LabFam Individual Biographies (LIB): harmonised family and employment histories based on panel surveys

Ewa Weychert*, Beata Osiewalska*, Lucas van der Velde* & Anna Matysiak*

*Interdisciplinary Centre for Labour Market and Family Dynamics (LabFam)
University of Warsaw

Extended abstract:

The LabFam Individual Biographies (LIB) project represents a pioneering approach in social research by prioritizing the harmonization of individual trajectories, such as employment, partnership or fertility history, across the most widely recognized social surveys, including HILDA, GSOEP, BHPS/UKHLS, SHP, and PSID. Unlike traditional cross-sectional harmonization that focuses solely on snapshot characteristics, this innovative approach facilitates a comprehensive understanding of respondents' lives, offering a unique perspective on their experiences over time. By capturing the precise timing of events such as births, union formations, or job changes that might occur between standard survey waves, LIB provides researchers with a richer and more detailed view of the dynamics and changes within individual life courses. This project holds the potential for application across various disciplines, including sociology, demography, economics, and other social sciences. It seems particularly valuable in fields where comprehending and interpreting individual life trajectories over time is essential for addressing complex research questions.

The LIB project focuses on constructing spell data for individuals along three different life dimensions: fertility, which records the number and timing of births; partnership, which records the timing of union formation and union dissolution; and employment, which collects data on employment spells and characteristics of the jobs held, when available. This information is drawn from available longitudinal surveys, utilising their panel components, calendar modules and retrospective questionnaires. Specifically, in fertility history, we rely mostly on panel components and retrospective data (when available) from which we gathered and unified the individual information about each respondent's child: the month and year of birth of a child, gender of a child, parity, potential deaths and residency status. Similarly, in partnership history, we mostly employed standard wave data together with retrospective components in order to create spells concerning union formation. Not only did we harmonise the start and end of a marriage or cohabitation, but we also collected partners' characteristics (when available).

To construct an employment history, we used all available information coming from panel components, retrospective questionnaires as well as calendar activity modules. A range of resources enabled us not only to account for prolonged (un)employment spells together with their characteristics (including, among many, income, working hours, job satisfaction, unemployment reason, and so on), but also to incorporate spells that transpired between survey waves.

The inclusion of short-lasting spells enhanced the precision of the dynamics in individual employment trajectories. Such precision is invaluable when examining aspects such as

employment stability, transitions from education to the labour market, and the timing of maternity leave. As highlighted by Huinink and Brüderl (2021), comparing data at yearly intervals may not be suitable, as significant life events, such as job loss or parental leave, can transpire within much shorter timeframes than the wave intervals suggest. Recent studies, exemplified by Hudde and Jacob (2023), underscore the potential bias associated with relying solely on yearly data. Moreover, as observed by Watson (2009), calendar data, despite their wealth of information, are often underutilized in research, primarily due to their complexity and the entry barriers associated with their use. In response to this, the LIB project caters to the requirements of researchers involved in longitudinal analysis and those interested in studying life course phenomena by simplifying access to precise monthly longitudinal data, thereby reducing entry barriers.

Our harmonised biographies are part of a larger endeavour. The resulting databases are compatible with earlier harmonisation projects like the CNEF (Cross-National Equivalent File) (Frick et al., 2007) and CPF (Comparative Panel File) (Turek et al., 2021)). To some extent, our databases are also comparable to the harmonisation work of Perelli-Harris et al. (2015), who recovered partnership and fertility histories from retrospective questions in the Gender and Generations Survey. Following the examples of CPF, we provide open-source codes which allow the construction of harmonising biographies. These codes allow the user greater flexibility in choosing the time span, set of countries and the dimension of individual biographies to be analysed. Currently, we have harmonised biographies from three longitudinal databases SHP, HILDA, and SOEP, and we are working to recover biographies from Understanding Society and the PSID.

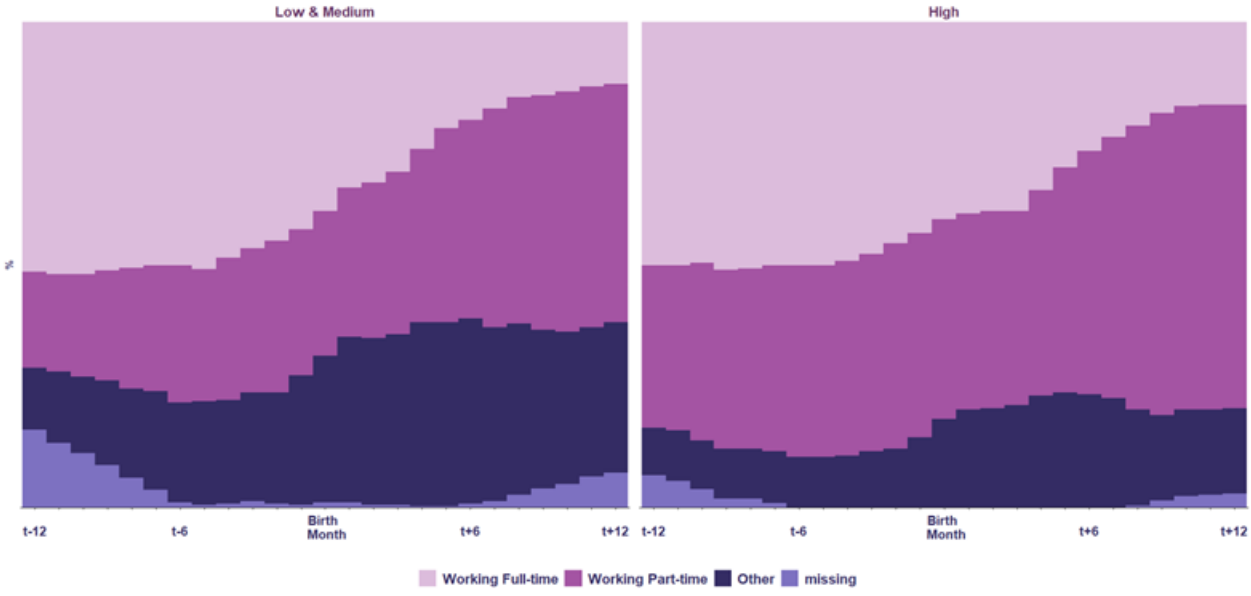
We illustrate the possibilities of our database by conducting a study of women's employment transitions in the time preceding and following childbirth, highlighting variations across educational levels. To this end, we examine the employment status of first-time mothers in the period of 12 months before and after the birth of a child using SHP data for Switzerland. Our findings indicate that more than 50% of women are engaged in full-time employment 12 months before giving birth (Figure 1). However, this proportion decreases to around 40% during the period surrounding childbirth and further declines to approximately 15% one year after the birth of a child. Additionally, among women who remain employed after giving birth, a substantial majority transition from full-time to part-time employment. Interestingly, women who were already working part-time before the birth of a child tend to maintain part-time employment post-childbirth, while those previously employed full-time tend to either switch to part-time employment or discontinue working altogether. Consequently, one year after giving birth, 55% of Swiss women are working part-time, followed by one-fourth of women who do not work.

Next, using the same dataset, we compare women's employment patterns by educational level over the period encompassing 12 months before and after giving birth to a first child (Figure 2). One year before giving birth, a similar proportion of low- or medium-educated and highly-educated women are actively engaged in full-time employment. However, in the ensuing months, both groups of women exhibited a tendency to transition to part-time employment. This transition begins several months prior to childbirth and becomes more pronounced after the birth. Consequently, among both groups, only a minority of women continue working full-time 12

months after giving birth. Notably, in contrast to their better-educated counterparts, women with lower or medium educational levels display a greater inclination to exit the labour market following childbirth, with this transition occurring immediately after the birth of a child.

Figure 1. Evolution of labour force status for first-time mothers in SHP (12 months before and after giving birth)

Figure 2. Evolution of labour force status of first-time mothers over 25 months (12 months before and after giving birth) by the level of education in SHP



Reference

Dubrow J. K., Tomescu-Dubrow I. (2015). The rise of cross-national survey data harmonisation in the social sciences: the emergence of an interdisciplinary methodological field. Quality & Quantity, 50, 4, 1449–1467

Franzoni, C., & Sauermann, H. (2014). Crowd science: The organization of scientific research in open collaborative projects. Research policy, 43(1), 1-20.

Frick, J. R., Jenkins, S. P., Lillard, D. R., Lipps, O., & Wooden, M. (2007). The Cross-National Equivalent File (CNEF) and its member country household panel studies. Journal of Contextual Economics–Schmollers Jahrbuch, (4), 627-654.

Hudde, A., & Jacob, M. (2023). There's more in the data! Using month-specific information to estimate changes before and after major life events (No. 1184). SOEPpapers on Multidisciplinary Panel Data Research.

Huntington-Klein, N., Arenas, A., Beam, E., Bertoni, M., Bloem, J. R., Burli, P., & Stopnitzky, Y. (2021). The influence of hidden researcher decisions in applied microeconomics. Economic Inquiry, 59(3), 944-960.

Perelli-Harris, B., Kreyenfeld, M. R., & Kubisch, K. (2010). Harmonized histories: Manual for the preparation of comparative fertility and union histories (No. WP-2010-011). Max Planck Institute for Demographic Research, Rostock, Germany.

Raybould, A., & Sear, R. (2021). Children of the (gender) revolution: A theoretical and empirical synthesis of how gendered division of labour influences fertility. Population Studies, 75(2), 169-190.

Turek, K. (2023). Accelerating Social Science Knowledge Production with the Coordinated Open-Source Model.

Turek, K., Kalmijn, M., & Leopold, T. (2021). The Comparative Panel File: Harmonized household panel surveys from seven countries. European Sociological Review, 37(3), 505-523.

Watson, N. (2009, July). Disentangling overlapping seams: the experience of the HILDA survey. In HILDA Survey Research Conference, University of Melbourne (pp. 16-17).

Huinink, J., & Brüderl, J. (2021). Editorial on the Special Issue "The identification of causal mechanisms in demographic research". Comparative Population Studies, 46.