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THE PERFORMANCE OF MIGRANTS IN OCCUPATIONAL LABOUR MARKETS

Evidence from *Aussiedler* in Germany

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ABSTRACT: Since the breakdown of communism, Germany has experienced a major influx of *Aussiedler* who are basically migrants originating from Eastern European countries. In this article, we use data from the German Socio-Economic Panel of the year 1998 to analyse the labour market performance of this group of migrants. Our key hypothesis guiding the empirical investigations is that in *occupational labour markets*, such as the German one, migrants are faced with specific problems when transferring their educational and vocational skills acquired in other countries. Only if they gain access to their trained occupations are they able to perform well in the labour market. Otherwise, occupational closure hinders them from receiving returns to their educational and vocational qualifications.

Key words: education; ethnic Germans; immigration; labour market; vocational training

1 Introduction

It is a well-established finding of sociological labour market research that in the German labour market, individual chances are strongly connected to formal educational and vocational certificates. While individuals who hold such credentials face good earning potentials and chances to enter skilled jobs, those without formal credentials are largely restricted to unskilled or semi-skilled jobs (Mayer and Carroll 1987; Allmendinger 1989; Müller and Shavit 1998; Brauns *et al.* 1999; Konietzka 1999). This pattern manifests itself in a specific post-secondary system of vocational training on the one hand, and a predominantly occupational labour

market structure on the other (Sengenberger 1987; Marsden 1999). As has been pointed out by several authors, occupational labour markets rely on characteristic institutional settings of skill formation – most importantly a corresponding occupational differentiation of training schemes, as well as standardized and formalized certification procedures which are generally accepted by employers. These conditions are met in the German ‘dual system’ of vocational training, in which employers, unions and the state are running, monitoring and developing further the vocational training system in a neo-corporatist fashion (Streeck 1984; Soskice 1994; Greinert 1995). While the central role of formal certificates in labour market mobility is widely acknowledged, a much less considered issue is how this specific ‘allocation regime’ affects the labour market chances of migrants who have not acquired their educational and vocational certificates in Germany.

In this study, we investigate the labour market performance of *Aussiedler* (usually translated as ‘Ethnic German migrants’). What the members of this group have in common is that they originated from former socialist countries and migrated to Germany mainly in the early 1990s. The job prospects of *Aussiedler* are of particular interest since they constitute a relatively large migration group to Germany, comprising about 25 per cent of all migrants in the years between 1989 and 1995 (Lederer 1997). If one is particularly interested in the transferability of educational and vocational certificates to the German labour market, *Aussiedler* constitute an instructive case since they have acquired a high level of vocational training or college education in their countries of origin. From the patterns of labour market integration and exclusion of *Aussiedler*, we may therefore learn some general lessons on the allocation mechanisms in the German labour market – in particular the way formal certificates, which were acquired in other countries, pay off. Furthermore, the labour market experience of *Aussiedler* may give some idea of the employment prospects of future migrants from former socialist state countries, whose influx to Germany will most likely increase with the Eastern enlargement of the European Union (Kraus and Schwager 2000; Boeri and Brücker 2001).

The remainder of this article is structured as follows. Section 2 presents the institutional framework of the migration of *Aussiedler* to the Federal Republic of Germany. We outline briefly the cornerstones of the German immigration policy. In Section 3, we discuss the role of educational credentials in job allocation processes. We summarize standard economic approaches to the role of educational credentials in the labour market performance of migrants (such as the human capital approach and the signalling theory). We argue that these approaches are too general, particularly since they ignore country-specific institutional constraints, which influence the allocation of workers to jobs. In the case

of Germany, one has to take into account the specific features of occupational labour markets. In such a 'labour market' regime, the returns to educational and vocational qualifications strongly depend on gaining access to one's trained and certified occupation. Individuals who do not gain access to their trained occupation are basically restricted to unskilled and semi-skilled jobs. In Section 4, we use data from the German-Socio-Economic Panel (1998) to investigate how vocational certificates and college degrees affect labour market chances (measured by employment probabilities, earnings and labour market status). We focus particularly on whether *access to one's trained occupation* improves the labour market chances of *Aussiedler* and whether those who do not gain access to their trained occupation are confined to unskilled and semi-skilled jobs. In Section 5, we summarize major empirical findings and conclude with speculations regarding the fate of future East-to-West migrants.

2 Migration of *Aussiedler* to Germany

The German government has, until very recently, been refusing to officially recognize the idea of Germany as a country of immigration (*Einwanderungsland*). There has been no official immigration policy (e.g. a quota system as in the United States or Australia, or a list of preferences as in Canada). Nevertheless, for decades there has been a steady emigration from and immigration to Germany (Rudolph 1994; Kurthen 1995; Reitz *et al.* 1999). Migration to Germany is based on various regulations, which permit foreigners and those who are foreign-born to migrate to the Federal Republic of Germany. This quasi-immigration policy comprises, among other regulations, (1) the non-rejection of foreigners who had been hired during the time of the active recruitment policy in the 1960s and 1970s, (2) free movement of labour among EU countries, (3) several exceptions made for seasonal workers, (4) the practice of granting asylum to political refugees, and (5) migration of ethnic Germans (*Aussiedler*) from Eastern European countries. Since the definition of *Aussiedler* strongly relies on the German concept of nationhood, we elaborate on this issue in some detail below.

The concept of German Nationhood

Unlike the United States, Germany supports the idea of nationhood based on a cultural, linguistic and ethnic concept. This concept is an 'outgrowth of German history', when political fragmentation contributed to the German nation being defined, rather than a political unit, as a cultural,

linguistic and ethnic one (Hailbronner 1992: 74). The policy implication of this concept of a nation is that a person automatically receives citizenship of the Federal Republic of Germany (FRG) if his or her parents are German. The idea of nationhood based on the *ius sanguinis* ('right of blood') includes German citizenship also for individuals who live outside the borders of the Federal Republic of Germany. Before the fall of the Berlin Wall, this particularly applied to citizens of the German Democratic Republic (GDR), whose citizenship was never accepted as a separate one by the West German government. Individuals leaving the GDR and resettling in West Germany (*Übersiedler*) immediately received FRG citizenship. Furthermore, individuals of German origin (and their close family members) living in *formerly socialist countries of Eastern Europe* such as Poland, Romania or the former Soviet Union come under this concept of nationhood. The term *Aussiedler* is used for ethnic Germans¹ who have decided to leave their country of origin and resettle in Germany.² The right to claim German citizenship is restricted to citizens of an Eastern European country, while citizens from other countries (such as the USA or Canada) cannot claim German citizenship by referring to their German ancestors. In the case of ethnic Germans from formerly state socialist countries, it is taken for granted that they were subject to assimilation policies, which forced them to take up the citizenship of their host countries.

Migration of *Aussiedler* to Germany

The concept of the *Aussiedler* was historically designed to accommodate ethnic Germans who were driven out of Eastern Europe in the years following the Second World War (Hailbronner 1992: 73). During the Cold War the migration of *Aussiedler* became a permanent political issue

1. In the German constitution (Article 116), German origin is defined by German descent which has to be retraced to 1945 or earlier. This means that a person who is willing to migrate to (West) Germany has to give proof that his or her ancestors were of German ethnicity. This rather broad definition is open to different administrative procedures to 'prove' German descent, and various regulations to verify German ethnicity have been established. For example, in Romania, German origin can be 'proved' by German grandparents who participated in the German armed forces of the Second World War. In Poland, individuals can 'prove' German ethnicity by referring to a register of names set up by the Nazi Regime during the Second World War (for details see e.g. Schwab 1990).
2. Literally, the term *Aussiedler* refers only to ethnic Germans who migrated between 1953 and 1993. Those who migrated, were expelled or fled from Eastern Europe between the end of the Second World War and 1953 are *Vertriebene* (expelled). With the amendment of the *Bundesvertriebenengesetz* in 1993, the term *Spätaussiedler* was introduced. It refers to ethnic Germans who have migrated to Germany since 1993 (Greif *et al.* 1999).

in East European–West German negotiations (Kurthen 1995). In so-called ‘family reunion programmes’, West Germany negotiated permission for ethnic Germans to leave their countries, usually in return for transfer payments to the particular government. Since the early 1970s (for Poland already in the 1950s), family-reunion migration has led to a steady influx of *Aussiedler* from Poland and Romania.

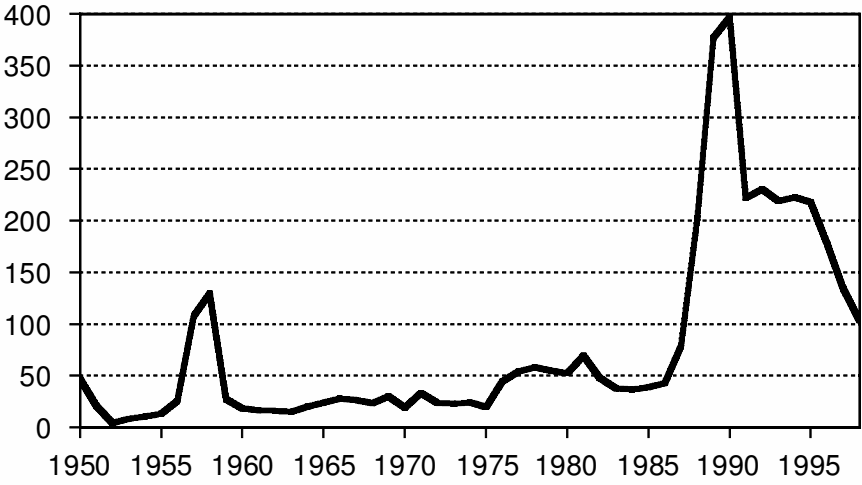
With the breakdown of the socialist regimes, departure from Eastern European countries was facilitated and the influx of *Aussiedler* to Germany increased rapidly (Fassmann and Münz 1994; Münz and Ohliger 1997; Bade and Oltmer 1999).³ As may be seen from Figure 1, between 1988 and 1998 more than two million *Aussiedler* migrated from Eastern Europe to Germany, composing about 25 per cent of all migrants to Germany in the years between 1989 and 1995 (Lederer 1997). While immigration from Poland and Romania took place mainly in the years between 1988 and 1991, since 1989, the migration process has been dominated by *Aussiedler* originating from the former Soviet Union (Figure 1).

Government programmes for *Aussiedler*

As we have discussed above, *Aussiedler* have various characteristics in common, which might be important for their labour market chances. Compared to other migration groups, they are more likely to speak the German language. According to data from the German Socio-Economic Panel of the year 1995, 58 per cent of the *Aussiedler* self-rate their German speaking abilities as very good or good (own calculations). Furthermore, the *Bundesvertriebenengesetz* (literally: Law for the Expelled) specifies various treatments for which only *Aussiedler* are eligible. They gain full German citizenship upon arrival in Germany, which is also of some importance for their labour market performance since it gives them access to privileged civil servant jobs (*Beamte*). They are eligible for German language courses and financial aid and they are fully integrated into the welfare system (Koller 1993, 1995; Münz and Seifert 1997: 116f.). Moreover, and of particular interest for our study, *Aussiedler* are entitled to apply for a procedure by which they can have their formal qualifications recognized. The recognition of educational and vocational credentials is supposed to enhance the labour market value of certificates which were acquired in Eastern Europe. Still more important, the official recognition

3. Until 1990, *Aussiedler* from all socialist countries were permitted to resettle in West Germany. These countries were, among others, Romania, the former Soviet Union, Hungary, Poland and Yugoslavia. Since 1990, entry has been basically restricted to *Aussiedler* from the former Soviet Union, Latvia, Estonia and Lithuania.

Panel 1: Total migration of *Aussiedler*



Panel 2: *Aussiedler* from Poland and the former USSR

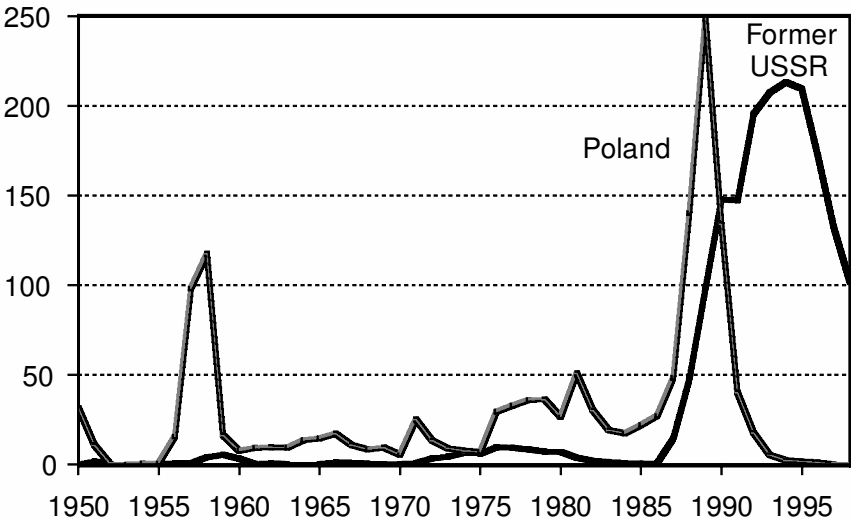


Figure 1. Yearly influx of *Aussiedler* to Germany 1950–1998 (In 1000)
Source: Bundesministerium des Inneren (1999).

of educational credentials establishes a formal correspondence of German and foreign certificates which should enhance the labour market chances of those holding such credentials.

As entitlements (or eligibilities), the recognition of credentials, of course, is only relevant for individuals who have acquired educational

certificates. Unlike the large majority of other migrant groups (Konietzka and Kreyenfeld 2001), *Aussiedler* have, on average, received a considerable amount of formal education and vocational training. As we will see later, the educational level of *Aussiedler* is only slightly below that of the West German population – not least because the formerly socialist countries fostered education and vocational training.

In the following section, we discuss the role of educational credentials in job allocation processes, and pay special attention to educational certificates and the occupational allocation mechanisms in the German labour market.

3 Theoretical considerations on the returns to foreign educational credentials

The signalling function of educational credentials

According to the standard human capital theory, the performance of an individual in the labour market is largely determined by his or her endowment of human capital, i.e. his or her education and work experience (Mincer 1974; Becker 1975). Differences in wages occur because workers enter the labour market with different types and amounts of human capital. Assuming further that workers are paid according to their marginal product, differences in human capital characteristics are supposed to explain much of the variation in wages across workers. For our analysis, this would imply that wage differences between *Aussiedler* and others are largely attributable to differences in *human capital endowment*. Now, taking into account that *Aussiedler* have received a relatively high level of education and vocational training in their countries of origin, one would expect that they are subject to about the same job opportunities as non-migrants (individuals who underwent education and vocational training in the FRG). However, as Arrow (1972, 1973) pointed out, differences in the *remuneration of human capital* may likewise result in wage differences – particularly between migrants and ‘natives’. Even though migrants are endowed with the same amount of human capital as ‘natives’, they may receive lower wages because employers discriminate against them. Moreover, migrants may earn less, because employers are unable to evaluate their human capital. Labelled as the *signalling hypothesis*, it is argued that the productivity of a worker cannot be observed directly, in particular not prior to hiring (Arrow 1972; Spence 1973). Instead, the employer has to rely on observable characteristics which he or she believes indicate the productivity of a worker. These indicators are in particular educational and vocational certificates. Employers pay foreign employees less or may

not even employ them, because they cannot value the expected productivity of a migrant as precisely since the employer is not familiar with the schooling and vocational training certificates obtained in a foreign country. Hence, the signalling hypothesis suggests that migrants will not receive sufficient returns for their educational qualifications, given that employers are not familiar with the skills and abilities these certificates convey. If, however, in the case of *Aussiedler*, official procedures establish an equivalent to German certificates, *Aussiedler* should, *ceteris paribus*, perform fairly well in the labour market. None the less, the recognition of qualifications certainly does not guarantee that employers value those certificates in the same manner as certificates gained in Germany. Moreover, as we have already noted above, for the analysis of mobility patterns in the German labour market, the signalling hypothesis may be misleading since it does not consider the specific features of occupational labour markets. In the following, we elaborate on this issue in greater detail.

The impact of occupation-specific allocation mechanisms

The German labour market is often characterized as a labour market in which mobility patterns are closely tied to educational and vocational credentials, i.e. vocational certificates largely define who is eligible for entering specific job positions and who is not (König and Müller 1986; Sengenberger 1987; Blossfeld and Mayer 1988).⁴ With respect to the employment prospects of migrants, perhaps the most relevant aspect is that job allocation is shaped by *occupation-specific closure mechanisms* (Marsden 1999).

In occupational labour markets, the jobs and positions which individuals are entitled to enter are less determined by years of schooling, firm or work experience than of the very occupation certified (Müller *et al.* 1998; Konietzka 1999, 2001). Hence, working in one's trained occupation is crucial for job stability, occupational status and earnings. However, occupational labour markets are quite inflexible towards a change of occupation which implies that individual adjustment prospects and the chances of finding alternative 'adequate' job placements outside the

4. Vocational certificates are mainly gathered by undergoing a training scheme in the 'dual system of vocational training'. This system of training is unique in Europe in its shape and coverage – although Switzerland, Austria and Denmark share some characteristics of this training arrangement. In the 'dual system', firm-based training in about 300 different occupations is combined with public vocational schools (Greiner 1995). Up to three-and-a-half years of training are certified by generally accepted vocational certificates.

trained occupation are limited (Carroll and Mayer 1986; Szydlík 1996; Marsden 1999: 121ff.).

With regard to *Aussiedler*, it seems straightforward to assume that they are especially affected by discrepancies between their trained occupation and the demanded skill in the German labour market since the occupational structures of their countries of origin differ significantly from the German one. While the German occupational structure has experienced a shift towards the white-collar segment over the past decades, *Aussiedler* are predominantly trained in blue-collar jobs, largely restricting them to the corresponding 'craft segment' in the labour market.⁵ Therefore *Aussiedler* should be particularly likely to suffer from structural mismatches between achieved training and the actual qualification demanded in the labour market. Against the background of occupational-specific closure mechanisms, we expect that migrants (and natives) who are unable to enter their trained occupation will receive only small returns on their educational and vocational qualifications. On the other hand, if they are able to enter their trained occupation they should encounter fairly good chances to perform well in the labour market. In other words, contrary to the 'signalling hypothesis' which postulates that foreign credentials are *generally* valued less because employers are not familiar with foreign vocational and educational certificates, the hypothesis of 'occupational labour markets' suggests that foreign credentials pay off, provided migrants gain access to their trained occupation.

4 Empirical analysis

Data source – the German Socio-Economic Panel

In order to analyse the labour market performance of *Aussiedler*, we use data from the German Socio-Economic Panel (SOEP) of the year 1998. The SOEP is a longitudinal household survey, providing socio-economic information on individuals living in private households in Germany (Deutsches Institut für Wirtschaftsforschung 2000). One of the 'special features' of the SOEP is that it contains an 'immigrant sample'. The immigrant sample is a sample of individuals who have migrated to West Germany since 1984. Apart from standard demographic information,

5. In particular, *Aussiedler* from Romania and the former Soviet Union were often employed as farmers before having migrated to Germany. About 12 per cent of the male *Aussiedler* who migrated to Germany in 1998 were previously employed in the agricultural sector, 58 per cent in the industrial sector and 30 per cent in the service sector (Bundesministerium des Inneren 1999).

respondents are asked about their migration status (Burkhauser *et al.* 1997). This aspect is of particular importance for the analysis of *Aussiedler* who gain German citizenship upon arrival in Germany. This means that they cannot be identified based on only their nationality which is also why most other micro-level datasets (including the German micro-census) are not suited for this kind of analysis.

In our analysis, we denote an *Aussiedler* as an individual who self-classifies him or herself as *Aussiedler* and has settled in the western states of Germany since 1984.⁶ We deal only with the western German labour market since only a small fraction of all *Aussiedler* reside in East Germany (Bundesministerium des Inneren 1999). In most studies, migrants are compared to ‘established natives’ (e.g. Landale and Guest 1990; Orcutt Duleep and Regets 1997). We decided to use German nationals who already lived in the western states of Germany in the year 1984 as the comparison group of ‘established natives’ (in other words, we omit foreign nationals and also individuals born in the German Democratic Republic). We label this group as *West Germans*. The definition of a ‘West German’ is purely data driven; it does, however, fulfil the requirements of a homogeneous comparison group who have acquired their educational credentials in the Federal Republic of Germany.

We omit all migrants who were younger than age 19 when they migrated, because they have presumably undergone education or vocational training in Germany. Migrants who migrated after the age of 18 could have undergone retraining or started college education in Germany. One might speculate that this is particularly the case for *Aussiedler*, since they are eligible for special retraining measures initiated by employment agencies (Koller *et al.* 1992; Kühn 1995). However, in our sample there are only fifteen *Aussiedler* who received German vocational certificates and there is only one *Aussiedler* who received a college degree after having migrated to Germany. We omit them from the analysis. We consider only prime-aged males (aged 19–59) who are not retired, are not in the military service and are not receiving education or vocational training at the date of interview. We restrict the analysis to *male respondents* since the analysis of the labour market performance of women would have required taking into consideration far more institutional considerations. Moreover, too small a sample size of working female *Aussiedler* precludes us from performing a thorough analysis of this issue (for the analysis of the labour market performance of female *Aussiedler* see e.g. Münz and Seifert 1997: 121; Greif *et al.* 1999). Altogether there are 1861 West Germans and 117 *Aussiedler* in the remaining sample.

6. The underlying question is: ‘Are you an *Aussiedler* from an Eastern European country?’
[Sind Sie deutschstämmiger *Aussiedler* aus einem der osteuropäischen Länder?]

Education and the labour market situation

Compared to the average male West German, male *Aussiedler* have received almost the same amount of vocational training. As can be seen from Table 1, 70 per cent of all West Germans and 65 per cent of all *Aussiedler* hold a vocational degree. However, *Aussiedler* are less likely to hold a college degree (*Aussiedler*: 15 per cent, West Germans: 20 per cent). The relatively low ratio of *Aussiedler* with a college degree reflects the

TABLE1. Descriptive statistics

	<i>West Germans</i>	<i>Aussiedler</i>
Demographic characteristics		
• Age	39.7	40.5
• Child ≤10 years of age in household	28%	41%
Educational attainment		
• No degree	10%	21%
• Vocational degree	70%	65%
• College degree	20%	15%
Employment rate		
• Employed full-time	89%*	89%*
• Not employed	11%	11%
Wages, working hours, firm experience*		
• Average monthly gross wage	5,552DM	4,185DM
• Working hours (according to work contract)	38.4 hours	38.2 hours
• Years of firm experience	12.2 years	5.5years
Position in the labour market*		
• Low position (worker)	2%	43%
• Low position (employee)	4%	2%
• Medium or upper position (worker)	26%	44%
• Medium or upper position (employee)	58%	12%
Skill match/job requirements*		
• Working in occupation trained for**	65%	41%
• Vocational training or college required	77%	47%
German proficiency		
• Speaks German most of time	–	51%
• Does not speak German most of time	–	49%
Age at migration		
• Age at migration 19–40	–	82%
• Age at migration 40+	–	18%
Sample size	1,861	117

Notes

Employed part-time were classified as 'not employed'.

* Only those employed full-time, self-employed excluded

** Only workers with vocational degree

mechanisms, which allocated people into college education in socialist state countries. In the Soviet Union, for example, access to college education was highly rationed through quotas set by the central government (Gerber and Hout 1995).

We measure the labour market performance of *Aussiedler* by the following:

- *Employment rates.* We distinguish those who are employed full-time and others. We do not report on those employed part-time separately, since there are very few males working part-time (less than 2 per cent).
- *Labour market wages.* We report on only a monthly gross wage. Although we also report on the working hours in Table 1, we do not use this information to calculate an hourly wage. The major reason for this is that we would have to omit respondents who either do not detail their working hours or who do not have the working hours specified in their employment contract. Furthermore, we believe that we add substantial error when combining the monthly wage and the hours worked into one single variable.
- *Labour market positions.* We distinguish 'low' and 'medium/upper' labour market status. Low labour market status encompasses employees with simple duties and unskilled workers. Medium and upper labour market status encompasses master craftsmen, foremen, employees with qualified duties, directors and civil servants.

If indeed educational certificates determine the labour market performance of workers, *Aussiedler* should do almost as well in the labour market as West Germans. However, Table 1 shows that this is not the case. Despite their high endowment of human capital, the labour market performance of *Aussiedler* is rather poor. Comparing monthly gross wages, West Germans who are employed full-time earn almost 5600 DM on average, while *Aussiedler* earn less than 4200 DM or 75 per cent of the salary of an average West German. A similar case applies to labour market status; while 84 per cent of West Germans work in medium or upper labour market positions, only 56 per cent of *Aussiedler* do so.

Table 1 also displays employment rates. About 11 per cent of all *Aussiedler* are not employed. Rather surprisingly, the ratio of unemployed West Germans is exactly the same. Judging from this evidence, male *Aussiedler* have the same chances of entering the labour market as do West Germans; therefore, in the following, we do not pay special attention to employment probabilities.

What descriptive information do we gain on the returns to foreign educational credentials? Do *Aussiedler* profit from their formal certificates? Furthermore, do they gain access to their trained occupation? Table 1 also reports the 'skill match' of respondents with a vocational certificate. Only

41 per cent of *Aussiedler* with a vocational certificate work in the occupations they were originally trained for, compared to 65 per cent of male West Germans. Turning to the skill requirement of the performed job, we find a very similar pattern. We showed above that 78 per cent of all *Aussiedler* have received a post-secondary degree – but only 47 per cent of them work in jobs that require a vocational certificate or a college diploma, compared to 77 per cent of West Germans.

Multivariate findings – determinants of labour market chances

In the multivariate analysis, we proceed in three steps. First, we estimate a simple *employment equation*, i.e. we estimate a logistic regression model on the probability of being employed full-time (versus not employed or employed part-time). In the second step, we estimate a *wage equation* with the log of the monthly gross wage as a dependent variable. In the third step, we estimate a *labour market status equation*, i.e. we apply a logistic regression on the probability of occupying a medium or upper labour market status (versus a lower labour market status).

It should be noted that we do not seek to explain wage differences between *Aussiedler* and West Germans. *Wage decompositions* depend strongly on regression models being fully specified (e.g. Blinder 1973; Ashenfelter and Oaxaca 1987; Cotton 1988). In other words, wage differences between migrants and non-migrants can be easily attributed to unobservable immigration-specific variables. Although we consider immigration-specific aspects such as language skills and age at migration, we do not attempt to decompose the wage differences between *Aussiedler* and West Germans by these variables. Instead, our primary research question is to investigate whether *Aussiedler* who hold vocational credentials perform better, relative to *Aussiedler* who do not hold such credentials. Given that this is the case, under which conditions do they perform better? Do those who gain access to their trained occupation perform better than migrants who do not gain access to it? In order to perform this analysis, we estimate *separate regressions* for *Aussiedler* and West Germans.

We control for various labour market characteristics such as years of *firm experience* (which we divide by ten in order to be better able to display the coefficient). As bigger firms might pay higher wages, we insert a binary variable that equals one for all individuals who work in *firms with more than 200 employees*. We also insert a variable indicating the *age* of the respondent (divided by 100) and control for whether there is a *child* aged 10 years or younger in the same household. The latter variable is supposed to control for the respondent's family situation, which is

generally expected to be correlated with male wages in a positive manner (e.g. Rosenzweig 1982).

Furthermore, we control for several *immigration-specific factors*. Poor language proficiency is widely believed to reduce immigrants' earnings (Borjas 1994; Dustmann 1994). Furthermore, the duration of stay in the country and the age at migration has been found to determine the labour market chances of immigrants, i.e. younger immigrants are frequently found to adapt more easily to the new labour market situation than older ones (Kassoudji 1989; Chiswick 1986, 1991). For the sample of *Aussiedler* we control for *German proficiency*, which we measure by a variable indicating whether the respondent speaks German most of the time. We also control for *age at migration* by an indicator variable for whether the person migrated after age 40.⁷

The most important variables are the binary variables indicating whether the respondent holds a *vocational certificate* or a *college degree*. The reference category are the ones who have not earned a secondary degree. In the 'earning equation' and the 'labour market status equation', we perform an interaction of an indicator variable for *working in the trained occupation* and vocational degree. Here, we investigate whether migrants who are working in their trained occupation are better able to transfer their vocational credentials to the German labour market.⁸ Small sample sizes preclude us from performing such an investigation for college degrees. However, for college-educated respondents, working in their trained occupation might be less vital for performing well in the labour market. While allocation mechanisms in craft and trade occupations are strongly segregated along occupation lines, the labour market for tertiary credentials is supposed to operate less rigidly (Konietzka 1999). If this assumption holds true, foreign college degrees may be used more flexibly and should therefore generally pay off.

5 Results

Table 2 reports the results from the employment regression. For West Germans, having a college degree or a vocational training certificate has

7. As noted above, since *Aussiedler* gain immediate access to German citizenship they have access to privileged civil servant jobs. However, none of the *Aussiedler* in the sample was employed as a '*Beamter*' at the time of survey.

8. We also performed several other interactions of vocational certificate with, for example, German proficiency, blue-collar worker, age at migration. None of these interactions turned out to be significant and we therefore did not report them. It should, however, be noted that if one restricts the sample to blue-collar workers, the interaction effect between vocational certificate and skill match is substantially more pronounced.

TABLE 2. Determinants of employment (logistic regression, dependent variable: probability of being employed full-time (versus part-time or not employed))

	<i>West Germans</i>		<i>Aussiedler</i>	
	<i>coefficient</i>	<i>t-statistics</i>	<i>coefficient</i>	<i>t-statistics</i>
Intercept	-4.93	-4.44***	-16.39	-2.02**
Educational attainment				
• No degree	Ref.		Ref.	
• Vocational degree	1.07	5.27***	0.06	0.07
• College degree	1.29	4.79***	0.55	0.39
Age				
• Age	0.34	5.84***	0.89	2.18**
• Age squared (/100)	-0.45	-6.28***	-1.03	-2.03**
Demographic characteristics				
• Child ≤ 10 years of age in household	0.65	2.81***	0.98	0.93
German proficiency				
• Speaks German most of time	-		0.64	0.88
• Does not speak German	-		Ref.	
Age at migration				
• Age at migration (19–40)	-		Ref.	
• Age at migration (40+)	-		-1.86	-1.26
Adjusted r^2	0.09		0.29	
Sample size	1,861		117	

Notes:

Ref.: Reference category

** $p < 0.05$

*** $p < 0.01$

a strong positive impact on employment probabilities. For *Aussiedler*, educational and vocational certificates basically play no role in explaining the chances of participating in the labour market. Surprisingly, neither German-speaking proficiency nor age at migration exercises any statistical significant influence on the probability of being employed full-time at the date of interview.

Table 3 displays the earning equation, which includes only respondents who are working full-time at the time of survey. As said before, we estimate two different kinds of models. In the first one (Model (a)), we simply include the binary variables for vocational certificate and college degree. In the second one (Model (b)), we perform an interaction of working in the trained occupation with vocational certificate. For the West German sample, a college degree increases monthly gross wages by about 50 per cent (compared to respondents without a vocational training certificate or

Table 3. Determinants of Wages (OLS, dependent variable: log of monthly gross wage)

	West Germans			Aussiedler			
	Model (a)		Model (b)	Model (a)		Model (b)	
	coefficient	t-statistics	coefficient	coefficient	t-statistics	coefficient	t-statistics
Intercept	7.15	47.66***	7.12	8.51	10.13***	8.42	10.34***
Educational attainment							
• No degree	Ref.		Ref.	Ref.	0.98	Ref.	
• Vocational degree	0.10	3.52***	0.07	0.07		–	0.00
• Vocational degree (no match)	–		0.12	–		0.16	2.13**
• Vocational degree (match)	–		0.48	–		0.25	2.83***
• College degree	0.49	14.44***	0.48	0.26	2.83***	0.25	2.83***
Age							
• Age	0.05	6.28***	0.05	–0.02	–0.51	–0.02	–0.45
• Age squared (/100)	–0.05	–4.87***	–0.05	0.03	0.61	0.03	0.61
Demographic characteristics							
• Child ≤ 10 years of age	0.09	4.60***	0.08	0.00	0.02	0.02	0.39

Firm experience									
• Firm experience (× 10)	0.03	2.50**	0.02	1.94**	0.02	0.22	-0.03	-0.30	
Firm size									
• Firm size ≥ 200 employees	0.07	3.71***	0.07	3.99***	0.15	2.24**	0.16	2.40**	
• Firm size < 200 employees	Ref.		Ref.		Ref.		Ref.		
German proficiency									
• Speaks German most of time	-		-		0.01	0.28	0.02	0.38	
• Does not speak German	-		-		Ref.		Ref.		
Age at migration									
• Age at migration (19-40)	-		-		Ref.		Ref.		
• Age at migration (40+)	-		-		-0.13	-1.11	-0.18	-1.53	
Pseudo-r ²	0.30		0.30		0.12		0.17		
Sample size	1,378		1,378		98		98		

Notes

Ref.: Reference category

Self-employed, unemployed and employed part-time are excluded

* p < 0.10, ** p < 0.50, *** p < 0.01

a college degree). A vocational training certificate has a significant positive effect on wages, particularly when working in the trained occupation. A vocational certificate with a skill match increases wages by 12 per cent, and by only 7 per cent without a skill match.

For the sample of *Aussiedler*, we yield similar results. A college degree increases wages by 25 per cent. Although this is well below the increase for West Germans, college education acquired in Eastern Europe still yields significant and high returns in the German labour market. In addition, *Aussiedler* who are working in their trained occupation receive considerable returns on their vocational training degrees, i.e. the wage increases by 16 per cent compared to the reference group without a post-secondary degree. However, those who are not working in their trained occupation receive no returns on their vocational certificates. They are basically treated as if they had no vocational training at all and they are confined to the labour market opportunities of unskilled workers.

Turning now to the other labour market and demographic variables, we find the expected pattern for the West German sample. Firm size, firm experience, the respondent's age and children are correlated with wages in a positive way. For the sample of *Aussiedler*, however, we do not find such clear evidence. Here, only firm size exercises a strong and statistically significant impact on wages. Neither age, nor children, nor years of firm experience are significant. A similar situation applies to the immigration-specific variables. Apart from a wage penalty for *Aussiedler* who migrated after age 40, the immigration-specific variables do not reveal any statistical significant effects.

In sum, educational credentials strongly determine wages of *Aussiedler*, provided they gain access to their trained occupation. This also holds true after taking into account immigration-specific characteristics. This finding not only supports the hypothesis of occupational closure mechanisms; it also suggests that a lack of formal qualifications or a skill mismatch cannot be compensated for by, for example, firm or general work experience.

Table 4 reports the results from the logistic regression on labour market status. Again, we estimate two different kinds of models, i.e. Model (a) with only the indicator variable for vocational training certificate and college degree, and Model (b) including the interaction of the vocational training certificate with the indicator variable for working in the trained occupation. The results basically confirm those from the earning equations. College education does pay off for *Aussiedler*, although Germans with a college degree have by far the highest relative chances of entering a medium or upper labour market position.⁹ Model (a) suggests that a

9. The very high coefficient for college education reflects the issue that hardly any respondents with a college degree work in a low labour market position.

vocational training certificate does not influence the labour market status of *Aussiedler* at all. However, taking into consideration the dimension of 'skill match' (Model (b)) changes the picture. Working in the trained occupation strongly enhances the performance of both West Germans and *Aussiedler*. The labour market status equation even more strongly supports the idea of 'occupationalized' labour markets since West Germans are also restricted to unskilled and semi-skilled jobs if they do not gain access to their trained occupation. Similar to the earning equation, the other demographic and labour market-specific variables exercise only a small and mostly statistically insignificant impact on the labour market status. It should however be mentioned that the presence of young children is now weakly correlated with the labour market position of *Aussiedler*. Moreover, German proficiency exercises a positive impact on the chances to occupy a medium or upper labour market status. On the whole, however, it is chiefly the formal qualifications together with a skill match which influence the labour market positions of *Aussiedler*. Yet again, this supports our hypothesis that labour market chances in Germany depend strongly on occupation-specific allocation mechanisms. Migrants (and also non-migrants) who do not gain access to their trained occupation are subject to occupational closure, and are confined to the lower segments of the labour market.

6 Conclusions

In this article, we analysed the performance of *Aussiedler* in the western German labour market. This migration group may be characterized by their common origin from Eastern European countries and by their relatively high level of educational and vocational qualifications. Our key hypothesis guiding the empirical investigation was that in the German occupational labour market migrants are faced with specific problems when transferring their educational and vocational skills and credentials. Only if they gain access to their trained and certified occupation are they able to perform well in the labour market. Otherwise occupational closure mechanisms confine them to unskilled and semi-skilled jobs.

The empirical analysis based on data from the German Socio-Economic Panel (1998) revealed that, although *Aussiedler* and West German males hardly differ in their endowment of educational and vocational qualifications, *Aussiedler* perform substantially worse in the labour market. They earn only 75 per cent of the wage of a West German and occupy, on average, a lower labour market status. In addition, almost 60 per cent of all *Aussiedler* with a vocational or academic certificate are not employed in their trained occupation. Closely related to this finding, more

Table 4. Determinants of labour market position (logistic regression, dependent variable: probability of medium or upper labour market position)

	<i>West Germans</i>						<i>Aussiedler</i>					
	<i>Model (a)</i>			<i>Model (b)</i>			<i>Model (a)</i>			<i>Model (b)</i>		
	<i>coefficient</i>	<i>t-statistics</i>		<i>coefficient</i>	<i>t-statistics</i>		<i>coefficient</i>	<i>t-statistics</i>		<i>coefficient</i>	<i>t-statistics</i>	
Intercept	1.26	0.93		-0.16	-0.11		0.29	0.04		-1.16	-0.15	
Educational attainment												
• No degree	Ref.			Ref.			Ref.			Ref.		
• Vocational degree	1.23	5.99***		0.02	0.08		0.56	0.98		-		
• Vocational degree (no match)	-			2.61	9.89***		-			-0.80	-1.19	
• Vocational degree (match)	-			5.31	5.21***		-			3.25	3.37***	
• College degree	5.44	5.34***		5.31	5.21***		2.64	2.70***		2.60	2.54**	
Age												
• Age	-0.04	-0.60		0.02	0.28		-0.02	-0.04		-0.05	-0.11	
• Age squared (/100)	0.00	-0.03		-0.06	-0.62		-0.02	-0.04		0.09	0.16	
Demographic characteristics												
• Child ≤ 10 years of age	0.10	0.55		-0.03	-0.17		0.47	0.91		1.18	1.85*	
Firm experience												
• Firm experience (/10)	0.62	5.75***		0.48	3.97***		1.59	1.85*		0.72	0.68	

Firm size						
• Firm size \geq 200 employees	0.37	1.93*	0.74	3.61***	-0.43	-0.67
• Firm size < 200 employees	Ref.		Ref.		Ref.	Ref.
German proficiency						
• Speaks German most of time	-		-	0.67	1.50	1.09
• Does not speak German	-		-	Ref.		Ref.
Age at migration						
• Age at migration (19-40)	-		-	Ref.	1.32	Ref.
• Age at migration (40+)	-		-	1.45		0.27
Pseudo-r ²	0.14		0.29	0.14		0.38
Sample size	1,449		1,449	103		103

Notes

Ref.: Reference category

Self-employed, unemployed and employed part-time are excluded

* p < 0.10, ** p < 0.50, *** p < 0.01

than half of all *Aussiedler* work in jobs that do not require any vocational training or college education.

The multivariate analyses confirmed the hypothesis that vocational degrees matter a great deal in the German labour market. However, they primarily pay off when employed in the trained occupation. *Aussiedler* who did not gain access to their trained occupation were treated as if they had no vocational training at all, and they were confined to the labour market opportunities of unskilled workers. This finding supports strongly the assumption that occupational labour markets and ‘occupationalized’ closure mechanisms rule the German labour market (Sørensen and Grusky 1996; Müller and Shavit 1998; Solga and Konietzka 1999). This finding also involves some important implications for empirical research on the labour market chances of migrants. If one fails to take into account the dimension of *skill match* this leads to erroneous conclusions on the value of foreign credentials. Foreign credentials *do* pay off – provided migrants receive access to their certified job. While returns on foreign vocational degrees are highly dependent on the trained occupation, returns on foreign college degrees turn out to be more universal.

Based on our analyses, one might draw the optimistic conclusion that, also in the future, college graduates and migrants who are able to enter their trained occupations have good chances of performing well in the German labour market. However, *Aussiedler* encountered altogether much lower chances of working in their trained occupations than the West German comparison group. As shown in Table 1, 65 per cent of West Germans but only 41 per cent of the *Aussiedler* (with a vocational training degree) worked in their trained occupation. From this finding we conclude that entering the trained occupation is the most significant ‘threshold’ for migrants in the German labour market. It seems evident that a strong concentration on the blue-collar segment, technical skill deficits and being trained in ‘outdated’ occupations are major obstacles in entering the trained occupation. Data limitations precluded us, however, from performing a more thorough investigation of the occupational structure of *Aussiedler*, their skills and the effectiveness of public retraining schemes to enhance the transferability of these skills.

Finally, what conclusions may we draw with respect to future migration to Germany based on the experiences of *Aussiedler*? Now that Germany is about to change its restrictive immigration policy and at the same time aims to recruit especially skilled and highly skilled individuals from other countries, the usability of foreign credentials is becoming one of growing interest. Furthermore, the Eastern enlargement of the European Union is very likely to induce an increase in East to West migration, with Germany being one of the major recipient countries (Werner 1996; Kraus and Schwager 2000; Boeri and Brücker 2001). Future Eastern European immigrants may,

on the one hand, be more positively selected in terms of age, educational background and economic motivation – factors which might improve their overall labour market prospects. On the other hand, *Aussiedler* had access to special treatment such as language courses, retraining measures, etc. Yet still under half of them could finally enter their trained occupation. Taking into account that future East to West migrants will not receive publicly funded retraining courses and standard procedures which allow them to have their educational degrees and vocational certificates recognized, we expect that those migrants will on the whole profit less from their vocational certificates. Their labour market chances will depend primarily on occupation-specific demand factors. However, our analysis gives raise to the assumption that if they do not gain access to their trained occupation, they will be confined to the unskilled and semi-skilled labour market segment.

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