High Educ (2010) 60:529–542
DOI 10.1007/s10734-010-9313-y

From higher education to work patterns of labor market entry in Germany and the US

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Published online: 2 February 2010

Abstract Comparative studies describing the transition from higher education to work have often simplified the complex transition processes involved. In this paper we extend previous research by taking into account several steps that comprise labor market entry, e.g., recurrent education leading to more than one instance of labor market entry. By comparing Germany and the United States we also examine how the tertiary education systems influence these transitions via the mode of stratification (parallel tracks in Germany vs. consecutive tracks in the US), the coordination mechanism (state-controlled vs. market-based) and the degree of standardization in educational programs. In our empirical analyses using large-scale longitudinal survey data we find that transitions in the US are less standardized and regulated than in Germany. Furthermore, differences between students from lower- and higher-tier institutions are less marked than expected, both within and between the two countries.

Keywords Educational system · Transition patterns · Labor market entry · Re-entry into education

Introduction

In many industrialized Western countries we observe prolonged transitions from school to work characterized by longer participation in education, periods of early work experience during school, and periods in which employment is the major activity. For quite a lot of young people the point at which they leave school and enter the labor market is not clearly defined. Previous research that examined several aspects of the transitions from higher education to work often (had to) rely on a rough definition of labor-market entry that

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neglects the complexity of the process of leaving education and entering work, e.g., interruptions to gain work experience and the return to higher education to continue with one's studies (see Arum et al. 2007 for an overview; Schomburg and Teichler 2006). In our paper we want to examine these complexities of prolonged education and stepwise entry into the labor market by comparing students in Germany and the US: *Is labor market entry of graduates a well defined single event or a process consisting of several entries in a transition phase? How can differences in labor market entry patterns be attributed to the institutional setting of higher education?*

We extend previous research on labor market entry of graduates by a longitudinal- and life course perspective observing school leavers until their mid-30s. To describe the influence of the institutional setting of an educational system on integration into the labor market, we compare Germany and the US. The tertiary education systems in these two countries differ in various central ways, thus providing different frameworks for individual educational choices and influencing enrolment patterns through the life course substantially. Until very recently in Germany higher education was stratified into several parallel tracks of different fields of study leading to one level of final graduation, whereas in the US higher education is stratified more diversely and sequentially with more flexibility between different tracks. Recent reforms in Germany in the course of the so-called Bologna process have introduced an element of sequential stratification (Bachelor/Master structure). Our analysis of labor market entry patterns of students that have been enrolled in the 'old' Germany system might serve as a reference compared to patterns of students enrolled in a well established sequential system in the US. Against this background, our empirical results are of particular relevance for German educational policy as it is an open question how changes in the structures of the educational system will affect labor market entry patterns. Further, they can illustrate how important institutional characteristics are in the shaping of labor market entry patterns. While there are several studies on the influence of individual factors on the decision to re-enroll (e.g., social origin: Goldrick-Rab 2006; Hearn 1992; e.g., gender: Hostetler et al. 2007), there is not much known about the importance of institutions for that decision and for its consequence of delayed labor market entry.

The paper is structured as follows: in the next section we elaborate our theoretical background and describe the main characteristics of the German and American systems of tertiary education, deriving hypotheses on the patterns of educational careers and labor-market entry in the two countries. After discussing our data and operationalization approach, we present the results of our analyses and the implications of our findings.

Leaving (Tertiary) education and entering the labor market

Theoretical considerations from a life-course perspective

Previous research has found evidence for the de-standardization and de-institutionalization of life courses in highly industrialized societies (see Shanahan 2000 for an overview). One striking example of this trend toward growing diversity in life courses is the transition from school to work, for example due to prolonged participation in education or recurrent phases of education (Brückner and Mayer 2005; Buchholz and Kurz 2005; Hillmert and Jacob 2004). Returning to education after gaining work experience may have various consequences for the entire transition to adulthood., e.g., for unemployment risks and later labor

market status (e.g., Ishida et al. 1995; van der Velden and Wolbers 2007) but also on other life events like leaving home (Jacob and Kleinert 2008).

As a consequence of a prolonged transition, labor-market entry as an 'event' can often not be determined precisely due to broad variations both in the timing and the extent of integration into regular and stable employment (Light 1998). Frequently, the two analytically defined events 'leaving school' and 'taking up a job' are not clearly identifiable empirically. Comparative research has nevertheless succeeded in identifying typical national transition patterns. For example, in Germany the transition from school to work appears on average to be rather 'smooth' in terms of lower youth unemployment and less job mobility in early working careers than in most other European countries (Müller et al. 1998; Scherer 2005). Although recent research has pointed out that the German pattern of smooth transitions has changed over time and varies among students with different educational levels (e.g. Jacob 2004), we still observe a relatively straight labor market entry of university graduates (Schomburg and Teichler 2006). In the US, by contrast, on average there are much longer testing and trial periods in early working careers leading to high rates of job mobility and also returns to school (Arum and Hout 1998; Rosenbaum 1999).

However, this simplifying approach to the analysis of general patterns of labor-market integration has a number of shortcomings:

- First, the general patterns are shaped by the pattern displayed by the majority of young people. Notably in Germany, the many smooth transitions via apprenticeships camouflage the patterns displayed by other students. In the light of the growing importance of academic training and increasing participation in tertiary education, it is important to know more about the transition processes into and out of that subsystem, for example recurrent enrollment and labor-market entry after (final) graduation.
- Second, the feasibility of entering and returning to the education system depends on both the possibilities and the incentives for returning to education or to staying in the labor market. Accordingly, a comparative approach is required to show the influence of the educational system and labor-market structures on transition patterns. In this paper we have chosen the US as an example that differs from Germany in both respects, i.e., in the arrangements of tertiary education and in labor-market regulation.

Structures of tertiary education and labor-market linkages

For the purpose of our inquiry on transition patterns between school and work, we draw upon the following distinction between dimensions of educational structures.

First, the *type of stratification* displayed by the education system has to be considered, i.e., either via several parallel tracks leading to the same educational level or else via sequential courses each offering a full degree. It has an influence on the feasibility of interrupting one's educational career. In the latter case, students can enter the labor market earlier without giving up their educational goals and then re-enter later.

Second, the evolution of different tertiary educational systems depends on the *mechanisms of coordination* predominant in higher education. These are either largely state-controlled or market-based. They differ in the extent to which centralized control is operative with regard to curricular and institutional issues on the one hand, and in the degree to which institutions are free to develop their own profile by catering for consumer demands with specific educational programs on the other hand. We assume that deregulated systems offer more flexibility for educational careers. For example, in a market-based system second-tier institutions and institutions with low prestige are especially likely to

offer greater flexibility in order to acquire a comparative advantage in attracting (non-traditional) students.

The third characteristic of higher education that we consider to be relevant relates to the labor market. Both *standardization of educational provisions* and *occupational specificity* provide information on the abilities and competencies of school-leavers and the job demands. That reduces uncertainty for both students and prospective employers. Moreover, degrees in sequentially stratified systems are not only designed as terminal degrees but also function as an entry qualification for the next stage in an educational career. This ambiguity reduces their value as signals about the skills and may result in more mismatches on the labor market and more job mobility at the outset of a young person's career. By contrast, education systems offering standardized courses and comparable quality between its institutions accompanied by a degree of occupational specificity can be expected to stabilize labor-market entry, as the match between applicants and jobs should be better.

Postsecondary education in Germany and the US

In general, differences in the educational system between the US and Germany are manifold and difficult to grasp in few dimensions. On the one hand, both are highly industrialized economies with a strong and growing need for highly skilled labor. Consequentially, both countries widely expanded education through the second part of the last century. On the other hand, there are remarkable differences in the historical development and the current structures of the educational systems.

Germany

The formal requirement to enter tertiary education in Germany is successfully passing upper secondary education and attaining the *Abitur* or a vocationally oriented *Fach-Abitur*.[1] Until recently there had been no admissions restrictions of universities except to a few fields of study that had been centrally regulated.[2] Another major characteristic of post-secondary education in Germany to be pointed out is the intermediate non-tertiary alternative of vocational training in apprenticeships and vocational schools (Hillmert and Jacob 2003). Vocational training is not part of the tertiary system but it offers good labor market prospects in particular for students with *Abitur* if they enter training for prestigious occupations. Nevertheless, the majority of school leavers with *Abitur* plans to enter higher education even after completion of vocational training: For example, among school-leavers with *Abitur* in 2006 only 16% do not want to enter higher education (Heine et al. 2007, p. 14ff.). As we are interested in the system of tertiary education, in the following we concentrate on the characteristics of the tertiary system along the dimension outlined in the previous section—neglecting changes in the course of current reforms.[3]

The German higher education system is commonly classified as a "binary stratified" system (Goedegebuure et al. 1996) as it is (mostly) a two-tier system with universities and

[1] Whereas the *Abitur* provides eligibility for all university courses, the *Fach-Abitur* or *Fachhochschulreife* provides only access to *Fachhochschulen*.

[2] Admission to several fields of study (e.g., medicine, law, psychology) is regulated by a central selection process (ZVS Zentralstelle für die Vergabe von Studienpätzen "University central office of admission") to coordinate admission restrictions (Numerus Clausus) into universities.

[3] The introduction of the BA/MA-structure, tuition fees and elite universities during the last decade had not affected educational decisions of the birth cohorts we are analyzing in this paper.

lower tertiary institutions (*Fachhochschule*). The *Fachhochschule* focuses on vocationally-oriented tertiary education in a limited range of applied sciences subjects, whereas universities offer courses in all fields of studies. There has been a clear status difference between these two types of institutions. Universities are considered to be more or less equal in quality and there is no strong hierarchy *among* universities. Until recently, there were no tuition fees in public institutions of higher education. Germany stands for a typical case of only parallel, but not sequential stratification in higher education. At a *Fachhochschule* at least 4 years and at the University at least 5 years have to be spent before obtaining a degree. This makes a decision for tertiary education a large investment and limits flexibility.

United States

The only (formal) requirement to enter higher education in the US is a high school degree or equivalent (GED). In contrast to Germany, the majority of students achieve that (OECD 2007). This in general low selectivity into higher education is balanced by a higher selectivity into certain prestigious institutions that does not exist in Germany. While the American system of higher education is often classified as "diversified" in terms of stratification, the institutional setting is mainly twofold (Geiger 1996). Research universities with selective admission procedures build the first tier, offering classes in liberal arts and scientific education and granting bachelors, masters and doctoral degrees (Cardozier 1987; Goedegebuure et al. 1996). The second tier consists of community colleges, that have been introduced to increase participation and are a comparatively heterogeneous group serving different functions (Thelin 2004, p. 332f.). They offer transfer classes to universities as well as terminal vocational education. Although community colleges are part of tertiary education, in some aspects they serve similar functions as the German apprenticeship system in providing vocational degrees. In contrast to Germany, universities and community colleges comprise a clearly sequentially differentiated system. While higher education in Germany is almost fully funded by the federal states, the financial situation of American colleges depends much more on private funding from tuition fees and donations. Community colleges aim to gain competitive advantages for non-traditional students, e.g., by offering part-time courses. Hence, the American system of higher education can be described as market-coordinated, as there is very minor intervention in matters of higher education by the government (Roksa et al. 2007). State intervention concentrates on support for students, predominantly by loans.

Hypotheses

Our theoretical considerations lead us to expect that transition patterns from school to work for students entitled to enroll in higher education will differ in several ways between Germany and the US. As we are mainly interested in differences that can be related to educational structures and labor market linkages, we derive the following hypotheses based on country differences of the tertiary system regarding type of stratification, mechanisms of coordination, standardization of educational provisions and occupational specificity.

1. Sequential stratification of higher education and lower standardization of degrees will give students both more incentives and options to interrupt education and gain work experience. Therefore we expect the overall transition pattern from school to work to be less standardized for students in the US than in Germany.

2. Due to the sequential mode of differentiation, we expect that US-students more often split their educational careers into separate phases, whereas in the German system without sequential stratification interrupting one's studies is less feasible.
3. Community colleges in the American (market-based) system are more open and flexible in terms of organization and the timing of one's studies as the lower tier of the (state-controlled) German system. Furthermore, the provision of degrees varies between lower tier institutions in Germany and the US, e.g. community colleges provide professional training equivalent to German non-tertiary vocational training. Therefore we expect the difference in transition patterns between Germany and the US to be partly due to the different setting and provisions of lower-tier institutions. The differences regarding first-tier universities are less pronounced.
4. In the less standardized US system allocation to the labor market is problematic because there is less certainty about the applicant's skills and competencies in the process of matching potential employees to jobs. Hence, entering the labor market in Germany is a 'smoother' process than in the US.

Data, variables, and methods

We use two cohort data sets containing detailed monthly information about educational status and labor force participation: the (West-) German life history study (GLHS) conducted by the Max Planck Institute for Human Development, Berlin (Hillmert et al. 2004) and the National Longitudinal Study of Youth 1979 (NLSY79) for the US (US Department of Labor 2008). From the GLHS, we draw on the samples of the cohorts born in 1964 and 1971. Both cohorts were interviewed in 1998, and those born in 1971 were also interviewed in a second wave in 2004. Of the total of 2,543 cases, 774 cases hat attained *Abitur* or *Fachabitur* comprising the analysis sample.

The NLSY79 is a cohort panel representative for the US population containing 12,686 cases at its start-up in 1979.[4] At that time, the respondents were between 14 and 22 years old.[5] They were interviewed annually about a broad range of topics. We use respondents of the main sample, selecting the birth cohorts from 1960 on. That leaves us with 3,243 cases. Among them are 2,753 persons who have attained a high-school degree or GED and therefore qualify for our analysis. Further, we only consider cases with complete information until age 34, i.e., who did not permanently drop out or decease. That leaves us with a sample size of 2,045 for our empirical analyses.

Variables

In our theoretical considerations we have highlighted the problems of defining "leaving school" and "entering the labor market." Taking the transition as a continuum with

[4] Using panel data and retrospective data for comparison may lead to some problems. However, as panel mortality in the NLSY79 is rather low, systematic sample differences caused by the design may also be low. Concerning problems of selective memory in retrospective data, we assume that education is remembered accurately. It turned out that even brief employment episodes are in fact reported by German respondents (cf. Fig. 3).

[5] The birth cohorts of the two data sets differ. Therefore, we have to be aware that the variance we observe in each country could partly be due to differences between the cohorts. The difference between the German cohorts is larger. Our hypothesis is that there is more variance in the US than in the German patterns, so our results can only be biased towards rejection of the hypothesis.

overlapping periods, at least two events at the margins can be defined: the beginning of that process, i.e., *"first exit from full-time education"* and the end of the transition from school to work, i.e., the *"first job after the last time enrolled in education."* The latter is always as late as the former; it is later if there is an intervening period involving any other activity (neither school nor work). An alternative perspective is to focus on labor-market entry by looking at the "*first entry into the labor market"* and the "*last entry into the labor market."* As we are interested in educational careers and intertwined labor-force experience, we only take account of first and last entry into full-time work (i.e., more than 25 h per week). Again, first entry and last entry are the same if there has been no return to education.

In Germany, we regard both apprenticeships and being enrolled in higher education as 'being in education'. For the US, we have defined participation in education according to the NLSY definition of being enrolled in "regular school" after receiving a high-school degree or GED. This encompasses junior/community colleges and 4-year colleges/universities. We have reconstructed the first and last exit (until age 34) from education by the first 3-month or longer period of not being in education. Entering the labor market is defined by any work of more than 25 h per week.

We use survivor curves to describe the overall country specific patterns of the transition from school to higher education or work, starting at the time of leaving general upper-secondary education. They show the probability of remaining in the group that has not (yet) experienced an event. Hence, survivor curves allow us to include also these cases that have not experienced the event until the interview but may do so in the future.

Empirical results

Transition patterns of students with access to higher education

Our main hypothesis is that transition patterns in the US are less standardized than in Germany. Table 1 provides statistics summarizing some characteristics of the transition patterns of all students entitled to higher education. In the upper part of the table we retain all cases that have already entered full-time employment up till the censoring age of 34 years. We have calculated the gap between the first job after the first exit from education and the first job after the last exit. Most of the results support hypothesis (1) about less standardized pattern in the US, but there are also some peculiarities. Age variance at the first transition from school to work does not differ much between the two countries. Age variance for the last transition is higher in the US than in Germany. The mean gap between the first and last transition from school to work is over 3 years in the US and only two and a half years for students in Germany.

We find a higher number of educational periods without any interruption in the US than in Germany (1.6 vs. 2.0). At first glance, this difference appears to be small, but we should bear in mind that the average educational period of German students is longer and leads to higher occupational degrees.

The cases that have indeed interrupted their educational career are of particular interest (bottom half of the table). We expected that the proportion of persons returning to education is higher in the US than in Germany [hypothesis (2)]. This is confirmed by the data. 37% of our German sample and 45% of our US sample re-enter. On average, re-entry occurs later in Germany than in the US (age 24 vs. 22) as an effect of the later first exits. The mean gap between the first time of leaving education and re-entry is longer in the US, and its variance is much higher—again supporting our main hypothesis of less standardized

Table 1 Descriptive statistics on school-to-work-transitions in Germany and the US

	Germany Mean (SD)	USA Mean (SD)
All cases entering the labor market until age 34		
Age: first school-to-work transition	23.9 (3.4)	20.1 (3.0)
Age: last school-to-work transition	26.5 (3.5)	23.4 (5.0)
Months between first and last school-to-work transition	30.5 (43.6)	39.2 (60.4)
Educational periods: mean duration	36.3 (24.2)	22.1 (19.1)
Cases with multiple transitions only		
Age: re-entry to education	24.1 (3.1)	22.2 (3.9)
Months between first exit and (first) re-entry from/to education	23.2 (26.5)	31.4 (41.7)
Months between first and last labor market entry	71.0 (39.5)	84.6 (52.3)
Labor force experience (in months) before last labor market entry	26.4 (26.8)	59.5 (45.2)
N (not censored)	671	1,950
N (multiple transitions)	289	925

Note: The total number of cases for Germany is 774 and for the US 2,045. Here we only use uncensored observations, reducing the number of cases and introducing probably an underestimate of the findings against our hypotheses due to the higher share of censored cases in Germany. In the following later presentation of survivor curves, censored cases are considered

Source: GLHS 64/71; NLSY79, own calculations

educational careers in the US. Only considering those cases that interrupt, on average in the US we observe a 7-year transition period of intermittent work and education and a period of 6 years in Germany. Hypothesis (4) is supported by the big difference in the mean (accumulated) work experience before finally entering the labor market. In the US those who return to education have gained about 5 years' work experience on average during their educational career, whereas we observe only 2 years in Germany (see also Fig. 3 below).

In Fig. 1, we use survivor curves for a graphical description for the overall transition patterns. The curves show the estimated (conditional) percentage of students that have either not left education yet or that have not re-left education in the case of returnees. The shape of the survivor curve shows the pattern of the occurrence of events in a population. At the start of the "time at risk" the survivor rate is 1, meaning that all individuals are still in education. As time goes on, more and more individuals leave education. A steep line indicates that many individuals experience an event at the same time in the observed population. Therefore, the curve gives us information about the rate of transitions out of a certain stage. Hence, they present a simple way to understand the time- (in our case age-) dependency of transitional processes. For example, at the age of 20, 51% of all persons in Germany entitled to enroll at university have left the education system for the first time, whereas in the US this applies to almost 75%.

As we have seen in Table 1, both the first and the last exit from education in Germany are in general later than in the US—and this is a stable trend over the observation period, with the important exception of a slightly higher proportion of US respondents leaving education for the last time in their late 20s or early 30s. The line showing the last exit from education before the age of 34 is steeper for Germany. This again supports our main

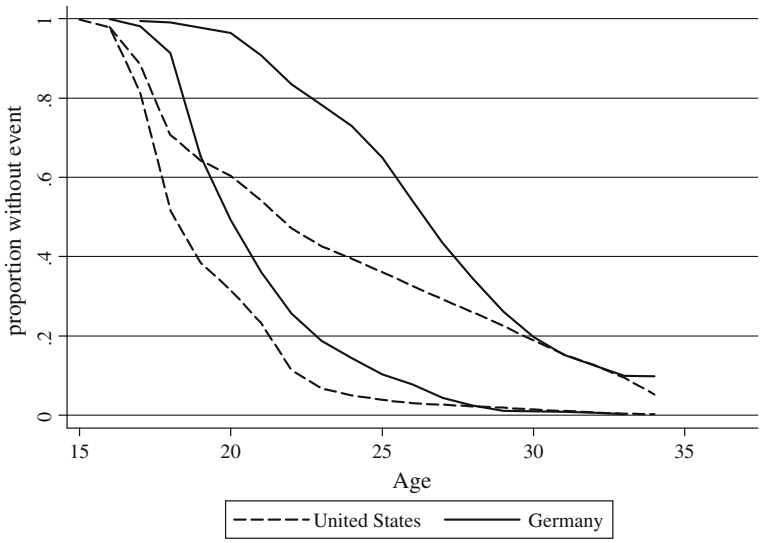

Fig. 1 First and last exit from education in the US and Germany (*survivor curves*). *Source*: GLHS 64/71, NLSY79, own calculations

hypotheses indicating that age at final entry into the labor market is less standardized in the US than in Germany.

We now turn to survivor curves of the transition to the first job and the last transition to work after having left the education system (Fig. 2). We find a smaller gap between first and last entry into the labor market for Germany than for the US, even though on average

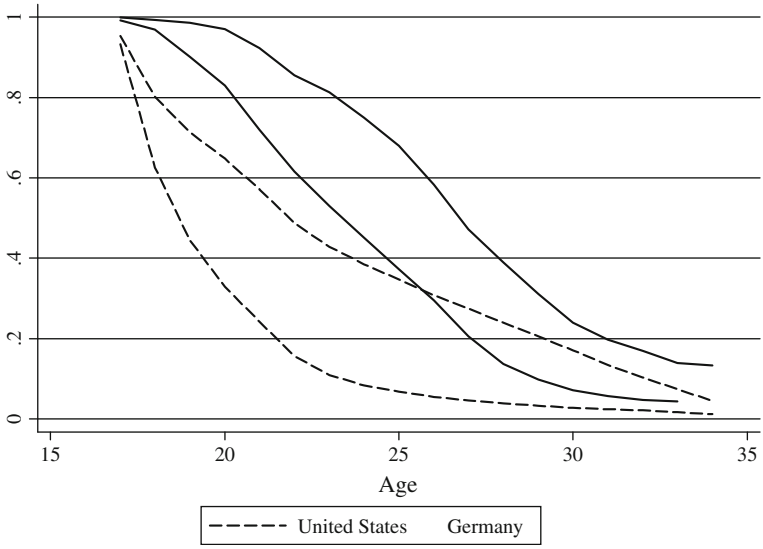

Fig. 2 First and last school-to-work transition in the US and Germany (*survivor curves*). *Source*: GLHS 64/71, NLSY79, own calculations

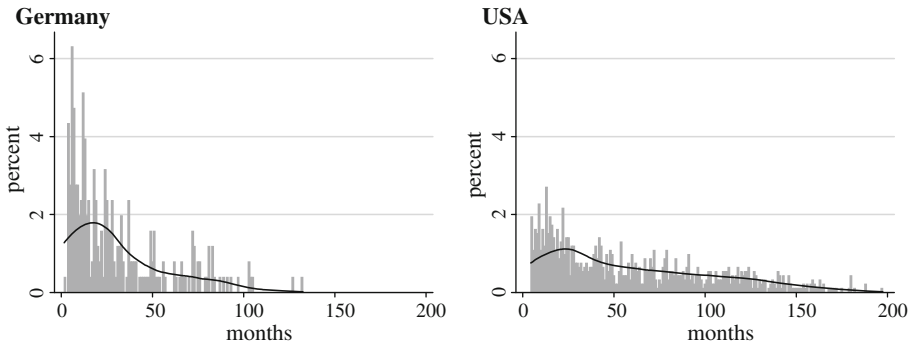

Fig. 3 Number of months of full-time work before re-entering education (plus 12-months-smoothed kernel density estimator). *Source*: GLHS 64/71, NLSY79, own calculations

study programs in Germany take longer than in the US. The slope of both curves is steeper in Germany, and in general transitions occur later. But in the US we find more very late transitions. Hence, leaving education late and re-entering the labor market is a much more common phenomenon in the US than in Germany, thus supporting our hypotheses on prolonged transitions form school to work in the US caused by recurrent phases of education.

To shed more light on the phase between the first job and final labor market integration we now look at the amount of interim work experience. Figure 3 shows the number of months that are spent in full-time work before re-entering education for the last time.

In Germany, most students spend less than 3 years working, while in the US labor-force experience is much more widespread and working for more than 8 years is not exceptional. As we have expected in hypothesis (4) on differences regarding labor market entry, in Germany interim participation in the labor market is of rather short duration, whereas in the US labor-market experience is quite common.

Effects of the differentiation of tertiary education in Germany and the US

To examine hypothesis (3) we now describe the transition patterns for different types of educational institutions separately. We expected the lower-tier institutions in the US (the 2-year colleges) to be particularly attractive to students leaving and re-entering education, resulting in intertwined educational and labor-force careers. For our comparison of patterns displayed by students in different institutions we use *students-in-institutions* as unit of analysis. One single person can be used in the analyses more than once if s/he has attended both lower and higher tertiary education.

For the US, we distinguish between students enrolled at university, community college, and all others as a third category. For Germany, we distinguish between university students, students enrolled at a *Fachhochschule,* and all others who have not attended tertiary education up to the age of 34. The latter case includes individuals in vocational training. First we look at the proportion of individuals who re-enter education. 64% of students enrolled in a community college at least once re-enter higher education, whereas this applies to 67% of students attending university in the US. In Germany the share of students

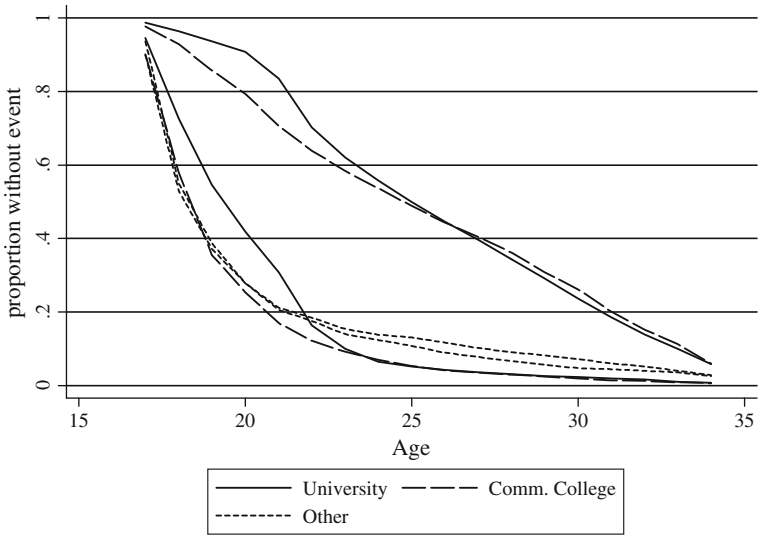

Fig. 4 First and last school-to-work transition in the US by type of institution (*survivor curves*). *Note*: Unit of analysis is students-in-institutions. *Source*: NLSY79, own calculations

returning to education differs markedly. 47% of the students who attended a *Fachhochschule* and only 35 of university students interrupted their educational careers.

Figures 4 and 5 show survivor curves for the first and the last labor market entry for both countries. Contrary to our hypothesis, the gap between first and last labor-market entry by US students who have been enrolled at a community college does not differ much from that of university students. However, in interpreting this result one has to take into account the fact that courses at colleges are shorter on average. For students at community college, the time spend in education is obviously prolonged e.g., by times of intermittent or concomitant work before leaving education and finally entering the labor market.[6]

In Germany, the gap for both tertiary tracks is smaller than in the US. The shape of the curves is similar for all three tracks, but the higher the track, the older the students at both transitions. There is also a larger gap between the first and the final transition for students of the *Fachhochschule*, suggesting that educational careers through the lower tertiary track are more likely to be interspersed with work than those of university students. On the other hand, there are only small differences in the patterns between *Fachhochschule* and university students with regard to the mean age at final entry into the labor market (27 vs. 28 years).

[6] Looking at those students who only attended university in the US, we find that there are fewer final entries into the labor market above 25 compared to students who have been enrolled in community colleges at least once (results not shown here). Comparing 'straight' university careers with those that attended at least once a community college, it turns out that community colleges actually partly account for de-standardized careers, sometimes by providing a bridge into higher tertiary education and sometimes by offering attractive prospects of re-entry for older students.

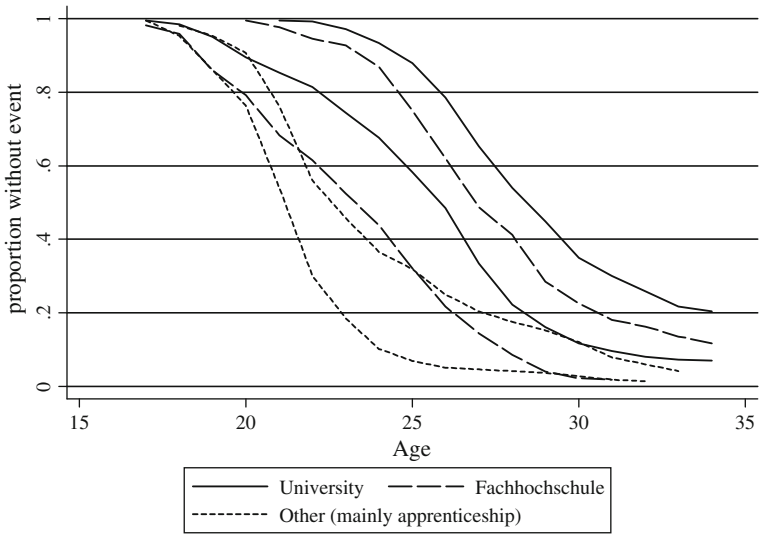

Fig. 5 First and last school-to-work transition in Germany by type of institution (*survivor curves*). *Note*: Unit of analysis is students-in-institutions. *Source*: GLHS 64/71, own calculations

Summary and conclusions

In our paper we have concentrated on school-leavers entitled to enroll in higher education and have compared specific events in labor-market entry patterns between two societies. In our hypotheses we expected that labor-market entry would be less standardized in the US than in Germany due to specific features of the US system of higher education, which offers more possibilities for interrupting one's educational career and re-entering education. This is clearly substantiated by our findings. In our empirical analyses we find that the transition patterns from school to work actually differ to a great extent in Germany and the US, notably with regard to age variation at transitions, the sequence of leaving tertiary education for the first time, gaining (full-time) work experience, and re-entering education. Regarding our hypothesis on differences due to the more marked-based orientation of community colleges, we find that in the US not only the colleges but also universities offer more flexibility than their German counterparts. Accordingly, the difference in the length and frequency of interruptions in education is mainly attributable to the (overall) difference between the sequential and parallel stratification modes of the two systems.

At the outset of this paper we discussed the difficulties involved in defining labor-market entry accurately. Looking at the marked differences in age at the last school-to-work transition, our paper has shown that it can make a huge difference which educational episode one considers. In comparative research one has to be aware of different structures in educational systems facilitating re-entry into education, and it would often be beneficial to extend the phase from school to work.

Regarding policy implications, the recent introduction of a Bachelor/Master system in Germany makes interruptions of educational careers easier at all levels. It is an open question whether and to what extent the overall pattern of labor-market entry after tertiary

education will converge with the American example, as other features in the educational system and in labor-market structures are still different. However, our results indicate that a sequential differentiation in higher education might lead to more variance in educational participation in general. In particular, late entries and returns to higher education may increase in Germany with the new structure of tertiary education.

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