

She leaves, he stays? Sex-selective migration in rural East Germany



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ABSTRACT

Rural regions in East Germany have been characterized by strong age- and sex-selective outmigration since 1990, which has resulted in unbalanced sex ratios in the age group 18–35 with pronounced surpluses of men. The East German countryside is unique in Europe in two respects: (1) the spatial and numerical extent of the overrepresentation of young men and (2) the missing equalization of sex ratio imbalances for groups in the age of forming a family. An analysis of statistical data shows that structural conditions, especially the situation on the labor market are important determinants of unbalanced sex ratios and sex-selective migration. However, in order to understand why rural East Germany stands out with an especially high surplus of young men, it is necessary to take the specific historical context – the legacy of the German Democratic Republic and the gendered and economic consequences of unification into account, notably the continuously high work orientation of East German women in an economically difficult environment.

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1. Introduction

An innkeeper in a small village in Saxony had the idea to organize a speed-dating event for local singles in his pub. A high number of registrations indicated a strong demand for this way of finding a romantic partner. The event had however to be canceled: all interested persons were men (Kositz, 2014). This little anecdote illustrates a demographic phenomenon in rural East Germany that has received considerable media attention in recent years: an imbalanced sex structure of the young adult population with a pronounced shortage of young women. Sex-selective migration is the chief cause of this ‘masculinization’ of the countryside which is supposedly unique in Europe, even compared to regions with a very long tradition of female out-migration (Kröhnert and Klingholz, 2007). The extent of unbalanced sex ratios in the age group 18–30 is depicted in Fig. 1. It becomes clear that more or less pronounced surpluses of young men are an area-wide phenomenon. Women outnumber men only in major cities, university towns, selected regional centers, as well as in a small number of suburban municipalities and tourist destinations. These strongly unbalanced sex-ratio structures are mostly a result of the unification process¹

(Leibert and Wiest, 2010), more precisely the large-scale and highly selective migration to West Germany which has been dominated by young women since 1991 (Kröhnert and Klingholz, 2007).

Unbalanced sex ratios and sex-selective migration threaten the socio-economic and demographic development of rural communities. The out-migration of young women reinforces aging and depopulation, undermines social cohesion and leads to a shortage of skilled labor (Leibert, 2012). Negative effects for the remaining population, especially the male stayers, include a feeling of being rejected and the “*entrapment in a personal reproduction crisis*” which can lead to depression, substance abuse, delinquency and even suicide (Kaberis and Koutsouris, 2012: 88). This seems to be especially true for young men with a low educational level, who are disadvantaged both on the labor and the partner market (Kröhnert and Klingholz, 2007). It seems that the individual problems of underprivileged young men lead to serious social problems. Weiß (2006: 486) argues that “*shortages of women are shortages of culture which can lead to a transformation of the social climate*”. This is, according to Weiß et al. (2013), the case in regions with a 20% men surplus: “*Values, norms and guiding principles change in areas with a surplus of men of more than 20%. Unhealthy lifestyles are rampant, a radicalization of social behavior takes place as well as a political polarization which leads to the development of groups with extremist political attitudes*” (Weiß et al., 2013: 56). Unbalanced sex ratios have been linked to electoral successes of the far-right NPD in regional elections in East Germany both in daily press (e.g. Schirmacher, 2006) and scientific publications

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¹ Unbalanced sex-ratios in rural regions as a result of sex-selective migration did already exist in the GDR. Significant surpluses of young adult men were, however, not an area-wide phenomenon, but restricted to small agricultural municipalities in very sparsely populated regions in present-day Mecklenburg-Vorpommern (Weiß, 2006; Weiß et al., 2013).

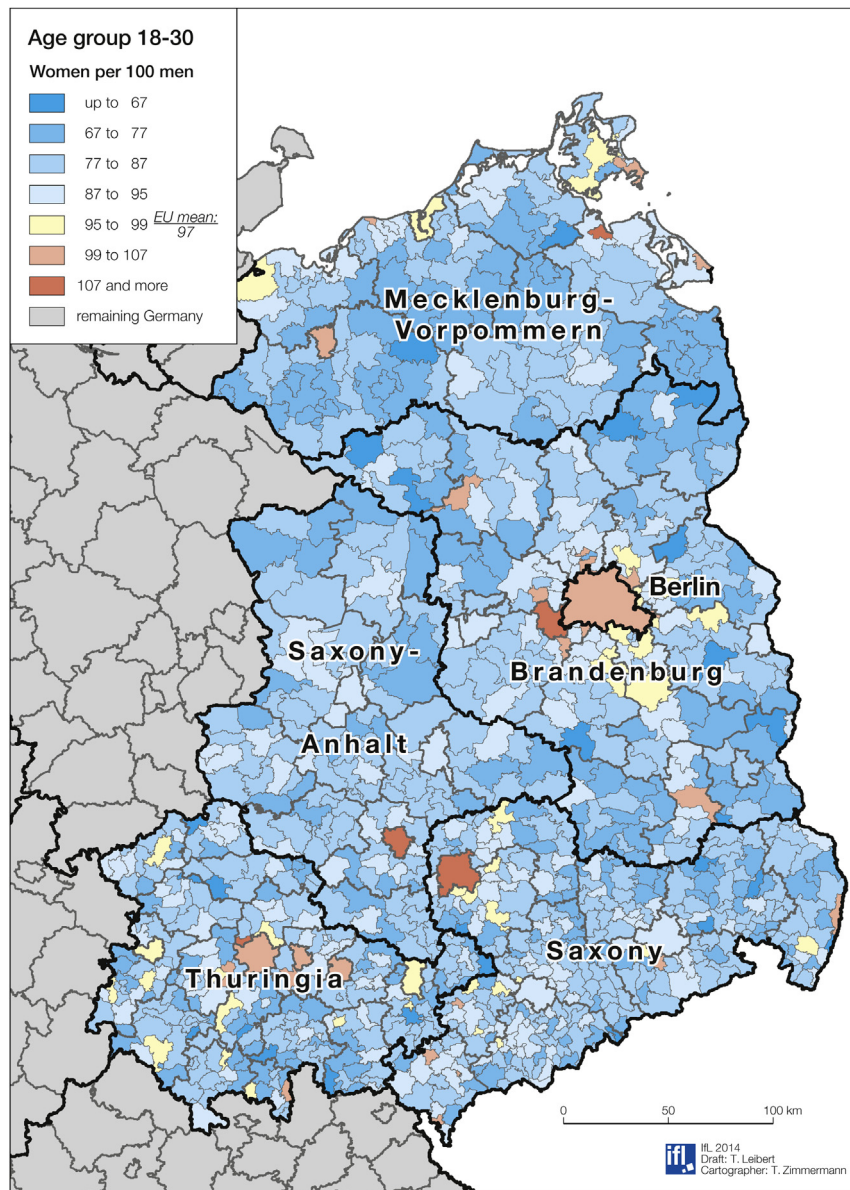


Fig. 1. East Germany: number of women per 100 men in the age group 18–30 at the LAU-1 level 2011. Own calculations, data source: [Statistische Ämter des Bundes und der Länder \(2014\)](#).

(e.g. [Kröhnert and Klingholz, 2007](#); [Kröhnert and Vollmer, 2012](#)).

Germany may be a single economic, linguistic and institutional space, the country is nevertheless characterized by significant socio-economic East–West and urban-rural disparities. These disparities are especially pronounced with respect to unemployment and the wage level. The unemployment rate has been almost twice as high as in the West since the early 1990s. Unemployment is particularly high in sparsely populated peripheral regions of the East, unlike in West Germany, where joblessness is largely an urban problem ([Blien et al., 2010](#)). For years, entering the labor market has been difficult in East Germany, because there were few vacancies due to early retirement schemes and the fact that the age-structure of the workforce in many companies and government agencies was still relatively young in the early 1990s ([Ketzmerick, 2009](#)). The consequence was a pronounced mismatch between a relatively low number of older workers on the verge of retirement and a rather high number of school-leavers entering the labor and vocational

training market ([Lutz, 2010](#)). Under these conditions, out-migration to West Germany was often the only solution in order to avoid long-term unemployment. And those who do have a job earn considerably less than their counterparts in the western *Länder*. In 2013, the monthly average gross income for full-time employees amounted to 75% of the wage level in the West. The level of income is even lower in rural areas ([BfA, 2014](#)).

The demographic, historical and economic context outlined so far suggests that the transformation from state socialism to market capitalism and the German unification may have resulted in the emergence of very specific migration patterns. The deep economic crisis after unification might have provided the initial spark, which has turned itself into a self-enhancing migration regime due to the “*transformation of the social climate*” predicted by [Weiß \(2006: 486\)](#) and which may have resulted in such societal structures that women are pushed away from ‘male peripheries’ ([Dahlström, 1996](#)). But it is also possible that, on the other hand, sex-

selectivity of out-migration from East Germany is related to the still relatively unfavorable economic climate and that economically weak regions in West Germany exhibit similar migration patterns. Against this backdrop, two questions come to the fore:

- Is sex-selective out-migration from rural regions a specific feature of internal migration in Germany or are similar patterns also identifiable in other parts of Europe?
- Are there qualitative differences in the patterns of spatial mobility in rural regions in East and West Germany? If yes, (how) are they related to the economic East–West divide described above?

Previous research has either analyzed selective migration in specific case study regions (e.g. Weiß, 2006; Wiest and Leibert, 2013) and/or in East Germany as a whole (e.g. Schultz, 2009; Kröhnert and Vollmer, 2012). A comparative perspective of the patterns of spatial mobility of young adults in rural regions of East and West Germany is, however, still missing.

The remainder of this paper is structured as follows: The current state of research on sex-selective migration is discussed in the next section. Chapter 3 deals with the data and methods used for the analyses in the following sections which include a pan-European sex-ratio typology at the NUTS2-level (Section 4), an analysis of the patterns of age- and sex-selective migration in Germany (Section 5) and an attempt to explain said patterns (Section 6). The discussion in Section 7 highlights how the post-socialist context influences sex-selective migration patterns and points out the limits of the approach chosen for this paper.

2. Literature review: why do young women leave rural regions?

Sex-selective migration is not a new phenomenon in the industrialized countries. That “women is a greater [internal] migrant than man” and that women move from rural to urban districts for employment purposes was already put forward by Ravenstein (1885: 196) in his seminal paper on the ‘laws of migration’. Lacking job opportunities are – in addition to economic restructuring, increasing educational achievement and young women’s growing independence – still frequently cited as important drivers of sex-selective out-migration from rural areas (Bjarnason and Thorlindsson, 2006; Kaberis and Koutsouris, 2012). An increasing orientation of women towards paid work will ultimately prompt them to leave the countryside since “the female labour market is, above all, urban” (Dahlström, 1996: 261). Rural labor markets tend to offer a variety of (male-dominated) jobs in agriculture, industry and skilled crafts and trades, while the choice of (female-oriented) jobs in the service-sector is smaller. As a result, the competition for these ‘pink-collar jobs’ is keener and young women have less freedom in shaping their own biographies than young men despite better educational attainment (Machold et al., 2005; Shucksmith, 2004). This segmentation of rural labor markets by sex is illustrated in Table 1 using the example of the Land of Saxony-Anhalt. Apart from 4 “unisex” professions (marked in green), the list of the most popular trades of the boys only contains jobs in construction and industry, while the girls almost exclusively opt for careers in the service sector. The boys’ most popular professions reflect the regional economic structure, while the top 5-professions for girls are remarkably uniform in all labor market regions. Moreover, the percentage of applicants competing for an apprenticeship position in the top 10-professions is much lower among boys which underlines that the situation of male school leavers in the vocational training market is more favorable.

Edlund (2005) combines the labor market structure and the

wage level in arguing that urban labor markets offer both skilled women and men better-paying jobs. Consequently, women find better jobs as well as better marriage opportunities in cities since high-earning men are also concentrated in urban areas. She finds that in Sweden a higher male income in a municipality is associated with a surplus of women. Municipalities with a deficit of women, on the other hand, are not only characterized by low income levels for the resident male population, but also by a high proportion of never-married women (ibid.). Hence, one can argue that young men from regions exhibiting a low sex ratio are not only more likely to be economically deprived; they are also faced with lower prospects of finding a partner. This is due to a more intense competition among men but also to the fact that they are perceived as unattractive because of their marginal economic position, which, more often than not, prevents them from being reliable providers.

Education is also an important determinant of selective migration. Young women are more education-minded and tend to reach higher educational levels than the male rural youth. This growing gender divide is rooted in a strong association between femininity and education on the one hand and masculinity and physical work on the other (Ní Laoire, 2005). Corbett (2009: 1) argues that “formal education is designed for those who leave”, i.e. that schooling imparts knowledge and provides skills that prepare rural pupils for urban labor markets and not for the jobs that are locally available. Rural youth grow up with the notion that those who perform well in the formal education system, especially the “smart girls” are expected to leave (ibid.). Many rural adolescents have embodied that “all of the pathways to success that are understood to be [...] successful are premised on pathways that lead [them] out of their rural homes and communities” (Looker and Naylor, 2009: 54). Likewise, many parents in declining rural areas believe that leaving home is the only suitable path to economic success for their children (Wiest and Leibert, 2013).

The influence of the educational system on sex-selective migration is not only indirect as described so far, but also straightforward in a way that educational institutions are “promoting the abandonment of rural life and sacralising the values and forms of urban life” (Camarero et al., 2009: 51) resulting in a progressive distancing of young women from rural lifestyles and the values and aspirations of their male peers which are often rooted in local ‘cultures of low ambitions’ or ‘laddism’ that negatively influence their educational aspirations (Shucksmith, 2004: 51). Kröhnert and Vollmer (2012) suggest that such sex-specific differences in the general achievement orientation lead to sex-specific differences in spatial mobility inclinations. Selective out-migration of young women is hence interpreted as the result of an ‘educational mismatch’, i.e. a situation in which the educational achievements of female school-leavers are significantly higher compared to their male counterparts. The gendered nature of rural societies themselves is another explanation why young women are more likely to leave (certain) rural regions than their male peers. Young women perceive rural communities as more intrusive, constraining and controlling and are subject to stricter social control than young men (Haugen and Villa, 2006).

Previous research has shown that growing up in remote regions is connected to higher aspirations for mobility (Skrbis et al., 2014) and that there is a correlation between sex ratio and community size. The lack of women is especially pronounced in small, remote settlements (Gurrutxaga, 2013; Hamilton and Otterstad, 1998). There is, however, probably no independent community size effect. Population density and number of inhabitants are rather proxies for male-oriented labor market structures with a strong primary sector (Hamilton and Otterstad, 1998) and/or deficient services of general interest (Gurrutxaga, 2013). The connection between selective migration, a low quality of social services and the exclusion from

Table 1Ranking of the most popular apprenticed trades in Saxony-Anhalt 2010/11 by sex and labor market region. Source: [Wiest and Leibert \(2013: 53\)](#).

Male applicants	Dessau-Roßlau	Halle (Saale)	Halberstadt	Magdeburg	Merseburg	Sangerhausen	Stendal	Wittenberg
Chef	1	3	1		5	2	4	
Warehouse operator	2	1		2	1	3		1
Warehouse logistics assistant	3				3			
Automotive mechatronics engineer	4	2	2	1	4	1	1	3
Retail management assistant	5	5		4				
Salesman		4		3	2		3	
Industrial mechanic			4	5				5
Office administrator			5					4
Cutting machine operator			3					
Metalworker						4	5	
Joiner						5	2	
Construction mechanic								2
Applicants in top 10 qualified jobs	35 %	39 %	41 %	40 %	40 %	36 %	44 %	45 %
Female applicants	Dessau-Roßlau	Halle (Saale)	Halberstadt	Magdeburg	Merseburg	Sangerhausen	Stendal	Wittenberg
Saleswoman	1	1	1	1	1	1	1	1
Retail management assistant	2	3	3	3	3	3	3	3
Office administrator	3	2	2	2	2	2	2	2
Local government assistant	4	5		5	4	5		5
Chef	5		4		5			
Hairdresser		4	5				5	4
Housekeeper				4				
Medical assistant						4	4	
Applicants in top 10 qualified jobs	53 %	49 %	56 %	54 %	57 %	49 %	56 %	55 %

cultural and civic participation is also highlighted by [Spoor \(2013\)](#). The state plays a pivotal role in this respect: *“If the state effectively abandons rural places, mobile youth will be far less likely to return to under-serviced communities, even if they truly want to live in these places”* ([Corbett, 2009: 8](#)).

3. Data and methods

In order to shed light on the similarities and differences in sex-specific migration practices, to better understand the patterns of spatial mobility of young people across Europe, and to compare these patterns to the situation in East Germany, a Europe-wide overview of age- and sex-specific migration rates which permits an analysis of migration behaviors on a small spatial scale would be necessary. Such an analysis is unfortunately almost impossible to realize given the scarcity or low quality of detailed migration data in some European countries (e.g. [Smith and Sage, 2014; Šimon, 2014](#)). However, the sex ratio, i.e. the number of women per 100 men, can be used as a crude and indirect proxy in order to depict sex-selective migration patterns at the NUTS-3 level in a pan-European perspective since the sex ratio of the young adult population is mostly determined by sex-specific migration patterns ([Leibert, 2012](#)). Population estimates and census results by sex and age are available for almost all European countries. This data was used to calculate a cluster analysis in order to develop a typology of regional sex-ratio imbalances and to determine the impact of sex-

selective migration on the overall population structure. The downside of this approach is that it is not possible to draw conclusions about the volume and directions of migration streams.

The typology was calculated with data provided by EUROSTAT and the national statistical offices. The reference date is either the latest census day or December 31st 2011 (January 1st 2012 in some countries). The variables used for the cluster analysis (Ward method with subsequent discriminant analysis) are the number of women per 100 men in the age-groups 20–24 – average age for higher education and labor market entry – and 30–34 – average age for family formation and occupational establishment. The selection of these two age groups is based on the assumption that the patterns of spatial mobility of young adults are closely influenced by the life course ([Wiest et al., 2014](#)). The migration patterns of young adults in their early 20s are characterized by dispersed outmigration and concentrated in migration, i.e. the migration streams are directed towards dynamic urban centers, whereas migration patterns for women and men in the settling-down period, i.e. the late 20s and early 30s are more complex, taking into account labor market aspects and residential preferences ([Gibbs and Cromartie, 1994](#)). Against this backdrop, we expect rural-urban migration to be the dominant trend for the age group 20–24 since patterns of spatial mobility are strongly influenced by the location of higher education facilities and regional labor market conditions for young professionals. This is especially true for women given the more ‘women-friendly’ structure of urban labor

markets with their more diversified industry structure, as compared to the often male-oriented rural labor market which is dominated by agriculture and manufacturing. We expect a reversal of this pattern in the late 20s and early 30s since family formation often entails a re-evaluation of rural living. This reappraisal may lead to an evening-up of the imbalances in the sex-structure of rural populations provided women are over-represented among the in- and/or re-migrants.

The second part of the analysis focusses on the differences and similarities of migration patterns in East and West Germany. We compare rural regions in the East and the Northwest (Lower Saxony and Schleswig–Holstein). The analysis focuses on the Northwest for two reasons: This region is, on the one hand, predominantly rural with relatively low population densities and long distances to large urban areas and, on the other hand, economically less developed than rural regions of the South, i.e. Baden–Württemberg and Bavaria. In a first step, migration patterns are compared drawing on the example of two sparsely populated rural districts. The question which structural determinants influence the migration balance of young women and men in the age group 18–25 at the district level is addressed in a second step by means of a linear regression analysis. The selection of indicators was guided by five not mutually exclusive hypotheses on the structural drivers of sex-selective out-migration from rural regions that can be deduced from the literature review:

- Young women are more likely to leave sparsely populated and remote regions. The indicator used to test this hypothesis is the density of population and jobs.
- The out-migration rate of young women is especially high in regions with a high percentage of highly qualified female school leavers and a high percentage of men with low human capital. We test this hypothesis with indicators measuring early school leaving among male pupils and sex differences in the shares of pupils taking the *Abitur*, the German school leaving certificate which qualifies for university studies.
- Young women are more likely to leave regions with a shortage of jobs in the service sector. Young men, on the other hand, leave regions with weak primary and secondary sectors and a low wage level. The indicator to test this hypothesis is the proportion of employees working in the service sector.
- Young women are more likely to leave economically weak regions, not only as a result of their own career ambitions, but also because the local men are – economically speaking – not attractive as romantic partners. The indicators used to test this hypothesis include the availability of apprenticeship positions as well as sex-specific differences in unemployment and labor participation. The economic attractiveness of potential partners is operationalized via the proportion of male university graduates.
- Young women are more likely to leave regions characterized by a low degree of gender equality. The indicators used to test this hypothesis are the composite gender-index² and two of the 19 indicators that were used to calculate this composite index: The degree of gender (in-)equality in youth unemployment and labor participation.

The analysis is based on district-level data available from the

INKAR database (BBSR, 2012) and the gender-index. The analyses are based on 2010 and 2011 data in order to avoid problems of comparability due to the recalculation of the population after the 2011 census (cf. Bucher, 2014). The unit of analysis are the sparsely populated districts in East and Northwest Germany, i.e. districts with a population density of less than 150 inhabitants per km² and/or more than 25% of the population living in municipalities with less than 150 inhabitants per km². The analyzed districts – 62 in East and 40 in Northwest Germany – are highlighted in green in Fig. 2. The district of Nordhausen and the Ilmkreis had to be excluded from the analysis of the migration balance of, respectively, young women and young men for methodological reasons. The Nordhausen University of Applied Sciences and the Ilmenau University of Technology greatly influence both districts' migration balances, which are much more favorable than in the remaining rural districts of East Germany. It was in some cases necessary to resort to “second-best” indicators due to the methodological requirements of linear regression analysis or data limitations. Detailed data on the supply of and demand for apprenticeship training positions is, for instance, only available for larger labor market regions, but not at the district level.

4. Sex-selective migration in rural regions: a pan-European typology

Research on sex-selective migration and unbalanced sex ratios mostly focuses on young people in their teens and early 20s in a specific national context. International comparisons and analyses including the settling-down and family formation periods, i.e. the age group 25–35, are rare. The following cluster analysis is an attempt to fill this void. Eight types of regional sex ratio structures can be distinguished in Europe (Fig. 3).

The number of women per 100 men is around the European average³ for all age-groups in types 1 “*moderate surplus of women*” (n = 301) and 5 “*moderate lack of women*” (n = 320). Type 1 dominates in Western and parts of Southern Europe, whereas cluster 5 is very common in Central and Eastern Europe, but also in Scandinavia and Spain. Both types are characterized by a low sex-selectivity of migration. This does not mean that the regions in question have even migration balances or similar migration rates in all age groups under review, but that they are equally (un-)attractive for women and men.

Types 3 “*sex-ratio turnaround*” (n = 165), 4 (n = 68) “*decreasing surplus of men*” and 6 (n = 155) “*de-masculizing regions*” are characterized by a sex ratio that increases with age. In the age-group 20–24 there is a pronounced surplus of men, which turns into a deficit in the age-group 30–34 in type 3 or an average number of women per 100 men in type 6. Type 4 is a variant of this pattern with a massive shortage of women in the youngest age group which is mitigated, but not reversed, in the age groups 25–29 and 30–34. Types 3 and 6 are almost totally absent in the post-socialist states – with the notable exception of Romania. Type 3, and to a lesser extent also type 6, is a textbook example of the ‘ideal typical’ life course: Women leave in their early 20s to get higher education and to enter the labor market. Around 30, they return or migrate to rural areas to found a family. The fact that type 3 accounts for only 12% of the NUTS-3 regions emphasizes that age- and sex-selective migration processes in Europe are far too complex for such a

² The gender-index was developed by the Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR). The index is a measuring instrument for regional differences in the equality of opportunities of women and men. The analyzed data is available online: <http://www.gender-index.de/veroeffentlichungen-downloads.html> (last accessed May 14 2014).

³ The European average is 97 women per 100 men in all three age groups. The sex ratio at birth ranges between 93 and 95 newborn girls per 100 newborn boys and can be considered as a “natural constant”. Girls and young women are, however, less likely to die; therefore the number of women per 100 men increases slightly in the studied age group (Leibert, 2012; Wiest et al., 2014).

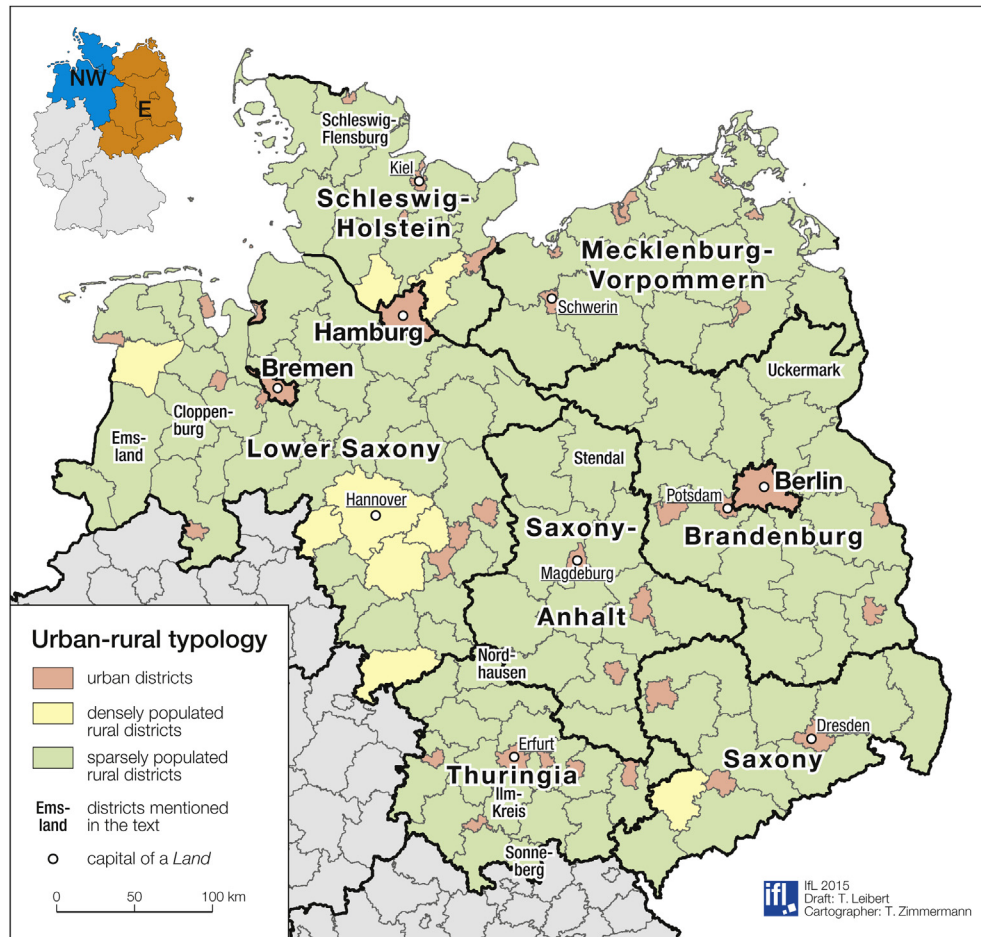


Fig. 2. East and Northwest Germany: urban and rural districts 2011. Own graphic, data source: BBSR (2012).

simplistic explanation. Type 4 mostly consists of very peripheral, economically weak regions which offer few educational and professional perspectives for young women. The partial evening-up of the deficit of women in the age group 30–34 could either be the result of counterurbanization (i.e. the in-migration of women) or selective out-migration of men looking for better career opportunities and higher wages in more central regions.

Types 2 “*de-feminizing regions*” ($n = 171$) and 7 “*moderate surplus of men*” ($n = 129$) are both characterized by a decreasing sex ratio with age. Type 2, which is mostly urban and contains most of the major urban centers of Europe, exhibits a considerable surplus of women in their early 20s and a balanced sex structure in the early 30s. This pattern is in line with the assumption that for women, the late teens and early 20s are characterized by rural-urban migration, which can be explained by the role of cities as centers of higher education and places offering a wide range of jobs in the service-sector. Like in type 4, one would have to investigate each region individually in order to determine if the “*de-feminization*” in the oldest age group under review is the result of the out-migration of women (i.e. connected to the “*rural re-feminization*”) or a consequence of employment-related in-migration of men. Type 7, which is mostly found in CEE as well as in Spain and parts of Scandinavia, is the “*counterdraft*” to type 3. It consists of – mostly rural regions – that are characterized by an increasing masculinization with age. In order to understand this pattern, which is somewhat counterintuitive in the light of the theoretical reasoning discussed above, individual case studies would be necessary.

Type 8 “*strong lack of women*” stands out because of its massive

deficit of women through all age-groups. The regions that belong to this type are largely rural and concentrated in post-socialist Europe. In most countries, NUTS-3 regions with a sex ratio of more than 10% below the European mean do not form a contiguous area. The major exception to this rule is East Germany, where 51 of the 80 regions are located, but there are also clusters of regions with low sex ratios in rural Bulgaria. The concentration of regions with extremely unbalanced sex ratios suggests that East Germany is indeed a special case and the reasons for the strong deficit of young women are connected to the German unification and the pronounced economic East–West-divide. Type 8 is not totally absent in West Germany, but the regions in question are mostly urban districts in which the surplus of men can be attributed to specific regional conditions which are conducive to male in-migration, e.g. technical universities or large military bases (Leibert, 2012). There are only two rural districts belonging to type 8: Cloppenburg and Emsland which are characterized by male-oriented labor markets (industrial livestock farming, engine-building) and traditional gender roles, and can hence be viewed as regions in which young women have few alternatives to a “*housewife and mother*” lifestyle, understood both in economic and cultural terms. This contrasts with the situation in the rural East where a dual-earner model prevails and the labor participation of women in general and mothers in particular is high by German standards (Leibert, 2014).

Apart from confirming the uniqueness of rural East Germany with regard to unbalanced sex-ratios, the typology yields two important results. The main difference between post-socialist and non-post-socialist Europe is that the “*re-feminization*” of the

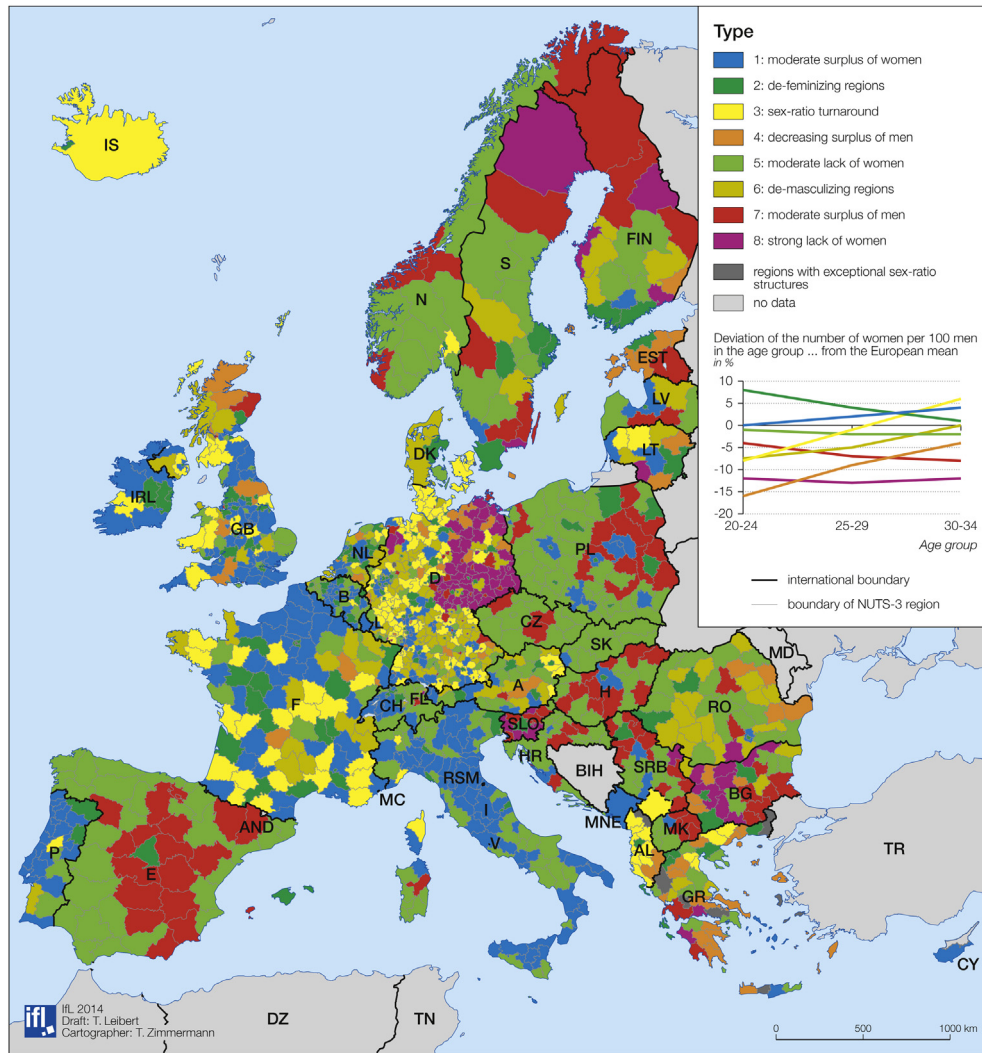


Fig. 3. Typology of regional sex-ratio structures in young adulthood. Own calculation.

countryside in the age-group 25–34 which is observed in rural Western Europe, fails to materialize in the post-socialist countryside. The mismatch between the number of women and men is, however, rather small in most countries and therefore unlikely to negatively affect the regional reproductive potential, but it is nevertheless an indication that many women view negatively the living conditions in the post-socialist countryside. This superordinate difference between post-socialist Europe and “the West” is an indication that the socialist past and the sometimes very severe transformation crises continue to influence migration behaviors. This also holds true for the spatial mobility patterns of the post-1990 generation. These patterns are to a certain extent influenced by socialization and the experiences of parents and grandparents (cf. section 7). The typology also shows that the various socio-economic, institutional and cultural contexts as well as predominating values vis-à-vis gender roles and patterns of leaving the parental home in the different countries influence the plans for the future and the mobility of young people across Europe. There is no general rule that applies to all social contexts.

5. Sex-specific migration patterns in rural East Germany

The most striking aspects of the shortage of women in rural East

Germany is the absence of distinctive regional disparities, even on the local level (cf. Fig. 1). The sex ratio of a given district is largely independent of its economic structure, labor market situation, population density or accessibility. The number of women per 100 men in the age group 25–29 was in 2012, for instance, roughly the same in the district of Sonneberg (85) – the district with the lowest unemployment rate in East Germany and the Uckermark district (84), the district with the highest unemployment rate nationwide.

A comparison of the migration patterns of 18- to 25-year old women and men in sparsely populated rural districts by macro-region (Fig. 4) reveals a distinctive sex-selectivity in the early 2000s. In 2003, the thinly populated districts of Central Germany have lost 30% of their young adult male population through out-migration, but more than 60% of the coeval women. Out-migration from sparsely populated rural regions in West Germany was not only considerably lower at that time, but also not sex-selective. The mid 2000s mark a reversal of the trend both in East and West Germany. Out-migration from rural West Germany is increasing and becoming more sex-selective. The situation in the deep rural districts of the East is almost the opposite: the sex-selectivity of out-migration has diminished due to a decrease of the rates of the young women. This development is remarkable since the migration trends in thinly populated rural districts of the

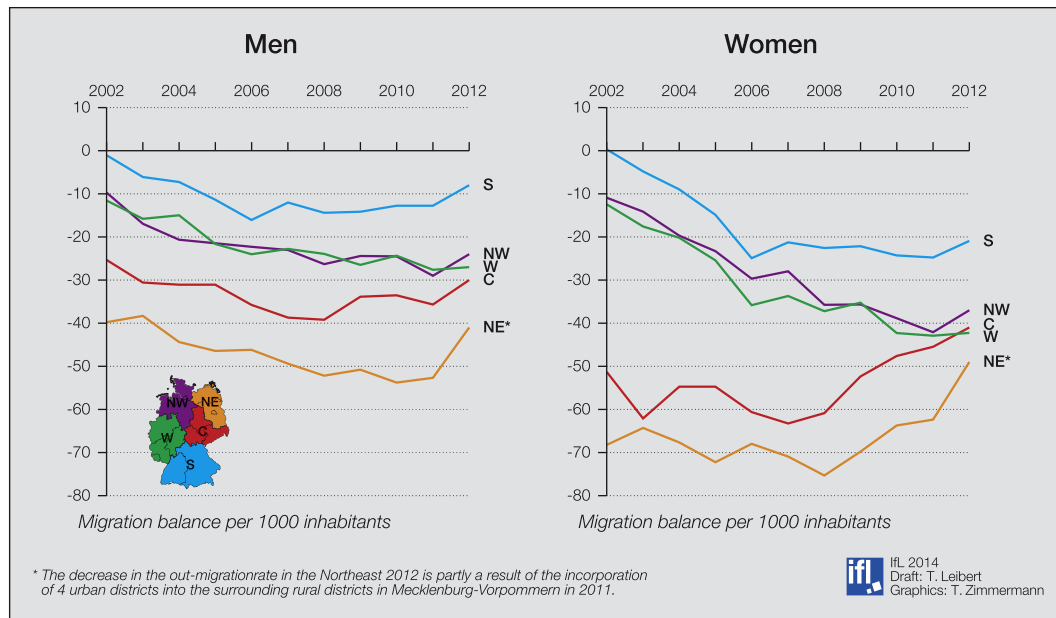


Fig. 4. Migration balance of 18- to 25-year-olds in sparsely populated rural districts by macro-regions and sex 2002–2012. Own calculation; data source: *Statistische Ämter des Bundes und der Länder* (2014).

old *Länder* indicate that these regions are becoming increasingly less attractive for young people, and especially for young women.

The most important East–West-differences are the higher migration intensities for both young women and men in the new *Länder* and contrasting migration patterns of women in their late 20s and early 30s. In Fig. 5, the development of the number of women and men born in 1981, 1983, 1985 and 1987 between 2003 and 2011 is depicted for two sparsely populated peripheral districts with traditionally high youth out-migration rates: Stendal (East) and Schleswig-Flensburg (West). Both districts have lost a very large part of men and especially women born in 1985 and 1987 owing to large out-migration flows between 2003 and 2011. The losses (and the sex-selectivity of out-migration) are more pronounced in the Stendal district, but it is obvious that the “rural youth exodus” is by no means restricted to East Germany. The differences between the two districts are rather small between the ages of 16 and 25 in both cohorts. The mid-20s mark a change of trend in migration patterns in the Schleswig-Flensburg district (as in most other rural districts in West Germany). The number of men in the cohorts under review stabilizes, whereas the number of women born in 1981 and 1983 begins to increase. The situation in the Stendal district is, on the other hand, characterized by continuous population losses and sustained out-migration. The parallel development of the number of women and men born in the early 1980s suggest that the sex-specific migration patterns converge later in life.

Sex-selectivity is in the first place a characteristic of the education-related migration peak in the 18–25 age group. Women are most likely to leave after graduating from school, i.e. they mostly move for vocational training and higher education. The “school-leaving-peak” in the migration patterns of men is less pronounced as men tend to leave later in life: some leave for training and higher education, some leave after finishing vocational training and some leave after having worked for a few years (Schultz, 2009). The mid-20s seem to represent a stage in life when young men re-evaluate their previous decisions, possibly connected to family-formation, and move to regions with better career prospects or higher wages. The skewed sex structure of the young

adult population is evened out or even overturned by female in-migration and increased employment-related out-migration of young men in their mid-20s. The “masculinized” sex structure caused by female over-out-migration in the late teens and early 20s is “passed on” to older age groups in East Germany due to the more uniform migration regimes of women and men in their mid-20s and early 30s. This age- and sex-specific migration pattern is reflected in the age-specific sex ratios: In 2011, there were 84 women per 100 men in the age group 20–25, 97 in the age group 25–30 and 101 in the age group 30–34 in the Schleswig-Flensburg district. The corresponding numbers for the Stendal district are 84, 83 and 83, respectively. The key difference between East and West Germany is, hence, not the sex-specific migration patterns of 18- to 25 year-olds, but the absence of the “re-feminization” of the countryside in the childbearing ages.

6. The determinants of sex-selective migration

The young people between 18 and 25, the so-called educational migrants constitute the most mobile population group in Germany. This applies especially to rural youth. The goal of this section is to test the hypotheses formulated in Section 3 in order to assess the importance of structural and economic conditions on the mobility patterns of young people and to shed light on possible East–West differences. The results of the regression analysis are summarized in Table 2. The moderate share of explained variance indicates that it is not only the characteristics of the region of origin that matter in order to explain the mobility patterns of educational migrants. The pull-factors of the regions of destination (and the individual characteristics of the migrant) also have to be taken into account. The characteristics of the destination cannot be studied in this paper since the data used does not allow for an analysis of migration streams, i.e. it is not possible to separate the in-migrants originating from rural East Germany from newcomers from other parts of the country or abroad. With respect to the hypotheses, it turns out that there is no proof corroborating the assumptions that young women are more likely to leave sparsely populated regions and that young women are more likely to stay in districts with a higher share of

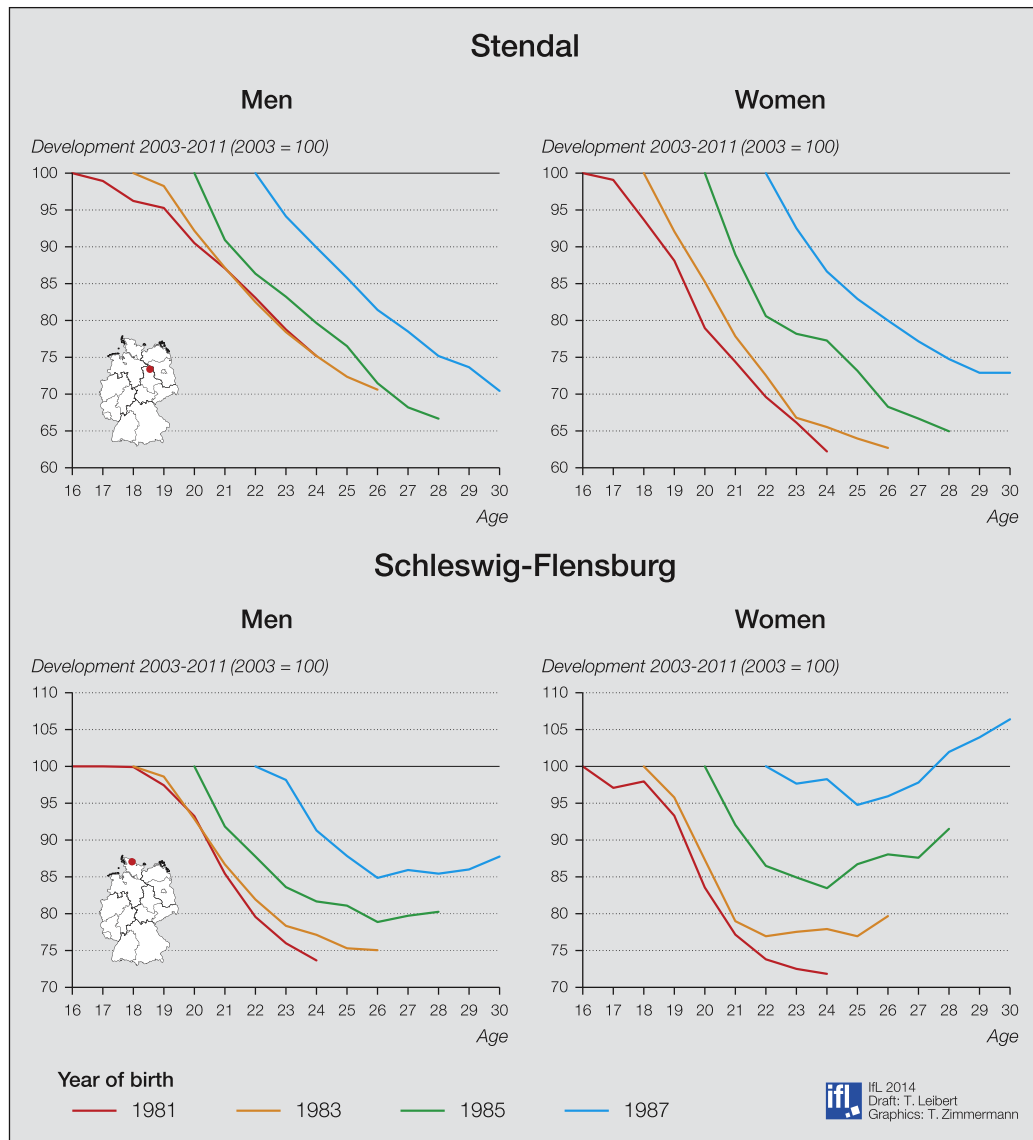


Fig. 5. Development of the number of women and men born in 1981, 1983, 1985 and 1987 between 2003 and 2011 in the districts of Stendal and Schleswig-Flensburg. Own calculation; data source: [Statistische Ämter des Bundes und der Länder \(2014\)](#).

economically attractive male partners in both regions.

With regard to the determinants of the migration balance of educational migrants, there seem to be no major sex-specific differences in the East German countryside. Young women and men alike are on the one hand less likely to leave rural areas with a strong service sector and on the other hand more likely to turn their back on regions with high youth unemployment rates. The degree of regional gender equality also plays an important role. Rural districts with a higher degree of gender equality on the labor market are characterized by particularly negative migration balances. Note that the gender equality index for labor participation is calculated in a way that negative values indicate gender inequality favoring men, while positive values denote gender inequality favoring women. The gender index for the labor force participation rate would, for instance, be negative in strongholds of the male breadwinner model, around zero in regions with gender-equal labor markets and positive in areas where the labor force participation rate of women is higher than that of the men. The coefficients can therefore be understood as follows: Young men and women

alike are more likely to leave regions where a female breadwinner model prevails. It would be tempting to interpret this finding as a confirmation of the hypothesis that young people growing up in regions with a high labor force attachment of women are socialized into leaving as a result of negative experiences made by work-oriented women after unification. This would of course be an ecological fallacy. At this point, we can only call for more research on the individual level in order to bring to light the interrelations between socialization, parental work-orientation and out-migration in post-socialist East Germany. The analysis does not support the hypothesis that young women are more likely to leave regions with pronounced sex-specific differences in educational attainment. It does, however, suggest that young men are less likely to leave rural regions where girls are more likely to take the *Abitur* than boys. This is not very surprising given that rural young men with a lower level of education tend to learn locally available trades in agriculture, industry or construction.

The basic trends are to a certain degree similar in the Northwest. The regression results are, however, not as straightforward and

Table 2

Results of the regression analysis. Own calculations.

	Migration balance of women between 18 and 25		Migration balance of men between 18 and 25	
	Beta	Significance	Beta	Significance
East: sparsely populated districts in Brandenburg, Mecklenburg-Vorpommern, Saxony, Saxony-Anhalt and Thuringia (n = 62)				
<i>Spatial structure</i>				
Inhabitants and jobholders per km ² 2010	0.128	n.s.	0.159	n.s.
<i>Education</i>				
Female early school leavers per 100 male early school leavers 2010	0.168	n.s.	–0.090	n.s.
Male early school leavers per 100 male school leavers	–0.036	n.s.	–0.133	n.s.
Relative difference in the proportion of female and male school leavers with Abitur 2010 in %	0.009	n.s.	0.227	0.044
<i>Labor market and employment</i>				
Employees working in the service sector per 100 employees 2010	0.307	0.015	0.322	0.008
Concluded articles of traineeship by male applicants per 100 male inhabitants aged 15–20	0.102	n.s.	0.129	n.s.
Gainfully employed university graduates per 100 inhabitants of working age 2010 (log)	0.129	n.s.	0.049	n.s.
Female labor force participation rate 2010	–0.044	n.s.	–0.168	n.s.
Female unemployed under 25 per 1000 female inhabitants between 15 and 25 2010	–0.419	0.001	Not used	
Male unemployed under 25 per 1000 male inhabitants between 15 and 25 2010	Not used		–0.212	0.070
<i>Gender equality</i>				
Gender equality index 2010	0.049	n.s.	–0.045	n.s.
Relative difference in the youth unemployment rates of women and men 2010 in %	0.129	n.s.	0.052	n.s.
Relative difference in the labor participation rates of women and men 2010 in %	–0.361	0.003	–0.404	0.001
Constant (non-standardized coefficient)	–75,310	n.s.	43,856	n.s.
Corrected R ² (in %)	50.1		54.8	
Northwest: sparsely populated districts in Lower Saxony and Schleswig–Holstein (n = 40)				
<i>Spatial structure</i>				
Inhabitants and jobholders per km ² 2010	0.393	0.013	0.196	n.s.
<i>Education</i>				
Female early school leavers per 100 male early school leavers 2010	–0.180	n.s.	–0.368	0.015
Male early school leavers per 100 male school leavers	–0.058	n.s.	–0.319	0.020
Relative difference in the proportion of female and male school leavers with Abitur 2010 in %	–0.261	0.039	–0.025	n.s.
<i>Labor market and employment</i>				
Employees working in the service sector per 100 employees 2010	0.248	n.s.	0.469	0.008
Concluded articles of traineeship by male applicants per 100 male inhabitants aged 15–20	Not used		–0.123	n.s.
Concluded articles of traineeship by female applicants per 100 female inhabitants 15–20	–0.151	n.s.	Not used	
Gainfully employed university graduates per 100 inhabitants of working age 2010 (log)	–0.018	n.s.	0.021	n.s.
Female labor force participation rate 2010	0.045	n.s.	–0.065	n.s.
Female unemployed under 25 per 1000 female inhabitants between 15 and 25 2010	–0.272	0.090	Not used	
Male unemployed under 25 per 1000 male inhabitants between 15 and 25 2010	Not used		–0.180	n.s.
<i>Gender equality</i>				
Gender equality index 2010	0.222	n.s.	0.323	0.041
Relative difference in the youth unemployment rates of women and men 2010 in %	0.347	0.023	0.216	n.s.
Constant (non-standardized coefficient)	–50,015	n.s.	–7048	n.s.
Corrected R ² (in %)	51.0		49.2	

suggest that there are more sex-specific differences in the migration patterns than in the East. Youth unemployment is linked to out-migration only for the young women, whereas the young men (but not their female peers) tend to stay in districts with a strong service sector. It seems that education and regional degrees of gender equality matter more in the West German countryside. The migration balance of young women is especially negative in regions where girls are much more likely to take the *Abitur* than their male peers. Early school leaving of young men does not seem to affect the migration patterns of young women. Young men are, however, more likely to leave districts with a high share of dropouts. Future research should analyze whether this pattern is caused by the out-migration of more ambitious young men who are leaving regions where a “culture of low ambitions” does prevail among their peers. It is interesting to note that the migration balance of young men is more favorable in “male peripheries”, i.e. in districts with a low degree gender equality. Finding explanations for this result is beyond the scope of this paper which is not aiming at explaining the patterns of spatial mobility in the rural northwest.

Regression models with the same indicators (not shown) were calculated to test the influence of structural and socio-economic determinants on the sex-specific differences in the migration balance of female and male educational migrants. Yet, very low values of R²; indicate that these models only insufficiently explain the

dependent variable. The same applies to an attempt to explain the number of women per 100 men in the 18–25 age group (not shown). Against this backdrop, the conclusion can be drawn that the structural, economic, educational and gender equality indicators used for the regression analyses are helpful to better understand the migration patterns of educational migrants, but fail to explain sex-specific differences. This finding sheds light on the limitations of quantitative migration research in an era of increasingly complex mobility patterns and makes a case for including the cultural and historical background of the area under study, ideally based on a multi-methods research approach. Both aspects will be discussed in the following section.

7. Discussion

A major limitation of the quantitative approach used in this paper is that it largely excludes the “human element”. Structural and economic factors are important explanations of migration streams, but they are experienced by individuals in the context of culture, community, and family. Sex-specific differences in migration behavior are also related to sex-specific differences both in structural conditions and with regard to decisions, values and orientations on the individual level, which are shaped by a person's social networks via socialization. In this sense, one can argue that

“escaping” from male-oriented communities and the quest for cultural diversity, social interactions and new challenges are motivations to leave the countryside that are (at least) as important as the job situation (Rasmussen, 2011). The story of rural youth (im-)mobility is more complex than a simple dichotomy of attached stayers and detached migrants would suggest. There are also attached migrants with specific plans to return, detached stayers who dream of leaving and those in between, i.e. young people who either despise their hometown but have no plans to leave or those who adore their native place but cannot imagine returning (Jamieson, 2000). In a nutshell, the analysis of structural conditions is only part of the story. Non-economic aspects and the role of social networks also have to be taken into account, as well as the specific characteristics of the area under consideration:

“The local geography of an area, including its settlement hierarchy, its culture of migration (in terms of migration direction and decision-making), and local structures [...] need to be considered. Collectively and individually, they represent powerful influences on internal migration flows” (Stockdale and Catney, 2014: 95).

With respect to East Germany, this means that the key to understand age- and sex-selective migration patterns is to take the history of the region into account, i.e. to keep in mind that the socialist era and the deep economic and labor market crisis of the early 1990s influence the population's perceptions and behavior to this day and that this influence is highly gendered.

7.1. The gendered consequences of German unification

It is a legitimate question to ask to what extent the socialist past and the transformation crisis continue to influence the migration behavior of the young generation 25 years after the German unification. Many of the women and men who are in their twenties today have grown up after the fall of the Berlin wall and have been socialized in unified Germany. However, the experiences of their parents and the structural conditions prevailing in their home regions still shape the younger generation's patterns of spatial mobility. The post-socialist factor can be assumed to be especially relevant for women, given that

“[f]or those on the former eastern side, German unification has meant a reconfiguration of place that has touched almost every sphere of life, reaching to the deeply “private” and personal. The almost unquestioning adoption of the Western political and economic system has created a sense of disenfranchisement, particularly acute for East German women, whose social, cultural and political positions have been radically altered as a consequence of unification” (Hörschmann and van Hoven, 2003: 742–743).

The socialist legacy and the deep and long-lasting transformation crisis continue to influence migration patterns of the regional population to this day. There is no “deep divide” between the parental generation which was socialized in the German Democratic Republic (GDR) and their offspring which was born and/or grew up in unified Germany. The parents' social capital, which is made up of experiences gained in the GDR, during the system change and after unification is transferred to the younger generation (Hörschmann and Richter, 2010). Education- and migration-related behaviors of many young people (both staying and the accumulation of human capital as a prerequisite of leaving) can be interpreted as a family continuity rather than a clean break (Sparschuh, 2013; Hörschmann and Richter, 2010). The cohorts born in the

1980s and in the 1990s have witnessed the (failed or successful) adaption strategies of their parents which have shaped their own life plans, values and norms (Busch et al., 2010) including their social construction of the countryside, which in turns influences migration strategies: “Where you come from influences how you interpret the rural; your interpretation of rurality has an impact on your wishes concerning where to live and how to create your version of the good life” (Rye, 2011: 178).

Against this backdrop, it is necessary to account for the changes in the labor force participation and the social roles of women in rural East Germany before and after 1990. Unification resulted in a deep labor market crisis, which in the first place affected women and in particular rural women. Three quarters of the jobs lost as a consequence of the transition to market capitalism were held by women and entire economic sectors with a predominantly female labor force vanished completely (Hörschmann and van Hoven, 2003). Women were also more affected than men by changes induced by the transfer of the institutional and economic frameworks of the Federal Republic of Germany to the newly formed eastern *Länder* which included a paradigm shift in social and labor market policy: The GDR-policies designed to keep mothers in the labor force were replaced by policies aimed at encouraging them to stay at home (Rudd, 2000).

Many women experienced these changes as a ‘displacement’, a forced relocation, either to West Germany or to the private sphere of their homes (Hörschmann and van Hoven, 2003; Van Hoven, 2004). This is because gender roles have not been adapted to the aforementioned changes. Unlike other post-socialist countries, East Germany did not follow the ‘conservative turn’ regarding gender role attitudes. Public support for the traditional role assignment of male breadwinners and female homemakers is very low, not only in comparison to the old *Länder*, but also in a European perspective (Fodor and Balogh, 2010). To this day, the degree of attachment of women and especially of mothers to the labor market is one of the most striking East–West-differences. The differences in gender roles within Germany are especially visible in the countryside. Rural West Germany is a stronghold of the breadwinner/homemaker-model, whereas rural East Germany is characterized by a dual-earner model (Leibert, 2014). Many of the women who have benefited from the emancipation that was linked to the high female labor force participation in the GDR have conveyed their work orientation and their demand for self-determination to their daughters and granddaughters (Weiß, 2011). It is also likely that the “listlessness, bitterness, desperation and depression” their mothers and grandmothers felt after becoming unemployed (Van Hoven, 2004: 133) has deeply affected the outlook on life and the employment strategies of these young women.

Previous research (Leibert and Wiest, 2012; Wiest and Leibert, 2013) suggest that rural young people in East Germany in general and young women with *Abitur* in particular are very pessimistic about the future socio-economic development of their home-region. East German youth tend to think that their home regions are places of stagnation which offer them only very limited opportunities for their future lives. Living in the countryside and being successful are often perceived as mutually exclusive options. Many young people have friends, acquaintances or family members who found it extremely difficult to enter the labor market even though they had excellent school leaving qualifications. ‘Blocked’ labor markets, job insecurity experienced by both family members and acquaintances and the perception that the rural East “has no future” have resulted in a youth migration culture (Wiest and Leibert, 2013), a particular social climate in which migration is normalized and expected by the youths' parents and their wider social networks (Easthope and Gabriel, 2008). This migration

culture is probably reinforced by a high work-orientation in East Germany. Busch et al. (2010) argue that the high significance of work in the GDR has led to a pronounced achievement orientation among the East German population of all ages. Young people are more willing than the West German youth to be spatially mobile and to subordinate their private needs to their professional lives (Busch et al., 2010; Hörz and Richter, 2010).

8. Conclusion

Rural East Germany is characterized by a shortage of young women, which is especially pronounced in small communities and remote areas. The extent of the unbalanced sex ratio, which is largely caused by sex-selective migration, is unique in Europe. However, change is under way: Out-migration of young people from rural East Germany has decreased in recent years and is increasingly less sex-selective. The economy seems to be catching up with the more dynamic West and many of the older employees which had 'blocked' the labor market for school-leavers in the past are on the verge of retirement. The upcoming generation change in the public and service sectors opens up new occupational possibilities for qualified young women and may reduce the propensity to leave the countryside. Nevertheless, the chief problem, the absence of a return- or in-migration of women in their late 20s to the countryside, persists.

Structural conditions are important determinants of migration for the 18–25 age group in the German context, but fail to explain why rural East Germany is the place with the most unbalanced sex ratios in Europe. Any attempt to explain why young women were – at least until recently – much more likely to leave than young men has to include the post-socialist heritage of East Germany. These considerations highlight the necessity to take into account the context-dependence of the migration decision as well as the importance of individual factors. When interpreting young people's migration behavior in the light of the job situation, it has to be kept in mind that only a part of the migration-labor market nexus can be analyzed with statistical data. When choosing a profession, young people make a crucial decision that affects their whole life. This decision is made on the basis of incomplete information and is heavily influenced by subjective evaluations as well as experiences and advice of third parties, like parents, teachers or occupational counselors. Moreover, the influence of structural conditions on individual behavior is indirect. Individuals do not base their migration decisions on 'objective' variables like unemployment rates or wage levels, but rather on their personal perception and interpretation of the local/regional economic climate. Future research should be based on multi-method approaches in order to better understand the interplay between structural conditions, social networks and individual perceptions, life plans and (residential) preferences.

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