

Quantitative surveys of refugees

Between pragmatism and the generalizability claim of empirical data

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Contribution to the Ad Hoc Group "Möglichkeiten der quantitativen Erforschung schwer erreichbarer, versteckter und marginalisierter Bevölkerungsgruppen"

Introduction

The number of asylum seekers who arrived in Germany increased rapidly in the past decade with a peak in late 2015. This posed and still poses major challenges for German policymakers and society with a great need for timely, valid, and reliable data to deal with the situation. In this contribution we are dealing with these questions and give at least a hint as to which challenges must be addressed when researching the lives of refugees, which sampling strategies are used in research practice, and which advantages and disadvantages follow from the different approaches. Furthermore, we address the lessons from the field learned from interviewing refugees in shared accommodation as well as in language and integration courses in Bavaria, a federal state of Germany.

Refugees as a vulnerable and hard-to-persuade group

Refugees are a vulnerable population. The vulnerability is often intersectional; a concept first described by Kimberlé Crenshaw (1989). This fact has to be taken into account in the whole research process from choosing the research questions (What are appropriate research topics?), designing the sampling strategy and the questionnaire (How high is the burden for the respondents, e.g., given their traumatic experiences? Where and how are the interviews to be conducted?), securing the anonymity of and protecting respondents (How can both be ensured?) to the impact of the dissemination process (Which desired and undesired consequences follow from publishing research outcomes?). In research practice one result of this vulnerability is that some refugees are very reluctant to participate in surveys or to answer certain questions. This makes them a hard-to-persuade group for social researchers. In our project we came across this issue multiple times, for example in the form of the fear of persecution by the state of origin or concerns about maintaining their residence status (for other projects with similar design see e.g., Haug 2017, 2019; Röder et al. 2018). Thus, anonymity must not only be assured very strictly,

but must also be communicated to the respondents appropriately. This statement is underlined by Kunz's (2013) research which shows that anonymity can have a positive effect on the response rate of groups with a high risk of being socially condemned.

Refugees as a hidden and hard-to-reach group

Refugees not only differ from the general population in Germany in terms of a special vulnerability. There are also big challenges for survey researchers concerning sampling strategies. One of them is the proportion of refugees in the total population, which can be approximated by the numbers contained in the register of foreigners (Ausländerzentralregister, AZR). According to official statistics, about 2 million refugees live in Germany, which is a share of 2.3% of all residents or 16.4% of all non-citizens in Germany (Statistisches Bundesamt 2022). Therefore, refugees are a rare population. The group itself is very volatile and time dependent, as there are rapid changes in kind and quantity of in- and outflows and frequent internal migration processes. This poses major challenges in defining the population as well as recruiting and keeping in touch with sample members (Kühne et al. 2019). Furthermore, refugees are a very heterogeneous group with great differences in subpopulations (e.g., language, education, religiosity, socialization, ...). Presumably, there is also a higher proportion of migrants without legal status compared to other migrant populations. In addition, many refugees live in shared accommodation. According to the IAB-BAMF-SOEP Survey of Refugees (a random sample drawn from the AZR, which is implemented in the German Socio-Economic Panel, see below) the proportion of refugees in the sample living in shared accommodation amounted to 46% in 2016 and declined to 25% in 2018 (Tanis 2020). This high share is problematic as institutionalized populations are mostly excluded in general population samples (Schnell 1991).

Germany lacks a national population register. For this reason, the gold standard of probability sampling uses population registers of the municipalities or telephone-based procedures like random-digit-dialling. These sampling designs are very costly when used for refugees due to the necessary screening interviews and their small share of the total population (Schnell et al. 2013). The costs can be reduced by prior classification and multistage stratified random sampling. Since only little information is available from the municipalities (Salentin and Schmeets 2017), selection by countries of birth or citizenship (e.g., by using MigraPro, VDSt 2013) as well as onomastic procedures (Humpert and Schneiderheinze 2002; Schnell et al. 2013) are typically used.

The most important population data source in Germany is the population census conducted by the Federal Statistics Office, the German microcensus. This representative rotation household panel surveys about 1% of the population or 810,000 respondents every year and covers multiple topics especially on working and living conditions. The sample size should be high enough to conduct substantive analyses of the refugee population. But unfortunately, no information on residence status is available. Since 2017 a question about the main reason for migrating to Germany is asked of respondents with personal migration experience. This variable can be used to approximate the refugee population as one of the response options is "flight, persecution, displacement, asylum". But this migration motif is only a subjective assessment. Therefore, equating the construct with a specific residence status is not appropriate. It furthermore refers to one specific point in time, whereas the respondent's legal status may change over the years. In both cases this leads to a mismatch. To take this into account, it is reasonable to restrict the population definition to a certain duration of stay. Another limitation is that the variable is only available for respondents living in private households, since only proxy interviews with very limited

information are conducted in shared accommodation. As an approximation, the type of accommodation can be used as an indicator (Haug and Schmidbauer 2022).

Based on the migration motif, the refugee population in private households for 2017 can be approximated with 1,918,000 individuals, or 2.3% of the total population in private households and 14.6% of all immigrants with personal migration experience (Statistisches Bundesamt 2018). After restricting the definition to post-2014 immigrants, 775,000 individuals meet the criteria. A comparison of this figure to 90,600 residents in refugee accommodation shows that at least 10.5% of all refugees are institutionalized – a vast difference to the results of the IAB-BAMF-Refugee sample (Haug and Schmidbauer 2022). As can be seen by this example, it is very important to clearly define the target population according to the research questions as the different approaches can have a considerable impact on the results.

Based on these considerations the best possible sampling frame for refugees in Germany is the central register of foreigners (AZR), which is managed by the Federal Office for Migration and Refugees (Bundesamt für Migration und Flüchtlinge, BAMF) (Schnell et al. 2013, Haug et al. 2019). It contains information about residence status as well as a multitude of characteristics which makes it possible to sample refugees and their households in a very detailed manner. Until August 2021 it was not possible for scientific projects conducted by organizations other than the Federal Office to receive access to the address data of the AZR. Since then, access can be provided under certain conditions via the in-house research data centre (BAMF-FDZ), which also gives assistance (BAMF 2021). But the register of foreigners also has disadvantages which need to be considered. Since it is compiled from official reporting processes, the AZR is neither up to date (“EASY gap”: a person is recorded in the register only after they have made a formal application for asylum), nor does it contain only valid cases, as it depends on personal reports (e.g., it contains a lot of cases of non-registered return migrants). Refugees who naturalize are removed from the registry. Furthermore, it is not possible to identify illegalized forced migrants. The first powerhouse of data on refugees in Germany is the IAB-BAMF-SOEP longitudinal survey of refugees, which is based on a probability sample drawn from the register of foreigners. It contains refugees aged 18 and older, who entered Germany between 1 January 2013 and 31 January 2016 and filed an asylum application for themselves and the members of their households (Kühne et al. 2019).

Due to the before mentioned multiple problems in sampling processes and sparse resources, many studies in the field relied on sampling frames with smaller scope or non-probability samples. The most frequently used sampling designs are total surveys, quota samples, and ad hoc surveys in shared accommodation for asylum seekers (Ankunftszentrum/AnKER) and refugees (Gemeinschaftsunterkunft), especially for refugees who have recently entered Germany (Haug et al. 2019). Similar designs can be used for total surveys, quota samples, ad hoc surveys as well as random samples in integration courses (Integrationskurs) offered by BAMF or other language courses. Other methods of sampling are surveys of members of migrant organizations, web surveys via social media, snowball sampling, or time-location sampling. One design that has been increasingly used recently, is respondent-driven sampling.

Non-probability surveys have the disadvantage that the inclusion probabilities are unknown or can only be estimated roughly. Therefore, the estimates from these samples may be highly biased. However, a pragmatic research strategy is to collect data fit for purpose. Refugees are a hard-to-reach population, and many relevant aspects of their lives are still unresearched. Non-probability samples can help to shed light on this (Kohler et al. 2019, p. 157). The established total survey error framework (Groves and Lyberg 2010) cannot directly be used as it builds on probability theory but can function as a basis for theoretical reasoning when designing the sample. The quality of the sample result increases with closer approximation to the target population and a clearer understanding of the mechanisms of sample inclusion. Statistical adjustments may correct imbalances (Mercer et al. 2017). If there is some kind of “sampling frame” and known social characteristics like age, gender, or citizenship of the frame members,

weighting could improve representativity further. But the reasoning behind sample design as well as its pitfalls regarding generalizability must be openly communicated.

Lessons from the field: Democracy and Participation of Refugees (DePaGe)

After these general thoughts about sampling refugees we now present the research design of the project “Democracy and Participation of Refugees” (DePaGe) which was funded by the Bavarian State Ministry of Science and the Arts (BayStMWK) as part of the Bavarian Research Association “ForDemocracy”. The mixed-methods approach combines a qualitative expert and a quantitative refugee sample design. The qualitative expert interviews included social work professionals, teachers and administrators of language and integration courses, administrators of shared accommodation, and members of voluntary associations (n=20). On the other hand, the quantitative research design focused on refugees in shared accommodation in six Bavarian cities, where the fieldwork in one city could not be realized due to the coronavirus pandemic (n=377). Another sample was drawn in language and integration courses in Regensburg (n=109).

Target population and sampling in shared accommodation in Bavaria

As stated previously, the quantitative survey combines two samples. The first was drawn in the state-funded shared accommodation. This sample relies on the reasoning that the housing situation of refugees in the beginning of their stay in Germany is highly regulated. Asylum seekers are obligated to live in shared accommodation until they have been granted protected status, but for no longer than 24 months. The precise regulations can differ between the federal states. But even after the possibility to move out is granted, in many cases it is impossible due to the tight situation on the housing markets in Germany. Therefore, surveys in shared accommodation approximate the total refugee population especially shortly after their arrival in Germany, which is why they are very commonly used (e.g., Deger et al. 2017; Haug et al. 2017; Röder et al. 2018). But the social integration of residents is lower (Siegert 2021), which makes it even more important to survey them. At the same time, this is also a very important pitfall since social integration can be underestimated in comparison to the total refugee population.

In our case, we tried to control for possible differences in structural areas by sampling in all shared accommodation run by district governments in six heterogeneous cities (Munich, Nuremberg, Ingolstadt, Regensburg, Landshut, Hema) at the turn of the year 2019/2020 (see Table 1). Unfortunately, the district government of Upper Bavaria restricted the survey in Munich to the five biggest facilities. This reduced the “sampling frame” of the city by about two thirds (~3700 residents max). Also, the already planned survey in Nuremberg (~1540 residents) could not be conducted due to the coronavirus pandemic. The sampling was conducted as an attempt to achieve a full survey by means of ad hoc interviews. The fieldwork was supported by native-speaking language mediators who visited all housing units, invited the residents to participate and explained the conditions and topic of the survey. The survey mode was primarily self-administered paper-and-pencil (PAPI). To account for different language proficiencies, seven different languages were provided. Furthermore, the language mediators were instructed to primarily help in case of questions. On a secondary level, personal interviews with native-speaker interpreters in a face-to-face interview setting were offered (cf. Haug et al. 2017, 2019). One out of five of all eligible people in the sample were interviewed instead of self-completing the question-

naire (20.2% of all eligible cases in shared accommodation). If we compare the different locations, there are only small differences in the response rates. As the respondents were more easily encountered in the afternoon, these differences are mostly due to the time of day the survey was conducted.

Table 1: Sampling results in shared accommodation in five Bavarian cities (DePaGe)

Type	City	Residents	Over 18 years	Interviews	Response rate
Large metropolitan city	Munich	1266	796	138	17.3%
City	Regensburg	938	679	123	18.1%
City	Ingolstadt	190	134	21	15.7%
Town	Landshut	613	408	76	18.6%
Small town	Hemau	122	104	19	18.3%
Total	-	3129	2120	377	17.8%

Data source: DePaGe

Some limitations must be considered. The willingness to participate was quite high. But compared to studies at the time of the high influx of refugees (2015/2016) many respondents could not be reached. Other residents indicated that this was mostly because of educational and labour market integration. Some residents were sceptical about the survey. But in many cases the language mediators were able to help by clarifying the aims and content of the study, which led to successful interviews. Also, many respondents had limited or no experience at all with questionnaires. This was clearly shown by the fact that interviewers experienced that many respondents were not aware that they were supposed to give their own assessment and not statements made by other people or to answer by referring to social expectations in their country of origin. Despite the seven language versions of the questionnaire (Amharic, Arabic, English, Farsi, French, German, Tigrinya) and other oral language skills (e.g., Kurdish), some interviews could not be conducted due to lack of language skills (e.g., Somali, Azerbaijani).

Target population and sampling in language and integration courses in Regensburg

To achieve a larger scope of the study a second sample was drawn in language and integration courses in Regensburg. The target language level ranged from literacy courses to university entrance courses. Here the target population were all adult participants with a humanitarian residence status at the turn of the year 2019/2020. In this setting the gate keepers were the educational providers, of which all except one cooperated. Out of 110 adult refugee students 109 participated – which equals a participation rate of 99.1% or in other words, a total survey.

There is a quite clear understanding of how the residents of shared accommodation relate to the total refugee population. Such a clear understanding is not given for language and integration courses as course participation depends on multiple personal, contextual, and structural factors. There is also the possibility for an overlap in the two surveyed populations, as the students in Regensburg are potential residents of the shared accommodation which was also surveyed. To account for this risk, double participation was prevented by a query when distributing the questionnaires. The fieldwork also shows that one important concern is that students think the survey is a test and they should give the “right”

answer instead of their own assessment. Therefore, the interviewers were instructed to emphasize on this.

Distribution of socio-demographic variables in the two samples

If we compare the two samples, it is quite obvious that there are many differences. The first two columns of Table 2 show that compared to the total average in the shared accommodation sample group the course participants are younger, less frequently married or parents, have a shorter duration of stay and a smaller share of residents of shared accommodation. Also, school-leaving and university entrance qualifications are more frequent among course participants, that means, their educational level is higher. On the right-hand side of the table the figures show noticeably large differences between the cities. But the bigger picture remains. This is also the case if the two samples in Regensburg are compared. It can be concluded from these figures that sample composition depends heavily on the place and kind of sampling.

Table 2: Distribution of socio-demographic variables in the two samples (DePaGe)

	Course	Shared accommodation					
	R (n=109)	Total (n=377)	M (n=138)	R (n=123)	I (n=21)	L (n=76)	H (n=19)
Ø Age	29.9	34.8	35.7	34.9	30.3	36	29.9
% Male	58.3	57.6	43.9	63.5	52.6	65.6	93.8
% Unmarried	50.0	37.9	33.0	36.4	50.0	38.7	64.7
% Parenthood	37.6	70.2	80.7	64.8	73.7	63.3	50.0
Ø Duration of stay	3.5	4.1	4.4	4.3	3.9	3.5	3.5
% Shared accommodation	28.4	93	94.8	89.4	100	91.9	100
% School-leaving cert.	72.5	54.5	62.0	51.9	36.8	49.2	56.2
% University entrance cert.	56.2	29.2	30.0	24.0	26.3	33.3	43.7

M=Munich; R=Regensburg; I=Ingolstadt; L=Landshut; H=Hemau

Data source: DePaGe

Summary and conclusion

To summarize, refugees are a hidden, hard-to-reach, vulnerable, and in part a hard-to-persuade population. This poses major challenges for designing and implementing surveys on their lives and attitudes. Common techniques of probability sampling are problematic, particularly because the proportion of refugees in the overall population is small. Therefore, the best possible sampling frame is the register of foreigners (AZR) with its own difficulties. Non-probability samples also offer the possibility to collect data in a quite pragmatic manner but with multiple constraints on generalizability due to unknown selection probabilities. Performance is better if the target population is clearly defined, the sampling design is based on reasonable assumptions, and it is clear how the sample relates to the target and total refugee population.

Research shows that due to multiple reasons some parts of migrant populations are less willing to participate in traditional surveys with great differences between subgroups, which makes it reasonable to combine probability and non-probability-based approaches (Weinmann et al. 2019). Respondents must be informed thoroughly about the study objective, anonymization, the independence of the

interview from asylum procedures or criminal prosecution, and other positive or negative effects. Also, the usage of multiple language questionnaires is key to successfully surveying the heterogeneous group of refugees. Furthermore, interviewers who speak multiple languages offer the possibility to increase the participation rate through higher quality of personal explanation with a lower or no language barrier. Additionally, choosing a mixed-mode design allows for inclusion of respondents with lower education and language proficiency by switching from self-administered questionnaires to personal interviews if needed.

Sampling by means of ad hoc interviews in shared accommodation is a pragmatic and worthwhile method to survey the situation of refugees. Residents of such accommodation are in a more precarious and excluded life situation. Researching their lives is a way to make them seen and heard. Interestingly, some of those who are normally difficult to reach are more frequently included in the sample leading to a double underrepresentation of more integrated refugees, as the residents of shared accommodation are in general less integrated and those with a higher educational or labour market integration are less likely to be encountered in the ad hoc design. It also could be reasonable to limit the definition of the target population to a certain duration of stay, as the bias towards poorer integration increases because of better integrated refugees moving out earlier.

Sampling in language and integration courses is convenient as the respondents are easily accessible and can lead to high participation rates because surveys can be conducted during lessons. Trust in the teacher can increase the propensity to participate even more. But it must be kept in mind that this could also be a result of social pressure. Also, conducting a survey in this environment requires the consent and support of gatekeepers (BAMF, providers, and teachers). Furthermore, it is very important to make clear that the questionnaire is not a test to get the respondents to provide to their own personal assessment.

Regarding sampling, it has to be taken into account that course participation is very selective and dependent on various personal but also structural characteristics. Also, the composition of participants of the same course is rather homogeneous. A broad coverage of the refugee population requires a heterogeneous selection of course types. At the same time this offers the possibility to directly encounter certain groups that share common characteristics (e.g., in the specialized courses for mothers with small children or in literacy courses).

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