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ABSTRACT

Occupational Mobility of Ethnic Migrants*

This paper studies occupational mobility of ethnic German migrants who have entered Germany since 1984. The empirical analysis suggests significant differences in the probability of downward occupational mobility by gender, immigration status, and schooling levels. In general, migrants with higher skill levels face sharper deteriorations in their relative labor market position at the time of immigration, but are also able to reach their original occupational status much faster than low-skilled immigrants.

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1. INTRODUCTION

In the aftermath of the cold war, Germany experienced a huge increase in the inflow of ethnic Germans from East Germany and settlement areas in Eastern Europe. From 1988 to 1996 approximately 3.7 million ethnic Germans migrated to West Germany. During the same period, Germany admitted an additional 1.8 million asylum seekers and refugees. In 1989, immigration to Germany increased the population by 2.5 percent, and from 1990-1992 by 1.8 percent annually (Zimmermann, 1995). The German experience with the immigration of ethnic Germans is similar to the mass immigration of Jews from the former Soviet Union to Israel. The latter started in at the end of 1989 and amounted to a total of about 600.000 immigrants between 1990 and 1995. Between 1990 and 1991 the immigration of jews from the former Soviet Union increased the Israeli population by 7.6%.[1] How successfully were these migrants integrated into the labor market? The answer to this question is a first step in asserting the potential benefits of immigration for the resident population of the receiving country[2]. Social frictions created by immigration may require some sort of active policy for selecting and integrating the migrants into the labor market of the receiving country (Zimmermann, 1995). Hence, it is not surprising that the process of integration and assimilation of immigrants became one of the most relevant topics in the migration literature.[3]

There exists a large empirical literature analyzing the convergence of immigrants' earnings to those of natives. These studies predominantly find that immigrants face an earnings disadvantage at the time of immigration, but higher subsequent earnings growth than comparable natives. A theoretical explanation for this process of earnings assimilation is provided by the human capital model of international skill transferability. Initially new migrants possess skills acquired in the country of origin. These skills are not fully rewarded in the receiving country because human capital investments contain country-specific components which cannot be easily transferred between different countries. Subsequently higher wage growth can be explained with post-immigration investments in the host

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1 See Eckstein and Weiss (1998) and Weiss and Gotlibovski for a description of the Israeli immigration experience.

2 See Borjas (1995) and Bauer and Zimmermann (1997a) for a discussion of the benefits of migration accruing to the native population of the receiving country.

3 Surveys are given by Borjas (1994), Chiswick (1991), Duleep and Regets (1997a, 1997b) and Zimmermann (1994, 1995).

country-specific human capital and the adaptation of pre-migration investments to the demands of the receiving country.

In this paper we deviate from the literature by analyzing the determinants of occupational mobility of recent migrants to Germany. Compared to the existing literature on the wage assimilation of migrants, empirical studies of the occupational mobility of migrants are relatively scarce. Furthermore, most of the existing studies concentrate on migrants which have no closer links to the receiving country neglecting the economic integration of ethnic migrants, which have links in terms of culture, religion, traditions or language to the society of the receiving country. Chiswick (1977a) analyzed the occupational mobility of U.S. immigrants. His results show that immigrants initially experience downward occupational mobility compared to their occupation in the home country. With time of residence in the U.S., however, the migrants are able to improve their occupational status. Weiss and Gotlibovski (1995) and Eckstein and Weiss (1998) analyze the occupational mobility of jewish migrants from the former Soviet Union to Israel. Their results show that these immigrants suffer from a substantial occupational downgrading in the first years after arriving in Israel with a higher unemployment rate among the highly educated. With years of residence in Israel, however, the immigrants are able to move up the occupational ladder. Eckstein and Weiss (1998) observe a large initial level and a fast reduction of highly educated immigrants who are either unemployed or in training programms. Estimating transition probabilities they find that the probability to find employment in the highest occupational status is highest from the state of unemployment or training. For migrants who initially accepted a job in a lower ranked occupation the probability of upward mobility is substantially lower.

We are interested in the determinants of the probability of changing occupational status after moving to Germany and how this probability changes with time of residence in Germany. We further want to address the question of downward mobility in occupational status. What are the determinants of downward mobility? If the immigrants experience downward mobility initially, are they able to "move up" the occupational ladder with time of residence? In addressing these question we provide an additional empirical evidence on the hypothesis of imperfect skill transferability between countries.

The paper is organized in six sections. In section 2 we describe the extent and the structure of immigration into West Germany since 1984. In section 3, we discuss some hypotheses regarding the occupational mobility of immigrants within the framework of human capital transferability. Data set and

econometric approach are presented in section 4. The estimation results are discussed in section 5. Section 6 provides a summary of our research findings.

2. GERMANY'S IMMIGRATION EXPERIENCE SINCE 1984

The German constitution grants ethnic Germans the right of migrating to Germany. Ethnic Germans can be separated in *Übersiedler* and *Aussiedler*. *Übersiedler* are Germans from the former German Democratic Republic (GDR) who left the GDR to live permanently in West Germany. Since the German reunification in 1990, this category of migration is no longer applicable. *Aussiedler* are repatriated individuals, people of historic German origin, who left their areas of origin in Eastern Europe to move to Germany. Given the large wage differentials between east European countries and West Germany[4] and the huge economic and social problems east European countries have experienced during their transformation from socialist to market economies, it is not surprising that the opening of the iron curtain has led to a massive influx of ethnic Germans into West Germany.

Table 1 displays the development and the structure of the immigration of ethnic Germans since 1984.[5] In the period from 1984-1987, West Germany experienced an inflow of 196,738 *Aussiedler*. Compared to this period, the influx of *Aussiedler* increased dramatically to nearly 1 million individuals in the period from 1988-1990, and an additional 1.4 million from 1990 to 1997. In the peak years 1989 and 1990, almost 400,000 *Aussiedler* moved to West Germany. This massive influx caused large difficulties concerning both reception and provisional accommodation. These problems and the increasing number of people who applied for the status of *Aussiedler* after entering Germany as visitors or tourists lead the German government in 1990 to alter the entry procedures for *Aussiedler* requiring application for permanent entry before arrival. In 1993 a new law (Kriegsfolgenbereinigungsgesetz) has been decided by the German government. Among other things, an immigration quota of 225,000 *Aussiedler* per year has been introduced. These regulations resulted is a stabilization of *Aussiedler* immigration around the quota. Finally, in July 1996 a language test was

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4 See Bauer and Zimmermann (1997a) for a discussion.

5 See Schmidt (1994, 1997), Bauer and Zimmermann (1997b), and Bauer et al. (1998) for a detailed description of the immigration of ethnic Germans since World War II.

introduced. To confirm their German ethnicity potential immigrants have to proof a certain command of the German language in order to be accepted as ethnic German. As a result of this language test the immigration of ethnic Germans decreased by 18% to about 177,751 *Aussiedler* in 1996 and by 27% to about 134,419 in 1997 (Dietz, 1998).

Between 1984 and 1988, over 150,000 individuals migrated from East to West Germany. This moderate inflow increased dramatically when Hungary opened its borders in May 1989. The resulting exodus forced the government of the former GDR in November 1989 to open the borders between West Germany and the former GDR. However, this measure did not stop the movement. While West Germany registered only 32,832 *Übersiedler* in 1988, this number increased to 388,396 in 1989 and 196,698 in the period from January to June 1990 (Büchel and Schwarze, 1994). Between 1989 and 1993, altogether 1,405,038 people from the former GDR migrated to West Germany (Fleischer and Sommer, 1995).

Table 1 contains some structural characteristics of those ethnic Germans who were migrating to West Germany between 1984 and 1997. Unfortunately, registration of *Übersiedler* ended with German unification in July 1990, so that precise statistical information is no longer available. Hence, we are only able to present the structure of the inflow of *Übersiedler* until 1988. Table 1 show that nearly all *Aussiedler* came from Poland, Romania or the former USSR. Until 1988, most of the *Aussiedler* originated from Poland. The immigration of ethnic Germans originating from the former USSR increased significantly since 1990, representing 16 percent of the total in 1984-87, 55 percent after 1987, and reaching 96 percent in the period from 1991-1996. The decreasing inflow of *Aussiedler* from Romania and Poland may be a result of the small size of the remaining ethnic German community in these countries.[6]

Table 1 shows that the share of male *Aussiedler* decreased steadily from 49 percent in the period from 1984-1987 to about 44 percent in the period after 1991. A similar pattern can be observed for the active population. However, due to the immigration of mainly young families and the high labor force participation rates of females, the fraction of ethnic Germans working was always higher than that of the German population in general. Between 1984/87 and 1990 the fraction of *Aussiedler* younger than 17 years increased from 30.5 percent to 33.4 percent in the period after

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[6] In 1992, only 120,000 ethnic Germans were estimated to still living in Romania compared to 800,000 in Poland and 2 million in the former USSR.

1990. However, the fraction of *Aussiedler* older than 64 years also increased (by 2.6 percentage points to 6.6 percent). Relative to the overall German population, the age structure of ethnic Germans indicate a younger population.

Remarkable differences in the occupational structure exist between immigrants and the German population, between *Aussiedler* and *Übersiedler*, and between *Aussiedler* who immigrated before and after 1988. Until 1987, 46 percent of the *Aussiedler* (43 percent after 1987) and 39 percent of the *Übersiedler* were registered as industrial and craft workers; for the West German population it was only 30 percent. Immigrants from the former GDR, *Übersiedler*, were mainly service workers (49 percent). This is larger than the 41 percent among the *Aussiedler*, but smaller than the 57 percent in the West German population. The share of technicians among ethnic Germans is higher than in the German population. The number of *Aussiedler* who are agricultural and forestry workers or for which their occupation status was unmeasured increased after 1987, probably due to the rising immigration from the former USSR. These agricultural workers face rising competition in the German labor market, especially from Polish seasonal workers.

Since the employment statistics issued by the German labor office do not differentiate between ethnic Germans and the native population, there exists only incomplete information about the labor market integration of this immigration group. For several reasons, immediate integration of these immigrants into the German labor market is difficult. First, *Aussiedler* often have insufficient knowledge of the German language.[7] Second, their education, vocational training and work experience is from a non-market economic system and may not be immediately applicable in Germany.

In addition to the increased inflow of ethnic Germans, Germany experienced a sharp increase of asylum seekers after 1987[8]. Figure 2 shows that in the early 1980s the yearly number of asylum applicants was far under 50,000; since 1986 the size of asylum seekers increased sharply and peaked with about half a million applicants in 1992. In 1993, Germany altered its asylum law in order to make it more difficult to apply for political asylum. This alteration allowed the repatriation of asylum seekers immigrating from member states of the European Union or from other safe countries defined in the new

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7 See Dietz (1998) for a detailed discussion of discrimination of the German language in the Eastern European countries and the language abilities of *Aussiedler*.

8 See Bauer et al. (1998) for a more detailed description of the inflow of asylum seekers into West Germany and the German asylum law.

law. As Germany is surrounded by safe countries, asylum seekers could only enter Germany by air or sea. Hence, it is not surprising that these new regulations led to a sharp reduction of the inflow of asylum seekers.

Asia was an important source region in the 1980s, because of the war in Afghanistan and the islamic regime in Iran. The number of European asylum seekers increased significantly in the late 1980s. Several factors caused the increased migration stream of asylum seekers from Europe: the political confusion in the former socialist states in Eastern Europe induced by the fall of the iron curtain, the clashes between Turks and Kurds in the south-east of Turkey and, to a great extent, the war in the former Yugoslavia. However, these conflicts at the edge of Europe were not only followed by an increasing stream of asylum seekers, but also by increased family reunification, because many German guest-workers decided to bring their families from the endangered areas to Germany. Due to limited statistical information, we unable to discuss the socioeconomic and occupational composition of this group of migrants.

3. HUMAN CAPITAL TRANSFERABILITY AND OCCUPATIONAL MOBILITY

The predominant theoretical framework of immigrant adjustment in the labor market of the receiving country is based on the international transferability of human capital.[9] According to this model, the stock of an immigrant's human capital obtained in the country of origin may not be fully transferable to the requirements of the host country's labor market. The lower the international transferability of human capital, the sharper is the decline in occupational status and the higher is the earnings disadvantage of the immigrants at the time of migration. With increased time of residence in the host country, the migrants invest in the country-specific human capital of the receiving country and adapt their stock of human capital acquired in the country of origin. This additional human capital investment will improve the position of the migrants in the occupational hierarchy, as well as increasing their earnings when

9 See Chiswick (1978, 1979, 1986). A formal model is provided by Duleep and Regets (1997b). Based on this framework, a huge literature on the earnings assimilation of immigrants has been developed. See Borjas (1994) for an overview. Zimmermann (1994) surveys the European literature and Bauer et al. (1998) summarize the empirical evidence for Germany.

compared to natives, with the improvement being faster the lower the degree of human capital transferability.

The extent of human capital transferability between two countries depends on the type of an individuals' skills, and the similarity of the sending and receiving country with regard to language, culture, labor market structure and institutional settings (see Chiswick, 1978b, 1986). In the case of Germany it could be argued that the degree of human capital transferability of ethnic Germans should be higher than that of asylum seeker, refugees or guestworkers, since ethnic Germans grew up in an environment where German traditions and language have been maintained. However, as we have already mentioned in the last section, even *Aussiedler* often have insufficient knowledge of German. Furthermore, *Aus-* and *Übersiedler* obtained their human capital in socialist economies. This human capital may not be fully rewarded in a market economy like West Germany.[10]

The value of pre-immigration human capital investments and their effects on post-immigration occupational status and earnings is inversely related to the degree of human capital transferability. If higher levels of education are characterized by a higher degree of occupational specialization and therefore a higher share of country-specific human capital, then more educated migrants should experience a relatively higher downward adjustment in their relative labor market position. However, the incentive to invest in country-specific human capital of the receiving country and the modification of previous investments are highest for those immigrants with lower degrees of human capital transferability leading to higher assimilation rates for this group of migrants.

Duleep and Regets (1997b) identify three reasons for the faster assimilation of migrants with a lower degree of transferability. First, at the time of immigration the opportunity costs of additional human capital investments are smaller for immigrants with low human-capital transferability. Second, due to complementarities between the acquisition of country-specific human capital and untransfered source country human capital, the returns to additional investments are greater for those migrants with a lower degree of transferability. Third, lower opportunity costs of and higher returns to additional human capital investments increase the optimal level of investment. To summarize, according to the human capital model immigrants with a low degree of human capital transferability will experience a high deterioration in their labor market position at the time of immigration, but also a faster

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[10] The transferability of human capital obtained in socialist countries to a market economy have been analyzed by Gang and Stuart (1997a, 1997b), Weiss and Gotlibovski (1995), and Eckstein and Weiss (1998).

improvement with time of residence in the receiving country.

Here we investigate the pattern of occupational mobility among recent migrants in Germany. In particular, we are interested in the determinants of the probability of changing occupational status after moving to Germany, and how this probability changes with time of residence in Germany. According to the human capital model one should expect that those migrants with a lower degree of skill transferability should have a higher probability of changing occupational status in Germany when compared to their status in the sending country. A second question to address is that of downward mobility in occupational status. Which characteristics of migrants are responsible for downward mobility? If migrants suffer from downward mobility, are they able to "move up" the occupational ladder again with time of residence?

4. THE DATA SET AND ECONOMETRIC METHODOLOGY

The data set we use is drawn from the "Immigration Sample" of the German Socioeconomic Panel (GSOEP). The "Immigration Sample" was initiated in 1994, and contains information on ethnic Germans and foreigners (asylum seekers and war refugees from the former Yugoslavia) who migrated to West Germany after 1984. In 1994 this sample provided information on 702 individuals. In the following waves the sample has been extended to 1,617 individuals in 1995 and 1,666 individuals in 1996.

In the following analysis we utilize the first three waves of the immigration sample, i.e. the waves from 1994-1996. Individuals reported their occupation in the country of origin. Since we are interested in the occurrence and determinants of changes in the occupational status of the migrants after they immigrated to West Germany, we use this information together with the occupational status of the individuals in Germany reported in 1996, or, if unemployed or participating in educational programs, the last occupation reported in one of the former waves. A change in the occupational status is defined to occur when the occupational status of an immigrant in Germany is different from that in the sending country. This definition includes people who were unable to report a specific occupational status in Germany since they have been unemployed or participated in educational programs in all three waves

available for the analysis. We restrict our analysis to individuals who were not older than sixty years at the time of the survey and who have had some labor market experience in the country of origin.

We differentiate between three different groups of occupational status: unskilled, skilled and professional. The first group includes all individuals who reported they were low-skilled or semi-skilled blue-collar workers in agriculture, production, industry or construction as well as white-collar workers with simple tasks. The group of skilled occupations include skilled blue-collar workers and white-collar workers with qualified tasks. Finally, the group of professional occupations include all individuals classified as foremen, scientists, teachers, and all individuals with management tasks. This classification is identical for occupations abroad and in Germany. For the occupational situation in Germany we additionally consider those people who are unemployed or in educational programs as a separate group which we call "not working".

The size of occupational mobility can be judged from Table 2, which describes the occupational distribution of the 639 immigrants in our data set by their occupation in the sending country and in Germany. Before arriving in West Germany most of the immigrants were skilled workers (57.7 percent) followed by unskilled workers (33.5 percent) and professionals (8.8 percent). In West Germany most of the immigrants are employed as unskilled workers (37.9 percent), followed by skilled workers (31.3 percent). Furthermore, 26.1 percent are considered to belong to the group of individuals who are not working, and 4.7 percent are professionals. For 353 individuals (55.2 percent of the sample) migration to Germany was associated with a change of their occupational status. Only 40 migrants (6.2 percent) were able to improve their status; 313 migrants (49.0 percent) have suffered from a decline in their status.

In the empirical analysis of the next section, we study (i) the determinants of whether an individual experienced a change in his occupational status due to the migration to Germany, and (ii) the determinants of downward mobility in occupational status. For these purposes we estimate two different models of occupational mobility. In the first model, we make no distinction between different types of mobility. In the second model, we explicitly distinguish whether an individual has been able to improve his occupational status or to stay in the same occupational status by migrating to Germany or whether the individual experienced a deterioration in his occupational status. Consider the following model

$$Y_{ji}^{*} = X_i b_1 + b_2 ED_i + b_3 EXPA_i + b_4 YSM_i + b_5 (ED_i \cdot YSM_i) + e_{1i}; \quad j = 1,2; i = 1,\ldots,N \tag{1}$$

where Y_{1i}^{*} is the probability that immigrant i changes occupational status, and Y_{2i}^{*} is the probability that worker i will move to a lower occupational status compared to his status in the sending country. X_i is a vector of individual characteristics including age, gender, family status, migration group (*Übersiedler*, *Aussiedler* or foreigner), whether the individual obtained some vocational training in Germany, and whether an individual was employed in the agricultural sector before migration. ED_i refers to the highest schooling degree reported by the individual. $EXPA_i$ is the labor market experience of individual i in his sending country, calculated using the year of immigration and the age of labor market entrance. YSM_i refers to years of residence in West Germany which is interpreted as potential years of labor market experience in Germany. Finally, $(ED_i * YSM_i)$ is the interaction between the level of schooling and years since migration. The inclusion of this interaction term allows the effect of potential labor market experience in Germany to vary across schooling levels. Table 3 contains the descriptive statistics of the variables used in the empirical analysis for the total sample and the sub-groups of occupational movers and stayers.

As usual, Y_{ji}^{*} is not observed. Instead, what we observe is

$$Y_{1i} = \begin{cases} 1 \text{ if the individual changed occupation after immigration,} \\ 0 \text{ otherwise.} \end{cases}$$

$$Y_{2i} = \begin{cases} 2 \text{ if the individual is not working,} \\ 1 \text{ if the individual experienced downward mobility,} \\ 0 \text{ if the individual experienced no change or moved upwards.} \end{cases} \tag{2}$$

Assuming that the error terms ε_{1i} and ε_{2i} both follow the standard normal distribution, the first model refers to a standard binomial probit model, and the second to an ordered probit model.[11] Both

[11] See Greene (1993) and Maddala (1983) for a discussion of both models.

models have been estimated using maximum likelihood methods.

5. ESTIMATION RESULTS

Table 4 displays the estimation results of the two models outlined in the last section. The first two columns refer to the first model of occupational mobility without any distinction between different types of mobility. The estimation results reveal significant differences in the probability of changing occupational status for the three groups of immigrants. Using the estimated coefficients in column (2), a married *Übersiedler* with 15 years of labor market experience as skilled worker in the former GDR has a probability of changing his occupational status after 6 years of residence in Germany of 30.9 percent. The respective probability for a similar *Aussiedler* is calculated to be 52.9 percent and that of a similar foreigner to be 54.0 percent, where the difference between *Aussiedler* and foreigners is statistically insignificant.[12] These numbers indicate that the degree of transferability of human capital is similar for *Aussiedler* and foreigners even though the former grew up in an environment where German culture and traditions may have been maintained. In both specifications females appear to have a higher probability of changing their occupational status than males. Whether the migrant worked in the agricultural sector in the host country, and additional vocational training in Germany have no significant effect on occupational mobility.

Immigrants who have been employed in their sending country as skilled or professional workers have a statistically significant higher probability of changing their occupational status than those who have been employed as unskilled workers. This result is a first indication that individuals who performed relatively specialized tasks in their home country have bigger problems to transfer these skills to the necessities of the German labor market. In the specification of column (1) of Table 4, the schooling level as well as labor market experience abroad and in Germany appear to have no statistically significant effect on the probability of changing occupational status. However, when including the interaction terms between years since migration and the schooling degree the coefficient associated with

[12] The results differ from Schmidt (1997) who found that foreign guest-workers display a poorer earnings performance than similar ethnic Germans.

university degree becomes statistically significant and larger in size, and the interaction term between years since migration and university degree is significantly negative, both on a 10% level.

Figure 3 elucidates the effects of schooling degree and years since migration on the predicted probability of changing occupational status for a representative *Aussiedler*. It appears that *Aussiedler* with a university degree have the highest probability of changing occupational status at the time of immigration (89 percent). However, with increasing time of residence this probability decreases very fast indicating relatively high investments of this group in the country-specific human capital of West Germany. The respective probabilities of changing occupational status at the time of immigration are about 60 percent for *Aussiedler* with primary and 56 percent for *Aussiedler* with secondary schooling, and these probabilities decrease only slightly with increasing time of residence. In light of the human capital model of skill transferability these results confirm the expectation that immigrants with relatively high shares of specialized skills face higher problems to adopt their skills to a different environment.

Further insights into the determinants of occupational mobility of migrants can be drawn from the results of the ordered probit model presented in column (3) and (4) of Table 4. The results indicate that downward mobility is significantly affected by gender, the respective migration group the individual belongs to, occupational status abroad and the labor market experience in the country of origin and in West Germany. Allowing for the interaction between the time of residence in Germany and the schooling level of the migrant, the coefficient for the dummy variables indicating the schooling level become statistically significant on a 5 percent level and the coefficient on the dummy variable indicating whether the migrant worked in the agricultural sector in his home country becomes statistically significant on a 10 percent level. Similar to the results of the probit model presented above family status and additional occupational training in Germany have no statistically significant effect on the different types of occupational mobility in both specifications.

A well known feature of the ordered probit model is that the estimated coefficients have no clear-cut interpretation for the event probabilities. Therefore, Table 5 shows the marginal effects of changes in the regressors on the respective probabilities to be in one of the three differentiated categories. These marginal effects are evaluated at the sample means of the exogenous variables. Note that the marginal effects for dummy variables show the effect of this variable on the probability to be in a category relative to the respective reference group, holding all other variables at their sample means. The marginal effects of the results in column (3) of Table 4 are given in column (1), (3), and (5) of Table

5; the marginal effects of the results in column (4) of Table 4 are presented in column (2), (4), and (6) of Table 5.

Table 5 reveals that *Aussiedler* and foreigners have a higher probability to experience downward occupational mobility or are not working than *Übersiedler* with otherwise similar characteristics. The same pattern can be observed if females are compared to males. Compared to their unskilled counterparts, those who were employed as skilled and, in particular, as professional workers have a higher probability of not working. Again, these results indicates that higher skilled workers obtained more specialized skills in their home country which can not easily be transferred to the requirements of the West German labor market. As expected, those who worked in the agricultural sector have a higher probability of not working.

At the time of immigration, individuals with a secondary schooling degree show a higher and migrants with a university degree exhibit a lower probability to stay in the same occupational status as in their home country than migrants with primary schooling. For those immigrants with a secondary schooling degree the probability to experience no change in the occupational status is decreasing with time of residence in Germany whereas it is increasing for those with an university degree. Figure 4 provides a more distinct picture of the dynamics of occupational mobility with time of residence in West Germany. In the first years after immigration migrants with an university degree show the highest probability of not working and the lowest probability of staying in their original occupational status. For migrants with a secondary schooling degree we could not find assimilation in terms of occupational status. Migrants with primary education only are between those with a secondary schooling degree and those with a university degree. However, according to our estimation results those with university education reach their original occupational status after about 14 years of residence in West Germany compared to about 28 years for migrants with primary schooling.

The observed pattern of occupational mobility is in line with the theoretical model of international human capital transferability. It can be argued that university education can not easily be transferred between different countries so that this group of migrants experience the highest deterioration in their occupational status. Due to their higher incentives and abilities to invest in additional human capital and to adopt their existing stock of human capital acquired in the sending countries, migrants with higher schooling levels can reach their old occupational status after a relatively short-time period. Furthermore, the pattern of occupational mobility we find for ethnic Germans is very similar to that found for jewish

immigrants from the former Soviet Union in Israel. (See Weiss and Gotlibovski, 1995, and Eckstein and Weiss, 1998).

6. CONCLUSIONS

This paper has utilized the first three waves of the immigration sample of the German Socioeconomic Panel to analyze the extent and the determinants of occupational mobility among recent immigrants in West Germany. The description of Germany's immigration experience has shown that the end of the cold war was accompanied by a large increase in the inflow of ethnic Germans from Eastern Europe and an increasing number of asylum applicants and war refugees. The empirical results have revealed that *Aussiedler* (ethnic Germans from Eastern Europe) and foreigners face a higher probability of changing their occupational status during the process of integration in the West German labor market than immigrants from the former GDR (*Übersiedler*). Despite significant gender differences the results further indicate that migrants with higher levels of schooling have a higher probability of changing their occupational status. However, compared to their less educated counterparts those with higher schooling levels also experience a faster decrease in the probability of changing occupational status with time of residence in Germany.

A more distinct picture of occupational mobility among immigrants is provided by the empirical analysis of the extent and the determinants of downward mobility. The results of an ordered probit model demonstrate that *Aussiedler* and foreigners have a higher probability to experience downward mobility in occupational status than otherwise similar *Übersiedler*. The same pattern can be observed for females if compared to males and for those individuals who have been skilled or professional workers in their sending countries if compared to their unskilled counterparts. At the time of immigration individuals with a secondary schooling degree show a lower and migrants with a university degree a higher probability to suffer from downward mobility than those with primary schooling only. However, migrants with a university degree reach their original occupational status after about 14 years of residence in Germany compared to about 28 years for migrants with primary schooling. These results are very similar to those found for ethnic migrants in Israel.

Following the human capital model of imperfect transferability of skills between different countries the estimation results imply that higher schooling degrees are less transferable. Therefore, immigrants with higher educational levels experience the sharpest deterioration in their labor market position. Due to their higher incentives to invest in the country-specific human capital they are able to reach their original position in a relatively short-time period. The results indicate that the recent cutbacks in the financing of language courses and additional vocational training for ethnic Germans are hindering a fast integration of these immigrants into the German labor market. At the same time, language proficiency has become an important criterium to receive an entry permit into Germany. The political economy of all this suggests that migration policy has become much more restrictive also for ethnic Germans.

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Table 1: Immigration of Ethnic Germans, 1984-1997[a]

	East Europeans (*Aussiedler*)			East Germans (*Übersiedler*)	West Germany
	1984-1987	**1988-1990**	**1991-1997**	**1984-1988**	**1989**
Immigration / population	196738	976801	1424107	150854	62,679,035
	49.35	48.32	44.13	48.89	48.24
of that (%): Male					
Labor Force	57.73	55.71	55.31	61.18	48.3
Age structure (%):					
0-17	30.48	32.93	33.4	23.42	18.21
18-64	65.48	62.75	60.01	70.06	66.45
older than 64	4.04	4.32	6.59	6.52	15.34
	2.22	4.62	3.9	1.95	3.9
Occupational structure (%): Agricultural and forestry workers					
Miners	1.92	1.8	1.15	0.21	0.4
Industrial and craft workers	45.77	43.09	42.91	38.52	29.8
Technicians	8.76	7.15	8.1	9.24	5.9
Service workers	41.19	41.09	40.38	49.22	56.9
Occupation not determined	0.13	2.25	3.56	0.86	3.1
Country of origin (%):					
Poland	63.98	30.96	0.9	-	-
Romania	17.91	13.05	2.8	-	-
former USSR	16.08	55.09	96.4	-	-

[a] Sources: Bundesausgleichsamt, several years, Waffenschmidt (1991, 1992, 1993, 1994, 1995, 1996, 1997), Statistisches Bundesamt (1991), Cornelsen (1990), own calculations. Occupational structure for east Europeans and East Germans refers to the last occupation in the sending country.

Table 2: Occupational Mobility of Immigrants*

Occupational Status in Germany	Occupational Status Abroad			Row Total (%)
	Unskilled	Skilled	Professional	
Not working	76	78	13	**167 (26.1)**
Unskilled	108	121	13	**242 (37.9)**
Skilled	28	160	12	**200 (31.3)**
Professional	2	10	18	**30 (4.7)**
Column Total (%)	**214 (33.5)**	**369 (57.7)**	**56 (8.8)**	**639 (100.0)**

* Source: Immigration sample of the GSOEP; own calculations.

Table 3: Descriptive Statistics*

Variable	Total Sample	Occupational Movers	Occupational Stayers
Übersiedler	0.31	0.255	0.378
Aussiedler	0.521	0.558	0.476
Foreigners	0.169	0.187	0.147
Occupational Status Abroad:			
Unskilled Worker	0.335	0.3	0.378
Skilled Worker	0.578	0.592	0.559
Professional Worker	0.088	0.108	0.063
Occupational Status in Germany:			
Unskilled Worker	0.379	0.38	0.378
Skilled Worker	0.313	0.113	0.559
Professional Worker	0.047	0.034	0.063
Schooling Abroad:			
Primary	0.577	0.509	0.661
Secondary	0.321	0.363	0.269
University Degree	0.102	0.128	0.07
Age	39.489 (9.305)	39.473 (9.356)	39.507 (9.258)
Experience Abroad	14.640 (9.952)	14.773 (10.058)	14.476 (9.835)
Years since Migration	6.167 (1.981)	6.034 (1.954)	6.332 (2.005)
Worked in Agriculture	0.271	0.275	0.266
Additional German vocational training	0.167	0.184	0.147
Married	0.873	0.881	0.864
Female	0.518	0.586	0.434
Observations	639	353	405

* Source: Immigration sample of the GSOEP. See text for a detailed description of sample construction.

Table 4: Occupational Mobility: Binomial Probit and Ordered Probit Models*

Independent variables	**Occupational Mobility: Binomial Probit Model**		**Downward Mobility: Ordered Probit Model**	
	-1	**-2**	**-3**	**-4**
Aussiedler	0.361	0.381	0.513	0.517
	(2.63)	(2.75)	(3.89)	(3.91)
Foreigner	0.409	0.409	0.829	0.830
	(2.33)	(2.33)	(5.40)	(5.35)
Female	0.484	0.494	0.710	0.719
	(4.58)	(4.65)	(6.78)	(6.82)
Married	-0.026	-0.033	0.077	0.075
	(0.17)	(0.22)	(0.54)	(0.52)
Secondary Schooling Degree	0.044	-0.116	-0.061	-0.687
	(0.34)	(0.30)	(0.51)	(1.97)
University Degree	0.164	0.973	0.079	1.020
	(0.78)	(1.80)	(0.40)	(2.06)
Skilled Worker Abroad	0.398	0.396	0.468	0.462
	(3.26)	(3.24)	(4.27)	(4.20)
Professional Worker Abroad	0.636	0.675	0.664	0.670
	(2.72)	(2.84)	(2.88)	(2.85)
Worked in Agriculture	0.152	0.159	0.179	0.195
	(1.27)	(1.33)	(1.60)	(1.75)
Additional occupational Training in Germany	0.062	0.046	-0.056	-0.083
	(0.42)	(0.30)	(0.41)	(0.65)
Experience Abroad	0.005	0.004	0.010	0.009
	(0.82)	(0.68)	(2.00)	(1.78)
Years since Migration	-0.042	-0.031	-0.086	-0.101
	(1.54)	(0.92)	(3.39)	(3.06)
Years since Migration * Secondary Schooling Degree	-	0.024	-	0.101
		(0.40)		(1.86)
Years since Migration * University Degree	-	-0.140	-	-0.160
		(1.65)		(1.90)
Wave 1995	0.024	0.030	-0.251	-0.249
	(0.09)	(0.12)	(1.14)	(1.12)
Wave 1996	0.187	0.182	-0.108	-0.125
	(0.84)	(0.81)	(0.58)	(0.66)
Constant	-0.670	-0.728	-0.719	-0.597
	(1.97)	(1.97)	(2.48)	(1.84)
μ	-	-	0.689	0.693
			(13.09)	(13.08)
Log-Likelihood	-414.508	-413.061	-605.938	-603.251
LRT (ß=0)	49.789	52.683	106.202	111.575
R^2_{MZ}	0.118	0.127	0.202	0.213

* Number of Observations: 639. Absolute t-values in parentheses. Source: Immigration sample of the GSOEP, 1994-1996. LRT (ß=0): Log-Likelihood ratio test on overall significance. As Veall and Zimmermann (1992) have revealed in Monte-Carlo-studies, R^2_{MZ} is a Pseudo-R^2 that mimics the "true" OLS-R^2.

Table 5: Marginal Effects for Ordered Probit Models*

Independend variable	No change in occupational status		Downward mobility		Not working	
	-1	-2	-3	-4	-5	-6
Aussiedler	-0.205	-0.206	0.047	0.047	0.158	0.159
Foreigner	-0.331	-0.331	0.075	0.076	0.255	0.255
Female	-0.283	-0.287	0.065	0.066	0.219	0.221
Married	-0.031	-0.03	0.007	0.007	0.024	0.023
Secondary Schooling Degree	0.025	0.274	-0.007	-0.063	-0.019	-0.211
University Degree	-0.031	-0.407	0.007	0.093	0.024	0.314
Skilled Worker Abroad	-0.187	-0.184	0.043	0.042	0.144	0.142
Professional Worker Abroad	-0.265	-0.267	0.06	0.061	0.204	0.206
Worked in Agriculture	-0.071	-0.078	0.016	0.018	0.055	0.06
Additional occupational Training in Germany	0.022	0.035	-0.005	-0.008	-0.017	-0.027
Experience Abroad	-0.004	0.004	0.001	0.001	0.003	0.003
Years since Migration	0.034	0.04	-0.008	-0.009	-0.027	-0.031
Years since Migration * Secondary Schooling Degree	-	-0.04	-	0.009	-	0.031
Years since Migration * University Degree	-	0.064	-	-0.015	-	-0.049
Wave 1995	0.1	0.099	-0.023	-0.023	-0.077	-0.077
Wave 1996	0.043	0.05	-0.01	-0.011	-0.033	-0.038

* The marginal effects are calculated using the following formula:

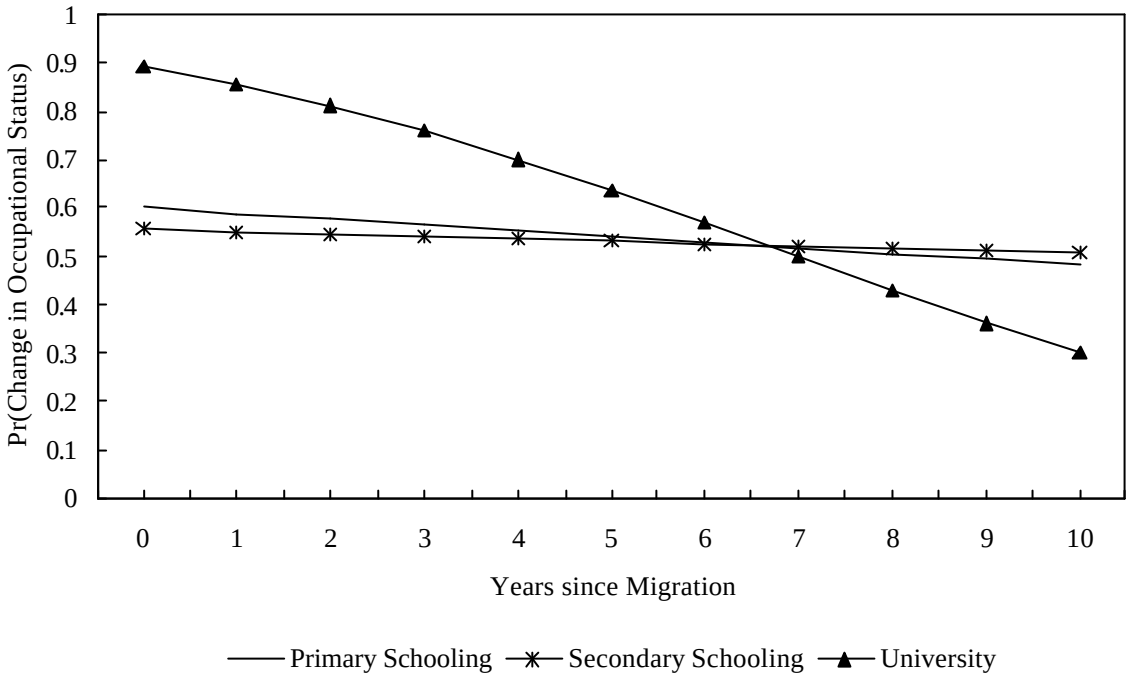
$$\frac{\partial \Pr(Y_{2i}=0)}{\partial \mathbf{X}} = -f(\beta'\mathbf{X})\beta,$$

$$\frac{\partial \Pr(Y_{2i}=1)}{\partial \mathbf{X}} = [f(-\beta'\mathbf{X}) - f(\mu-\beta'\mathbf{X})]\beta,$$

$$\frac{\partial \Pr(Y_{2i}=2)}{\partial \mathbf{X}} = f(\mu - \beta'\mathbf{X})\beta,$$

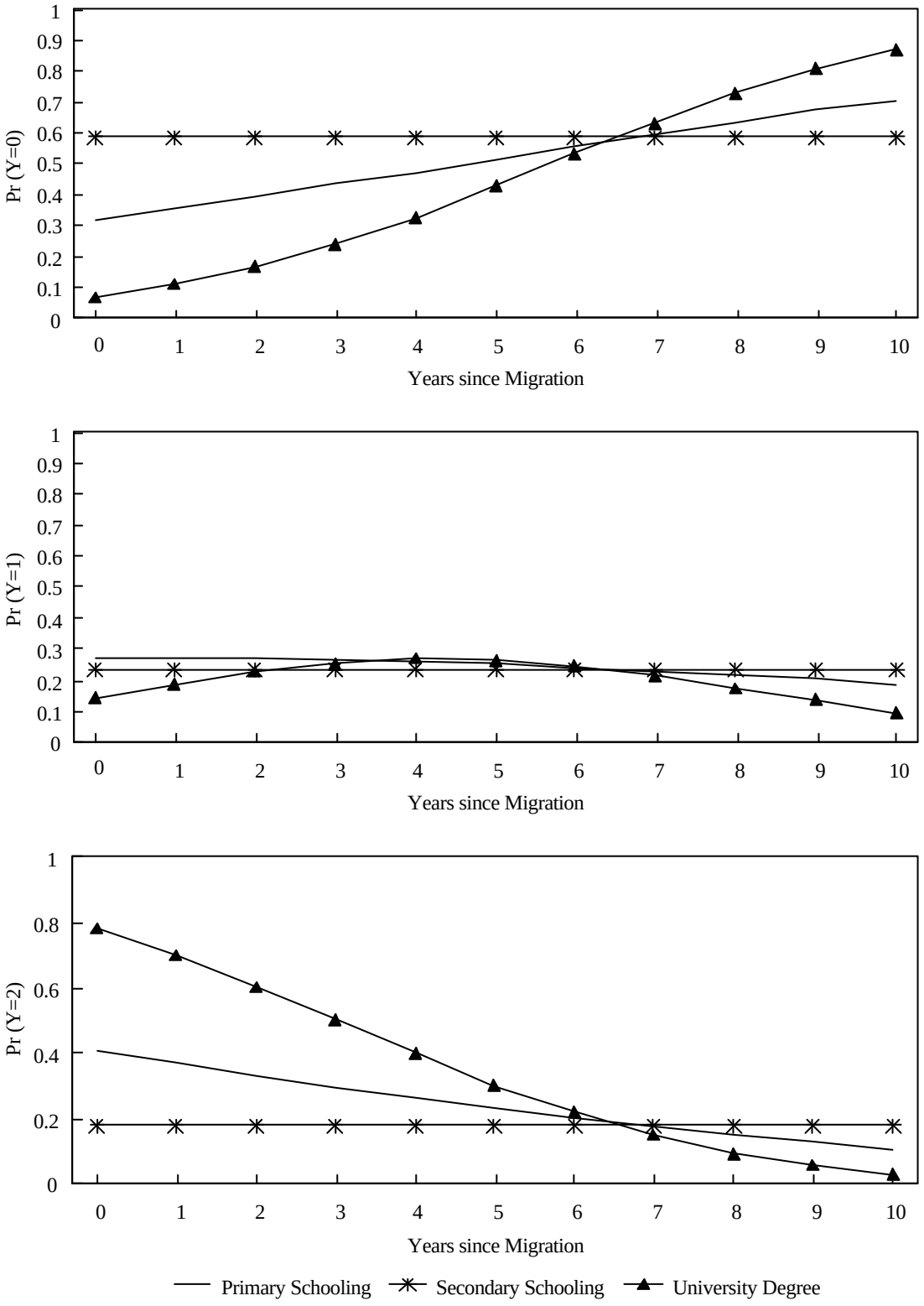
where $\mathbf{X}$ is the vector of covariates, β the vector of the estimated coefficients and μ the estimated threshold parameter of the ordered probit model. The marginal effects in Table 5 are evaluated at the sample means of the exogenous variablesand are based on the estimated coefficients of column (3) and (4) of Table 3. Note that the marginal effects for dummy variables show the effect of this variable on the probability to be in a category relative to the respective reference group, holding all other variables at their sample means.

Figure 1: Probability of Changing Occupational Status by Schooling Degree*



* The calculations are based on a representative Aussiedler (male, 40 years old, married, 15 years of labor market experience in the sending country, skilled worker abroad, 6 years of residence in Germany, and observed in the last wave of the GSOEP) using the estimated coefficients of Table 4, column (2).

Figure 2: Downward Occupational Mobility by Schooling Degree*



* The calculations are based on a representative Aussiedler (male, 40 years old, married, 15 years of labor market experience in the sending country, skilled worker abroad, 6 years of residence in Germany, and observed in the last wave of the GSOEP) using the estimated coefficients of Table 4, column (4).