insights than through a single-discipline approach.

4 Study designs from previous modules

As outlined in the previous subsection, SOEP-IS offers various opportunities to investigate research questions about economic behavior. In this section, we present a selection of studies that use SOEP-Core and SOEP-IS data, which can serve as examples for researchers who wish to utilize household surveys in their studies. Note that we neither provide an extensive literature review, nor do we discuss the results of these studies; rather we provide examples that illustrate the specific advantages of the use of experiments in a household survey.

4.1 Advantages of rich available data

1– *Household data and lab experiments can complement each other:*

Although we highlight the importance of moving beyond the lab, we do not imply a superiority of household surveys over lab experiments. A number of studies have benefited from both lab experiments and SOEP-IS (or SOEP-Core) data to investigate their research questions.

Integrating the first economics experiment module in SOEP-IS (2012), Breunig et al. (2021) study investment decisions of nearly 1,200 respondents. In this module, respondents decide whether to invest their endowments in a safe or a risky asset where payoffs are tied to Germany’s stock market. Besides investment decisions, the module elicits respondents’ beliefs about the returns on their decisions and about the German stock market’s performance in the following year. The study uses additional experimental data from the lab to investigate the findings of the survey experiment further. It is a good example of how experimental data collected in SOEP-IS can be paired with additional lab experiments to investigate specific research questions that are more difficult to disentangle in the field.

2– *Decisions in the lab and decisions in real life:*

Risk preferences are a central construct in the behavioral sciences and one that is often used to account for choices made in diverse domains such as finance (e.g., stock market

investments) or health (e.g., drug use). In 2015, a behavioral experiment in SOEP-IS utilized a within-subject design to assess the predictive power of different measures of risk taking behavior: decisions based on descriptions, in which the monetary outcomes and associated probabilities of each choice option were explicitly stated (i.e., a traditional lottery task). The results suggest that demographic characteristics (age, sex) are the most reliable correlates of risk preference. Conversely, household income, fluid intelligence, and years of education were either positively or negatively associated with risk preference, depending on how risk preference was operationalized (Frey et al., 2021).

4.2 Advantages of panel structure:

1– *Behavioral effects of shocks and exogenous life events:*

Graeber et al. (2020) use SOEP data to study how differences in regional COVID-19 infection rates alter risk preferences. Using information from the year before the pandemic and during the first months of the pandemic in Germany, they show that higher regional infection rates imply higher reductions in individual risk tolerance. Another type of shock can be new policies affecting behavior and preferences. In a recent study Fedorets and Shupe (2021) investigate the impact of the German minimum wage reform on workers' reservation wages. Employing difference-in-difference strategy, the authors compare the minimum acceptable salaries of job-seekers before and after the introduction of the minimum wage reform. These studies demonstrate how panel data can be helpful in investigating the implications of shocks for behavioral outcomes and alterations in preferences.

2– *Endogenous life events:*

Changes in preferences affecting behavior are not always triggered by exogenous and wide-ranging shocks, but also by individual changes in a person's life. Getting older, marrying, having children, losing a close relative, being laid off, or changing jobs are just a few examples. The rich set of panel data, with its large set of annually repeated socio-economic variables, make it possible to track changes in individuals' preferences

and behavior. Dohmen et al. (2017) used SOEP-Core data to investigate the relationship between risk attitudes and age. The risk elicitation question in SOEP-Core is identical to the one in SOEP-IS: “How do you see yourself: Are you generally a person who is fully prepared to take risks or do you try to avoid taking risks?”.⁴

There are numerous life-event studies using SOEP data, most of them investigating psychological research questions. For example, the study by Chopik et al. (2020) investigate how optimism and pessimism change in response to life events. Another study investigates changes in sleep patterns before and after childbirth (Richter et al., 2019).

4.3 Advantages of the rich composition of the subject pool

1– *Tackling external validity issues with a large, representative sample:*

One issue related to laboratory experiments is external validity. Panel studies can help test the external validity of results gathered in relatively small samples. For example, 2D:4D and economics preferences modules aimed to re-test the relationship between the second to fourth digit ratio (a suggested marker for prenatal testosterone exposure) and economic preferences. As prior studies had relatively small sample sizes and lacked consistent results, Neyse et al. (2021) integrated a 2D:4D measurement module in the SOEP-IS. The authors investigated the relationship between 2D:4D and a set of economic preferences (risk, positive and negative reciprocity, generosity, and trust). Similarly, in the field of psychology, the study by Lautenbacher and Neyse (2020) tested the relationship between 2D:4D and depression.

Another study that aimed to test lab results on the representative SOEP sample was the truth-telling module of Bosch-Rosa, Neyse, and Nosenzo (2020 SOEP-IS wave). Over 2000 experimental subjects played the truth-telling games of Fischbacher and Föllmi-Heusi (2013) and Gneezy et al. (2018) in randomized order. In the Fischbacher and Föllmi-Heusi (2013) game, the player secretly rolls a die that determines how much money she will win. She is invited to report the number on the die without being monitored by the experi-

⁴The risk question in SOEP is experimentally validated by Dohmen et al. (2011), but there is still ongoing debate on the strengths and weaknesses of self-reported measures of risk taking and incentivized risk elicitation tasks.

menter. This means that she can misreport the number without being noticed. The latter game is the computerized version of the former, where the die is replaced with black boxes on the screen. In this version, it is possible to identify players who misreport the numbers. The module developed by Bosch-Rosa et al. aims to i) test the lab results on a representative sample; ii) investigate the socio-economic underpinnings of lying behavior; and iii) investigate the differences between the two versions of the task.

2– Preloading and behavior of specific groups:

In the large majority of experimental studies, data are gathered either from student samples or from subjects who were randomly recruited in the field. While randomization is one of the crucial elements of experimental methodology that increases the generalizability of the results, it is particularly challenging to use experimental studies to study the behavior of specific groups. For example, income inequality can be integrated into experimental designs through endowment heterogeneity. Studying the impact of wealth on behavior and preferences (e.g., risk preferences of wealthy individuals), however, is not as straightforward. Since household panel surveys have cumulative information on respondents' socio-economic backgrounds, history of life events, and even their preferences, respondents can be recruited for behavioral studies based on their education level, economic preferences, profession, employment history, and many other available variables collected over years. Fossen et al. (2021), for example, use SOEP-IS data to study individuals who have experience with self-employment. Furthermore, Fossen et al. (2020) study the risk preferences of a socio-economic group that is rarely found in household surveys but that is now covered in the SOEP: millionaires.

3– Getting more personal: household behavior:

While a large set of experiments focus on individual decisions, there is a growing body of literature on collective decision making and decision making for others. These studies often depend on random matching protocols, where anonymous subjects are matched in the laboratory setting. On the one hand, the anonymity of the laboratory helps re-

searchers to investigate economic decisions in a setting where personal interactions and biases are isolated. For example, generosity that an anonymous dictator game elicits in the lab setting is based on an actual monetary decision that is not aimed at a particular individual but at an anonymous participant. While this is an advantage for specific research questions such as “are people solely interested in maximizing their own profits, or do they have other-regarding preferences?”, it is relatively difficult to investigate behavior in people’s actual relationships. In real-life situations, individuals may consider how their decisions will affect relatives. Parents making investment decisions, for instance, are usually well aware that their decisions will directly affect their children. Such decisions are difficult to address in the laboratory but ideal to study in household surveys. Engel et al. (2018), for example, elicit risk decisions of household members who make decisions for themselves and also for other members of the household. Existence of decision patterns at the household level might also suggest that household surveys are helpful in studying generational spillovers of certain preferences, decisions, and behaviors. In another study, Bacon et al. (2014) study the correlation of risk attitudes between spouses.

4.4 Good scientific practice: Replication, reproducibility, and open science

Replication and reproducibility are two important components of good scientific practice. While SOEP-IS serves as an ideal platform for testing lab results and findings gathered from small samples, it is also a good resource for replication studies. In their recent direct replication study, Fossen et al. (2021) retest the findings of Nicolaou et al. (2018), which investigates the relationship between testosterone and the tendency to engage in entrepreneurship. Using data going back to 1998, the study investigated both the history of self-employment and respondents’ willingness to be self-employed in the near future.

5 Conclusion and Discussion

In this paper, we presented SOEP-IS, which offers rich, free, panel data to researchers along with the possibility to conduct innovative investigations with participants of a representative panel. This includes economic experiments. We then present a list of study designs based on previous studies that use SOEP and SOEP-IS data. Our purpose is to inform behavioral economists that panel studies are an ideal platform to validate laboratory findings and ask certain research questions that are rather difficult to investigate in standard experimental settings.

We argue that panel studies and experimental methods can complement each other, thus enriching the research of behavioral economists. On the one hand, the richness of the established household panels, with panel dimensions, representative samples, and the possibility to track heterogeneities with interdisciplinary data are only some of the advantages. On the other hand, panel studies have certain drawbacks, such as limited control, long waiting times when integrating new modules, or having time restrictions in data collection. Despite their limitations, adding panel surveys to the behavioral economists' toolbox can help understand economic behaviors further.

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6 Appendix

Table A1: Timeline for SOEP-IS Module Applications

30 November / Year 0	Deadline for e-mail to SOEP-IS team with a brief description of proposed project
31 December / Year 0	Deadline for full proposals
April / Year 1	Notification of acceptance
September-December / Year 1	Data collection
April / Year 2	Delivery of raw data
April / Year 3	Delivery of final data (including harmonized variables and survey weights)
April / Year 4	End of embargo period

6.1 Illustration of research potentials: Antecedents and outcomes of attitudes towards redistribution

The particular strength of SOEP-IS is that it allows researchers to analyze, on the one hand, how respondents' biographies (antecedents) shape the preferences (or other outcomes) stated in a specific SOEP-IS module and, on the other, whether the respondents' stated preferences have explanatory power for outcomes measured at a later point in time.

For illustration, we use data from a SOEP-IS module on attitudes toward redistribution. In 2014, SOEP-IS respondents were asked to assess the following types of statements:

Statement 1: "Taxes on those with high incomes in Germany should be increased."

Statement 2: "Financial help to those with low incomes in Germany should be increased."

The five response categories ranged from 1 "fully disagree" to 5 "fully agree." The reported attitudes can be linked with respondents' socio-demographics and preferences surveyed in past, present, and future waves. The information can be used to assess, after controlling for respondents' characteristics and preferences, whether (i) experiences in the past explain attitudes in the present and (ii) attitudes in the present explain outcomes in the future. This strategy uses the strength of a panel-integrated behavioral module:

the possibility to link the information elicited in the module with respondents' pasts and futures.

Model 1 investigates whether a preference for redistribution in 2014 can be statistically explained by income and risk preferences "today" in 2014, average monthly income in the past (2012 and 2013),⁵ having been socialized in the former German Democratic Republic, age, and sex. Conversely, Model 2 investigates whether "future" average income (in 2015 and 2016) can be explained by preferences for redistribution, income, and risk preferences "today" in 2014, having been socialized in the former German Democratic Republic, age, and sex.

The results are detailed in Table A2. According to Model 1 (antecedents), support for higher taxes is not sensitive to income in the past, while support for higher taxes decreases with income in the past. Higher income today implies lower support for higher transfers and higher taxes, while a higher risk preference today, surprisingly, implies higher support for higher transfers. Females prefer higher transfers than men, but they do not differ from men regarding attitudes to taxation. Elderly people prefer higher taxes (but not transfers), while respondents who were socialized in the GDR prefer both higher transfers and taxes. According to Model 2 (outcomes), tomorrow's income increases in today's income and is lower for older respondents and those socialized in the GDR. Future income is also lower for those who prefer higher future transfers (left column) and more progressive taxation (right column).

⁵Note that all incomes reported in thousands of Euros and in 2014, all the respondents in our working sample were 25 years or older.

Table A2: Antecedents and Outcomes of Attitudes Toward Redistribution

Dependent Var.:	Model 1		Model 2	
	Support Higher Transfers	Support Higher Taxes	Future income	Future income
Past income	-0.050 (-1.24)	-0.082* (-1.98)	– –	– –
Present income	-0.146*** (-3.60)	-0.127** (-3.06)	0.868*** (103.29)	0.868*** (103.30)
Present risk	0.044** (3.15)	0.020 (1.45)	0.001 (0.14)	-0.000 (0.000)
Female	0.240*** (3.15)	-0.121 (-1.89)	-0.029 (-1.11)	-0.035 (-1.33)
Age	-0.001 (-0.69)	0.012*** (5.43)	-0.007*** (-8.87)	-0.007*** (-8.42)
Socialized GDR	0.282*** (3.76)	0.386*** (5.05)	-0.099 (-3.29)	-0.096** (-3.19)
Support higher transfers	–	–	-0.032** (-2.79)	–
Support higher taxes	–	–	–	-0.042*** (-3.78)
N	3,373	3,372	3,897	3,901

Note: t-statistics in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Estimates for cutoffs in ordered probit and regression constant in OLS not reported.

Table A3: Frequently used panel studies

	Study	Country
1	The Panel Study of Income Dynamics (PSID)	United States
2	Understanding Society	United Kingdom
3	The Swiss Household Panel (FORS)	Switzerland
4	German Socio-Economic Panel	Germany
5	DNB Household Survey (DHS)	Netherlands
6	Korean Labor & Income Panel Study (KLIPS)	South Korea
7	The Panel Data Research Center at Keio University (PDRC)	Japan
8	Russian Longitudinal Household Survey (HSE)	Russia
9	The Household, Income and Labour Dynamics in Australia Survey (HILDA)	Australia

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