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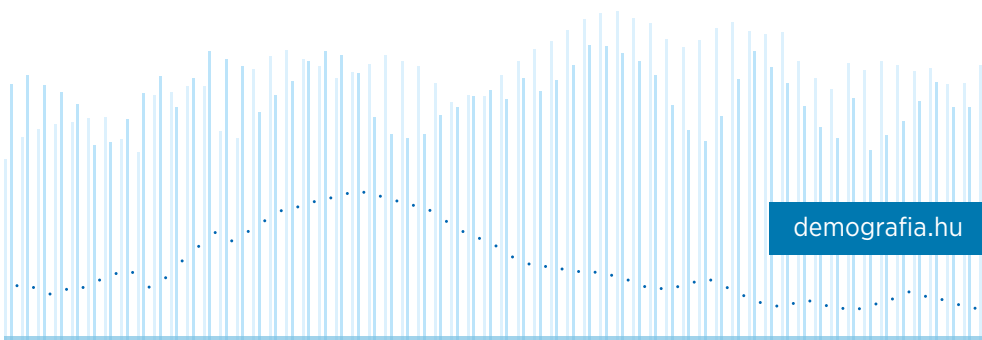
ON POPULATION, FAMILY AND WELFARE

N° 42

USER GUIDE FOR THE FIVE WAVES OF THE TURNING POINTS
OF THE LIFE COURSE PANEL SURVEY (THE HUNGARIAN
GENERATIONS AND GENDER SURVEY), 2001-2017

by

Zsuzsanna Makay, Balázs Kapitány, Judit Monostori,
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ABSTRACT

The Turning Points of the Life Course (TPLC) follow-up survey, carried out by the Hungarian Demographic Research Institute between 2001 and 2017, involved 16,363 respondents aged 18–75 at baseline, of whom 6,315 completed all five waves. The study was launched to document and analyse post-1990 demographic shifts in Hungary, such as declining fertility, delayed childbearing, the rise of unmarried cohabitation, as well as the social and economic context of these changes. The survey combined retrospective and prospective data to capture past life course events and future intentions. It was guided by theories of economic crisis, the second demographic transition, and social anomie. The longitudinal design of the study enabled causal analyses of how structural conditions, values, and attitudes shape demographic behaviour, going beyond the limitations of cross-sectional surveys.

From the second wave onwards, the TPLC was incorporated into the international *Generations and Gender Survey* (GGS), adopting its core questionnaire while retaining country-specific modules. The use of a stratified sampling method, systematic respondent tracking, and a gradual shift from paper-based to computer-assisted interviewing ensured the high quality of the data. Despite attrition, panel stability remained comparatively strong, with nearly 40% of the initial sample retained after 15 years.

The English-language longitudinal database contains around 7,000 variables relating to fertility, partnerships, households, work, education, income, health, ageing, values, and attitudes. Alongside detailed metadata and questionnaires, the database is a valuable resource for studying life-course trajectories in Hungary, as well as for cross-national demographic research within the GGP framework.

Keywords: Turning Points of the Life Course Panel Survey, Generations and Gender Survey, longitudinal data, user guide, Hungary

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1. INTRODUCTION

The Turning Points of the Life Course (TPLC) panel survey was a data collection programme carried out by the Hungarian Demographic Research Institute (HDRI) between 2001 and 2017, comprising five data collection waves. This user guide accompanies the publication of the data in English for non-Hungarian researchers. This document aims to present the general concept of the research programme, the data collection procedures, and the databases in order to facilitate analysis of this rich dataset.

The TPLC programme has been incorporated into the *Generations and Gender Survey* (GGS). However, unlike the GGS, which involved no more than three waves of data collection, data were collected five times in Hungary. Another important distinction is that the second Hungarian wave became the first in the international GGS database during the harmonisation process. This guide helps users analyse the five waves of the longitudinal TPLC dataset.

First, we briefly summarise the theoretical considerations behind the research programme and outline the demographic changes in Hungary that motivated the data collection. We then demonstrate how the panel design was constructed and explain the relationship between the TPLC and the GGS. The second section presents the sample design, fieldwork, and response rates. The final section documents the dataset, including their structure, variables, weights, and links to other useful documents.

Overall, the Hungarian study offers exceptional analytical potential. It is the only country where changes in demographic behaviour since the regime change in 1989 can be analysed using panel data spanning a 15-year period and comprising five consecutive waves. Life course events, living conditions, and changes in attitudes over 15 years can be traced and analysed. Furthermore, international comparisons can be made, and links can be established with the GGS and the GGP Contextual Database in order to determine whether changes to Hungary's demographic landscape can be considered general or whether they are specific to the country.

The work of designing and implementing the data collection, processing and documenting the data has spanned over two decades and involved around 200 people, including researchers, research assistants, administrative staff, fieldwork supervisors, interviewers, and many others. This exceptional project would not have been possible without them. Our thanks go to them, as well as to the almost 17,000 respondents who participated in the survey!

2. RESEARCH FRAMEWORK AND THE INTERNATIONAL CONTEXT OF THE SURVEY

The creation of the *Turning Points of the Life Course* (TPLC) research programme was motivated by several factors. Firstly, the radical transformation of social conditions and the rapid change in demographic behaviour (e.g. declining fertility rates, the spread of cohabitation and out-of-wedlock births) in Hungary after 1990 necessitated the collection of new data to help understand this changing behaviour. Secondly, participation in international comparisons was needed in order to contextualise our experience of social, economic and population change. This chapter reviews these factors and discusses the advantages and limitations of a panel survey.

2.1. A SURVEY IN RESPONSE TO RADICAL CHANGES IN SOCIAL CONDITIONS AND DEMOGRAPHIC BEHAVIOUR

In the 1990s, the institutional framework of everyday life in Central and Eastern European countries, including Hungary, underwent rapid change. While the political system

changed almost overnight, it took years for the new economic system to take shape, and the transformation of the welfare system was a decades-long, winding process (Offe, 1996). The now well-known trends in family formation and childbearing also emerged during this period. Marriage became less popular, the number of cohabiting couples increased dramatically, the birth rate fell and the proportion of births outside marriage steadily rose, as did the propensity to divorce (Spéder & Kamarás, 2008). Although some of these phenomena (e.g. cohabitation and out-of-wedlock births) were already present under state socialism, they only became widespread after the political change. Furthermore, previously unknown behaviours, such as late childbearing and remaining single, also began to spread.¹

The Turning Points of the Life Course research programme was motivated by the need to document, understand and explain new demographic behaviour in Hungary (Spéder, 2001a). The primary aim was to develop a demographic data collection programme that also provides information on the living conditions and attitudes of the population. Testing relevant theories and developing new theoretical approaches were also major objectives.

Our data collection programme began as an independent national project but quickly became part of the international *Generations and Gender Programme* (GGP), which emerged at the beginning of the new millennium (see below).

2.2. EMPLOYED THEORETICAL CONCEPTS

The TPLC data collection programme has been shaped by three broad theoretical approaches to the transformation of family formation in Central and Eastern Europe.²

(1) According to the *economic crisis hypothesis*, the decline in fertility rates and the delay in childbearing was essentially a response to the economic downturn and rising unemployment of the early 1990s (Cornia & Paniccià, 1996; Macura et al., 2000). The unpredictability and worsening of living conditions, coupled with the rising cost of living, made postponing life-long decisions a more attractive prospect. In order to evaluate the validity of this theory, detailed information was gathered on the respondents' material circumstances, housing situation, labour market status, and occupation.

(2) According to the theory of the *second demographic transition*, values and attitudes play a decisive role in behavioural change (Van De Kaa, 1987). To test the relevance of the concept, it was essential to gain an understanding of general value orientations and family-related attitudes. The shortened Inglehart postmaterialism index, the anomie scale, the anxiety scale, and the child-rearing values of parents were designed to measure general value orientations. Questions on partnership and gender role preferences, the ideal number of children, and the ideal age for childbearing were used to measure various family-related attitudes.

(3) According to the theory of *social anomie*, which is relevant for post-communist countries, both structural relations and value orientations play an obvious role (Philipov, 2002). To test this theory, it was necessary to measure perceived anomie and status inconsistency using the appropriate scales, while also taking into account the aforementioned factors.

These theoretical approaches made it clear that we needed to move beyond the disciplinary framework of demography. The TPLC is a multidisciplinary study in which we consider myriad aspects of social action in order to understand changes in demographic behaviour. We hypothesised that observing the structural circumstances of individuals (their resources and status in social hierarchies) and their perceptions of the world (their

.....
 1 For a detailed discussion of the Hungarian situation in English, see the triennial volumes of the Demographic portrait of Hungary (Monostori et al., 2009, 2015, 2018; Óri & Spéder, 2012) and the papers Spéder, 2005 and Spéder & Kamarás, 2008.

2 For an overview of the theoretical approaches and their relevance, see Billingsley, 2010; Sobotka, 2011; Spéder & Kapitány, 2014.

attitudes, values, and desires) – in addition to the usual demographic characteristics – would help us understand change in demographic behaviour.

We intentionally named our research programme *Turning Points of the Life Course*, which helped us organise our research questions alongside the life course perspective (Elder et al., 2003). The new phenomena of family formation – cohabitation, out-of-wedlock births, and postponement – represents a clear break with the traditional timing and order of events during the transition to adulthood, which used to involve marriage and childbearing shortly after entering the workforce in one's early twenties. These emerging patterns of family formation emphasise the importance of individual considerations and the breakdown of traditional sequences. However, both demographers and sociologists agree that these new types of family formation behaviour followed certain patterns. The increase in individualisation did not call this regularity into question, since the behaviour of people with similar values and living in similar circumstances will presumably converge.³

By this time, event-history analysis had become widespread in population studies and empirical sociology. This approach examines the occurrence, timing and circumstances of key life course transitions, such as entering employment or unemployment, getting married, having a first child, getting divorced, and so on. Life course development theory has served as a conceptual framework, and these studies have simultaneously contributed to its popularity (Elder et al., 2003; Liefbroer, 1999). In developing and refining the conceptual framework of our research programme, we adapted the idea of categorising new demographic phenomena as part of successive life course transitions and stages. This approach enabled us to investigate the timing and the duration of each stage, as well as the factors contributing to planned and unplanned transitions. Regarding transitions, our focus was not limited to demographic behaviour or the earlier phases of the life course. We took into account one of the premises of life course research, namely that transitions experienced in different areas of life are linked (Elder et al., 2003). In the case of family transitions, finishing school, getting a first job, changes in activity status, and leaving the parental home are particularly important. The occurrence and timing of these transitions can be examined not only in conjunction with family transitions, but also independently. Moreover, the later stages of the adult life course were also considered. The intersections in the life course during midlife, as well as various aspects of ageing – health changes, retirement, loneliness, etc. – were also examined.⁴

2.3. THE ADVANTAGES OF PANEL DESIGN

In the TPLC research programme, we opted for a longitudinal panel design. This choice was based on thorough theoretical and methodological considerations. Crucially, our ability to provide a causal explanation would be severely limited if we only collected information cross-sectionally at one point in time about the structural circumstances and value orientations that may be related to demographic behaviour. The demographic (and sociological) literature describes this problem as the selection–adaptation dilemma (Lesthaeghe & Moors, 2002). A cross-sectional analysis only offers a limited way of clarifying whether something occurred because of certain values under certain circumstances (selection), or whether we have certain attitudes because an action occurred and our attitudes changed as a result (adaptation). A panel design could help resolve this dilemma by collecting information on structural conditions and individual attitudes before an action occurred. Since social status, income, the division of labour within the family, and attitudes play a role in demographic behaviour, we opted for a follow-up study.

³ The individualisation debate is instructive in this respect (see Friedrichs, 1998).

⁴ The organisation of our research questions around the life course is explained in more detail in the research concept of the TPLC programme (Spéder, 2001b).

Of course, we did not deviate from the tradition of collecting retrospective demographic data, given that population studies have made considerable progress in using such data to describe and explain changes in demographic behaviour over time, particularly with regard to the timing of events (e.g. studies based on data from the Family and Fertility Survey, e.g. Klijzing et al., 2002; Macura et al., 2002). Therefore, we collected retrospective information on partnership formation and fertility events, as well as educational history. However, we emphasised prospective data collection relating to future life course events (plans, intentions, and expectations). This is in accordance with the prospective design of our research programme (Scott & Alwin, 1998).

2.4. THE LINK BETWEEN THE TURNING POINTS OF THE LIFE COURSE AND THE GENERATIONS AND GENDER PROGRAMME: THE CHALLENGES OF AN INTERNATIONAL PANEL SURVEY

From its early stages, the TPLC research project has been conducted in close collaboration with the international GGP. Therefore, it is important to discuss their relationship and explain how the TPLC's panel data from its five waves can broaden the scope of international comparative analysis.

The GGP began in 2000 with the aim of improving our understanding of changes in demographic behaviour and exploring the factors affecting family life and relationships between parents and their children ('generations') and between cohabiting partners ('gender') (Spielauer, 2004; United Nations, 2007; Vikat et al., 2007).

The Generations and Gender Survey (GGS) forms the core of the GGP. It is a longitudinal panel study which involves interviewing the same respondents every three years in order to record changes in their living conditions and family relationships. The GGS is the only longitudinal, multi-country, large-sample survey examining family life and inter-generational relationships throughout adulthood. In the first round, at least one wave of data collection took place in 24 countries. Ten countries had one wave, eleven had two, and three countries (including Hungary) had three. A new panel of GGS data collections (GGS-II) was launched in 2020 with similar objectives and an updated methodology.

Similar sampling and data collection principles and the same core questionnaire were applied in the participating countries to a relatively large sample of around 10,000 people per country. The central GGS questionnaire consisted of a compulsory section and optional modules, adapted by researchers to reflect national specificities. The extensive use of GGS data is reflected in the fact that over 1,000 scientific publications have now been based on them (Spéder & Makay, 2024).

The international GGS database includes harmonised data from the TPLC data collection. The research concepts that defined the international and Hungarian surveys overlap to a large extent. The two research programmes were developed in parallel, with HDRI staff playing an active role in the development of the GGS. Nevertheless, the correspondence between the two questionnaires is not complete. The difference in their timing meant that it was not possible to fully adhere to the general principles of follow-up studies and international comparisons simultaneously. In fact, there was no ready-made GGS core questionnaire available at the time of collecting the first wave of TPLC data.

Specifically, the development of the TPLC study began in 1999, and the study joined the GGP collaboration, which had already been established by that time, in 2000. However, the first Hungarian data collection took place in 2001, before the GGS core questionnaire had been finalised (in October 2003). Consequently, the Hungarian and international questionnaires and the data structure of their first waves differ in several respects.⁵

⁵ Gauthier, Cabaco and Emery describe the main differences between the data sets of the countries participating in the GGS (Gauthier et al., 2018).

When designing the questionnaire for the second wave of the Hungarian data collection, we faced the challenge of applying the basic follow-up principle of not changing questions while ensuring compatibility with the international GGS. Ultimately, we reached a compromise: we adopted some questions from the GGS questionnaire that we deemed relevant for international comparison and dropped certain thematic sections of the initial Hungarian questionnaire (e.g. intergenerational transfers), while maintaining the core questions. This approach enabled us to conduct relevant follow-up research in Hungary and, at the same time, to compile a database for international comparison from the second wave. Furthermore, when transposing the questions from the international questionnaire to the Hungarian context, we considered how and to what extent each question could be asked in the country.⁶

Ultimately, the Hungarian wave 2 questionnaire is much closer to the GGS wave 1 questionnaire than the first Hungarian questionnaire, but they are not identical.

When analysing the TPLC and GGS data together, it is important to bear in mind that the harmonised Hungarian GGS data from wave 1 is based on a combination of TPLC waves 1 and 2. When integrating the Hungarian data into the GGS database, the second TPLC wave was used as the starting point and was supplemented with retrospective data from the first TPLC wave, as well as a life history calendar recording changes between the first and second Hungarian waves.⁷ The Hungarian data for the second wave of the GGS came from the third wave of the TPLC survey. The data for the third wave of the GGS came from the fourth wave of the Hungarian survey.

3. DATA COLLECTION

3.1. SAMPLE DESIGN

3.1.1. Sampling principles

A total of five data collections were carried out in Hungary between 2001 and 2017 as part of the *Turning Points of the Life Course* (TPLC) programme. In 2001, individuals aged 18–75 were sampled with the aim of carrying out three waves of data collection. The sampling universe was limited to Hungarian citizens living in Hungary. At the turn of the millennium, the proportion of non-Hungarians living in the country was extremely low (below 2%), and their mobility was high, which would have made organising and implementing the fieldwork among them difficult. What follows is a presentation of the sampling design process and a brief description of the sample.

As a rule, the design of a sample is defined by the intentions and possibilities of the research. The TPLC research objectives presented exceptional difficulties that we had to address.

Once we had defined the required number of sampling elements, we had to ensure that certain social groups of special interest for demographic analysis (e.g. unmarried couples and young singles living alone) were suitably large. Secondly, we had to ensure that the number of demographic events (e.g. childbirth, marriage, leaving the parental home) occurring between subsequent waves was appropriate for analysis. Taking these requirements into account, we concluded that the number of successful interviews needed to total at least 15,000. In other words, we determined that the minimum sample size should be 15,000 individuals.

⁶ A striking example is that the questions on contraception and first sexual intercourse, which are standard in the international questionnaire, were only asked in Hungary in wave 3, using a completely anonymous technique (the respondents placed the self-completed sensitive questionnaire in an envelope and sealed it).

⁷ Thus, the number of cases in the first wave of the Hungarian GGS is the same as the number of cases in the second wave of the TPLC.

Due to the nature of panel surveying, it is essential to minimise data bias arising from failed or refused interviews. Even if weighting is used to adjust the current sample according to the most important parameters, it will become biased again by the time of the subsequent survey in three years' time. Furthermore, given the nature of longitudinal studies, we must be prepared for a higher refusal rate.

Based on the above, we decided to distort the address list in advance. In other words, based on previous sampling experiences, we over-represented groups where a higher number of failed or refused interviews was expected. This process ensures that the composition of the actual database reflects the population ratios as closely as possible. This procedure is called 'dropout' (or 'decrease') sampling. However, the successful implementation of this method is limited by the fact that the number of successful interviews cannot be predicted in advance. The primary advantage of this method over address substitution is that each respondent is considered irreplaceable, meaning interviewers cannot filter out problematic subjects.

Taking potential interview refusals and failures into account, we used a previously distorted multi-stage sample, stratified by region, settlement size, and age. The sampling unit was individuals, and the population comprised Hungarian citizens born between 1 January 1926 and 31 December 1983.

Population data was gathered from two sources. The Hungarian Central Statistical Office (HCSO) provided data on population distribution, while the National Election Office (NEO) made the actual data of respondents available. The population data was based on the estimated number of inhabitants on 1 January 2000, as this was the most recent figure available at the time. Updated population data by settlement for 2001 was not yet available, and the preliminary results of the 2001 census were not published until December 2001.

Unfortunately, no data was available on the exact age composition of settlements; this information can only be found in censuses. For this reason, we had to estimate the number of people aged 18–75 (further broken down into age groups 18–29 and 30–75) within the total population of the settlements.

Two stratification variables were considered when selecting the sample of settlements. The first was the regional division of Hungary (Western Transdanubia, Central Transdanubia, Southern Transdanubia, Central Hungary, Northern Hungary, Northern Great Plain, and Southern Great Plain). Taking these into account increases the reliability of regional data, providing the possibility of high-quality analysis if a sufficiently large number of sampling elements are available.

The second stratification variable was settlement size. The sample was divided into ten categories, each with a similar population size of around 1,004,322 people. It is important to note that Budapest, an exceptionally populous city, appears in the sample broken down into its 23 districts. Consequently, the total number of settlements adds up to 3,156.

The estimated population is 7,454,196. The selection ratio is $15,000/7,454,196$, which is approximately 0.2%. The necessary selection ratio by settlement size category and age group was also calculated. A total of 25,510 addresses were used, 7,247 of which belonged to the 18–29 age range.

The sampling and fieldwork processes were designed to make the research results as reliable as possible, even in social subgroups that are usually difficult to contact and interview. To this end, we controlled the number of non-self-representational settlements with a significant Roma population, ensuring they were adequately represented in the sample according to their proportion in the general population. With these considerations in mind, we requested 25,510 addresses from the NEO, with the hope of conducting 15,200 successful interviews.

3.1.2. Reliability of raw data

Of the requested 25,510 addresses, 95.7% (24,417) were distributed among the interviewers, who completed 'address cards' for 24,138 people (94.7%). Of all the addresses, 30.4% resulted in failed or refused interviews, while 64.3% (16,394) resulted in completed interviews. In other words, 67.9% of the addresses visited by interviewers resulted in successful interviews. When interpreting the results, it is important to consider the initial distortion of the sample in favour of more difficult-to-access groups, which made interviewing more challenging.

Although the number of useful interviews decreased slightly after inspection, the 16,394 successful personal interviews not only met but slightly exceeded our expectations. However, we did not meet our goals in some counties, while in others, the number of successful interviews exceeded our expectations.

Nevertheless, the question remains: how accurately were the previously distorted addresses estimated? In other words, how closely do the results reflect the actual distribution? The best way to answer this question is to compare the entire database with the final results of the 2001 census. Naturally, slight imprecision is unavoidable, even when using census data, given that almost a year passed between the census and our data collection. During this time, the population distribution changed to some extent.

The gender distribution in the wave 1 TPLC database is 45.4% male and 54.6% female. Although 52.4% of the population was female, the higher mortality rate of men has further biased this ratio in our sample, as it is more difficult to find and interview male respondents.

Table 1

The distribution of the population according to census data and the TPLC by birth cohorts (age groups)

Birth cohort	Age group	Census 2001		TPLC 2001 (wave 1)	
		N	%	N	%
1826-1941	60-75	1,574,583	20.7	3,495	21.3
1942-1951	50-59	1,346,282	17.7	2,882	17.6
1952-1961	40-49	1,510,999	19.8	3,091	18.9
1962-1971	30-39	1,323,724	17.4	2,605	15.9
1972-1983	18-29	1,682,692	24.5	4,321	26.4
Total	18-75	7,618,280	100.0	16,394	100.0

Sources: Census of Hungary 2001 and TPLC wave 1.

When comparing the distribution across age groups (see *Table 1*), it is striking that the proportion of young people (aged 18-29) who were intentionally over-represented during the sampling process was similar to, and even exceeded by 2 percentage points, their proportion in the census. However, this excess does not offset the shortage present in the other age groups. This shortage is concentrated among young middle-aged people (approximately aged 30 to 40). Therefore, the slight over-representation of this young age group during the sampling process appears to have been justified.

When considering the composition by gender and age simultaneously, it can be concluded that young middle-aged men are the most under-represented group in the database. The proportion of this group should be 8.7%, but it is only 7.4% in our sample.

Respondents were distributed as follows by marital status: never married (25.2%), married (56.7%), divorced (9%), and widowed (9.1%). In the Census, the respective figures

were: never married: 25.7%; married: 55.7%; divorced: 9.9%; and widowed: 8.7%. It is apparent that the divorced group was the least accessible and most difficult to interview, yet the difference is merely 10%. Fortunately, the marital status pattern by age group does not exhibit such a concentration of bias as that seen among young, middle-aged men.

We also examined the distribution of respondents by educational level and settlement type, paying particular attention to Budapest, where we expected the lowest response rates.

Taking all aspects into consideration, the raw data appears to closely approximate the population distribution and the marginal distributions can be precisely fitted using weighting in the main dimensions without difficulty. The 'dropout' sampling procedure, which was previously distorted, lived up to our expectations. The sample sufficiently mapped the distribution of the population, particularly with regard to the dimensions under study.

3.1.3. Principles of follow-up and the tracking of sample members

The TPLC data collection programme was originally designed as a panel survey with three follow-ups at three-year intervals, spanning a total of nine years. One of the basic principles of the planning stage was that we should return to the original sample members and collect data from them again. Ultimately, five interviews were conducted during the 15-year follow-up period. In longitudinal studies of this kind, the key questions are how to minimise the reduction in sample size and how to ensure that, despite attrition, the sample remains as representative as possible of the population.

Inevitably, the sample size will decrease to some extent between successive waves due to attrition. Reasons for this include death, emigration, or moving into an institutional household, such as a hospital, prison, or nursing home (our sample was restricted to personal households). This decrease in sample size is natural and does not affect the reliability of the results, since these individuals would not have been included in the population at wave 5 anyway.

In practice, however, the problem is that, while the Population Register provides accurate data on deaths, a significant proportion of respondents who have permanently moved abroad remain 'hidden' and may therefore be incorrectly included in the category of those who have moved to an unknown destination. Furthermore, moving abroad or entering an institutional household may be temporary; for example, an emigrant may return in time for the next data collection, or a convict may be released. Despite these considerations, for reasons relating to the organisation of the fieldwork, we did not attempt to re-contact those who had left the population in the next wave. In other words, we assumed that they would not return. In light of the increasing rates of emigration from Hungary after 2009, this decision seems unfortunate; however, temporary departures were much less frequent around the turn of the millennium.

Not only were re-entrants not covered, but neither were later entrants to the population. In other words, we did not extend the initial sample by adding immigrants and people who had acquired citizenship. As in other similar international studies, this was for practical reasons. However, this presumably does not cause a serious bias in the Hungarian data, given that the populations involved are quite small and immigration to Hungary was much lower than in other European countries between 2001 and 2016.

The other main type of attrition occurs when a respondent remains in the population but cannot be successfully re-interviewed. This may be due to refusal, having moved to an unknown location within the country or health reasons (e.g. people with dementia living in private households). This form of dropout poses a critical threat to the reliability of the data. To reduce this type of attrition, we took measures both between waves and during fieldwork (these measures are described later). Once a respondent had been 'lost' in one wave, i.e. if we failed to collect data, we did not try to contact them in the next wave.

3.2. TIMING OF THE SURVEYS

Fieldwork for the TPLC study began in November 2001, and the final wave of data collection was completed in spring 2017. During this period, each respondent was interviewed a maximum of five times. The interval between the first and second waves was three years; however, due to financial constraints, this increased to four years for subsequent interviews.

From a budgetary and organisational perspective, starting fieldwork for each wave in late autumn was ideal. Each wave of fieldwork began in late autumn and continued into the following year after a break over Christmas. Additional interviews were organised after the initial fieldwork period for waves 2, 4 and 5 to re-contact respondents who could not be found during the main interview period, were temporarily absent, or had given a 'soft refusal'. This was done to reduce attrition (see *Table 2*).

With the exception of the first wave, which had a theoretical date of December 2001, each data collection contains separate technical variables for the year and month of the interview. (See Chapter 4.1 of this volume for details of the variable names and database structure.)

Table 2
Timing of the different waves of data collection

Waves	Fieldwork		Number of successful interviews	Extended fieldwork
	Start date	End date		
Wave 1	8 Nov 2001	15 Feb 2002	16,363	No
Wave 2	1 Nov 2004	15 Jan 2005	13,540	In May 2005
Wave 3	1 Nov 2008	15 Feb 2009	10,641	No
Wave 4	17 Nov 2012	28 Feb 2013	8,103	In March 2013 (in some counties)
Wave 5	1 Dec 2016	28 Feb 2017	6,328	In April 2017

3.3. FIELDWORK PREPARATION, QUESTIONNAIRE TESTING, PILOT SURVEY, AND DATA COLLECTION

3.3.1. Questionnaire design and testing

The thematic content and specific questions of the questionnaires were developed based on the research concept and previous demographic questionnaires (e.g. the Fertility and Family Survey) were consulted. When designing the wave 1 questionnaire, we also employed a focus group testing procedure. The main aim of the focus groups was to examine how well the questions were understood and interpreted by the respondents, and whether the questions could be answered in a way that would be suitable for testing our research hypotheses later on. In subsequent waves, only specific question blocks were tested, primarily those that had not previously been asked in Hungary.

3.3.2. The pilot survey

Prior to the first wave of data collection, we conducted a pilot study, in which we contacted almost 200 individuals. We tested every stage of the fieldwork process, from visiting addresses to recording data. After the pilot survey, interviewers completed a feedback

questionnaire for each interview, reporting on their experiences and the problems they had encountered, as well as suggesting changes. The lessons learnt from the pilot survey were incorporated into the actual data collection process.

3.3.3. The role of the interviewers in the data collection

From the beginning, respondents to the TPLC survey were personally contacted by interviewers of the Hungarian Central Statistical Office (HCSO). Most of these interviewers had participated in other HCSO surveys and had relevant experience and proficiency. In the first three waves, only paper and pencil interviewing (PAPI) was used. However, in the fourth wave, two technological innovations were introduced: firstly, a block of the questionnaire was made available to respondents online for self-completion (computer-assisted web interviewing, CAWI), and secondly, HCSO interviewers used laptops to conduct face-to-face interviews for the first time (computer-assisted personal interviewing, CAPI). In wave 5, data was collected only in CAPI mode, with no option to complete the questionnaire online.

The nature of the panel data collection justified the use of interviewers and the face-to-face method for several reasons. Firstly, it was important that the same respondents were contacted from wave to wave and that the questionnaire was not answered by anyone else in the household. A visit by the interviewer guaranteed that the sampled person would answer the questions. Secondly, several respondents had moved between waves or were temporarily absent. In these cases, the interviewers were tasked with finding out as much information as possible about the respondents' whereabouts and contacting them. In many cases, the HCSO interviewers were already familiar in smaller settlements or districts; some may even have met the respondents when conducting other HCSO surveys. This was likely to enhance trust in the survey process and thus increase response rates.

3.3.4. Interviewer training

In each wave, interviewer training was a two-step process based on a schedule prepared by the research team and fieldwork supervisors. First, field instructors were trained, and then they delivered training sessions to interviewers in different locations around the country. The uniformity and high quality of the training were ensured by the well-trained field instructors and the detailed training schedule. Interviewers were also supported in their work by a document called the 'Interviewers' Guide', which summarised their tasks related to data collection and provided assistance in carrying out each task.

3.3.5. Address card

Respondents filled in a card for each visited address. On this card, they recorded the date and time of each visit, whether they had found the address and whether they had been able to contact the people living there. The interviewer could record here if the sampled person had moved or died in the meantime.

The name and address of the person to be contacted were pre-printed on the card. In each wave, we also collected additional information to help us find and contact the person, such as the respondent's phone number and the name and phone number of a contact person. From the second wave onwards, this data was also included on the address cards. This greatly helped the interviewers.

If a respondent moved to a location nearby that was still within the interviewer's area, the same interviewer had to contact them at the new address. If the move was outside their area, they could record the supposed new address on the address card. This was then sent back to a central system and the new address was assigned to the closest interviewer.

3.3.6. Monitoring the interviewers' work

To ensure high data quality, the interviewers' work was subject to a number of checks during the fieldwork. Each interviewer sent their first two completed questionnaires to the HDRI researchers for checking and feedback on the quality of their work. Interviewers could only proceed with the fieldwork if this evaluation was positive. Afterwards, the fieldwork supervisors at HCSO monitored the progress of the interviewers, keeping track of the number of visits, successful and unsuccessful interviews. Fieldwork supervisors also contacted some randomly selected respondents by phone to verify that they had indeed been interviewed in person and that the recorded information was accurate.

The introduction of computer-assisted interviewing during the fourth and fifth waves enabled several control functions to be incorporated into the data entry software itself. In the case of inconsistent or incomplete answers, an error message was displayed automatically on the screen, enabling the interviewers to correct the answers immediately.

As this was a panel survey, we had the opportunity to compare previous and new responses at the individual level after the second wave, based on the personal identification variable of each respondent, in order to ensure that the same person had responded and that there were no major inconsistencies.

3.3.7. Changes in the mode of data collection

Between 2001 and 2009, during the first three waves, interviewers used printed questionnaires (PAPI). This was a costly solution that presented logistical challenges, such as delivering a large number of questionnaires to county centres, handling returned mail and digitising data. In 2012, however, the paper questionnaire was replaced by computer-assisted personal interviews (CAPI).

Another technical innovation in the fourth wave was the option for respondents to complete the first part of the questionnaire online (CAWI). In the advance letter, respondents were offered the option of answering some easier and quicker questions, mainly concerning values and attitudes, online. The HDRI made this decision based on the experience of international surveys, with the aim of increasing respondents' willingness to answer. On average, it took one hour to complete the whole CAPI questionnaire. By allowing respondents to complete part of the questionnaire online, thereby shortening the length of the interviewer's visit, we hoped that a higher proportion of respondents would agree to participate again.

To accommodate the online questions, we made significant changes to the structure of the questionnaire in wave 4. Rather than being divided into thematic blocks as before, the questionnaire was divided into two main parts: questions that were available online and questions that could only be completed with the interviewer. The aim was to ensure that the online section could be completed in a relatively short time (maximum 30 minutes) and that it only included straightforward questions. Additionally, questions on sensitive topics (such as perceptions of relationship quality, health, and income) were placed in the online section. The section requiring an interviewer included more complex questions on household composition, life histories (e.g. partnership and activity history), fertility, and children. Ultimately, 14% of wave 4 respondents completed part of the questionnaire online (Rohr, 2017).

Regardless of whether they filled in the online questionnaire, HCSO interviewers visited respondents in person. However, the interviewers were unable to contact all web respondents. In 125 cases, the CAWI was not followed by a successful personal interview (due to reasons including non-response or having moved to an unknown location in the meantime). These cases are not included in the database.

3.3.8. Tracking respondents

At the time of the first survey, interviewers asked respondents for their consent to provide contact details that were not available in the official register, as well as a contact person in case they could not be reached during the follow-up survey. This information was requested again in each subsequent survey, meaning that a person could have more than one telephone number, email address or contact person. Additionally, the HDRI kept a record of respondents' official addresses and, in the event of a change of address, retained the previous address. This provided more opportunities to contact respondents. This data was stored separately from the responses received and was used exclusively to contact respondents, in compliance with data protection requirements. The information and data collected by the interviewers played an important role in address tracking.

Respondents were tracked more readily because the HDRI retrieved their addresses from the official register shortly before the start of each fieldwork period. This helped to update addresses in cases where respondents had moved. Several respondents also died between waves, and this information was available from the official register as well. In these cases, the information was recorded in the database.

The third pillar of address tracking involved 'tracing' work at the HDRI for respondents who could not be found at their original address but whose move had not been officially recorded. Interviewers tried to gather any information about these respondents at their previous address, such as a telephone number or partial address, or sometimes only the municipality to which they had moved. We also tried to use the contact details that the respondents themselves had provided earlier. Once the respondent's new full address had been obtained, the HDRI forwarded it to the interviewers to carry out the data collection. Of course, if the respondent declined to participate, no further contact was made.

Address tracking methods have constantly evolved alongside technical developments, but the aim has always been to retain as many respondents in the sample as possible or to obtain accurate information about why they dropped out.

3.3.9. Keeping in touch with the respondents

The HDRI has taken great care to gain and retain the trust of the people in the sample. Before each wave of data collection, the HDRI informed respondents by post that they would be contacted by an interviewer. They were also sent an information leaflet and were asked to notify the HDRI of any change of address via email, telephone, postcard (which could be sent back free of charge), or a dedicated interface on the HDRI website. Subsequently, interviewers handed over a letter of invitation containing their name and telephone number so that respondents knew who to expect. After successful interviews, the interviewers gave thank you cards to respondents.

While respondents did not receive any financial incentive for participating in the survey, they did receive various small gifts after successful interviews (e.g. chocolate bars, coffee, or a canvas bag with the survey logo).

The Institute also endeavoured to keep in touch with respondents between waves of data collection. After the fieldwork was completed, usually around a year later, we sent them a reminder letter and a booklet containing the latest results. After the second wave, the letter was sent at the end of the year, and respondents also received a calendar booklet featuring the HDRI logo as a gift.

During the years of data collection, two lotteries were organised for respondents. Following the first wave, an electric kettle was offered to those who completed and returned a short follow-up questionnaire by post. In the fourth wave, respondents who

completed part of the questionnaire online were entered into a draw to win two USB drives per county.

Throughout the data collection process, the HDRI website featured a dedicated information page for individuals seeking further insights into the research or concerned about the protection of their personal data. An online forum was available to respondents during the first wave, and a new, separate website was created for the research programme before the fourth wave. Additionally, the contact details of the Institute and project managers were included in advance letters and information leaflets. The letters drew attention to the telephone numbers and email addresses where researchers could be contacted with questions, requests, or changes of address. This option was used on several occasions, mainly to contact the Institute to report a change of address.

3.4. RESPONSE RATES, SAMPLE SIZES, AND ATTRITION OVER THE FIVE WAVES

In follow-up panel surveys, some people who have successfully completed one or more questionnaires do not respond to subsequent surveys and are excluded from the sample. This attrition leads to a reduction in the number of respondents in each subsequent wave. There are well-documented reasons for this, which apply not only to panel surveys but to cross-sectional ones too. Reasons for dropout include respondent unavailability or refusal to respond during the survey period. In the case of panel surveys, additional reasons for attrition arise from the time elapsing between interviews and the need to contact respondents again to ask for their consent, which is not always successful.

3.4.1. Attrition

In the first wave, at the turn of 2001 and 2002, 16,363 people completed the questionnaire. By the fifth wave in 2016–17, 6,315 of them had been successfully re-interviewed. This means that 39% of those in the first wave remained in the sample throughout, resulting in a cumulative dropout rate of 61%. Between the first two waves, 17.3% of the sample was lost, and thereafter around 22% per wave (*Table 3*).

Non-response was the primary reason for dropping out, accounting for 40% of attrition (4,026 respondents were lost in this way). This rate increased between the second and third waves before decreasing slightly.

The second most important cause of attrition in the sample was mortality, accounting for 23% of cases. The upper age limit for the sample was 75 years at the end of 2001, and the proportion of deaths gradually increased as the sample aged. In total, at least 2,292 people died during the 15-year research period. The actual number of respondents who died is probably higher, but we cannot say for certain whether this was the reason they dropped out (e.g. some people in the ‘cannot be found, not available’ category may have died), or they may have dropped out of the sample earlier for another reason (e.g. ‘unable to respond’) and died later.

The third most common reason for attrition was that the respondent could not be found or contacted during the new data collection period (21.9%). This refers to cases where the respondent had moved and the new address was unknown or incorrect, or where the address was correct but no contact could be established. Despite serious efforts to keep in touch with respondents and, if possible, report their moves between each wave, more than 2,000 people dropped out of the sample for these reasons. Respondents were followed to their new address and interviewed there.

Table 3
Response rates and attrition

	W1		W1 to W2		W2 to W3		W3 to W4		W4 to W5		Cumulative change between W1 and W5		
	N	%	N	%	N	%	N	%	N	%	N	%	
2001/2002	16,363		13,540	82.7	10,641	78.6	8,103	76.1	6,315	77.9	6,315		
2004/2005	-		2,823	17.3	2,899	21.4	2,538	23.9	1,788	22.1	10,048		
2012/2013	16,363		16,363	100.0	13,540	100.0	10,641	100.0	8,103	100.0	16,363		
2016/2017												2001/2002 to 2016/2017	
Successful interviews													
Unsuccessful interviews													
Total													
<i>Reasons for unsuccessful interviews:</i>													
Respondent died	-		500	3.1	638	4.7	596	5.6	558	6.9	2,292		14.0
Respondent moved abroad	-		n.a.	n.a.	128	0.9	127	1.2	95	1.2	350		2.1
Refusal	-		1,041	6.4	1,311	9.7	1,038	9.8	635	7.8	4,026		24.6
Unable to respond	-		n.a.	n.a.	88	0.6	125	1.2	116	1.4	329		2.0
No contact	-		864	5.3	548	4.0	558	5.2	231	2.9	2,201		13.5
Other reason	-		418	2.6	185	1.4	94	0.9	153	1.9	850		5.2
<i>Reasons for unsuccessful interviews (combined):</i>													
Left the survey: died or moved abroad	-		500	3.1	766	5.7	723	6.8	653	8.1	2,642		16.1
Unsuccessful: other categories	-		2,323	14.2	2,133	15.8	1,815	17.1	1,135	14.0	7,406		45.3

Sources: HDRI, Turning Points of the Life Course panel survey, waves 1-5, 2001/2002 - 2016/2017.

A total of 16% of the sample left the study during the five waves. If sampling had occurred later, these people would not have been included in the sample, as they had either died or moved abroad. The vast majority died, and only 350 people are known with certainty to have moved abroad. However, this figure is likely to be an underestimate, as people who have moved abroad may also be ‘hidden’ in other categories (e.g. ‘not found, not available’). The classical attrition rate — the proportion of unsuccessful interviews — is 45% of the initial sample.

3.4.2. Attrition in other GGS surveys

By international standards, the Hungarian response rate is very high. Only three countries have three waves of GGS data available for GGS-I: Hungary, France and the Netherlands. Between waves 1 and 3, the response rate was 57% in France and 54% in the Netherlands. In Hungary, 65% of the original panel sample responded in the third wave. Therefore, panel stability in Hungary is relatively high in an international comparison.

3.4.3. Checking and processing data

Data verification and cleaning were two separate processes. Firstly, the BLAISE data entry software included a number of control criteria during the first three waves, when the PAPI mode was used and data digitisation was a separate task. If errors were detected, the field instructors responsible for data entry would provide feedback to the interviewers, who would then revisit the respondents to resolve any issues. In the fourth and fifth waves, when CAPI was used, any errors or inconsistencies could be detected and corrected during the interview.

Secondly, we carried out consistency checks on the datasets and corrected the data where possible. At this stage, interviewers returned to the field less frequently. From the second wave onwards, consistency checks also involved comparing information with previous waves. For instance, we examined how respondents’ highest level of education or the number of children they had ever had changed between waves (it was impossible for this number to decrease in either case).

4. DATA FILES AND DOCUMENTATION

4.1. DATA FILE ORGANISATION

This section outlines the structure of the dataset and explains the rationale behind the variable names. It is intended to help users navigate between variables and perform analyses. Metadata information is presented in *Appendix 1*, while *Appendix 2* provides an overview of the thematic structure of the dataset, the number of questions from each wave, the constructed variables, and the variable names.

4.1.1. The database

A merged longitudinal database of waves 1–5 from the *Turning Points of the Life Course* (TPLC) programme is available to researchers in English. This includes all respondents who completed the survey in the first wave, regardless of whether they subsequently dropped out or participated in all five waves. The database thus tracks the main life events, life circumstances, and changes in the opinions of the 16,363 respondents aged 18–75 years who were sampled in 2001. Of the initial sample, 6,315 respondents participated in all waves. The database contains around 7,000 variables in total. This user guide has been prepared for version 1.0.0 of the database, released in October 2025.

The TPLC dataset covers a wide range of topics. Some topics were only covered in one or two waves, while others were included in all questionnaires. Questions are not necessarily organised by topic within each questionnaire. The content summary table in *Appendix 2* provides an overview of the themes covered by each survey wave, helping users to locate particular questions and conduct comparative analyses between waves.

4.1.2. The variables

Several types of variables are included in the TPLC longitudinal database (see *Table 4*). The variable names refer to the nature of the variable and the survey wave, thus helping to navigate the database. In the data file, the variables are primarily ordered by survey wave, with the variables within each wave ordered as shown in *Table 4*.

The first character of a variable name is always a letter indicating the variable type and the second character is usually a number indicating the survey wave (between 1 and 5). If there is no number, the variable has the same value in all waves (e.g. the individual identifier or the respondent's sex). If the same question was asked in the same form in more than one wave, only the number indicating the wave differs in the variable name.

Table 4
Naming logic of different types of variables in the TPLC database

Variable types	Variable names
Identifying variables, information on the interview (waves 1-5)	a1..., a2..., a3..., a4..., a5..., a...
Weights (waves 1-5)	s1..., s2..., s3..., s4..., s5...
Spatial variables (waves 1-5)	t1..., t2..., t3..., t4..., t5...
Original variables of the questionnaires (waves 1-5)	k1..., k2..., k3..., k4..., k5...
Life history calendar variables (wave 2)	c...
Constructed variables (waves 1-5)	x1..., x2..., x3..., x4..., x5..., x...

The identification variables beginning with the letter 'a' contain information about the interview. The individual identifier of the respondents (aid) remains the same from wave to wave, enabling the TPLC data to be matched with the harmonised Hungarian *Generations and Gender Survey* (GGS). Variables such as a1hullam and a2hullam indicate whether the respondent was interviewed in the given wave of the survey (only complete interviews are recorded). The variables a1siker, a2siker, etc. contain information about the reason for dropout. The variables a1kerdev, alkerdho, etc., contain the year and month of fieldwork.

The weight variables start with the letter 's': a cross-sectional weight is given for the first wave, and a longitudinal weight is given for each subsequent wave. See the next section for information on the design and use of the weight variables.

The spatial variables contain basic characteristics of the settlement (the respondent's place of residence) where the interview took place (t...): county, region, settlement type, and population size. Information about the county and region enables spatial macro-data to be linked to the database for multilevel analysis.

In most cases, the first letter of the variable names is 'k', denoting the original questionnaire variables. These variables can be matched one-to-one with the questions or items in the questionnaires, and they are entered into the database unchanged. The life history calendar variables of wave 2 start with the letter c. These variable names can also be found in the questionnaires.

To help identify specific variables, the variable labels in the database contain the text of the question (simplified if necessary) and the question number in the questionnaire. Questions quoted verbatim from the questionnaire have labels in single quotation marks. Unquoted labels refer to the content of the question in a simplified form. An effort has also been made to adhere to the original wording of the questions when listing the response options. Separate technical codes indicate the 'doesn't know' (9, 99, 999 or 9999) and the 'doesn't wish to answer' answer options (8, 88, 888 or 8888).

The database also contains constructed variables (x...). These cover basic information not included in the questionnaires, but which facilitates data analysis. Some of these variables are based on information that changes over time and is available in each wave, such as age, number of children, partner characteristics, or income. Another set of constructed variables is based on data that was not requested in each wave, such as place of birth or parents' education. These variables have also been added to waves in which they were not asked because they relate to the past (e.g. family characteristics in childhood, place of birth, timing of first life events) or because it is assumed that they change infrequently (e.g. nationality). In these cases, we indicate which survey wave the variable is based on.

4.2. WEIGHTS AND REPRESENTATIVITY

We recommend using a weighted dataset since the weights compensate for any minor inaccuracies in the original sample or attrition. Thus, more accurate results can be obtained by using the weights appropriately. This is particularly important when using data from later waves, which are more affected by attrition. The TPLC longitudinal database contains five weighting variables, one for each data collection wave.

The weight for the first wave (s1suly) is essentially cross-sectional, adjusting the dataset to the population according to the 2001 Hungarian census, broken down by age group, sex, education level, marital status, and settlement type. Subsequent weights, however, are longitudinal in nature. These weights were constructed using multivariate regression models to estimate the probability of dropping out. The crude longitudinal weight is based on the reciprocal of the probability of successfully completing the next wave; in other words, the database 'scores' respondents who, based on their characteristics, should have been more likely to drop out. The actual procedure for producing the weights is, of course, more complex and varies from wave to wave. A detailed description of the various weighting methods can be found in separate papers written by the methodologists who prepared the weights for each wave (Arató et al., 2019; Bartus, 2015).

This procedure results in longitudinal weights being used for longitudinal analyses (s2longi, s3longi, s4longi and s5longi). The weight for the last wave of data collection that is still included in the analysis must be used. (So, when using the combined dataset of all five waves, the s5longi weight variable must be used.)

Note that the wave 1 dataset is representative of the Hungarian population residing in Hungary in 2001 and can also be analyzed as a cross-sectional dataset. However, data from subsequent waves are not cross-sectionally representative of the population in the year of the survey; rather, they represent a follow-up of the 2001 population and are suitable only for longitudinal analysis.

4.3. DATA ACCESS AND DOCUMENTATION

4.3.1. How to request and access data

The longitudinal dataset for the five waves of the TPLC is available via the *Generations and Gender Programme* (GGP) website (www.ggp-i.org) after registration and completion of the application form, along with the required supporting documents. Once the application has been approved, the requested data can be downloaded electronically in SPSS and Stata formats.

In any work emanating from this research, data users are asked to acknowledge the data source as follows:

Data source: Hungarian Demographic Research Institute (2025). Turning Points of the Life Course panel survey. *GGP Data Archive*, data file version 1.0.0 (2025), doi: 10.5281/zenodo.17237544

4.3.2. Accessing the documentation

The English documentation for the five waves of the TPLC survey can be found on the websites of GGP (www.ggp-i.org) and the Hungarian Demographic Research Institute (www.demografia.hu/en).

The documentation includes the following materials (in pdf format):

1. *Questionnaires*: The questionnaires are the most important documents of the data collection. Some modifications have been made to the original versions to make them more user-friendly (clickable table of contents, indication of the variable names). Separate questionnaires are available for each wave as well as for the life history calendar of the second wave. For the fourth and fifth waves, only electronic questionnaires were used (computer and web-based), but a printed questionnaire was produced for educational purposes.
2. *Answer sheet booklets*: For more complex questions and repetitive answer options, a printed answer sheet booklet was used to assist respondents. The question text in the questionnaires always indicates which answer sheet should be used (e.g. 'Using CARD NO. 2, please...')
3. *Content summary table with variable names*: This document provides an overview of the topics covered by each wave to help orientation and analysis of multiple waves of data. Please note that questions listed in the same row may not always completely agree. The exact wording of the questions and the answer options, as well as the range of respondents who were supposed to answer them, may differ, so always refer to the original questionnaires. This table can also be found in the appendices of this volume.

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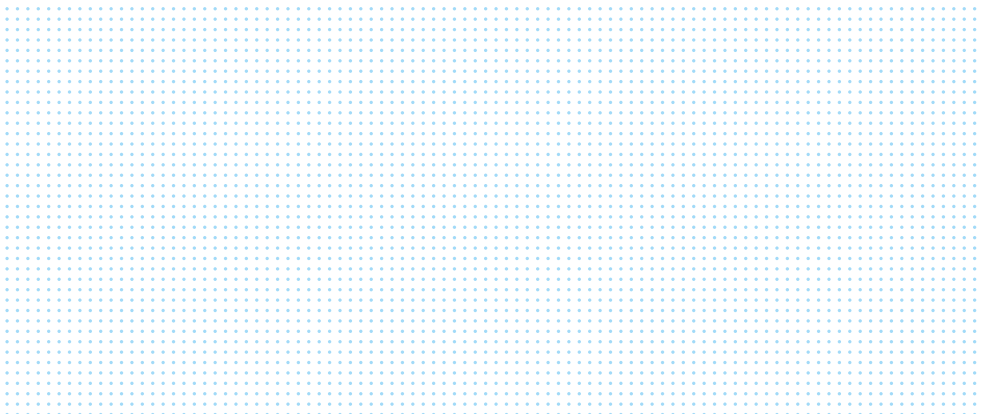
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