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Internal migration of ethnic minorities – Evidence from Western Germany

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Internal migration of ethnic minorities – Evidence from Western Germany

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Abstract

This paper deals with long distance internal migration patterns of the immigrant population in Germany and addresses the question whether immigrants are more mobile than native Germans and to what extent the differences in spatial mobility behavior between immigrants and native Germans are influenced by a) individual level characteristics, b) macro level regional economic characteristics and c) regional ties. The analysis shows in general a very low rate of long distance internal migration in Germany for native Germans as well as for immigrants. Even after controlling for individual and regional level characteristics, the immigrant population is half as mobile as native Germans. The results are more robust for the 2nd generation immigrants.

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1. Introduction

Internal migration is a selective process which is affected by individual as well as by regional characteristics. There is a rich selection of studies which approach internal migration with its patterns, determinants and consequences from different perspectives. Issues of particular interest are the migration process embedded in the life course perspective (Kley, 2009; 2010; Huinink / Kley, 2008; Kalter, 1997; Wagner, 1989), the association of migration with regional labor market characteristics (Windzio, 2004a; 2004b; Mertens / Haas, 2006; Arntz, 2005), migration in the context of family (Jürges, 2005; 1998) and the relation of geographic mobility with social ties (Vidal Torre / Kley, 2010; Vidal Torre, 2009) as well as with regional ties or regional identities (Kley, 2008; Abraham / Nisic, 2007). Also the internal migration of ethnic minorities in a host country has been well documented (Ellis / Goodwin-White, 2006; Finney / Simpson, 2008; Foulkes / Newbold, 2000; Gurak / Kritz, 2000; Kritz / Nogle, 1994; Newbold, 1999; Spilembergo / Úbeda, 2004; Kulu / Billiari, 2004; 2006). Research in this latter field, however, comes mainly from Anglo-American literature and little is known about internal migration of ethnic minorities in Germany apart from a few exceptions (Schündeln 2007). The long-term impact of internal migration on the demographic as well as the socioeconomic development in both sending and receiving region is well known (Mai / Scharein, 2009). Keeping in mind, that there are 15.4 million people with migration background living in Germany which will, according to population prognoses, constitute one third of the whole population in 2050 (Statistisches Bundesamt 2009), internal migration patterns of ethnic minorities will become both socially and politically more relevant. Against this background, this study poses the question, whether and how immigrants in Germany differ from native Germans concerning internal migration patterns. And to what extent differences in internal migration behaviors are generated by individual level characteristics, by macro level regional economic characteristics and by regional social ties. The analysis is based on ten waves from the German Socio-economic Panel (GSOEP) covering the years 2000 until 2009.

The paper is structured as follows: The next sections outlines the theoretical arguments supported with empirical findings, mostly from Anglo-American research, on internal migration of ethnic minorities specifying some expectations. Section 3 contains the description of data and variables. Empirical findings are presented in section 4. The last section discusses the major findings concluding with an outlook for future research.

2. Literature review and theoretical background

Migration can be considered as a multilevel process. This chapter shortly outlines the determinants of migration based on this underlying multilevel perspective, divided into a) micro level individual characteristics, b) macro level regional economic characteristics and c) meso level regional social ties, and how these can contribute to explain the migration propensities of ethnic minorities in Germany. To avoid confusion, migration is defined as a long-distance move within a country which not only includes the change of residence but also the change of the location of other daily activities like workplace, school, shopping as well as leisure activities (Jürges, 1998). In this sense, migration is considered synonymous with internal migration and (long-distance spatial) mobility.

To start with the micro level, migration is affected by individual characteristics and resources such as age, education level, marital status, employment status, sex, number of children in the household, ethnic background, migration experience etc. According to the human capital perspective, migration has been considered as an investment into human capital. Before taking the migration decision, individuals calculate both short and long term material and immaterial costs and benefits of migration and translate it into action only if the expected benefits of migration exceed its costs (Sjaastad, 1962). The economic advantages of a migration would be e.g. greater for younger people and for the ones who invested more in education as it is also indicated in the empirical research (Newbold, 1999; Kulu / Billiari, 2006; Jürges, 1998; Windzio, 2004a). Since individual level characteristics could differ by different nativity groups (Kritz

/ Nogle, 1994), it can be hypothesized that the nativity group composition could partly explain the differences in migration propensity between native Germans and immigrant groups. This means, that the higher mobility rates of some immigrant groups could be explained by the in-group composition which e.g. consists of younger people in average. To summarize, the individual level characteristics are to test in order to find out whether they do account for differences between natives and immigrants.

Even though individual level determinants possess great explanatory power, it is doubtful whether they could cover up a great portion of the intergroup differences in migration propensities as it is also shown in the U.S. American research on interstate migration of immigrants (Kritz / Nogle, 1994; Gurak / Kritz, 2000; Spilembergo / Úbeda, 2004). At the macro level, the economic condition of the region also could shape the migration decisions of individuals. So far, there has been research of the effect of unemployment rates, employment growth, average per capita income and labor force composition (Kritz / Nogle, 1994; Gurak / Kritz, 2000; Windzio, 2004a). Economically argued, migration follows the direction of rising wages and shrinking unemployment. In this sense, regions where the average per capita income is low and the unemployment rate is high would account as sending regions. Some empirical findings also support this theoretical argumentation (Hunt, 2006). However, the neoclassical economic theory applied to immigrant groups reveals a different picture. Exploring internal migration patterns of different immigrant groups in the USA, Kritz / Nogle (1994) found out different levels and directions of the effect of regional unemployment rate depending on nationality group. Therefore, in light of the contradictory empirical evidence, controlling regional unemployment I expect to find out the degree of attachment of immigrant groups to the economic structure of the region.

In addition to the macro and micro level economic theories, Faist (1997) emphasized the importance of the “crucial meso-level” as a link between individual cost and benefit calculations and the structural macro level. Accordingly, migration decisions are not only economically motivated but also framed by social relations and social capital in regions, neighborhoods or communities. Social capital can be de-

scribed as resources of persons at the individual level (such as proximity to friends and family, community affiliation) but also on an upper level as a resource of a given (nativity) group (Haug 2000). At the individual level, drawing on the cumulative inertia theorem from McGinnis (1968) it can be assumed that with increasing duration of stay in one region the migration rate decreases. The time spent in one region can be translated into greater social integration into that region, which could lead to a lower likelihood to leave the region. In addition to duration of stay also homeownership indicates a strong regional attachment for the natives as well as for immigrant groups. Keeping in mind that immigrants mostly first settle in regions and communities where their co-nationals already reside in order to benefit from the advantages of the existing immigrant networks (Heckmann, 1992; Friedrichs, 2008), the nativity concentration of the region can also be considered as a proxy of existing social capital in that region as it is mostly done in U.S. American research. Proximity to co-nationals – measured as state level ethnic concentration in the US – in fact has been observed as a migration deterrent factor (Kritz / Nogle, 1994; Gurak / Kritz, 2000; Foulkes / Newbold, 2000; Newbold, 1999; Ellis / Goodwin-White, 2006). But, reducing social capital to a constant determinant for all members of a given nativity group is based on the assumptions that the networks of co-nationals are homogenous and the network effects are unidirectional. It can therefore only provide a rough estimate and should be interpreted with caution.

3. Data sources and variables

The empirical analysis is based on data from German Socio-Economic Panel (GSOEP). GSOEP is a representative household and individual level panel study which includes a broad spectrum of topics like demography, labor market, economic situation, health, education, value orientation, integration as well as housing (Wagner et al., 2007). GSOEP is a suitable dataset for the research question because of its longitudinal character as for capturing internal migration information from at least two consecutive waves is needed. Moreover, the dataset provides – due to the overrepresentation of the population with

migration background – sufficient number of cases of minority populations (Frick, 2006). The data has been linked to the regional information from German Federal Institute for Research on Building, Urban Affairs and Spatial Development using the NUTS Geocodes standards at the NUTS-3² level based on small-scale official district codes³. As the exact distance between two following residences was only available from the wave 2000 upwards which represents the key information of the study, the analysis covers an observation period of ten waves between 2000 and 2009 (Goebel, 2011). To focus on migration patterns of working age population, the dataset consists of heads of households aged 16 to 65, not having entered the retirement period yet. Population with migration background consists of immigrants from former guest worker countries⁴ and their descendants as these are the biggest immigrant groups in Germany and can partly be treated as a distinct group due to their similar migration history. Even though, it would have been better analyzing each group separately, it was not possible because of the restricted number of cases. As these nations have been recruited during recruitment period (1955-1973) from Western Germany where they also mostly settled down, Eastern Germany has been excluded from the analysis (Bade / Oltmer, 2003).

The dichotomous *dependent variable* gives information about, whether a person has changed his/her residence from one county to another covering more than 50 km of distance in two consecutive waves. This information is based on the question in the household questionnaire “Did you live in this flat the last time we interviewed you about a year ago?”. In light of the former research on internal migration (Jürges, 2005), residential moving definition is extended to interregional migration based on the information from regional data about moving distance (over 50 km) and changing the county.

Individual variables: People with migration background are identified combining parental information with individual data based on all available waves from 1984 to 2009, which can be summarized as fol-

² NUTS-3 corresponds in Germany counties – (*Land-*)*Kreise* and *kreisfreie Städte*

³ The access to *kreise* file underlies strict conditions and requires a special user contract. The analyses are run via e-mail using SOEPremote execution system.

⁴ Turkey, Italy, Spain, Portugal, Greece, former Yugoslavian Republics

lows: (1) born in a foreign country and/or, (2) not in possession of the German nationality and/or, (3) the parents were not born in Germany and/or do not possess the German nationality. In addition, it was possible to distinguish between different nationality groups. In a second step, individuals with migration background are differentiated into the first and second generation⁵. Furthermore, I control for respondent's age, sex, education level, marital status, number of children in the household and occupational status. Finally, indicators such as home ownership and duration of residence are integrated into the models as proxies for regional attachment and cumulative-inertia.

Macro level variables: Economic condition in the region is captured by the unemployment rate which was available in the regional dataset from GSOEP (*kreise*). Information on the nativity concentration in the region is collected from several federal statistical offices. In addition, I included four dummy variables measuring the urbanization degree of the region, based on the data and definition of the BBR (INKAR 2011). For descriptive characteristics of the variables used in the analysis and further information about their operationalization are summarized in the appendix A1 and A2.

4. Empirical findings

Table 1 presents first descriptive information on the internal migration rate of individuals with guest worker migration background and native Germans in Western Germany. First of all, the analysis underlines a substantial variation in the migration rate between the two groups. Internal migration rate of individuals with guest worker background (0.67 %) is almost half of native Germans (1.13 %). Apart from that, it has also to be mentioned that migration with a distance above 50 km is a very seldom observed phenomenon in the dataset which is also demonstrated in the absolute number of cases.

⁵ 1st generation: born in a foreign country and immigrated to Germany after the age of six; 2nd generation: born in Germany or immigrated before having reached the age of six.

Table 1

**Migration rate of individuals with migration background
and German-born natives**

Nationality background	N	internal migration (50km)	
		%	n
native Germans	77,986	1.13	880
guest worker background	11,069	0.67	74
Total	89,055	1.07	954

Source: GSOEP 2000-2009 pooled dataset.

However, the question is to what extend differences in probability of internal migration between individuals with guest worker background and native Germans can be explained by different individual and contextual characteristics. As this paper is the first attempt to describe and explain the internal migration phenomenon of ethnic minorities, simple logistic regression models has been used for the dichotomous dependent variable of internal migration. Furthermore, the models are clustered by individuals in order to take into account the panel structure of the data (Giesselmann / Windzio, 2012). The results are presented in Table 2. I used stepwise modeling techniques to disentangle the mediating effects of different determinants. Therefore, additionally to odds ratios (OR), y-standardized beta coefficients (BStdY) are presented as the latter coefficient allows a comparison across the nested models⁶ (Mood, 2010).

To begin with, the first model only includes the ethnic origin differentiated by generational status. The results indicate that the 1st generation immigrants from former guest worker countries are less likely than the 2nd generation immigrants and native Germans to move within Germany more than 50 km. Age, marital status married and presence of children are – in line with the theory – negatively associated with migration and partly account for explaining the difference between 1st generation immigrants and Germans in the second model. But interestingly, the non-significant effect from model 1 for the 2nd generation immigrants becomes after introducing social demographic characteristics at once significant.

⁶ However, in contrast to the intensive discourse about logistic regression, in this specific case it does not make any difference whether one compares the increasing and decreasing in odds ratios or in standardized beta coefficients across succeeding models.

Whereas the differences to the 1st generation disappear after controlling for educational level and employment status in model 3, striking differences to the 2nd generation immigrants still remain.

In model 4, the determinants of individual's regional embeddedness are included. As expected, homeownership is negatively associated with internal migration and with increasing duration of housing the propensity of migration decreases. But surprisingly, including occupancy in the model the distance between Germans and immigrants raises. Even the odds for the 1st generation become at once significant. Interaction effects between migration background and occupancy have shown⁷, that cumulative inertia phenomenon can only be applied to native Germans and does not account for immigrant subpopulation in the GSOEP. The longer immigrants live in a housing it is more likely that they are to make an interregional move.

Model 5 includes regional unemployment rate and model 6 nativity concentration of each group as a macro level indicator of social capital as it has been applied in Anglo-American literature. Unemployment rate does not possess any effect on internal migration whereas nativity concentration fosters migration. But none of them could make a formidable contribution neither to increasing or decreasing the coefficients for migration background variables nor to the model fit. Detailed analysis introducing interaction terms⁸ with context level indicators and migration background have shown that the significant positive effect of nativity concentration only accounts for Germans. On the other hand, the effects of nativity concentration for the 1st and 2nd generation immigrants show the opposite direction which could be interpreted as a sign that social capital acts as a migration deterrent factor for immigrants. However, the coefficients stayed below the conventional level of significance. Besides, regional level unemployment rate does not have any effect on none of the groups.

⁷ Models are not shown.

⁸ Models are not shown and available on demand.

Table 2

**Logistic regression models of internal migration (>50 km) on
individual and contextual level determinants**

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Migr. Background		Socio-demorg.		Socio-econ.		regional embedd.		Context: unempl.		Context: nat. con.	
	OR	BStdY	OR	BStdY	OR	BStdY	OR	BStdY	OR	BStdY	OR	BStdY
Individual factors												
<i>Migration background</i>												
1st gen. (Ref: German)	0.30 ***	-0.65	0.51 *	-0.37	0.68	-0.21	0.55 *	-0.31	0.57	-0.29	0.53 *	-0.33
2nd gen. (Ref: German)	0.94	-0.04	0.52 *	-0.36	0.57 *	-0.30	0.56 *	-0.30	0.58 *	-0.28	0.54 *	-0.32
<i>Socio-demographics</i>												
age			0.92 ***	-0.05	0.92 ***	-0.04	0.95 ***	-0.03	0.95 ***	-0.03	0.95 ***	-0.03
sex (female=1)			0.99	-0.01	0.95	-0.03	0.94	-0.03	0.94	-0.03	0.94	-0.03
married			0.49 ***	-0.39	0.50 ***	-0.37	0.69 **	-0.19	0.68 **	-0.20	0.68 **	-0.20
children in household			0.48 ***	-0.40	0.53 ***	-0.34	0.58 ***	-0.29	0.58 ***	-0.28	0.58 ***	-0.28
<i>Education level (Ref: without adequate degree)</i>												
general/basic vocational					0.65	-0.23	0.66	-0.22	0.65	-0.22	0.67	-0.21
intermediate					1.10	0.05	1.17	0.08	1.19	0.09	1.21	0.10
maturity certificate					1.55	0.24	1.65	0.26	1.76	0.29	1.80	0.30
tertiary education					2.26 ***	0.44	2.79 **	0.54	2.95 **	0.56	3.07 **	0.58
<i>Employment status (Ref: employed)</i>												
in education					1.83 ***	0.32	1.84 ***	0.32	1.87 ***	0.32	1.85 ***	0.32
unemployed					2.38 ***	0.47	2.09 ***	0.39	2.12 ***	0.39	2.07 ***	0.38
not working					2.04 **	0.38	2.04 **	0.37	2.03 **	0.37	2.03 **	0.37
self employed					1.00	0.00	1.02	0.01	1.02	0.01	1.02	0.01
<i>Regional embeddedness</i>												
occupancy (log)							0.80 ***	-0.12	0.81 ***	-0.11	0.81 **	-0.11
homeownership							0.32 ***	-0.59	0.31 ***	-0.61	0.31 ***	-0.61
Contextual determinants												
unemployment rate (<i>grand mean centered</i>)									0.99	0.00		
nativity concentration (<i>z-transformed</i>)											1.10 ***	0.05
N	44952		44952		44952		44952		44952		44952	
Pseudo R ²	0.01		0.11		0.13		0.15		0.15		0.15	
Log likelihood	-2891.05		-2588.21		-2516.99		-2475.27		-2470.67		-2469.43	

Note: Models 5 and 6 additionally control for urbanization degree, results not shown on the table. The models are clustered by personal ID number, robust standard errors of the estimates not shown.

Significance level: *** p < 0.001; ** p < 0.01; * p < 0.05

Source: GSOEP 2000-2009, own calculations.

In order to conclude, the core findings of the analysis can be summarized as follows: In general, internal migration is a remarkable seldom observed phenomenon in the dataset and individuals with guest worker background are almost half as mobile as native Germans. Differentiating into generational status, the difference between 2nd generation immigrants with guest worker background and native Germans is quite robust and does not change after controlling for individual and regional characteristics. However, the same statement cannot be concluded for the 1st generation so easily. Even though the general tendency is the same, the estimates are not as robust as for the 2nd generation as the level of significance

and the effect size oscillate across models. This can also be interpreted as a hint that some independent variables might be interrelated.

5. Discussion and conclusion

This paper was a first attempt to disentangle the internal migration phenomenon of ethnic minorities in Germany and addressed the question whether there are any differences between native Germans and individuals with guest worker background concerning internal migration propensities, and how these differences might be influenced by individual level characteristics, bonds to the region and regional level economic conditions. The core finding is that guest worker origin immigrants, the 1st as well as the 2nd generation, in Germany are less mobile than native Germans, whereas the results for the 2nd generation are more robust than for the 1st generation.

But in the end, several questions arise from these results: Why are immigrants from former guest worker countries, especially from 2nd generation, significantly less mobile compared to native Germans, even after having controlled for individual and regional characteristics? Is this due to cultural differences? Are 2nd generation immigrants more obliged to give family care which makes them immobile? Are strong family ties for immigrants more important than weak ties in a given region? Is rather a different measure of social capital needed? Or is the very low internal migration rate of immigrants in fact caused by drop outs from the survey as they returned to the country of origin? To conclude, at the end there are more questions left than answers. Therefore, these results are to be seen as first assigns for further research in this field.

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Appendix

Table A1
Characteristics of the variables used in the analysis

Variables	N	Mean	Std. Dev.	Min	Max
Dependent variable					
internal migration	44952	0.01	0.11	0	1
Independent variables					
<i>Individual and household characteristics</i>					
native born German	44952	0.88	0.33	0	1
immigrant, 1st gen.	44952	0.09	0.28	0	1
immigrant, 2nd gen.	44952	0.03	0.18	0	1
age	44952	43.18	10.64	16	65
sex (female=1)	44952	0.37	0.48	0	1
married	44952	0.60	0.49	0	1
children in hh	44952	0.40	0.49	0	1
<i>Education level</i>					
without adequate degree	44952	0.01	0.12	0	1
general/basic vocational	44952	0.36	0.48	0	1
intermediate	44952	0.27	0.44	0	1
maturity certificate	44952	0.12	0.33	0	1
tertiary education	44952	0.23	0.43	0	1
<i>Employment status</i>					
in education	44952	0.02	0.13	0	1
unemployed	44952	0.06	0.24	0	1
not working	44952	0.04	0.20	0	1
self employed	44952	0.11	0.31	0	1
employed	44952	0.77	0.42	0	1
<i>Regional embeddedness</i>					
occupancy (ln)	44952	2.02	0.92	0	4.61
homeownership	44952	0.47	0.50	0	1
<i>County level determinants</i>					
unemployment rate ¹	44952	0	3.67	-7.53	16.16
nativity concentration ²	44952	0.11	1.04	-3.17	9.37
<i>District classification</i>					
nuclear town	44952	0.31	0.46	0	1
urban hinterland	44952	0.50	0.50	0	1
rural hinterland	44952	0.09	0.29	0	1
rural area	44952	0.10	0.29	0	1

¹ county level unemployment level is grand mean centered.

² nativity concentration refers respectively to the concentration of guest worker origin population or to the concentration of Germans in one county, the variable is z-transformed.

Source: Own calculations, GSOEP 2000-2009

Table A2
Documentation of the variables used in the analysis.

Variables	GSOEP original variables	Based on wave
Dependent variable		
internal migration	moveyr\$\$, qh01, rh01, sh01, th01, uh01, vh01, wh01, xh01, yh01, zh01, chg_kkz, distance, ?hhnr	2000-2009
Independent variables		
Migration background: native born German immigrant, 1st gen. immigrant, 2nd gen.	vnat, mnat, astell, estell, nation\$\$, ?pnat, immi-year, germborn, corigin, migback, gebjahr, ak07a, ek03a, ap62a, bp98a, cp98ab, dp95a, ep88a, fp105a, gp105a, hp105a, ip105a, jp105a, qp12002, rp11602, sp11503, tp12302, up12702, vp13602, wp12802, xp14002, yp13802, zp13802, sp11702, qp12102, rp11702, wj6201, xj62, yj62, zj62.	1984-2009
age	gebjahr	2009
sex (female=1)	Sex	2009
married	?famstd	2000-2008
children in hh	?kzahl	2000-2008
Education level without adequate degree general/basic vocational intermediate maturity certificate tertiary education	casmin\$\$ if casmin\$\$==0 casmin\$\$==1 if casmin\$\$==2 casmin\$\$==3 if casmin\$\$==4 casmin\$\$==5 if casmin\$\$==6 casmin\$\$==7 if casmin\$\$==8 casmin\$\$==9	2000-2008
Employment status in education unemployed not working self employed employed	casmin\$\$, stib\$\$, lfs\$\$ if stib\$\$==11 casmin\$\$==0 if stib\$\$==12 if stib\$\$==10 if stib\$\$==410 ==440 nonmis,, except stib\$\$==5 ==6 lfs\$\$==4 & lfs\$\$!=5	2000-2008
Regional embeddedness occupancy (ln) homeownership	moveyr\$\$ owner\$\$	2000-2008 2000-2008
unemployment rate	\$alq	2000-2008
nativity concentration	\$bev_g and external data	2000-2008
District classification nuclear town urban hinterland rural hinterland rural area	External data from INKAR 2008	2008

\$\$ refers to the last digits of the years from 2000 to 2008/2009.

? refers to the waves Q (2000) to Y (2008) or Z (2009).

Source: GSOEP 1984-2009, INKAR 2008 and Federal Statistic Offices