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## Internal Migration

Challenges and Perspectives for the Research Infrastructure

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Andreas Farwick

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# Internal Migration

## Challenges and Perspectives for the Research Infrastructure

**Andreas Farwick**

*University of Bremen (afarwick[at]uni-bremen.de)*

### **Abstract**

Research on internal migration covers a wide range of issues with regard to the reasons, distance and direction of moves as well as the process of decision-making. Given the rich field of relevant research objectives and the substantial developments in migration theory it is apparent that the availability of a broad set of data including detailed information on various aspects of life is one of the key factors for ongoing progress in the analysis of internal migration development. Available official aggregated data are useful for descriptive structural analyses. But they are very limited in explaining causal relations. The same holds for cross-sectional data. Some of the described longitudinal data sets consist of retrospective collected event history data that are not suitable for collecting essential information about attitudes and psychological states of the respondents over time. Several prospective longitudinal survey data do not represent essential aspects of internal migration. Data should at least include information on the place of residence (on the smallest possible spatial level), typologies about the characteristics of the place of residence, change of residence, reasons of a move, intentions to move, the dwelling and the neighbourhood as well as on commuting.

Keywords: internal migration, regional migration, migration theory, official data, cross-sectional data, longitudinal data.

## 1. Research Objectives

The main research fields of internal migration can be addressed by the following basic questions: a) Who moves and b) why, as well as c) from what origin d) to what destination, e) how the process of the decision to move is formed and finally f) how this process changes over time. These basic issues structure the field of research of internal migration.

Issue a) and b) refer to the reasons and motives to change residence. Roughly one can distinguish between education related movers, workplace related movers, housing related movers and retirement related movers (Gatzweiler 1975). This classification goes along with specific stages in the life course (Rossi 1950) and can be related to different age groups: education related movers (age 16 to 20 years), workplace related movers (age 21 to 34 years), housing related movers (age 25 to 49 years) and retirement related movers (age 49 and above). Whether this classification of movers holds over time is an open question.

With regard to the origin and destination of moves c) and d) it can be distinguished between short- and long distance migration and moves between different types of regions: rural vs. urban. These migration patterns are again to some extent related to the reasons to move. Education related movers mostly stem from peripheral rural regions with an unattractive and little differentiated range of educational facilities. Workplace related movers stem from peripheral or declining old industrial regions with shrinking opportunities for qualified workers (rust-belts) to the metropolitan centres of growth-industries (sun-belts). In Germany this workplace related interregional migration became of major relevance since the early 1970`s in the form of a North to South shift (Friedrichs et al. 1986; Windzio 2004) and – after reunification of Germany – in form of a massive East to West movement especially in the first two years (Büchel and Schwarze 1994; Burda 1993; Wagner 1992; Windzio 2007; 2009).

Housing related migration patterns are predominantly intra-regional or intra-urban. One of the major intra-regional migration patterns is the process of suburbanisation, which began in the early 1960`s. Increasing family income, improving transportation systems and public incentive programmes to encourage individual housing lead especially during the 1970`s to a first wave of population shifting out of the central cities. A second wave of suburbanisation took place at the end of the 1980`s. Increasing population densities and the extension of suburban areas pushed the new Suburbanites further and further into the urban peripheries causing a substantial urban sprawl (Bleck and Wagner 2006). Due to a “renaissance” of inner

city housing for broad sections of the population in recent years, a trend towards re-urbanisation can be noted (Brühl et al. 2005).

Currently retirement related movement in Germany has not the magnitude as in the United States or in France but is becoming more and more important. Retirement seekers notably favour regions with attractive landscapes – for example the northern foothills of the Alps (Alpenvorland) (Friedrich 1995).

Over time these population shifts will increase regional disparities and may have substantial negative consequences for demographic and economic development, as all of the described types of migration are highly selective with respect to age, gender and economic status. Out migration of younger individuals, for example, results in massive aging of peripheral regions with consequences for the natural reproduction of the population. Population losses in East Germany and the old industrial areas of West Germany combined with an ongoing suburbanisation cause a considerable shrinking of central cities (Eichstädt-Bohlig et al. 2006). Furthermore extensive out migration of highly skilled labour from decreasing to prosperous regions (brain drain) leads to a decrease in human capital necessary for further development (Friedrich and Schultz 2008). Competing for high skilled employees some city business development agencies profile themselves as an attractive destination for qualified workers by stimulating – according to the thesis of Florida (2004) – a tolerant and cultural diverse climate in their regions.

The selectivity of migration patterns raises also a problem in regard to intra-urban migration. While well educated, high income city dwellers (yuppies and dinkies) tend to rent or buy apartments or houses in the renovated and upgraded 19<sup>th</sup> century inner city residential areas (gentrification) an increasing number of lower income groups – because of cheaper rents – have to move to the run down parts of the traditional working class areas or to the peripheral public housing estates at the outskirts of the central cities. This pattern of selective intra-urban migrations causes a high degree of residential segregation and leads to the rise of poverty areas in which social problems of their residents – due to negative neighbourhood effects – accumulate (Farwick 2001).

While the decision to move can be to some extent explained by a typology of reasons and the differences of opportunity structures (supply with infrastructure, labour market, housing market, climate, landscape etc.) there is a difficulty to explain, why some people move while others do not. This refers to question e) the process of decision-making. On the one side objective individual characteristics (age, gender, educational attainment, occupational or family related conditions as well as housing conditions) are of importance to explain this

process. On the other side subjective factors like motives, information and the evaluation of the situation play an important role too. According to Kalter (1997) the decision to move can be separated into three stages: the idea to move, the plan to move and the actual move. Leaving the challenge to explain the factors by which every single stage of this process is determined. The complexity of the analysis of the decision making process becomes apparent, when it is considered as embedded in the life course and therefore related to many other events during life time (Wagner 1989).

Moreover – like every social action – the decision to change residence is framed by the social, political and economic conditions of society. Since these conditions change continuously over time a further research question f) seeks to explain how different migration processes refer to the ongoing social change.

Theoretical concepts approach the investigation of the phenomenon of internal migration both on the macro- and on the micro level. Based on Ravenstein's classic Laws of Migration (1885) – emphasising the role of distance between origin and destination of migration for estimating the population flows – the gravity model is the most important concept explaining internal migration pattern on the macro-level (Birg et al. 1993). Introducing other regional characteristics in addition to population size and distance can extend this model. For example neo classical economic theories stress the role of regional income and job vacancy differentials to explain in particular inter-regional migration patterns (Todaro 1969). With regard to intra-urban migration especially housing market related concepts are relevant. They explain the structuring of the supply and demand side of the regional housing market (Farwick 2001).

A major shortcoming of migration theories on the macro-level is that they cannot explain exactly in which way the decision to change residence is affected by regional characteristics. In this regard Lee (1972) outlined the impact of intervening obstacles. He argued that variables such as distance, physical and political barriers, and having dependents could impede or even prevent migration.

Sjaastads (1962) seminal work considers migration as a particularly important investment decision in human capital. In the simplest model of wealth maximization the fixed costs of moving are balanced against the net present value of earnings streams available in the alternative location. Furthermore the social psychological approach of Wolpert (1965) characterizes migration as a form of individual or group adaptation to perceived changes in environment.

A synthesis of different approaches to explain migration behaviour provides the so-called value-expectancy-model (De Jong and Fawcett 1981). Here the decision to move is based on a specification of the personally valued goals that might be met by moving (or staying) and an assessment of the perceived linkage, in terms of expectancy, between migration behaviour and the attainment of goals in alternative locations. Kalter (1997) enhanced this model in three ways: by incorporating the cost-benefit-calculus of households, by accounting for the tendency to idleness and by integrating problems of constraints and facilitators. Hence the decision to move has to be operationalised as an integral part of the life course with a high degree of interdependence to other areas of life (Huinink and Kley 2008; Wagner 1989).

The described research objectives and theoretical developments show that studies on internal migration remain on the scientific frontier. Especially theoretical models and empirical methods able to connect the decision making process of migration to the complexity of events in a life course perspective need to be focussed on. We need more insights into the consideration process of changing residence or alternatively choosing to commute – even long distances – and increasingly in form of multi-local living arrangements.

Investigating migration as a combined decision making process influenced by a variety of family members is another important research area. The influence of broader social networks on the decision to move as well as on the destination of a move need also be considered.

An ongoing methodological challenge in studying migration decisions is the problem of self-selection mentioned by Borjas (1987). As characteristics influencing wages also influence migration specific methods as for example described in Heckman (1979) are called for to deal with this bias (Massey and Espinosa 1997; Windzio 2007; see also the expertise on Migration and Globalization).

## **2. Status Quo: Data Base and Access**

In the last decades we have seen considerable theoretical and methodological progress. Yet, to render these developments fruitful and to meet relevant research objectives adequately require a rich pool of data on all levels of analysis – macro/micro respectively cross-sectional/panel.

### *2.1 Official Statistics*

Data from official statistics are used to describe structures of internal migration and to analyse processes on the macro level (e.g. Schlömer and Bucher 2001). Data of population flows in case of residential moves are based on the registration and deregistration and are available

from the Federal Statistical Office in form of migration matrixes on different administrative levels from federal states (Bundesländer) down to rural and city districts (ländliche Kreise und kreisfreie Städte). The statistical offices of the federal states (Länder) provide migration matrixes on the spatial level of cities and communities. In case of many cities migration matrixes are also available for intra-urban moves.

On an aggregated level these official data differentiate between the individual characteristics of age, gender nationality and employment status. The data serve to calculate various descriptive measures of migration, to identify interdependences between regions and to adopt gravity models (Birg et al. 1993). Since in the gravity models distance between the sources and destinations of movements is used it would be a substantial improvement when migration matrixes from the Federal Statistical Office could include data on these distances between the corresponding regions.

Spatial context information on different spatial levels down to the rural or city districts (ländliche Kreise und kreisfreie Städte) are available from the Federal Statistical Office and the statistical offices of the federal states. Together these offices provide a data collection called "Regio-Stat-Katalog" which contains a variety of different regional characteristics (Arbeitsgruppe Regionale Standards 2005). The same information is also available on CD-ROM under the label "CD-ROM Statistik regional". Data on an even smaller level of the more than 12,000 German cities and communities are provided by a collection called "DVD Statistik lokal" which is annually updated. Another excellent source of regional data with a broad range of spatial characteristics in respect of different areas of life is a collection published on CD-ROM by the Federal Office for Building and Regional Planning (Bundesamt für Bauwesen und Raumordnung) called "INKAR".

A source of official data on the individual level is the Micro-Census (Wirth et al. 2005). For research purposes the data can be obtained from the Federal Statistical Office in form of a scientific-use-file that describes the place of residence of the respondents on the level of federal states and in form of a typology of communities by population size (Gemeindegrößenklasse). The data also contain the ID of the sample district (Auswahlbezirk) out of which every person is included in the sample. Of importance for internal migration research is information on residential change (since last year) and housing conditions. Comprehensive data on commuting to work is available for the years 1996, 2000 and 2004. The data include no information on reasons of a move and the intention to move. The Federal Statistical Office is planning to release a Micro Census Regional File that will include regional information on the level of 349 Micro Census districts (Mikrozensus-Kreisregionen,



MZKR). Unfortunately in this file the information about residential change (since last year) will not be included.

The Micro-Census is applied as a rotating panel sample, where every household of the sample district is included for a four year time period (Lüttinger and Riede 1997). But because of the fact that households who change residence drop out of the sample (Rendtel 2005; see also expertise on Family) the panel is more or less useless for internal migration research.

Labour migration can be studied by using the Regional Employment Sample provided by the Institute of Labour Market and Occupations Research (IAB) (e.g. Windzio 2004; 2007; 2009). The data consists of a two-percent sub-sample of all employees in Germany drawn from the IAB employee history supplemented by information on benefit recipients from 1975 (West-Germany) to 2004 (Drews 2008). The sample covers a continuous flow of data on employment subject to social security as well as on receipt of unemployment benefits, unemployment assistance and maintenance allowance. Data include the district number (Kreiskennziffer) of the workplace. They do not provide information on the place of residence. Because of this fact it is not possible to distinguish if a change in workplace is connected with a residential move or a change in commuting to work. Therefore, it should be considered to include the place of residence into the data set. In form of a scientific use file the data are delivered via GESIS.

## 2.2 *Survey Data*

One of the most important data for research on internal migration is the German Socio-Economic Panel (GSOEP, Wagner et al. 2007), a representative longitudinal study of private households conducted annually by the German Institute for Economic Research (Burda 1993; Büchel and Schwarze 1994; Hunt 2004; Jürges 1998; Kalter 1994; Wagner 1992). Regional information about the place of residence is available on different spatial levels down to the German zip code areas (Spieß 2005). Also regional typologies (community type, community size) are available. Since 2004 the information on the place of residence is matched with geographical micro-data from MICROM Consumer Marketing. These data – in form of various MOSAIC typologies – contain information for housing blocks concerning demographic characteristics, housing type, car use, mobility, consumer behaviour, social milieus and purchasing power (Goebel et al. 2007). The GSOEP-Dataset itself includes key indicators like date of move, reasons for move and intention to move. In addition the data give information about housing status, quality of dwelling and neighbourhood characteristics.

Since the GSOEP allows for combining information on all household members it is possible to apply multi-actor analytical designs. The usefulness of the GSOEP-Dataset is especially enhanced by a huge variety of structural characteristics as well as attitude indicators.

Another longitudinal data set is the German Life History Study (GLHS) conducted by the Max Planck Institute for Human Development in Berlin (MPIB) now continued at Yale University. The GLHS comprises the life histories of some 8,500 men and women from 20 selected birth cohorts in West Germany and of more than 2,900 men and women from 13 selected birth cohorts in East Germany. In recent years West Germans born in 1964 and 1971 were interviewed in 1998-99 with a sample size of 2,909 respondents. A follow-up with the 1971 cohort was completed in 2005. The GLHS has an explicit focus on residential and migration history (Wagner 1989; Rusconi 2006). Detailed retrospective life course information is available for all moves, reasons to move, housing conditions, type of residential place and type of neighbourhood. Information on intention to move is missing. In the public-use files that are available at GESIS direct references to places and all open-ended responses were removed.

The German Youth Institute has conducted the Family Survey that is to some extent usefully for migration research. It is a recurring survey of about 10,000 respondents that was conducted in an interval of six years (1988, 1994 and 2000). For a sub sample of about 2,000 respondents it includes a three-wave panel. Regional information on the place of residence is available on different spatial levels down to the rural or city districts (Kreise). Moreover regional typologies of the places of residence in form of the BIK-Typology (Hoffmeyer-Zlotnik 2005) and – for the third wave in the year 2000 – in form of the MOSAIC-Typologies from MICROM Consumer Marketing (see GSOEP) are available. In addition the data include information on housing status and characteristics, quality of dwelling and neighbourhood characteristics. The cross-sectional data set of the year 2000 contains also questions about reasons for leaving, respectively returning to the parental home and reasons for the first three changes of residence since age of 16. The data are available directly via the German Youth Institute Web-Site.

A more recent longitudinal data set is the German Family Survey (GGS), an international comparative panel study coordinated by the United Nations Economic Commission for Europe (UNECE) in Geneva. The Federal Institute for Population Research conducts the German part of the survey (Ruckdeschel et al. 2006). Here the first wave of the GGS was collected in 2005. In 2006 another sample of Turkish migrants was accomplished. Data collection for the second wave has started in 2008. The data contain housing characteristics

and questions about the intention to change residence. The data can be requested at the Federal Institute for Population Research.

In analysing mobility patterns of the elderly the Survey of Health, Ageing and Retirement in Europe (SHARE, Börsch-Supan et al. 2003) is useful. Until now two waves in 2004 and in 2006 with respondents aged 50 plus have been conducted. A third wave is in progress. The data include regional information about the place of residence on different spatial levels down to the rural or city districts (Kreise). Unfortunately for the German sample data on residential location are only provided on the level of the federal states. Information on the housing situation, a change of the place of residence and the main reasons for a move are available but information on intention to move does not exist.

The ALLBUS, a cross-sectional database also provided by GESIS, is not applicable for research in the field of internal migration. Questions about the duration of stay in the apartment/house and at the place of residence as well as the distance to the former place of residence were only included in the year 2000. It should be considered to include questions about the intention to change residence and the assessment of living conditions at the domicile.

### **3. Future Developments**

Concerning the access of data for migration studies a very welcome development is the increasing practice of various institutions to provide official data via internet. The Federal Statistical Office together with the statistical offices of the federal states offers migration statistics on the level of the federal states and rural respectively city districts via their internet-platform "Regionaldatenbank Deutschland". Moreover especially the Landesbetrieb für Statistik und Kommunikationstechnologie Niedersachsen has made a great effort in providing comprehensive regional migration data for the federal state of Lower Saxony that go down to the level of cities and communities and are accessible via its System "LSKN-Online". Intra-urban migration data are, for example, provided by the Statistisches Landesamt Bremen for the City of Bremen via its excellent information system "Bremen kleinräumig". These examples should encourage other federal states, cities and communities to offer regional data in a comprehensive way via internet.

Another positive impact concerning the access of data goes along with the further development of Research Data Centres of the Federal Statistical Offices which provide on-site use of official survey data (e.g. Census or Micro Census) and off-site use of different

public or scientific use files. The same holds for the Research Data Centre of the Statistical Office of the Bundesagentur für Arbeit (BA) at the Institute of Labour Market and Occupations Research (IAB). These efforts need to be continued and further expanded.

Since the possibilities of an in-depth analysis of the causal relations of migration by using official data are very limited, survey data will continue to be of major importance. One future challenge in the field of internal migration research is to further the understanding of the interdependencies of migration decisions and regional opportunity structures in the context of the life course. Concerning this matter Huinink and Kley (2008) stress that the relevance of contextual effects is strongly related to the aims and demands of actors in specific stages of their life course, a fact that theoretically and empirically is only rudimentally analysed. Studies that want to address these issues require comprehensive longitudinal data sets including information on the place of residence that are combinable with an adequate variety of regional characteristics. Positive developments in this direction can be seen by the efforts of the German Institute for Economic Research to make small scale regional information of the GSOEP available for analyses and to link them with spatial information from other data sets (see above).

#### **4. Conclusion and Recommendations**

Given the range of research objectives and developments in migration theory it is apparent that the availability of a broad set of data including detailed information on various aspects of life (in particular educational and occupational biographies as well as changes in household structure) combined with information on the regional structure of the place of residence is one of the key factors for ongoing progress in research on internal migration. The described data sets meet these demands in a more or less sufficient way.

Official aggregated data are particularly useful for descriptive structural analyses. As far as possible they should be made accessible via internet. For explaining causal relations the value of aggregated data is limited. Therefore, cross-sectional survey data and especially longitudinal data sets are needed.

Among the described cross-sectional survey data the Micro-Census – not least because of its huge sample-size – is of importance. Its value could be further improved by collecting information on reasons of a move and the intention to move. Moreover it is strongly recommended that the Micro Census Regional File should include information on residential change (since last year), reasons of a move and the intention to move. In respect to the IAB-

Regional Employment Sample the usefulness for migration studies can be extremely enhanced by adding informations on the place of residence.

Some of the described longitudinal data sets (GHLS or the DJI Family Survey) consist of retrospectively collected event history data. The problem of this data is their inability to collect information about attitudes and psychological states of the respondents over time. Thus not providing characteristics like the subjective evaluation of opportunities of the residential environment or the emotional closeness to the place of residence, which are highly relevant for migration intentions and actual migration. Facing these problems, the continuing and optimisation especially of *prospective* longitudinal panel studies is recommended.

In this regard one mayor shortfall of many of the above-described prospective panel studies relates to the fact that several important key aspects of internal migration are not represented. It is recommended that data sets should at least include information on the place of residence (on the smallest possible spatial level), typologies of the characteristics of the place of residence, information on a change of residence, reason for moving, intentions to move, information on the dwelling and the neighbourhood as well as on commuting and multi-local living arrangements. For the purpose of cross national comparisons information on the place of residence should be available in form of the so-called NUTS (Nomenclature des unités territoriales statistiques, where NUTS-3-level corresponds to the rural or city districts (ländliche Kreise und kreisfreie Städte).

If structural characteristics of the residential environment are not included, information on the place of residents should at least be combinable with spatial context information from other aggregated regional data sets. Especially for the analysis of intra-urban moves regional context information has to be provided on a very small-scale level. Matching survey data with geographical micro-data from MICROM is a significant step forward. Considerations should be made to match survey data also with small-scale spatial data from the Inner City Monitoring (Innerstädtische Raumbeobachtung, IRB) of the BBR. Moreover the typology of Inner City Location Types (innerstädtische Lagetypen) used by the Inner City Monitoring should be implemented in the data sets.

As the decision to migrate is a very complex process, further opportunities to analyse this process by using a multi-actor design should be provided. This implies to account for structural characteristics, attitudes and decisions of other individuals in the persons household or even in the remaining social network.

The most comprehensive longitudinal data set is the German Socio-Economic Panel (GSOEP) collecting structural and non-structural information on the dynamics of housing

conditions and residential moves. Still the value of this data set is restricted by the general fact that residential moves occur not that often during the lifetime. It thus follows that for some research issues, notably analyses of specific migration types (e.g. intra-urban moves), the size of the (sub)-sample becomes too small and therefore no longer representative. One solution of this limitation could be to increase the sample size of the GSOEP.

In general regional multi-stage cluster sampling techniques should be used to collect data for internal migration research to assure regional type specific analyses. A possible typology especially for inner city cluster sampling could be the Inner City Location Types (innerstädtische Lagetypen) used by the Inner City Monitoring of the BBR.

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