

The impact of COVID-19 on fieldwork efforts and planning in pairfam and FReDA-GGS

Tobias Gummer
GESIS

Claudia Schmiedeberg
LMU Munich

Martin Bujard
BiB

Pablo Christmann
GESIS

Karsten Hank
University of Cologne

Tanja Kunz
GESIS

Detlev Lück
BiB

Franz J. Neyer
Friedrich Schiller University Jena

The worldwide spread of the COVID-19 pandemic has disrupted the fieldwork of surveys. The data collection efforts via the face-to-face mode have been affected especially, including the ongoing surveys that were in the field during the COVID-19 outbreak and the planned surveys scheduled for fieldwork later in 2020. We provide an account of how COVID-19 has impacted two family studies in Germany: “The German Family Panel” (pairfam) and the “Generations and Gender Survey” (GGS) both of which will be part of the “Family Research and Demographic Analysis” (FReDA) infrastructure. Based on pairfam, we illustrate the effects of the pandemic on ongoing data collection and the measures taken to proceed with fieldwork, and we report on a special COVID-19 survey. Based on FReDA-GGS, we outline how COVID-19 has affected our planned survey schedules, what future challenges are expected when fieldwork becomes possible again, and how we have adapted our plans accordingly.

Keywords: COVID-19; GGS; FReDA; family research; survey operations

1 Introduction

The spread of the COVID-19 pandemic since January 2020 has affected everyday life around the world, and rigorous non-pharmacological interventions (NPIs) have been issued by most countries, including quarantine, social distancing, and travel restrictions. Face-to-face (F2F) surveys have been affected especially by these NPIs, since interviewers usually conduct surveys in respondents’ homes. As a result, F2F data collection has been halted by fieldwork institutes, which has led to the interruption of fieldwork for ongoing surveys and the postponement of planned surveys scheduled to start later this year. Since the interviewing capacities of fieldwork institutes are limited, the anticipated consequences are considerable delays for planned surveys and growing queues for those surveys delayed.

In the present study, we illustrate how COVID-19 has affected the planned and ongoing fieldwork efforts of two panel surveys in Germany “The German Family Panel” (pairfam) and the “Generations and Gender Survey” (GGS) both of which will be part of the “Family Research and Demographic Analysis” (FReDA) infrastructure. With respect to pairfam, we examine the effects of the COVID-19 pandemic on the ongoing F2F data collection and the measures we

have implemented to proceed with the fieldwork. Based on FReDA-GGS, we discuss how COVID-19 has affected our initial schedule, the challenges we expect, and the measures we have prepared as a fallback.

2 The German Family Panel (pairfam)

pairfam is a multi-actor panel study in Germany covering a wide range of family-related topics (Huinink et al., 2011). Since 2008, pairfam has collected data from a probability-based sample (N=12,000) of the birth cohorts 1991–1993, 1981–1983, and 1971–1973 (Brüderl et al., 2019). With Wave 4, the related study DemoDiff, with its East German supplemental sample, was integrated into pairfam. A new cohort (born 2001–2003) and a sample refreshment of the two younger initial cohorts was added, resulting in 9,435 respondents in Wave 11. Data are collected in annual waves as computer-assisted personal interviews (CAPI) by a fieldwork institute (Brüderl et al., 2018). To promote participation, whenever possible, the same interviewers are allocated to the same respondents in each wave. To ensure privacy, sensitive questions are administered on-site as computer-assisted self-interviews (CASI). In addition to the primary respondents, their partners and children aged 8 to 15 years are surveyed as well. The partners receive a paper-based self-administered questionnaire, whereas the children are interviewed via CAPI in the primary respondent’s home.

Contact information: Tobias Gummer, GESIS, PO Box 12 21 55, 68072 Mannheim, Germany (E-mail: Tobias.Gummer@gesis.org)

Impact of COVID-19 on the ongoing pairfam fieldwork

As a consequence of the spread of COVID-19, the fieldwork of Wave 12 was suspended temporarily on March 19, 2020. This suspension affected the initial and refreshment sample to different degrees. The fieldwork that started in November 2019 was planned to be finished by the end of April 2020 for the *initial sample*. To establish a one-year distance to the interviews of the previous wave, only a small fraction of the *refreshment sample* was fielded in November 2019; the remainder was fielded in February 2020, and the refreshment sample was expected to be completed by the end of June 2020. Thus, when the fieldwork institute stopped its fieldwork, a major part of the interviews for the initial sample already had been conducted (78%), whereas only 28% of the refreshment sample fielded in February 2020 had been interviewed at that time, which resulted in an uneven distribution of completed cases between the initial (N=4,115) and refreshment (N=1,996) samples.

As a result of the interruption in fieldwork, the pairfam project team was faced with decisions about whether and how to proceed with Wave 12. Should we hope to continue the F2F interviews in June? Should we stop the fieldwork of this wave altogether? Should we switch to other survey modes (e.g., telephone)? Several considerations were taken into account in the decision-making process. Due to the pairfam schedule, it would be necessary to complete the fieldwork at the latest in August 2020; otherwise, preparations for the following wave (e.g., preloads, panel maintenance, and address research) would be disrupted. Stopping the fieldwork altogether would have resulted in many missing cases, especially in the refreshment sample. Moreover, for the remaining cases, we expected detrimental effects of not continuing the fieldwork with respect to respondents' participation in subsequent waves due to a long period without contact (Laurie, 2008). Finally, a mode switch might introduce mode and selection effects (Allum, Conrad, & Wenz, 2018), which could compromise the data for panel analyses.

Based on these expectations, the pairfam project team decided to continue with the fieldwork and switched to computer-assisted telephone interviews (CATI) for all the remaining cases who had not been interviewed yet in Wave 12. CATI was preferred over computer-assisted web-based interviews (CAWI) because it was easier to adapt the original CAPI questionnaire to the former than to program a web-based questionnaire. To reduce the effects of the mode switch on survey outcomes, we took several measures. First, to take advantage of the personal relationship between a respondent and a familiar interviewer—and thus promote high respondent cooperation—we assigned the already scheduled CAPI interviewers as telephone interviewers. Second, we split the CAPI interview into two parts. The main part of the questionnaire was conducted as CATI, based on a questionnaire adapted to telephone interviewing (i.e., we included

answer lists in the question text and we omitted a few very complex questions). For the sensitive modules, which usually are asked in the CASI section of the interview, a paper-based self-administered questionnaire was mailed to the respondents after their CATI interview. Again, the questionnaire was adapted to the paper-based mode (i.e., extensive filtering, question loops, and questions that were administered only to a small fraction of respondents were omitted). Third, we adapted the multi-actor elements to the new requirements. Since the partner questionnaire already was designed as paper-based, no changes were necessary, whereas we redesigned the child interview by adapting it to the CATI mode. Fourth, respondents participating in a CATI interview were sent the same incentive via mail as those interviewed in the CAPI mode (for the pairfam incentive strategy see Brüderl et al., 2018).

After these decisions had been made, on April 29, 2020, the fieldwork institute sent a letter to the respondents informing them about the mode change. The respondents whose telephone number was known from previous waves were called by “their” interviewer to make an appointment for the telephone interview. All the respondents whose telephone numbers were unknown were asked to contact the interviewer or fieldwork institute and provide their number. Overall, telephone numbers were available for approximately two-thirds of the contacted respondents. Thus, we expect that contact rates will be lower than those for the planned CAPI study, which will prevent us from achieving the number of interviews targeted for Wave 12.

pairfam COVID-19 survey

The pairfam project team initiated an additional study to collect data on the consequences of COVID-19 on family life. This unique data will enable an examination of the implications of the pandemic on family life, and it can be matched with the regular pairfam data for longitudinal analysis. The pairfam COVID-19 survey covers topics such as changes in occupational status and income, division of house work, relationship quality (e.g., intimacy, conflict), well-being (e.g., stress, loneliness, depressiveness), parent-child contact in stepfamilies, child schooling and screen time, strain in the parenting role, and family climate. This survey was designed as a CAWI interview of 15-minutes length and was scheduled for mid-May to June 2020. All the primary respondents eligible for an interview in Wave 12 were invited by mail, but they were not offered an incentive.

3 The “Generations and Gender Survey” (GGS) and “Family Research and Demographic Analysis” (FReDA)

The GGS is a cross-national panel study focusing on family relationships and gender role topics (Emery et al., 2019; Gauthier, Cabaço, & Emery, 2018). GGS was relaunched

in 2020 in many predominately European countries with a fundamentally renewed questionnaire. Its German survey is part of FReDA, a new German data infrastructure for family and demographic research established in 2020. The first recruitment survey of FReDA features the GGS questionnaire, and consenting participants will be part of the initial sample for subsequent panel interviews that will be merged with the pairfam sample in 2022. For simplicity, in the following paragraphs, we refer to the data collection prior to the integration of the pairfam sample as FReDA-GGS.

The recruitment interviews for FReDA-GGS will be conducted in two modes. Based on a probability-based sample of the German population aged 18 to 49 years, we plan to conduct 8,000 CAPI and 7,000 CAWI interviews. CAPI interviews will be the center of the data collection efforts, whereas CAWI interviews provide additional statistical power and enable the analyses of mode effects. We made a decision in favor of CAWI as an additional survey mode because of its comparatively low costs per case and because contacting these cases only required their addresses. Thus, it is possible to draw one gross sample from population registers and randomly allocate it to CAPI or CAWI mode. For CAPI, respondents will be contacted personally by interviewers after receiving an invitation letter by mail, whereas CAWI respondents will receive a participation link via an invitation letter by mail. All participants' partners will be invited to participate in a self-administered mixed-mode survey (i.e., web-based and paper-based). The fieldwork for the FReDA-GGS recruitment survey was originally scheduled to start in November 2020 and end in July 2021. Sampling from the population registers was supposed to begin in March 2020, and the first re-interviews (i.e., first panel wave) were scheduled for Autumn 2021.

Impact of COVID-19 on the planned FReDA-GGS fieldwork

In early March 2020, the FReDA project team decided not to start the sampling for the FReDA-GGS recruitment survey. Shortly thereafter, the team was informed that the fieldwork institute had stopped its data collection for all ongoing F2F surveys. On March 17, 2020, the FReDA project team and the fieldwork institute agreed to postpone the fieldwork start of the CAPI interviews for the FReDA-GGS recruitment survey to February 2021, since queues of surveys already had formed. At this time, it was unknown how the situation would evolve and whether further adjustments in survey planning and implementation would be needed. Accordingly, we decided to postpone the start of sampling to mid-May 2020 to avoid drawing a sample that would be outdated at the fieldwork start.

We assumed that several challenges relating to conducting F2F surveys would arise when fieldwork became possible again. First, we expected queues of delayed surveys

that were supposed to be fielded during the COVID-19 period or scheduled thereafter. Thus, we were skeptical about whether time and personnel resources would be available at the fieldwork institute as planned. Second, interviewers would be confronted by a high workload to catch-up with the queued surveys, which could deplete their motivation until the postponed field start of the FReDA-GGS survey in February 2021. Third, in Germany, most interviewers are part of the COVID-19 high risk group (i.e., the majority is aged 60+ years). Therefore, it was unclear whether the full interviewer staff would be available and willing to conduct in-home CAPI interviews before a COVID-19 vaccine becomes available, which might further diminish fieldwork capabilities. Fourth, NPIs require people to avoid personal contact for a considerable amount of time, which might affect attitudes and behavior in the future, especially if an unknown interviewer makes contact and invites a person to conduct a CAPI interview in their home. Thus, we expected cooperation among respondents to be lower than before the COVID-19 pandemic.

In view of these anticipated consequences for F2F surveys after the COVID-19 crisis, in March 2020, we put an action plan into place that included several measures. Our plan aims to ensure a high response rate for the FReDA-GGS recruitment survey, and at the same time adhere to the planned schedule for subsequent panel waves.

Initially, a 5€ prepaid incentive was planned for all respondents of the FReDA-GGS recruitment survey. Due to the expected lower willingness of respondents to cooperate in F2F surveys after the COVID-19 crisis, we will test experimentally the use of an additional 10€ postpaid incentive to improve cooperation.

If participation in the F2F mode turns out low and the target sample size cannot be achieved within the given time frame, we can activate two further measures. First, we will increase the number of CAWI interviews, which is easily possible, since all required materials (e.g., web questionnaire, invitation letter) already are available for the planned 7,000 CAWI cases. To enable this step, we will draw a larger gross sample to have a larger address pool in reserve. Expanding the share of CAWI interviews will be easily possible, and the fieldwork is expected to be quicker compared to the F2F mode.

Second, we will invite all non-contacts and soft refusals of the F2F mode to a CAWI interview *after* the fieldwork of the CAPI interviews has been completed. This measure aims at further increasing the overall participation rates, and at enhancing the participation of strata that are not so easy to reach by CAPI interviewers (e.g., young or mobile individuals). This measure can further stimulate participation among individuals with health issues who might increasingly refuse to participate in a F2F survey due to COVID-19 fears.

4 Conclusion

In this study, we provided an account of how the COVID-19 pandemic disrupted the fieldwork processes and planning of pairfam and FReDA-GGS. These two family studies differ in how they were affected by the pandemic and in the measures that circumstances allowed them to employ. With respect to pairfam, its ongoing data collection was interrupted. However, it was paramount to continue its fieldwork so to avoid negative impacts on participation in subsequent waves, and to finish its data collection in time to not disrupt the preparations for the following wave. With respect to FReDA-GGS, preparations for the planned data collection were interrupted, and measures were taken to make the planned design feasible with a postponed field start. In this case, the situation enabled a focus on the anticipated consequences of the pandemic for post-COVID-19 survey operations and survey climate, and to put action plans in place. In our opinion, clear and timely accounts of how surveys were affected by the COVID-19 pandemic are essential for several reasons.

First, with respect to substantive research about the effects of COVID-19 and longitudinal analyses using data from this period, it will be essential to understand under which circumstances data were collected. Detailed information is necessary for judging data quality and for accounting for period effects in longitudinal analyses. In the case of mode switches, it is paramount to avoid methodological artifacts, since effects due to mode changes might be misinterpreted as substantive changes across time.

Second, transparency about how data collection protocols were altered, which issues arose, and why changes were implemented will serve to guide research to develop solutions for methodological issues introduced by COVID-19.

Third, COVID-19 might stimulate methodological transitions towards new best practices. For instance, pairfam and FReDA-GGS have promoted mixed-mode designs involving self-administered interview modes. When analyzing change in survey designs and outcomes across time (de Heer & de Leeuw, 2002; Gummer, 2019), in-depth knowledge about such relevant events is required.

Finally, a timely publication of the COVID-19 impact on ongoing and planned surveys will provide crucial information for other F2F surveys faced with queues in the field or the changed survey climate. These surveys can draw on the knowledge of previous surveys, and depend on them to decide whether and how to adapt their survey designs.

Acknowledgements

FReDA is funded by the German Federal Ministry of Education and Research (BMBF) for the duration 2020–2024, grant no 01UW2001A, 01UW2001B, 01UW2001C, and is coordinated by Martin Bujard, Norbert F. Schneider, Christof Wolf, Tobias Gummer, Karsten Hank, and Franz J. Neyer.

pairfam is funded as a long-term project by the German Research Foundation (DFG) and is coordinated by Josef Brüderl, Sonja Drobnič, Karsten Hank, Franz J. Neyer, and Sabine Walper.

References

- Allum, N., Conrad, F. G., & Wenz, A. (2018). Consequences of mid-stream mode-switching in a panel survey. *Survey Research Methods*, 12(1), 43–58.
- Brüderl, J., Drobnič, S., Hank, K., Nauck, B., Neyer, F. J., Walper, S., ... Wilhelm, B. (2019). The German Family Panel (pairfam). GESIS Data Archive, Cologne. ZA5678 Data file Version 10.0.0. doi:10.4232/pairfam.5678.10.0.0
- Brüderl, J., Schmiedeberg, C., Castiglioni, L., Becker, O. A., Buhr, P., Fuß, D., ... Schumann, N. (2018). The German Family Panel: Study design and cumulated field report (waves 1 to 10). *pairfam Technical Papers*, 01.
- de Heer, W., & de Leeuw, E. (2002). Trends in household survey nonresponse: A longitudinal and international comparison. In R. M. Groves, D. A. Dillman, J. L. Eltinge, & R. J. A. Little (Eds.), *Survey nonresponse* (pp. 41–54). New York, NY: John Wiley.
- Emery, T., Cabaço, S. L. F., Lugtig, P., Toepoel, V., Lück, D., Naderi, R., ... Bujard, M. (2019). GGP technical case & e-needs. *SocArXiv*.
- Gauthier, A. H., Cabaço, S. L. F., & Emery, T. (2018). Generations and Gender Survey study profile. *Longitudinal and Life Course Studies*, 9(4), 456–465.
- Gummer, T. (2019). Assessing trends and decomposing change in nonresponse bias: The case of bias in cohort distributions. *Sociological Methods & Research*, 48(1), 92–115.
- Huinink, J., Brüderl, J., Nauck, B., Walper, S., Castiglioni, L., & Feldhaus, M. (2011). Panel analysis of intimate relationships and family dynamics (pairfam): Conceptual framework and design. *ZfF—Zeitschrift für Familienforschung/Journal of Family Research*, 23(1), 77–101.
- Laurie, H. (2008). Minimizing panel attrition. In S. Menard (Ed.), *Handbook of longitudinal research: Design, measurement, and analysis* (pp. 167–184). Amsterdam, NL: Academic Press.

Commentary

The paper “The impact of Covid-19 on fieldwork efforts and planning in pairfam and FReDA-GGS” describes the changes in two family studies in Germany regarding fieldwork design and mode of data collection that resulted from the Covid-19 outbreak. The German Family Panel (pairfam) was struck by the outbreak during the Wave 12 face-to-face data collection, had to suspend fieldwork, and make a fast change to CATI to be able to proceed again. It also designed

a special Covid-19 CAWI study. FReDA-GGS was not in the field but had to adjust the planning of the next data collection and take into account that face-to-face interviewing might still be affected even in the coming years. It is very interesting to learn how such multi-actor panel studies, which include different age cohorts, can change to a different mode than face-to-face interviewing as well as to learn about the choices they made in responding to such a crisis, both under time pressure and with a long-term view. The new fieldwork designs for each of the studies are now:

- Pairfam changes from CAPI to CATI for the regular and the child interview, with a PAPI questionnaire for sensitive items and for partner interviews. No non-contact or refusal follow-up in other modes is previewed (at least not described).
- Pairfam developed an additional Covid-19 questionnaire that is carried out in CAWI.
- FReDA-GGS will use CAPI and CAWI for different subsamples, moving to more CAWI if CAPI response is too low. Non-contact and refusal follow-ups are planned in CAWI after CAPI interviews, but no follow-up in another mode for the initial CAWI group.
- FReDA-GGS has no special Covid-19 questions (at least not described).

The summary of the design changes in each of the two studies illustrates our major discussion point. We wonder why the two studies, which, as the paper states, will together constitute the “Family Research and Demographic Analysis” infrastructure in Germany, choose such different solutions in terms of change in mode of data collection. We would expect the studies to cooperate more closely and strive to harmonize their design choices and methodology. The Covid-19 situation seems an exceptional opportunity to do so. First, the mode of data collection of each study must now be changed anyway, which could be used as a starting point towards more comparability. Second, the difference in timing of the fieldwork allows the later study (FReDA-GGS), to learn from the experience with new modes of data collection of the earlier study (pairfam) if it implements the same mode(s). We wonder whether a harmonized mixed-mode design was ever considered that could be used by both studies, during the peak of the pandemic by pairfam as well as in the post-pandemic stage by FReDA-GGS. For example, a CATI/CAWI combination in the first stage of each of the studies, followed by a PAPI non-contact/refusal follow-up during the pandemic (pairfam) and a CAPI follow-up when it is possible again (FReDA-GGS).

In the paper, it seems as if the mode adaptations in each of the studies were chosen completely independent. The reasons for such different choices are not clear. Why is pairfam using CAWI for the special Covid-19 questionnaire, but

CATI for the regular questionnaire? Additional CAWI could complement CATI, especially since phone numbers are available only for about two-thirds of the contacted respondents. Furthermore, why is FReDA-GGS not also planning to use CATI, like pairfam, in addition to the CAWI? Finally, did FReDA-GGS consider to also include (part of) the pairfam Covid-19 questionnaire in their data collection? This would allow to study the impact of the virus and the policy measures during the peak of the outbreak as well as in the years after. The two family studies constitute a rich and very valuable source of data in Germany, which includes data on several birth cohorts. These age cohorts are likely to differ in willingness to participate in surveys and in different modes. For example, the pairfam 2001-04 cohort might be more difficult to contact for a CAPI than the 1971-1973 cohort, but be more willing to conduct a CAWI. It is certainly not easy to design and implement fieldwork using different modes for different age groups, and for pairfam a quick implementation was crucial. However, for FReDA-GGS there would still be time to consider a more targeted mixed-mode design, also by making use of the results of the pairfam study to identify the low and high responding groups in the CATI and in the Covid-19 CAWI, as compared to the CAPI in previous waves.

Annette Scherpenzeel and Michael Bergmann on behalf of
the SHARE-ERIC Central coordination team
Max Planck Institut für Sozialrecht und Sozialpolitik
Munich Center for the Economics of Aging, and
Survey of Health, Ageing and Retirement in Europe