Internal Migration in the Territory of the former German Democratic Republic before German Unification

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I. Introduction

Eight years have passed since German unification in October 1990, and the transformation process from socialistic system into market-oriented system in the territory of the former German Democratic Republic (GDR) become the major focus of researches in various disciplines. Concerning migration studies and urban geography, researchers are, at the beginning, interested mainly in the east-west migration of the former GDR citizens around 1989 and have already yielded a large amount of publications. Recently, researchers investigate and discuss vigorously the social consequences of the former GDR region in the transformation process observed after unification. In contrast to the increasing number of studies on the ongoing transformation process, we do not have enough studies concerning the past situation in the GDR period. This is considered to be partly because of restricted availability of statistical data, and also because such studies are not regarded as useful for improving the recent situation of ex-GDR citizens. However, the researches on the past socialist period help our understanding of the recent situation in the region and give some implications for future development. Furthermore, such studies might bring us to reconsider our view on migration, regional inequality and residential segregation in the market-oriented society.

This paper deals accordingly with internal migration in the territory of the former GDR before German unification, aiming at describing migration patterns and its consequences and understanding determinants of migration and population distribution. In the field of migration studies concerning the former GDR, Grundmann (1998) is the only comprehensive publication, which covers all study areas of demography including migration and policies on population from an insider’s point of view. This paper is thus developed based on his work and tries to add some new aspects, in particular age-specific migration patterns.

Figure 1. Territory of the former German Democratic Republic
15 States (Bezirke) in the period 1952–1990

1: Berlin (East)
2: Cottbus
3: Dresden
4: Erfurt
5: Frankfurt
6: Gera
7: Halle
8: Karl-Marx-Stadt (Chemnitz)
9: Leipzig
10: Magdeburg
11: Neubrandenburg
12: Potsdam
13: Rostock
14: Schwerin
15: Suhl

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II. Mobility

The territory discussed in this paper will be explained briefly. Figure 1 shows the territory of the former German Democratic Republic (GDR), which had consisted administratively of 15 states (Bezirk in German) since 1952. The minimum administrative unit was the municipality (Gemeinde in German) and the secondary administrative unit was the county (Kreis in German). There were about eight thousand municipalities and two hundred and thirty counties\(^1\) in GDR. After German unification in 1990, the former 14 states were reorganized into five new states (Land in German), \(^4\) and Berlin (East) was merged into Berlin (West). The area of GDR was about 108,000 km\(^2\) and the population was around 17 million, which number had been almost constant during the GDR period.

We start investigating mobility in the GDR period. Figure 2\(^5\) illustrates the migration rate per 1,000 population in GDR in comparison with the rate in the Federal Republic of Germany (FRG). In order to compare more exactly, inter-state migration in GDR was re-calculated by recent five new states. A move beyond a municipality border within a state is regarded as an intra-state migration, while a move within a municipality is not counted as a migration. The following three points are confirmed from Figure 2. First, both inter-state and intra-state migration rates in GDR have not changed much through the period between 1967 and 1989. Inter-state migration rate is around seven per thousand populations each year and intra-state migration rate is 15–20 per thousand populations. Second, both inter-state and intra-state migration rates in GDR reach only about half of those in FRG. Considering that the average size of states in both parts is almost same while the average size of municipalities in GDR is much smaller\(^6\) than that of the FRG, the number of short-distance migrations is relatively small in GDR compared with FRG. Third, after German unification in 1990, we can find an increasing tendency of intra-state migration, namely short-distance migration in GDR while relative value of intra-state migration rate against inter-state migration rate was almost constant before 1990.

Grundmann (1995) has already pointed out\(^7\) the low mobility of GDR and examined the determinants of the low mobility carefully. His points are as follows; first the former GDR citizens are

![Figure 2. Migration rate in the former territory of GDR and FRG (1967–1995)](image)

Source: Statistisches Jahrbuch für die Bundesrepublik Deutschland (each year)
Statistisches Jahrbuch der deutschen demokratischen Republik (each year)
Sonderreihe mit Beiträgen für das Gebiet der ehemaligen DDR, Heft 3.

Note: Migration statistics of the former GDR for 1984 and 19990 are not available.
Intra-municipality (Gemeinde) migration is not included in intra-state migration.
Inter-state migration in the former GDR before 1990 was re-calculated by actual five states and East-Berlin.
Inter-state migration between the territories of the former GDR and FRG is not included.
not born immobile people; second, the job allocation system and other socialistic systems in the GDR period made them immobile. These points will be discussed in the following chapters from other perspectives. The smaller amount of short-distance migration in GDR is relatively easy to explain. Migration in short-distance can be regarded mostly as a movement for housing in neighboring municipalities. As Mackensen (1993) indicates, there is some sign of suburban development in GDR, which should cause many short-distance migrations. After 1990, drastic suburbanization processes are observed in the former territory of GDR (Bundesforschungsanstalt für Landeskunde und Raumordnung 1997). The increasing number of recent intra-state migration is due to such suburban developments.

III. Migration patterns in spatial context

1. Spatial pattern of migration

As shown above, absolute values of mobility in the GDR period were considerably small and this tendency has lasted for some decades. We will now go into the investigation of spatial pattern of migration. From statistical yearbooks of GDR, origin-destination migration data are only available in 15 states. Although these data are classified neither by sex nor by age group, we can get them annually, and therefore they are useful for grasping changes in spatial pattern of migration.

Changing spatial patterns of migration flows in the period between 1967 and 1988 are illustrated in Figure 3. Migration data for 22 years are analyzed here not annually but the whole period was divided into four sub-periods, in order to avoid unexpected annual changes by chance. Migration in the sub-period 1967–73 is accordingly the sum total of migration statistics of each year between 1967 and 1973. Arrows in the figure show major migration flows from each origin state, which are counted by absolute number of migrants between states.

In the period 1967–73, all of the major migration flows reached only to adjoining states and four pairs of states are observed, which are the major destination of migration flows to each other, namely Berlin (East) and Frankfurt, Kotbus and Dresden, Halle and Leipzig, Rostock and Schwerin. Thus, people seemed to move mainly according to distance and there was no sign of concentration. In the second (1974–78) and third period (1979–83), we find some major migration flows heading to distant Berlin (East); in the 1974–78 period from Erfurt and Rostock, and Neubrandenburg was added in the next period. As a destination of migration, Berlin (East) became gradually important through these periods. In the last period 1984–88, Berlin (East) is the major destination of migration for eight states (Dresden, Erfurt, Frankfurt, Halle, Magdeburg, Neubrandenburg, Potsdam and Rostock). The number was two, four and five in the period 1967–73, 1974–78 and 1979–83 respectively. Obvious concentration pattern oriented to Berlin (East) can be identified in the last period.

Furthermore, we will check inter-state migration rate per 1,000 population by 15 states (Figure 4). Three graphs illustrate in-migration rate (1), out-migration rate (2) and net-migration rate (3) respectively. We focus attention on the trend of Berlin (East). While in-migration rate of Berlin (East) was the lowest among 15 states in the period 1967–73, it has risen continuously through the 1970s and reached the highest level in the last period. On the other hand, out-migration rate of Berlin (East) has kept by far the lowest values throughout the whole period. The net-migration rate, namely the difference between in-migration and out-migration rate, is accordingly very high in Berlin (East) in particular after the second period reflected the rising in-migration rate while the rates of the other 14 states remained almost zero or negative.

In- and out-migration rates of the other 14 states show generally a constant or slight declining tendency. Things to be emphasized among them are the high in-migration rate of Frankfurt and high out-migration rates of Neubrandenburg and Frankfurt. As in Figure 1, both states are located along the border between GDR and Poland, and the region is characterized traditionally by agricultural economic structure, and thereby depopulation has been obvious in the last decades. On the other hand, the GDR government, in connection with the common economic strategy of socialistic countries, has stressed economic development in the border region. A petrochemical complex Schwedt in Frankfurt was hence constructed based on imported natural gas from the Soviet Union, which attracted immigrants from other states and kept the rate of Frankfurt high during the GDR period. One more point should be paid about Rostock, located in the north facing the Baltic Sea. The state of Rostock has a similar regional background to Frankfurt, based on agriculture and newly devel-
Figure 3. Spatial patterns of inter-state migration (1967–1988)

Source: Statistisches Jahrbuch der deutschen demokratischen demokratischen Republik (each year).

Note: Arrows indicate major migration flows from each origin state.
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oped industry; Rostock is famous for its port and shipyard complex, constructed for strategic reasons. Its relative high in- and out-migration rates are attributed to the above-mentioned regional structure.

It should be consequently pointed out from Figure 3 and Figure 4 that the spatial pattern of migration drastically changed through 1970s. At the beginning, the migration system was a local one, only to adjoining states mainly based on growth poles strategy, the construction of some new industrial cities. In the later phase, there was observed a unified migration system covered the whole GDR region, in which every migration flow oriented to Berlin (East) and only Berlin (East) showed an apparent positive net migration. In the next section will be discussed briefly the regional and urbanization policy of GDR which influenced migration behavior.

2. Regional policy and migration

Grundmann (1998) mentioned six determinants that controlled directions of the spatial pattern of migration in the German Democratic Republic after 1945. Schulz (1991) tried to explain the migration of Berlin (East) and pointed out two important programs of the government that lured migrants moving toward Berlin (East) after the 1970s. Based on Schulz (1991) and Grundmann (1998), two major aspects that influenced migration patterns after the 1960s will be briefly discussed in this section.

Economic development through industrialization has been the most important task after the establishment of the socialistic GDR. The government gave the following three priorities in economic policy; 1) larger scale new industrial centers (growth poles) than small private companies in traditional industrial agglomerations, 2) preference for extensive development to intensive reproduction, 3) preference for self-sufficiency in raw materials to importation. According to these principles, some concrete regional development plans have been realized in particular in the 1950s and 1960s. First, a large-scale shipyard industry was constructed in Rostock. Second, large-scale metal and petrochemical industries were newly developed in the eastern part of the country; for example, Eisenhüttenstadt in Cottbus and Schwerin in Frankfurt. Third, they also constructed a large-scale energy and chemical industry on the basis of the domestic brown coal deposit in Kotbus, Halle and Leipzig. Fourth, the government has invested large sums in the agricultural sector to encourage domestic products. As a consequence of these policies, Rostock, Frankfurt and Cottbus attracted migrants from other states and the subsidies for agriculture controlled to some extent the depopulation tendency of the agricultural region.

The next major aspect mentioned here is the housing policy of GDR. Though the industrial policies were the strongest determinant for migration and population distribution in the 1950s and

Figure 4. Inter-state migration rate by 15 states (1967–1988)
Source: Statistisches Jahrbuch der deutschen demokratischen Republik (each year).
Note: Migration rates were calculated per 1,000 population and per year.
1960s, housing construction has played an important role since the 1970s. The government had given apparent priority to heavy industry and mining over other sectors until the end of the 1960s, namely until the end of Ulbricht's era. They did not invest enough in the housing sector and the condition of many dwellings was therefore allowed to deteriorate for the greater part of the first two decades after 1945 (Jones 1994). After Honecker had succeeded Ulbricht as State Secretary, he declared at the 8th national convention of the Socialist Unity Party (SED) in 1971, that the government will promote housing construction and solve the housing problem before 1990 (Schöller 1986; Schulz 1991), aiming at calling GDR citizens' attention to his new regime. The government adopted the following principles to decide locations of investment for housing construction, which attempted to diminish construction and maintenance costs. First, a small number of large-scale housing complexes should be constructed. Second, locations chosen were on vacant land on the periphery of large cities. Third, new construction has priority over renovation of old buildings. As a result, a large number of new housing units were added to the housing market in the 1970s and 80s, in particular in the peripheral zone of large cities, there was observed, accordingly, a migration flow from smaller municipalities to larger ones (Figure 5, center and right). Although the housing construction program had originally aimed at solving housing problems for all GDR citizens, it stimulated a kind of urbanization process in the 1970s and 80s.9

In addition, some characteristics of migration in GDR can be found from figure 5. 1) The difference of in-migration rates by population size of municipality is much smaller than that of out-migration. Net-migration rates thereby depend mainly on out-migration rates. 2) Concerning both in- and out-migration, larger municipalities show lower migration rates, in particular evident by out-migration. And the order is almost reversed by net-migration, namely the larger the size of municipalities, the higher the net-migration rates of the municipalities. 3) The municipalities with between 50,000 and 100,000 residents showed the highest net-migration rate in the first and second periods, reflecting the "growth pole" industrial policy, while the largest sized municipalities came to the highest in the last two periods as a consequence of the housing construction program.

If we consider a comparison of the socialistic migration system with the capitalistic one, the second point above is highly interesting, which is the reverse of the situation in market-oriented societies. For example, Tokyo and other prefectures included in major metropolitan areas of Japan show higher in- and out-migration rates than other prefectures while lower migration rates are found in the peripheral agricultural prefectures. One possible explanation is the selectivity of migration, that is, people do not move

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Figure 5. Inter-municipality migration rate by population size of municipality (1967–1988)
Source: *Statistisches Jahrbuch der deutschen demokratischen Republik* (each year).
Note: Migration rates were calculated per 1,000 population and per year.
equally, but mobility depends on age, occupation or educational level. In general, young people are more mobile than older ones, farmers do not move as often as the white-collars, and higher educated people are more likely to move than those with lower educational backgrounds. Therefore, residents in large cities tend to be more mobile than rural residents. However, the situation in GDR looks totally different. This point will be discussed later.

Concerning the housing policy of GDR, there is one more thing to be emphasized. In addition to the housing construction program, “Berlin program” was also announced in 1976, which promoted development of Berlin (East) as a socialist metropolis of the GDR (Zimm 1990). Consequently, one-eighth of newly constructed housing units were located in Berlin (East) in the period 1980–84 and the value reached one-fifth in 1985–89 (Schulz 1991). Although the housing construction program did not intend to promote population concentration in Berlin, large numbers of housing complexes were constructed in suburban areas of Berlin (East) and the population of Berlin (East) has obviously increased since 1970s (Figure 4). The reason of the increase seems not an expanding demand of labor, but the increasing supply of housing. This point is also rather different from the capitalistic system.

IV. Age of migrants —from a cohort perspective—

We discussed the changing spatial pattern of migration and its determinants in the previous chapter. Those who moved will be investigated in this chapter. Concerning the characteristics of migrants in the GDR, we have only migration statistics by age group for the whole country. First of all, those statistics will be examined and then we will make use of static population data by age group and by state and adopt cohort analysis as substitutes for regional migration statistics. Age-specific migration pattern in GDR has not been investigated until now because of the lack of data. Grasping other aspects of migrants’ characteristics, for example occupation or educational level, is not possible from the official statistics of GDR, and we have accordingly no other choice here but to focus on age of migrants.

Figure 6 illustrates inter-county migration rate for the whole GDR in 1970, 1975, 1980, 1985 and 1988. Three things can be pointed out from the figure. 1) The highest migration rate is observed in the age of 18–24 and the rate declines in the older age groups. In GDR, only those aged between 18 and 24 tend to move often and those aged over 40 are extremely immobile. 2) The age profiles of migrants of these years look similar. Age profiles of migrants had not changed much for 20 years. 3) If we look precisely, the migration rate for 18–24 is relative higher and that of the 0–14 and the 25–39 age groups is lower in 1970 and 1975 while the rate in the 0–14 and the 25–39 groups is higher and that of those aged 18–25 is lower in 1985 and 1988. This change is to be attributed to the shift of the major migration determinants from industrial factors to housing factors. The young people move often for work, and families tend to migrate for housing reasons.

Figure 7 and Figure 8 show cohort-changing rates by period and by birth cohort respectively. Cohort-changing rates adopted here are calculated as follows; for example the male population of Berlin (East) aged 25–29 in 1983 is 46,308 and the male population of Berlin (East) aged 30–34 in 1988, which is the same cohort five years later, is 52,831. The cohort-changing rate of the cohort born in 1954–1958 and of the period 1983–1988 is 1.14, the quotient of 52,831 by 46,308. Cohort-changing rate is the sum of net-migration rate and cohort survival ratio. Cohort survival ratio of those aged less than 50 years old is nearly 1.00,
and thus, roughly speaking, if a cohort-changing rate is more than 1.00, that cohort shows positive net-migration in the relevant period. When we adopt this method using register statistics, we can get quasi net-migration rates by age, by sex and by state. Three specific states, namely Berlin
(East), Frankfurt and Neubrandenburg, were chosen among 15 states of GDR. As described in the previous chapter and shown in Figure 4, Berlin (East) has been the magnetizing center of migrants and Neubrandenburg has continuously lost its population for decades. Frankfurt attracted migrants in the period of economic development, but out-migration rate of Frankfurt is also high.

First, we will investigate cohort-changing rates of Berlin (East) in Figure 7 and Figure 8. From Figure 7, the cohort-changing rates after 1973 show much higher than before. It is particularly evident by the age of 20–24/25–29. During the period of housing construction, the main part of the population growth seems to be the young males and females aged around 25 years old. The highest values of cohort-changing rates are found not by the age of 17–20/21–24, but 20–24/25–29, which suggests that the main reason for moving to Berlin (East) is neither “entrance to higher educational institutions” nor “seeking jobs directly after graduation from high school”. According to the age at peak values, the reason appears to be “family formation”, “changing jobs” or “housing”. The peak for females comes a little earlier than males. Conscription system explains the delay of males. Considering the peak age of migration in Figure 6, migration of younger people aged about 20 seems to be a short-distance migration, which does not influence so much net-migration rates on a state level.

From Figure 8, we can find some trivial differences in behavior among cohorts, every cohort shows a similar profile, and thereby periodical change caused by kinds of policies has stronger effects on changing migratory patterns than changes in behaviors by birth-cohort. One more point to be noted here is that the cohort-changing rates are still almost positive after 25–29/30–34. A flow of return-migration hence cannot be identified here; those who migrated to Berlin (East) do not go back to their region of origin in an aggregate sense.

Next, the age-specific net-migration concerning Frankfurt will be examined. As shown in Figure 4, both in- and out-migration rates in Frankfurt were high in the last decades, and net-migration rate in the period 1967–73 was almost as high as Berlin (East). We can identify it also from Figure 7. The male cohort-changing rate of Frankfurt at the age of 20–24/25–29 during 1968–73 is higher than that of Berlin (East). The positive value by female at the same age is not so high, and it appears that more young male workers born around 1950 (Figure 8) were attracted to come to Frankfurt through the industrial development policy at that time. In the 1978–83 period, however, these birth-cohorts (1944–48 and 1949–53) by male show negative cohort-changing rate, which indicates out-migration flow from Frankfurt was predominant over the in-flow.

We will focus finally on Neubrandenburg, where a depopulation trend has been evident since 1970s (Figure 4). We can get information in detail concerning sex- and age-specific net-migration from the cohort-changing rates in Figure 7 and Figure 8. Figure 7 illustrates that the worst depopulation is found in the period 1963–68 or before. In particular, female population shows obvious negative cohort-changing rates regardless of their age in the period. After 1968, the depopulation trend softened a little. However, the most negative cohort-changing rates are observed in the female population aged about 20 years old, which confirms to us that depopulation process in rural areas is expressed most strongly by young females.

According to the cohort analysis, age-specific inter-state migration could be identified also in GDR, but the extent of dependency on age is not so strong as other countries. Some periodical events, such as changing policies of the government, have also affected migration behaviors regardless of age.

V. Concluding remarks

In the last section, the meaning of migration in GDR will be discussed as concluding remarks. It is still unclear for us as researchers from market-oriented societies to grasp the significance of migration or the freedom of movement in GDR. Is it possible to think that migration caused by industrial development or housing construction is voluntary? Although some researchers, most of them from GDR, discussed internal migration in the GDR period, no one mentioned apparently about the meaning of moving (Kohl et al. 1981; Neumann 1983; Wendt 1986; Schimdt and Tittel 1990; Schulz 1991; Grundmann 1998). It was not necessary in GDR to migrate for job seeking. Theoretically everyone could find a job near his/her residence without difficulty. If this socialist system functions well and regional egalitarianism is realized, people do not need to migrate so often. However, there was still observed quite a large
Figure 8. Cohort changing-rate by five-year birth cohort
Source: Statistisches Jahrbuch der deutschen demokratischen Republik (each year)
degree of migration in GDR. We tried to make clear who moved in GDR, but the lack of the relevant statistics allowed us only to examine migrants classified by sex and age. Although socioeconomic characteristics of migrants are not reported in the official statistics, some researchers from GDR mentioned them from original surveys (Wendt 1986; Schulz 1991; Grundmann 1997). The results may be summarized as follows. The proportion of university graduates among people newly migrated to Berlin (East) were extremely high, as a result of the tendency for higher qualified people to concentrate in Berlin (Schulz 1991). Concerning the intention to move, Grundmann (1997) reported that highly qualified people living in large cities and residents with lower educational background in villages have the lowest intention to move. The former seem to be satisfied with their present situation. They know the living condition of large cities better than any other place. The latter can understand that they have no chance to migrate to large cities because of their lower qualifications.

As discussed in Chapter 3, the planned economic system in GDR had strong influence on spatial migration patterns. However, the decision-making process on a micro level in GDR seems not to be much different from that in market-oriented societies. More detailed studies about job allocation system and housing allocation system in the GDR period should be needed, if we consider the possibilities of adopting some major analytical perspectives, such as an institutional or behavioral approach, into the migration research of GDR. This report could provide a few new points in particular concerning age-specific migration in GDR, but also presented some important problems to be investigated. These unsolved problems, if they are clarified to some extent, will be a great help in understanding processes of migration, urbanization and residential segregation also in the market-oriented societies.

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Notes

1) e.g. Gans P. and Kemper F.-J. eds. (1995)
2) e.g. Bertram H. et al. (1996), Strubelt W. et al. (1996) and Schäfer (1997). The publications from the KSPW (Kommission für die Erforschung des sozialen und politischen Wandels in den neuen Bundesländern; Commission for the studies on social and political changes of the new federal states) are important in this field.
3) There were 7,563 municipalities (Gemeinde) and 227 counties (Kreis) in 1988.
4) Three northern states (Neubrandenburg, Rostock and Schwerin) were integrated into a new state “Mecklenburg-Vorpommern”. The states around Berlin (Cottbus, Frankfurt and Potsdam) form a new state “Brandenburg”. Magdeburg and Halle were merged into a new state “Sachsen-Anhalt” and Dresden, Chemnitz (Karl-Marx-Stadt) and Leipzig located in the southeast of GDR were summed up into a state “Sachsen”. The rest, three southwestern hilly states, Erfurt, Gera and Suhl form a state “Tübingen”. There are however some exceptions; eight counties are moved to different states by the reorganization.
5) We use migration statistics after 1967 in this paper because the methodology of migration register altered on January 1. 1966.
6) If the size of a municipality is smaller, more moves tend to be registered as migration.
7) We can also find a researcher like Möbius (1991), who argues the ex-GDR citizens are very mobile based on the same statistics.
8) Neumann (1983) also discussed this point, when he examined GDR migration patterns. From the perspective of urban planning, Topfstedt (1988) gives useful information.
9) Wendt (1986) and Schmidt and Tittel (1990) also pointed it out.
10) The proportion of population in Berlin (East) against the whole country was only six to seven per cent in 1980s.
11) There are some important studies on migration patterns from a cohort perspective in FRG, on the other hand (e.g. Flötemann 1993).
References


