Chapter 3
Varying Hurdles for Low-Skilled Youth on the Way to the Labour Market

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3.1 Introduction

Following the Citizen and Immigration Acts of 1999 and 2004 immigration- and integration-related issues moved from the fringes to the heart of federal politics in Germany. Meanwhile Maria Böhmer, the Federal Commissioner for Foreigners, Refugees and Integration, and even Chancellor Angela Merkel regularly address integration related issues. Concerning the integration of young immigrants[1] into the labour market, Böhmer in April 2007 stated: 'The difficult situation of young immigrants must represent a main issue in the political debate on vocational training. ... Within the context of the National Integration Plan the federal government will put all necessary effort into easing the transition of young foreigners into vocational training – for only those who have a vocational qualification have a fair chance of integrating and taking part in our country's social life on an equal footing.'[2]

Rather than dealing with political declarations or programmatic goals, in this paper I focus on empirical research on the participation of low-skilled youth with and without a migratory background in vocational training. The German

[1] I use the terms 'young people with migratory background/of immigrant origin' and '(young) migrants/ immigrants' in this article interchangeably to refer to young people whose parents or who themselves have immigrated. However, I would like to distinguish terms such as 'young foreigners' and 'young people of foreign citizenship' etc., which refer to persons with a non-host-country citizenship.

[2] Cf. http://www.bundesregierung.de/nn_56546/Content/DE/Pressemitteilungen/BPA/2007/04/2007-04-18-boehmer-ausbildungssituation.html [Accessed on: 24 April 2007].

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National Report on Vocational Education and Training (VET) in 2008 underscored the fact that for individuals with certificates from lower-tier schools, the chances of obtaining a fully qualifying vocational training[3] drop significantly. For young people who have no diploma or a diploma from a basic secondary school, or *Hauptschule*, the likelihood to enter VET is three times lower than for a graduate of an intermediate secondary school, or *Realschule*; and four and a half times lower than for a graduate of a higher secondary school, or *Gymnasium* (BMBF 2008: 68). These findings are also confirmed by the Second National Report on Education, which states that for the majority of the young people with lower educational degrees the transition into VET takes significantly longer than for graduates of a *Realschule* (Autorengruppe Bildungsberichterstattung 2008: 8–9).

Building on these findings, this article aims to develop a more thorough picture of the transition processes into vocational training in Germany, which is the first hurdle school leavers must take on their way to employment. My own analyses will deal only with individuals who have lower educational background (max. a certificate from a *Hauptschule*). Within this group I will draw comparisons between young people with and without migratory background.

The reasons for limiting my analysis to low-skilled youth are twofold: First, the proportion of young immigrants following the lower educational tracks in Germany is higher than for the native population. Second, it is not clear to what extent lower-educated youth are indeed internally a homogenous group. Looking at the students attending the basic secondary school track, Solga and Wagner (2001, 2007) claim that the composition and social background at the *Hauptschule* since the end of the 1970s has become more and more homogenized. Looking separately at native-born and immigrant low-skilled youth might bring some new insights to this claim.

After a brief description of the data set used for the analysis presented here, the following research questions will be addressed:

- Are there any differences between young people with and without migratory background during the age period when typically the transition into vocational training occurs? If yes, what are these differences?
- Are there differences between the groups of young people with and without migratory background with respect to the time they need to make the transition into VET?
- What individual characteristics have an impact on a faster or slower transition into VET?

To provide the reader with the relevant context, the next section outlines the most important findings from the published research literature on the participation in the German VET market both in general and specifically for immigrant youth.

[3] A 'fully qualifying vocational training' is an educational scheme that upon successful completion offers the participant a certificate in one of the professions acknowledged by the German Vocational Training Act or the Crafts and Trade Code.

3.2 The Situation of Young Immigrants in the German Vocational Education System

Seen from a comparative perspective, the German secondary school as well as VET systems appear to be both highly stratified and strongly selective (cf. Allmendinger and Leibfried 2003; Deutsches PISA-Konsortium et al. 2001; Walther et al. 2004). Education policy is in principle a regional matter and may therefore vary to a certain extent among the regions ('*Länder*'). Nevertheless, some common characteristics hold for most of the country. In most regions pupils are re-grouped onto different school tracks after four years of elementary schooling. This selection procedure is based predominantly on the recommendation given by the elementary schools. There are three basic school tracks the children may attend: the basic secondary school track, the *Hauptschule*; an intermediate secondary school, the *Realschule*; or the more academic *Gymnasium*. Following the four years of elementary education, the *Hauptschule* leads to a certificate of compulsory education after five years; the *Realschule* provides a certificate of a higher status after six years, which nowadays in most professions is considered to be the educational minimum in order to be accepted as an apprentice; and finally the *Gymnasium,* offers towards the end of eight or nine years of schooling the possibility to take exams ('Abitur') that give access to tertiary education.

According to empirical research, the transition to the *Gymnasium* track is determined not only by the individual achievement of the student, but also by the social background of the family (Konsortium Bildungsberichterstattung 2006: 49–50). The chances of a child attending the *Gymnasium* are greater by fourfold if the parents belong to the highest occupational status group compared to a child coming from a working class family. Although there are some regional differences, the probability of attending *Hauptschule* is also connected to family background: children with parents of higher social status are more often successful in avoiding lower school types compared to their peers, even if their achievement at school is equally weak.

According to a report by Germany's Commissioner for Integration in the school year 2004/2005 only 15% of German children attended a *Hauptschule*, compared to over 40% of children with a foreign citizenship. Furthermore, almost half (45%) of German children attended a *Gymnasium*, but only a fifth (21%) of the foreign citizen students did so (Migrationsbeauftragte 2007: 57–58). This 'ethnic divide' with respect to school types has significant consequences for the prospects of these young people when they look for job training.

Before discussing the VET market situation, I sketch out the system itself. The German VET system can be roughly subdivided into three areas:

– company-based job training, better known as the 'dual system' ('*duales Berufsbildungssystem*');

– school-based vocational training (‘*Schulberufssystem*’), the typical preparation for certain professions such as nursing, and fully comparable to the dual system with respect to the qualification obtained; and
– the intermediary sector (‘*Übergangssystem*’), which consists of programmes and courses of different types which do not provide an acknowledged vocational certificate.

The backbone of this VET system – at least in the public discourse – is still considered to be company-based training, the ‘dual system’. This is a vocational program, in which the apprentice, after having been accepted by a company, is trained for 2–3½ years. She/he attends school one or two times a week and is trained the rest of the week within the company. This system is highly regulated and the qualifications obtained are standardised. Every person finishing vocational education is supposed to have similar levels of knowledge and all the necessary skills to work in the given profession.

Young people in Germany put much effort into obtaining a training in one of the more than 340 acknowledged professions. However, the share of young immigrants without any vocational qualification is much higher than that of youths of German origin (BMBF 2007: 123–126). The Third National Report on Education states that, among people who were in their 20s (and had already completed their education) in 2008, 30.7% of the immigrants did not have any vocational training, whereas this share among the native borns was only 12.9% (Autorengruppe Bildungsberichterstattung 2010: 38 and table B3-7 web).

Burkert and Seibert illustrate (cf. Fig. 3.1) that the percentage of young foreigners in Germany who participated in vocational training dropped by nearly 10% from 1993 to 2004. In 1994 this share was 34%, whereas in the year 2004 only 25% of school leavers with non-German citizenship participated in vocational training (BMBF 2006: 31). In addition to the general decline in the participation rate, there are some gender-specific observations: young females of foreign citizenship – despite the unfavourable conditions – have been able to keep their participation rate almost constant (although at the very low level of 23–25%). A phenomenon that is gaining increasing attention both in political debate and in scientific circles is the performance of male immigrants: their participation rate decreased sharply, by 14% points from 42% in 1994 to 28% in 2004 (BMBF 2006: 3).

The trend shown in the above Fig. 3.1 seems to be continuing, as the VET report for 2008 with updated information shows. The participation rate of young foreigners dropped in 2006 even further to 23.7% (BMBF 2008: 97). This is less than half of the share that could be observed for young people of German citizenship (56.9%).

The traditional strongholds of youth employment for those with lower educational levels are the small- and medium-sized companies in the German manufacturing sector. The blue-collar professions of the manufacturing sector have for years been a ‘safe haven’ for young people with lower qualifications, because in this training segment they did not have to compete with graduates of higher school tracks. In recent years, however, the conditions for companies in these segments of the economy have been especially harsh, and they have been forced to drive back

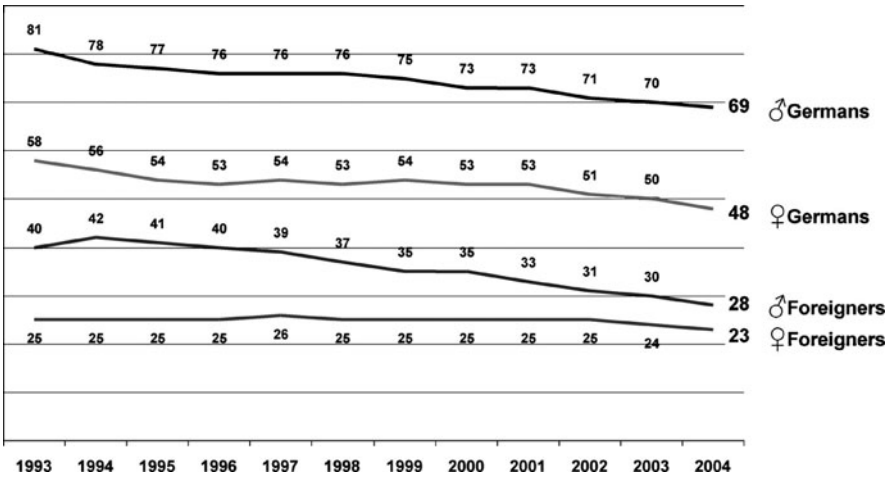

Fig. 3.1 VET participation rates by gender and citizenship, 1993–2004 (Source: Burkert and Seibert (2007: 9))

their employment and VET capacities, especially in branches such as construction. In addition, economic restructuring processes and the shift toward more knowledge-based work have changed the face of the remaining training opportunities in the manufacturing sector and led to their 'internal tertiarisation' (Baethge et al. 2007: 27–28). In many small- and medium-sized companies, expectations about the qualifications of apprentices have risen to the point that the sector is no longer offering potential VET opportunities to immigrant youths with lower educational credentials.

Although the service sector in terms of job training has been expanding, in many branches the competition is fierce. Students from the *Gymnasium* potentially apply for the same training slots as those with *Hauptschule* certificates. In some cases, where certain 'soft skills', such as social abilities and communication skills are required, acceptance can be especially difficult for young people with a working class and/or non-native background.

In recent years changes have occurred not only on the supply, but also on the demand side of the VET market (cf. Beicht et al. 2007; Eberhard et al. 2006), as for demographic reasons the total number of school leavers has increased. These factors have made it more difficult for young people with *Hauptschule* certificates to gain access to training opportunities.

The political reaction to this has been the expansion of the 'intermediary sector'. The intermediary sector channels certain groups of young people who are considered to be disadvantaged into further qualification programmes and schemes (Baethge et al. 2007). The biggest share of these programmes are called 'vocational orientation' ('*Berufsorientierung*') and 'vocational elementary education' ('*Berufsgrundbildung*') and give young people the chance to complete their compulsory schooling years, but do not provide them with a recognised vocational certificate. The fastest growing part of this system is the Labour Office programme for

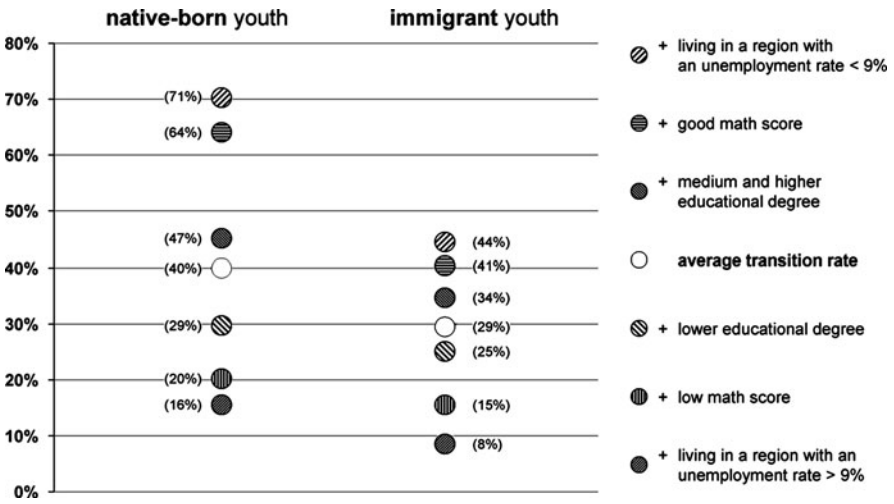

Fig. 3.2 Cumulative probabilities of successful transition into the dual system in 2004 (Source: Eberhard et al. (2006))

'vocational preparation' ('*Berufsvorbereitung*'). In addition, the growing number of participants in school or project-based programmes organised by state ('*Länder*') and local governments should also be mentioned.[4]

In order to understand certain features of this VET sector, a study has been initiated by the German Labour Office and the Federal Institute for Vocational Education ('*BA/BIBB-Bewerberbefragung*'). Since 1997, this study has annually analyzed the transition patterns of young people who applied to the Labour Offices for job training.[5] One of the main results is that young people with *Hauptschule* qualifications have a much higher probability of entering the intermediary sector than those who have *Realschule* or *Gymnasium* certificates. This is especially true for the schemes and programmes that aim to improve vocational orientation (Eberhard et al. 2006: 77). At the same time, participation in any of the schemes seems to have neither a positive nor a negative effect on the chances of entering job training in the dual system (Eberhard et al. 2006: 169).

To assess the relative chances of young immigrants and natives of getting into the dual system we refer to the aforementioned BA/BIBB-Survey data (Eberhard et al. 2006: 202–206). In 2004 the overall probability of getting an apprenticeship for native Germans was about 40% (cf. Fig. 3.2). If these young people had acquired a *Realschule* or *Gymnasium* certificate, their chances rose to 47%. If their maths grade had been – in addition to their better school certificate – 'good' or 'very good', their

[4]The typical classification presented here is, however, by no means exhaustive or clear cut, because the contents of different programmes may be quite similar on a (local) implementation level.

[5]For details about this study see Eberhard et al. (2006).

transition rate to VET was 64%. Finally, if in addition to these other advantages, the unemployment rate in their home region was below 9%, 71% of them were able to take part in vocational training within the dual system.

Among applicants who had some sort of migratory background[6] the overall probability of finding a training place in the dual system was 29%. With a *Realschule* or *Gymnasium* certificate their chances improved to 34%. Having a good maths score added another 7% points, so that the probability rose to 41%. A favourable labour market situation in addition to all of this led to a transition probability of 44%.

Some observations seem to be valid for both immigrants and natives: a better school certificate, better maths scores, and a place of residence with favourable employment conditions raise the chances of entering the dual system. But these effects are much stronger for the native-born population than for immigrants, as illustrated in Fig. 3.2.

Moreover, certain unfavourable conditions appear to have a cumulative negative effect. If the immigrant applicant had 'only' a *Hauptschule* certificate, the probability of being accepted for vocational training was 25%. If his maths score was no better than 'sufficient', his chances diminished by 10% points to 15%. And if he happened to live in a region with an unemployment rate greater than 9%, his chances of finding an apprenticeship dropped to 8%.

In sum, the traditional trajectory of leaving school and being immediately admitted to professional training seems to be more the exception than the rule for young immigrants in Germany today. Generally favourable individual characteristics and contextual conditions have a less positive effect for them than for young natives, and the impact of negative factors is stronger. Furthermore, variations among young immigrants are also observed: among immigrants born in Germany the transition rate to vocational training was on average 33% and among ethnic German immigrants (from Eastern Europe and the former Soviet republics) it reached 35%. However, only 18% of young people born abroad were able to make a successful transition. The most difficult situation was observed for young people born in Turkey or with Turkish citizenship: only 16% of them managed to find job training (Eberhard et al. 2006: 205–206).

3.3 Data Set and Empirical Approaches

The statistics officially collected through labour offices and chambers of commerce do not provide the necessary information to reconstruct the path young people follow after they leave school. The German Federal Labour Agency, for instance, provides information about the annual number of school leavers who begin training in a company, but does not report the experiences leading up to these individuals

[6]For the operationalisation of the concept "migratory background" in this study consult (Eberhard et al. 2006).

obtaining such an apprenticeship. Even less is known about the young people who were not able to enter VET. Which paths did they follow during their search? The Labour Agency and the Federal Statistical Office also offer potentially interesting data about young people who participate in various programmes of the intermediary sector, but this data again have important weaknesses, for they do not include information about the socioeconomic background or the previous experiences of the individuals.

Addressing the research questions posed here requires data that allow for a reconstruction of the different stages and the temporal structure young people experience during their search for a vocational training opportunity. Ideally the sample size of such a data set should allow for the drawing of comparisons between young people of native and immigrant background in a representative manner.

Such a data set was provided by the BIBB in Germany, which in 2006 conducted a study on the 'Educational Paths and Vocational Biographies of Young Adults after Leaving School'. The collected data comprises information from 7,230 individuals (cf. Schiel et al. 2006) belonging to the birth cohorts 1982–1988. The respondents were therefore between 18 and 24 years old at the time of the interview. The interviews were conducted by telephone with computer assistance. During the interviews information about the young adults' educational and vocational biography was gathered. In addition, a set of individual and familial characteristics were captured that were assumed to be relevant.

This paper uses a subsample of those data,[7] namely, for empirical purposes, it takes into account only those young people who have lower educational certificates, i.e. the individuals considered here left school with at most a diploma from a *Hauptschule*.

The indicator for 'having an immigrant background' was defined by way of 'exclusion', i.e. by defining who the native borns are. Interviewees who were German citizens, had as children spoken only German at home, and whose parents were both born in Germany were assumed to be native-born. If these conditions were not fulfilled completely, the individual was assumed to have a migratory background. Even though the overall sample is quite big, after limiting the sample to young people of lower education, it was not feasible to distinguish between different ethnic origins among immigrant youth because the sample sizes of these ethnic origin groups would have been too small. Therefore, in what follows, the reference is always to low-skilled immigrant and native-born youth in general.

To address the initially formulated questions three different empirical approaches are presented below: (1) state distributions, (2) product-limit estimations, and (3) piecewise constant exponential (PCE) models. The size of the sample depends on the empirical approach adopted, because for each analysis the group of relevance is slightly different. For the state distributions, for instance, all monthly records (spells) for low-skilled individuals aged 15 through 20 were taken into account. For

[7]On this occasion I would like to express my gratitude to the BIBB and particularly to Dr. Ulrich as well as Mr. Friedrich for giving me the opportunity to use these data for my analyses.

the product-limit estimations and PCE models age did not play a role, but only those young people who not only had left school with a lower degree, but also reported to be searching for a vocational training opportunity were included in the analyses. This is an important aspect to consider, as a basic assumption in the analyses is that every individual is 'at risk' of experiencing a transition into VET, which would not be the case with individuals who are not searching for a vocational training.

3.4 Distribution of Low-Skilled Youth to Different States During the Transition Process

The terms 'transition' and 'trajectory' represent key concepts in life-course research. The term 'transition' refers, as Sackmann and Wingens explain, to "a change from one state to another during a process" (2001: 42) where the duration in a specific state may be long or short. The term 'trajectory', however, denotes the "totality of all transitions and durations in different states of an actor" (Sackmann and Wingens 2001). The concept of 'transition' is very popular in empirical studies on the life course, because it can be easily operationalised – especially with techniques of event history analysis – whereas the concept of 'trajectory' poses problems in terms of a precise definition as well as for empirical operationalisation (cf. Sackmann and Wingens 2001: 21–22).

Sackmann and Wingens highlight the benefits of introducing 'sequence' as a concept next to 'transition' and 'trajectory' in life-course studies. They define a sequence as "a succession of at least two transitions within a process period" (Sackmann and Wingens 2001: 42). Compared to 'trajectory' or 'transition' the concept of 'sequence' allows the researcher to look at a life-course period as a succession of interrelated events. This creates, for instance, the opportunity to look for differences or commonalities between specific groups in terms of the sequencing of experienced situations. Such an approach, furthermore, also allows to check if the patterns of these sequences conform to the institutional regulations and norms or not. This represents a different perspective on individuals' life courses as the focus is not on a specific event (e.g. entering VET), but is on consecutive situations individuals experience over a limited time period. Rohwer and Trappe (1997: 1) point out that life-course research not only does not necessarily have to direct its attention to specific 'results', e.g. a transition from one state to another, but can also examine continuous chains of events.

One recognized method for analysing temporal data is to work out the state distributions of individuals (cf. Brüderl and Scherer 2006: 331–33; Rohwer and Trappe 1997; Windzio and Grotheer 2002). The data set used here is appropriate for a sequential illustration of the life course as it contains information on the periods of education, vocational training, and employment of every interviewee. It is, however, important to mention that the plotted state distributions (Figs. 3.3 and 3.4) do *not* represent individual life-course sequences, but illustrate the aggregated picture.

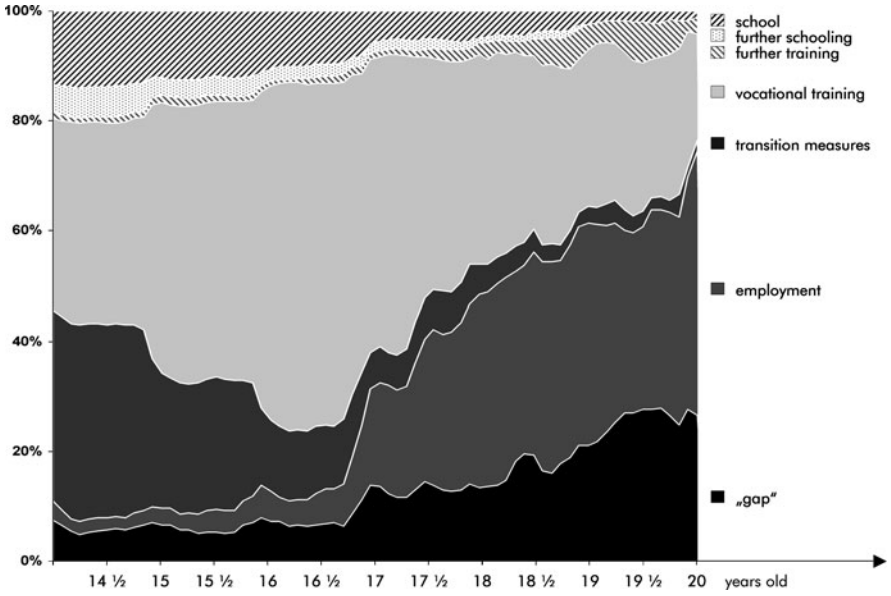

Fig. 3.3 State distributions of low-skilled native-born youth (Age 15–20) (Data: BIBB Transition Study 2006; birth cohorts 1982–1988; own calculations)

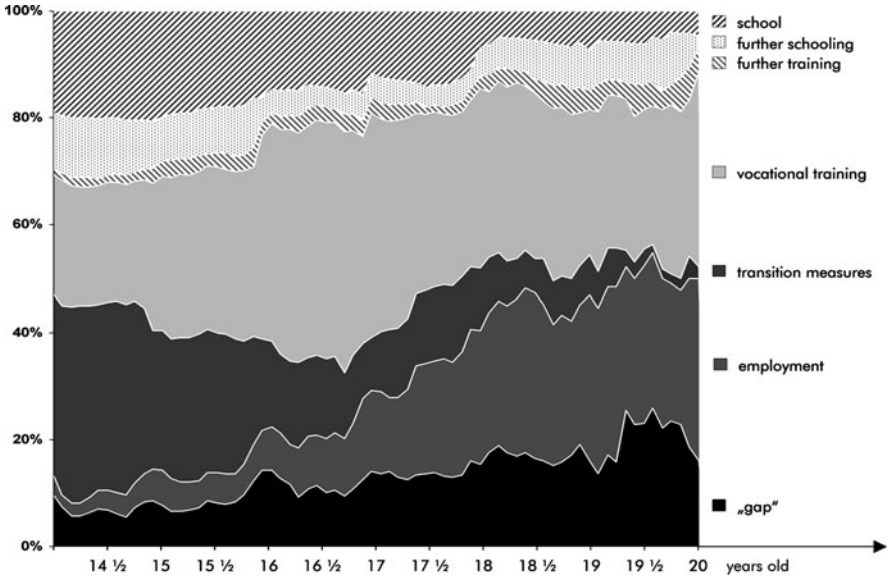

Fig. 3.4 State distributions of low-skilled immigrant youth (Age 15–20) (Data: BIBB Transition Study 2006; birth cohorts 1982–1988; own calculations)

For a certain age (based on monthly information), each individual is described as being in a specific state, e.g. in school, vocational training, or employed, and the distribution of states of the whole group at the specific age is plotted. This is therefore a descriptive approach to characterize the experiences of low-educated young people between the ages of 15 and 20 on a group level.

The six-year period from age 15–20 is crucial when considering the VET transition of youth with lower educational degrees, as many of those youths will have left school between the age of 15 and 17 (cf. Solga 2003: 20). The state distribution approach allows for the observation of differences among groups on the aggregate level with respect to their school attendance as well as their subsequent positions. Another approach would be to pick the time when individuals leave school, but this would obscure age-related patterns since the school leaving age varies.

The seven 'states', as they are illustrated in the following plots, represent a summary of the activities the interviewees reported to have pursued over a specific time period. To get a more comprehensible picture, for the purpose of these analyses certain activities were grouped together. Other activities, such as 'attending school', were specified in more detail, so that continuing the *Hauptschule* (categorised under the state 'school') and attending a further education after finishing the *Hauptschule* (states 'further schooling' or 'further training') presented three different categories. Different from further education are the activities subsumed under the label 'transition measures', which encompasses specific schemes or programmes of the Labour Office. The state labeled 'gap' includes all time periods for which the young people left unspecified or reported to have done 'other things' or 'stayed at home'.

The plot for the native-born young people (Fig. 3.3) reveals that the distribution into different states as a function of age is structured in a clear manner by institutions. This is indicated by the shifts in the distribution after the age of 16½, with an increase in the share of those who enter employment and a decrease in those who attend various types of education and training. Among 16-year-olds those in employment make up only 6%, whereas at the age of 17 this share is 18% and gradually increases to reach a total share of 48% among the 20-year-olds. In the same age period the share of those getting VET decreases and the share of those in a 'gap' increases. Participation in specific schemes or programmes of the intermediary sector ('transition measures') takes place mainly before the age 16½ and afterwards remains very low (3–7%).

The first observation when looking at immigrant youth (Fig. 3.4) is that the share of those who are in some kind of school education through all age groups is continuously higher than for the comparison group. Apparently the school biographies of young immigrants differ systematically from those of the native borns; this is due to immigrants being on average older when they leave school. An interesting point is that the share of those who attend *further schooling* is clearly higher. This could be a strategy followed by some young immigrants to improve their chances on the VET market. Nevertheless, throughout all age groups the share participating in VET is lower than for their native-born counterparts and the

percentage of those participating in schemes of the intermediary sector is higher, and does *not* decrease sharply after age 16½. The most important observation if we compare the two plots (Figs. 3.3 and 3.4), however, is related to the overall picture. The aggregated data indicate that the life courses of young immigrants are to a far lesser extent structured by institutional regulations. The redistribution that takes place for native born youth after the age of 16½, in going from school and VET-related activities to employment, is not observed to the same extent for immigrants.

3.5 The Transition Rates of Low-Skilled Youth Entering Vocational Training

In the next step product-limit (or Kaplan-Meier) estimations are employed to compute the transition rates into VET of low-skilled immigrant and native-born youth. For this nonparametric estimation method (cf. Blossfeld et al. 2007: 72–86; Singer and Willett 2003: 483–491), as well as for the PCE models presented in the following section, the risk period for each individual starts at the time when she/he has reported to have been actually searching for a VET opportunity.

Clear differences emerge between the two groups after six months of searching for a vocational training position, as illustrated by the transition functions[8] in Fig. 3.5: More than 40% of the native-born youth have already entered VET, whereas the share of the immigrant youth who have succeeded in their transition is slightly more than a quarter (26%). After just over a year, half of the native-born low-skilled youth have entered vocational training. The group of immigrant youth needs more than twice as long (26 months) to reach that level. After four years of searching 83% of the native-born and 60% of the immigrant population manage to enter VET. The differences between the groups are – as indicated through the illustrated test results – statistically significant. For reasons of brevity further analyses cannot be illustrated here, but it is important to note that a gender-specific comparison of the transition functions within the groups shows no significant differences between males and females.

A closer look at the form of the functions in Fig. 3.5 reveals that the transition rates do not develop at the same speed throughout the observation period. Apparently within the first four months after the search for VET begins some of the young people are successful. The drop in the subsequent time period (months 5–11) indicates that the 'high season' for recruitment of apprentices has ended. Those who did not manage to make the transition have to go for other options, such as the programmes offered by the Labour Office. This pattern is probably

[8]Instead of 'hazard function', which is generally used in the methodological literature, I prefer to employ here the term 'transition function' as this describes the topic under study in a more appropriate way.

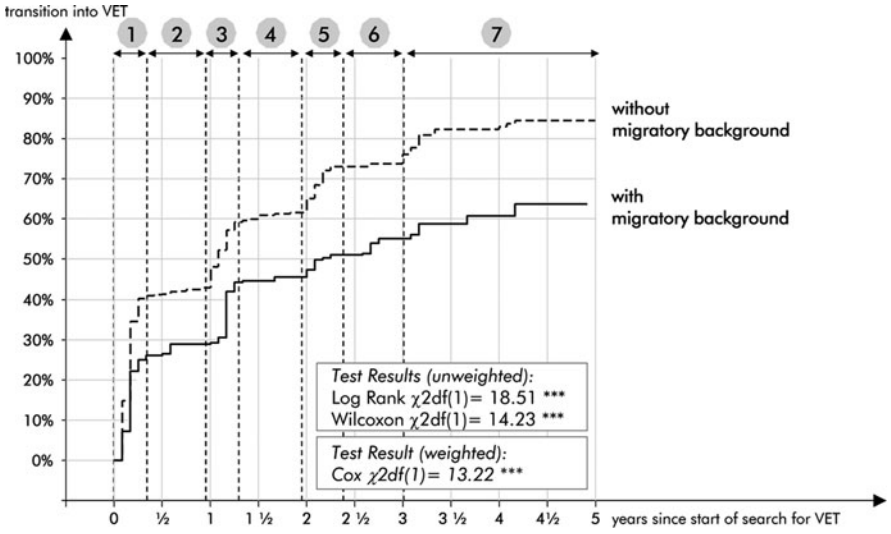

Fig. 3.5 Product-limit estimations for low-skilled youth entering VET (N[individuals] = 812; N[transitions] = 481. Data: BIBB Transition Study 2006; birth cohorts 1982–1988; own calculations)

institutionally induced and is repeated for two other 4-month periods (labeled 3 and 5 in the figure) during which a higher intensity of transitions is observed, again followed by periods (labeled 4 and 6) with relatively little change.

3.6 PCE-Models: Taking into Account Individual Characteristics and Temporal Patterns

The transition functions discussed above reveal important information about the differences between native-born and immigrant youth with respect to the temporal patterns of their participation in VET. In this section I refer to transition rate models and estimate the effect exerted by a range of characteristics on the individual level in addition to the migratory background. To account for temporal patterns, a piecewise constant exponential (PCE) model is employed, in which the total observation time is split into smaller time periods within which the transition rates are assumed to be constant, but from one period to another the rates may change (cf. Blossfeld et al. 2007: 116–127). As a control to assess improvement of the model fit through the introduction of covariates, initially an empty model is estimated. Before the results of the analyses are discussed, the introduced covariates and stepwise extension of the models are presented.

The first covariate included in model 1 is 'having a migratory background' with the reference category of 'being native-born'. The purpose of introducing this

covariate early on is to check if the effect of this characteristic changes in the subsequent models when further covariates are introduced. The basic hypothesis would be that having an immigrant background should not have an effect as soon as further covariates are introduced that capture the education and productivity related characteristics of individuals. In a competing hypothesis, however, we would put forward that 'having a migratory background' may result in a devaluation of the other characteristics if providers of vocational training believe that the productivity or behaviour of an applicant is somehow negatively affected by his/her cultural or ethnic background and therefore want to avoid an erroneous recruitment (Spence 1973; Imdorf 2008).

As mentioned above, the gender-specific comparison of the transition functions within each group did not reveal any significant differences between males and females. Nevertheless gender remains a category of central importance within the German vocational training system (Krüger 1999); therefore in the second model the covariate 'being female' is included.

In the next, third step, the educational attainment of the interviewee is accounted for through incorporating into the model the average grade earned in school. Keeping in mind that in the German grading system 1.0 is the best and 6.0 is the worst grade, 'having a higher grade' refers here to have a grade better than 2.5, whereas the reference category is to have a grade between 2.5 and 6.0. The rationale for including the average grade is related to the assumption that during the assessment of applications for VET, grades may be an important indicator for the potential performance of the applicant. Providers of vocational training do not have many criteria at hand to differentiate between young people from lower educational tracks, as the applicants are on average very young and do not have much work experience. The grade mentioned in school certificate is therefore an important piece of information.

Model 4 introduces the covariate 'parents highly educated'. Keeping in mind that the analyses are about low-skilled youth, for the purposes here, a highly educated parent is one with a higher education than the child's. That is, the parent had a diploma from an intermediate school type, the *Realschule*, or better. If the educational degrees of the two parents differed, the higher educational certificate was taken into consideration. This operationalisation should not be interpreted as an indication that the educational backgrounds of the father and mother were assumed to have the same impact on the educational career of the child (cf. Blossfeld and Huinink 1991), but rather should be seen as a way to account for parental influences that might affect the chances of young people on the VET market.

Theoretical arguments as well as empirical findings point to the fact that the participation in the German VET system is affected by age norms (Solga 2000: 15; Ulrich and Granato 2006: 45). The average age of candidates who want to do a vocational training will, however, vary depending on the past education, that is, on the type of school attended. For instance, young people who follow the lower educational track successfully will graduate at the age of 15 or 16. Therefore in model 5 the covariate "higher age when leaving school" refers to individuals who are 17 and older. For our analysis the assumption would be that if the age of the

applicant is 17 or above, this could be interpreted by a potential recruiter as an indication for a prolonged school career and thus a signal for lower performance.

As the approach used in the following allows for the estimation of the transition rates in different time periods, it is necessary to specify these periods. The plotted transition functions deliver important information that can be used for this purpose. The time intervals will be determined along the above-mentioned high- and low-transition rate periods illustrated in Fig. 3.5.

The estimated parameters for the baseline transition rate confirm the observations we made in our previous analyses. The transition rate during the first 4 months of the search is high and clearly decreases in the subsequent estimation periods. This pattern is repeated twice with alternately increasing and falling transition rates. The parameter estimate for the time-constant covariate 'having a migratory background' introduced in the first model is significantly negative. Interestingly, the covariates introduced in the models 2–4, i.e. being female, having a higher grade when leaving school, or having parents with higher education, do not exert a significant effect. Also the likelihood values indicate that through the introduction of the covariates no substantial improvement in the model fit could be reached. The negative effect of 'having a migratory background', however, remains significant.[9]

In the fifth model the covariate having a 'higher age when leaving school' ($\geq$17) is introduced. As indicated in Table 3.1, being older when leaving school exerts a negative effect, i.e. it significantly slows down the transition into VET. The estimated parameter for 'migratory background' retains approximately the same size and significance. This allows the preliminary conclusion that being an immigrant is – independent of a potential age-related effect – a disadvantage for accomplishing the transition into VET.

Going one step further (Table 3.2), we would like to know if the impact of 'having a migratory background' changes over time and, if yes, how. In order to look at this, we allow the parameter estimation for this covariate to vary across the specified time periods (cf. Blossfeld et al. 2007: 123–127).

The results of this analysis illustrate that, indeed, the negative effect of a migratory background changes, but is not always statistically significant. Within the critical first 4 months after the search for a vocational training opportunity has begun, immigrant youth are apparently in a disadvantaged position: their transition rate is approximately 40% lower than the reference group of the native born youth. This weaker position on the market, however, is not limited to the initial phase of the search. After 2 years (months 24–27) the observable negative effect is even stronger, although it is not as significant as in the first 4-month period. We should however

[9]Due to the restricted available space, further computations that were performed are not presented here. For instance, interaction effects between 'having a migratory background' and other covariates are included in the models but are not shown. Furthermore, instead of the overall grade average, the models were also run with the average grades in the subjects maths or German. Another approach was to introduce the 'having a migratory background' covariate in the final model instead of including it already in model 1. These alternative specifications of the models did not lead to any outcomes that would question the results presented here.

Table 3.1 PCE-Model: transition rates into VET

Covariates		Empty model	Model 1	Model 2	Model 3	Model 4	Model 5
Months since search begin	0–4	0.1176***	0.1374***	0.1433***	0.1429***	0.1483***	0.1665***
	5–11	0.0034***	0.0040***	0.0042***	0.0042***	0.0043***	0.0049***
	12–15	0.0721***	0.0874***	0.0915***	0.0913***	0.0946***	0.1059***
	16–23	0.0061***	0.0074***	0.0078***	0.0077***	0.0080***	0.0090***
	24–27	0.0638***	0.0786***	0.0825***	0.0822***	0.0856***	0.0945***
	28–36	0.0118***	0.0147***	0.0156***	0.0155***	0.0162***	0.0178***
	36+	0.0154***	0.0212***	0.0226***	0.0226***	0.0239***	0.0262***
Being female				0.8951 n.s.	0.8943 n.s.	0.8950 n.s.	0.8637 n.s.
Higher grade in diploma					1.0112 n.s.	1.0163 n.s.	0.9876 n.s.
Parents highly educated						0.8990 n.s.	0.9014 n.s.
Higher age when leaving school							0.6991**
Having a migratory background			0.5442***	0.5433***	0.5439***	0.5528***	0.5538***
N (persons)		1,584	1,584	1,584	1,584	1,584	1,584
N (events)		1,008	1,008	1,008	1,008	1,008	1,008
Log pseudolikelihood		−2,105	−2,069	−2,067	−2,067	−2,066	−2,054
$\chi 2$			72.352***	75.291***	75.313***	77.980***	101.631***
(df)			(1)	(2)	(3)	(4)	(5)

Data: BIBB Transition Study 2006; birth cohorts 1982–1988; own calculations *n.s.* not significant; *$p < .05$; **$p < .01$; ***$p < .001$

Table 3.2 PCE-Model, period specific variation of the migration background

Months since search begin	0–4	0.1640***	Having migratory background	0–4	0.5963**
	5–11	0.0053***		5–11	0.3724 n.s.
	12–15	0.1001***		12–15	0.6802 n.s.
	16–23	0.0099***		16–23	0.3516 n.s.
	24–27	0.1094***		24–27	0.2856*
	28–36	0.0164***		28–36	0.7101 n.s.
	36+	0.0304***		36+	0.3830 n.s.
Being female		0.8598 n.s.			
Higher grade in diploma		0.9815 n.s.			
Parents highly educated		0.9092 n.s.			
Higher age when leaving school		0.6982**			
N (persons)		1,584			
N (events)		1,008			
Log pseudolikelihood		−2,048			
$\chi 2$		113.373***			
(df)		(11)			

Data: BIBB Transition Study 2006; birth cohorts 1982–1988; own calculations *n.s.* not significant; *$p < .05$; **$p < .01$; ***$p < .001$

mention that the lower significance in this time period as well as the non-significance of the parameter estimates in the other defined time intervals may be due to the fact that the overall number of transitions is low. The negative effect of higher age when leaving school remains also in this model.

3.7 Discussion of the Results

The empirical work presented above aimed to analyse from various angles the transition processes of low-skilled youth from school to VET in Germany. A comparison on a descriptive level immediately highlights differences between immigrant and native-born low-skilled youth. This was illustrated through the distributions to different states, such as being in vocational training, taking part in further education or attending a programme, during the 6-year period starting at age 15. These aggregated data show that the distribution of low-skilled youth of native origin into different states for this age range is much more structured than it is for migrant youth. For instance, beginning at the age of 16½ the native borns' share in VET or educational programmes gradually diminishes and the share of youth who, having finished their vocational training, enter the labour market or are looking for a job increases. The overall picture implies a strong institutional regulation of transition processes for native youth (cf. Kohli 1985).

The state distributions for youth with migratory background, in contrast, lead to the impression that the institutionally induced, age-based channelling is much weaker for them. Although over the years the share of individuals attending a school-based education diminishes and the number of young people entering employment increases, these processes seem to occur in a much more unsystematic and generally delayed manner. Instead of obtaining a proper vocational qualification, young migrants attend further schooling or participate in the schemes of the intermediary sector. This might improve their chances, but they may also be 'cooled out' or put on 'waiting loops' (cf. Lex 1997), and finally be excluded from vocational training. Solga (2002) argues that a lower educational background in combination with the label 'participated in programmes' has quite a strong stigmatizing effect on the VET market for all disadvantaged young people in Germany.

In order to see at what rate the individual transitions of low-skilled youth into VET occur after they start to search for such an opportunity, product-limit estimations were computed. A comparison of the plotted transition functions of young people with and without migratory background reveals significant differences. Not only does the overall speed of transitions differ, but also the total share of young individuals who manage to enter vocational training at the end of a 5-year period. Half of the native borns enter VET after approximately one year, whereas slightly more than two years have to pass before 50% of the immigrants have entered vocational training.

As a further step in the analyses, piecewise constant exponential models were employed. This multivariate perspective offers the opportunity to control for individual characteristics that might exert an impact on the probability of entering to VET in specific time periods. The estimated parameters illustrate that for low-skilled youth, other individual features, such as being female, earning better grades in school, or having parents with a higher educational background do not affect the transition rate in a significant way. In addition to the constant negative impact of having an immigrant background, the last introduced PCE model illustrates that the next most significant disadvantage for the transition to VET is leaving school at a higher age. As Settersten and Mayer put it, managing certain transitions successfully is related to age norms, which represent "prescriptions or proscriptions about behavior in the form of 'shoulds' and 'should nots'" (1997: 242). These norms are confirmed through an implicit consensus in society and may, if violated, lead to social sanctions or disadvantages (cf. also Neugarten et al. 1965). The results presented indicate that such age norms exist, with young people who leave school at a later age experiencing greater barriers to entering vocational training.

In a last step the period-specific variation of the impact of migratory background was estimated. The results of this analysis highlight the temporal dimension of opportunity structures on the VET market. There are apparently shorter time periods when the transition rates are high and succeeding longer periods when the overall number of realized transitions is lower. The effect of having a migratory background varies over time. Particularly in the critical time periods, characterised by high chances of entering VET for many young people, immigrants fail to make the necessary transition. This holds true not only for the initial period of the search for vocational training, but also later on.

In sum, the essential outcome of the analysis presented here is that, for low-educated young people, who in terms educational background are assumed to be rather homogenous (Solga and Wagner 2001, 2007), having a migratory background negatively influences the transition into the vocational training system in Germany.

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