CHAPTER 12

From Student to Worker

ALAN C. KERCKHOFF†

The transition from adolescence to adulthood in Western societies is marked by many changes. Young people leave school, enter the labor force, move out of the parental home, marry, and establish their own families of procreation. These changes are often interdependent; young people simultaneously follow "interlocking careers" (Elder & Rockwell, 1979). A change in one domain often affects the likelihood of a change in another domain. The focus of this chapter, however, is limited to the part of the adolescence-to-adulthood transition involving leaving school and entering the labor force.

Hogan and Astone (1986) correctly observe that modern societies use age-graded organizations such as schools to generate regularities in the life course. It is also true that the structural features of these organizations vary across Western societies. That variation affects the ways in which young people make the transition from being a student to being a worker. The structural arrangements set limits on the ways young people can make the transition from school to work, but the structural arrangements do not wholly determine the transition patterns we observe. The way the structures are *defined* and *responded to* by members of the societies also affect the transition patterns. For instance, structures may impinge on males and females in different ways. Both structures and norms must be taken into account in order to understand the different observed patterns of transition from school to work.

In this chapter, I use the educational systems of three major Western societies (Germany, Great Britain, and the United States) as the framework for the discussion, showing how both structural and normative features of the three educational systems affect the transition patterns followed by young people in those three countries. Although the primary focus is on the educational institutions, an important part of the societal variation is due to the different

†Deceased.

ALAN C. KERCKHOFF • Department of Sociology, Duke University, Durham, North Carolina 27708-0088.

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ways schools are related to the organizations that employ students when they leave school. The transition process reflects the school–work relationship as much as it does the characteristics of the educational system.

A life course approach to understanding the transition from school to work must necessarily take into account the ages of the young people involved. Educational institutions are age-graded in all three of the societies considered. Age is a salient factor in the opportunities provided to young people both in school and in the labor force, and it is an important influence on the decisions they make during the period of transition.

STRUCTURAL VARIATIONS OF EDUCATIONAL SYSTEMS

The structural features of the educational systems of Western societies are often discussed under three headings: stratification, standardization, and vocational specificity (Shavit & Müller, 1998). The educational systems of Germany, Great Britain, and the United States vary on all of these dimensions, and their differences provide a useful framework for understanding their different patterns of transition from school to work.

Stratification

In the analysis of educational systems, the term "stratification" is used to recognize that some systems clearly differentiate types of schools whose offerings can be viewed in terms of "higher" and "lower" levels of academic quality or demand (Allmendinger, 1989). Stratification is most often found at the secondary school level. Most European systems have historically distinguished between secondary schools that prepare students for university attendance and schools intended for those who will not participate in higher education (Archer, 1979). European systems have undergone considerable reorganization since World War II, but much stratification remains. The three educational systems considered here differ sharply in their degree of stratification.

Of the educational systems considered here, the German secondary schools are most clearly stratified (OECD, 1996). Students are separated at about age 10 into three kinds of secondary schools that differ greatly in their curricula. Transfers between the types of school are rare. The elite school, the *Gymnasium*, serves students from grade 5 to grade 13. Those who successfully complete the program obtain the *Abitur*, a certificate entitling the student to enter university-level education. The *Realschule* offers an enriched general curriculum in Grades 5 through 10. Successful students obtain a certificate that entitles them to continue their education in advanced vocational schools such as the *Fachoberschule*. The lowest level secondary school is the *Hauptschule* which provides a basic general education through grades 9 or 10. *Hauptschule* students have only very limited access to later vocational schooling. Both *Hauptschule* and *Realschule* graduates, however, may enter apprenticeships with both educational and work components.

The early separation of German secondary school students strongly influences the highest level of education they are likely to obtain. And their level and kind of educational attainment sets clear limits on the kinds of positions available to young people in the labor force.

The British secondary schools were almost as sharply stratified as those in Germany between World War II and the late 1960s. Students were separated at about age 11 into Grammar schools that had strong academic programs and Secondary Modern schools that

had more limited general curricula. Grammar schools were designed to prepare students for university admission by passing A-level examinations. Students had to remain in school through the sixth form (about age 18) to prepare for A-levels. Secondary Modern schools seldom offered sixth-form courses; their students generally left school at about age 16. Besides these two types of state-supported secondary schools, Great Britain has historically had a small but highly visible Independent (private) school component. Private schools are not part of the German system.

State-supported Comprehensive schools were introduced in Great Britain in the late 1960s. They were designed to replace the Grammar and Secondary Modern schools by combining their programs and offering admission to all secondary school students. The transition to a fully comprehensive state-supported system is not complete, however. The great majority of British secondary school students attend Comprehensive schools, but Grammar schools and Secondary Modern schools still exist. The British system thus continues to be somewhat stratified. It is useful to differentiate among Comprehensive, Secondary Modern, and Elite schools, the latter category combining Grammar schools and Independent schools (Kerckhoff, Fogelman, Crook, & Reeder, 1996).

Compared with the German and British systems, American secondary schools are essentially unstratified. The comprehensive public high school is well established (Kaestle, 1983). About one tenth of American high school students attend private schools (NCES, 1998), but their programs are not as uniformly oriented toward preparation for university attendance as the British Independent schools' programs are. Local control of public education leads to variation in the quality of programs offered, but there is no standard institutional stratification of programs. Stratification occurs within American high schools through curricular tracks, but students in academic, general, and vocational tracks do not take highly differentiated curricula (Lucas, 1999; Vanfossen, Jones, & Spade, 1987). German schools are the most clearly stratified, and American secondary schools are the least stratified of the three systems.

Standardization

Standardization refers to the degree to which the organization and curricular offerings of schools are similar throughout the country. Local control of American schools leads to variation in the substance and quality of the programs they offer. There is greater standardization in both the German and the British schools, although it is due to different sources of influence in the two countries.

Local control of British elementary and secondary education has diminished significantly since the 1960s. Schools are even permitted to opt out of local control and seek direct national government funding. In addition, the Education Reform Act of 1988 introduced a "national curriculum" for all students of compulsory school age as well as a national assessment framework with "attainment targets" for students at several age levels (Gordon, Aldrich, & Dean, 1991). Standardization has thus been increased through the imposition of national control over the local education authorities.

A high level of standardization has been maintained in Germany for many decades. Elementary and secondary education is formally controlled by the individual states (*Länder*), but well-established cooperative mechanisms insure a high degree of similarity of organizational form and educational programs. In particular, the differentiation among the three stratified types of secondary schools is firmly established throughout the country. A high degree of standardization insures that stratified secondary education is uniformly experienced (Müller, Steinmann, & Ell, 1998).

Vocational Specificity

Countries' educational systems vary widely in the degree to which the credentials they award have specific vocational relevance, and the educational systems of Germany, Great Britain, and the United States cover the full range. Their differences are most apparent at the post-secondary level, but their secondary school programs provide the basis for the post-secondary differences.

The three types of German secondary schools set limits on the kinds of post-secondary programs available to students. Only *Gymnasium* students can qualify for university attendance and thereby prepare for high level professional, commercial, and financial occupations. *Realschule* and *Hauptschule* students only have access to vocational programs that prepare them for lower-level occupations.

The great majority of British students obtain General Certificates of Secondary Examinations (GCSEs), many of which have some substantive specialization potential employers may consider in choosing among recent school-leavers. Also, because much British occupation-specific schooling occurs after leaving secondary school, the GCSEs passed provide a basis for qualifying for entry into post-secondary programs.

American high schools have historically had curricular "tracks," some defined in vocational terms. As the differentiation among tracks declined (Lucas, 1999), tracks became less relevant to students' futures. More important is the degree to which students take high school courses expected of four-year college applicants because college attendance increases access to high-status occupations. Courses in mathematics, science, and foreign languages are most often expected of college applicants.

At about 15 or 16, German students begin to enter the so-called "dual system" of occupation-specific apprenticeships. Those who enter the dual system at such young ages are primarily *Realschule* and *Hauptschule* students. Some *Gymnasium* students, including some who will later obtain university degrees, enter the dual system at older ages. Dual-system students have contracts with employers for a combined program of classroom courses and work experience. The dual system covers a wide range of occupations, not just blue-collar occupations (OECD, 1996). The system is highly standardized through cooperation among state, employer, and labor organizations. Those who successfully complete apprenticeships obtain nationally recognized occupation-specific certification. The German system has also introduced specialized higher education vocational programs in polytechnics (*Fachhochschulen*).

Most British students obtain post-secondary vocational training on a part-time basis while employed. Employers often arrange for this training and may even require it as part of the employees' job requirements. Most courses are taken at employers' training centers or at state-supported Colleges of Further Education. The important feature of the British post-secondary vocational education is the extensive array of national vocational "qualifications" it certifies. These are awarded by such nationally recognized groups as The Business and Technician Education Council (BTEC), The City and Guilds of London Institute (CGLI), and The Royal Society of Arts (RSA), based on actual job performance assessments.

The organization of American post-secondary education is strikingly different from both the German and the British systems. Few American students leave school and enter the labor force with vocational credentials. Neither of the system's most commonly awarded credentials (a high school diploma and a college degree) has any specific occupational relevance. Most American post-secondary students enroll in four-year college programs having no specific vocational focus. American community colleges and vocational institutes offer courses leading to vocational certification, but only a relatively small proportion of American students

enter such programs, and the certificates they award are not nationally standardized or recognized.

Overview of Educational Institutions

The German, British, and American educational institutional arrangements differ on all three of the dimensions discussed. The German system is by far the most stratified and standardized, and its educational credentials are much more occupation-specific than those of the other two systems. The great majority of German students emerge from the educational system with nationally standardized occupation-specific certification. The German system has rightly been said to have "the capacity to structure" the flow of its students from school into the labor force (Maurice, Sellier, & Silvestre, 1986).

The American system is at the other extreme on all three dimensions. It is not stratified or standardized, and it awards few credentials that have any specific vocational relevance. The system is organized around a common school philosophy that leads to an emphasis on very broad, general credentials. The American system has almost no "capacity to structure" the flow of its students into the labor force. Although vocational credentials are awarded by lower level post-secondary institutions, they are not nationally standardized, and the programs that award them are widely demeaned because they divert students from pursuing a four-year college education (Brint & Karabel, 1989).

The British system is between the German and American systems on all three dimensions. It is more stratified and standardized than the American system but much less so than the German. It awards many more nationally recognized vocational credentials at the post-secondary level than does the American system, but the overall certification pattern is less uniformly occupation-specific than in Germany.

SOCIETAL DEFINITIONS OF EDUCATION

The three countries' educational systems are organized in strikingly different ways, and the three organizational patterns are bound to shape the transition from school to work to different degrees. More than institutional structure is involved in creating the flow of students into the labor force, however. Equally important are the societies' different definitions of the role of education in people's lives.

Germans view the educational system as a mechanism for distributing successive cohorts into the labor force. This view has been maintained during a half century during which many other European systems have undergone important changes (Müller et al., 1998). The central purpose of education is to prepare students to take their place in the adult world of work (Maurice et al., 1986).

The American definition of education is quite different. The "common school" view of education sees it as a common good open to all citizens on an even basis (Soltow & Stevens, 1981). Students are urged to obtain as much education as they can, but there is little differentiation among "kinds" of education. Higher levels of education open up more labor force opportunities, but the comprehensive high school and the breadth of most college curricula insure that educational attainment has little direct effect on the distribution of American students in the labor force (Walters, 1984).

Before World War II the British system was highly stratified. It defined upper secondary schooling solely as a means of gaining access to a university education which provided the basis for an upper-status life style (Turner, 1960). Reforms since the War have redefined the system in two ways (Heath & Cheung, 1998). First, there has been increased recognition that all Britons need to have at least a basic secondary school education. This has led to the widespread introduction of Comprehensive schools. Second, there has been an increased emphasis on vocational education and vocationally specific credentials. This has led to the expansion of the post-secondary education alternatives through the polytechnics and the further education system.

The view of the role of education in people's lives is thus quite different in the three countries. The German view is directly relevant to preparation for the world of work. The American view is as a broad preparation for adult life. These perspectives have not changed appreciably in either country despite the economic and political changes during the past half century. The British system has changed much more, and the changes have reflected the emphases of both the German and American systems. Consistent with the German system, there has been an increased vocational emphasis, but consistent with the American system, there has been an increased emphasis on providing an adequate general education for all students.

THE ROLE OF EMPLOYERS IN THE TRANSITION PROCESS

Differences in the educational systems are closely associated with differences in the ways employers participate in the transition process (Rosenbaum, Kariya, Settersten, & Maier, 1990). Although there are some modulating inputs from organized labor and the state, the German apprenticeship system is essentially controlled by the employers. Students may apply for many kinds of apprenticeships (Mortimer & Krüger, 2000), but the employers decide which apprenticeships will be available and which students are offered which opportunities. The employers also control the evaluation of apprentices and determine which ones will be certified as having successfully completed their training. The range of openings, the selection of trainees, and the certification of successful completion are all controlled by the employers (Culpepper & Finegold, 1999).

Employers have very little direct effect on the transition process in the United States. They neither define the nature of the educational programs students engage in nor do they provide certification of student skills. Local employers sometimes cooperate with community colleges in presenting vocational courses to students, but there is no nationally recognized system of certificates obtainable by students completing such courses. When American students enter their first full-time jobs, employers select among applicants; very few have formally certified job qualifications. Many selection errors are made, and young people often experience a period of unstable employment before finding a stable job (Rosenbaum et al., 1990).

British employers make important contributions to the process by which students move from school to work, but their role is less comprehensive than in Germany. Except for the small minority who attend university, most British students obtain either very general qualifications in secondary school (O-levels, A-levels, etc.) or post-secondary vocational qualifications. British employers participate in students' transition from school to work by providing vocational courses in their training centers or facilitating workers' attendance at colleges of further education. They also contribute to the transition process through participation in the industrial groups that provide the certification of nationally recognized occupation-specific

qualifications. Certification of qualifications by these organizations motivates employers to help employees obtain them.

STUDENT CHOICE

The effects German and British employers have on students' transitions from school to work are similar to the extent that in both countries employers define criteria for certification of occupation-specific skills and control the evaluation process that certifies workers' qualifications on a national scale. German and British students have very different degrees of latitude in choosing how to relate to the certification process, however. While the German system now offers greater flexibility (Mortimer & Krüger, 2000), most German students enter an apprenticeship at the appropriate time of entry or they may risk losing the opportunity to do so. There is much more flexibility in the timing of British students' entry into post-secondary vocational courses.

Also, German students' entry into apprenticeships involves a long-term (three- or four-year) commitment on the part of the student and the employer. A student's failure to successfully complete an apprenticeship has serious implications for both parties. Compared to German apprenticeships, most British vocational courses are relatively short-term, and neither the worker nor the employer needs to make a major commitment. British workers can improve their qualifications in relatively small steps, and both the worker and the employer can easily reassess the merits of the course-taking.

American students face very different alternatives than either German or British students as they approach the transition from school to work. American students are strongly encouraged to obtain a high school diploma, and once they obtain it, they are strongly encouraged to go to college. They can "choose" to complete high school, and they can "choose" to enter college, but neither of these choices has much effect on the kinds of first jobs they are likely to enter. This lack of specific occupational relevance insures that many young American workers will be dissatisfied with their first jobs, and many employers will be dissatisfied with their young workers. This leads to many job changes during the early years in the labor force. It also leads many American workers to return to school in hopes of improving their job options.

The choices available to young people in the three countries reflect the nature of the educational credentials available to them before and after making the transition to the labor force and the points in the transition process at which choices are offered. British workers frequently improve their qualifications through part-time vocational courses after entering the labor force. American workers frequently leave their jobs and return to full-time schooling after entering the labor force. German workers are the least likely to return to school once they have completed their apprenticeships and have entered the labor force in jobs for which their apprenticeships prepared them.

STAGES IN THE TRANSITION PROCESS

The transition from school to work seldom consists of a single move from full-time school to full-time work. It more often involves several stages, but the pattern of those stages varies both between and within societies. I first discuss the different stages that are often involved in the transition and the ways these stages occur in Germany, Great Britain, and the United States. I then describe how students' experience with these stages shapes the transition from school to work in the three countries. In particular, the stages are experienced at different ages.

These age differences affect the life course patterns for the whole transition from adolescence to adulthood in the three countries.

School, Work, or Both?

Instead of a single move from full-time school to full-time work, two other patterns are more common. First, young people can move from full-time school to a simultaneous involvement in school and work. Second, young people may move back and forth between full-time school and full-time work. The frequency with which these two patterns are observed and the degree to which they are part of a society's institutional arrangements vary widely.

We see in the German apprenticeship system a highly institutionalized combination of working and going to school. The great majority of young Germans pass through a period during which they are essentially required to do both. That is the only way they can obtain the all-important occupation-specific credentials.

The British system of post-secondary vocational schooling also combines student and worker roles, but it is a looser linkage of the roles than in Germany, and young Britons have more latitude in choosing the degree and form of the combination. Yet, it is important to recognize that many highly regarded British vocational credentials are available only by combining work and school. British institutional arrangements specify the process by which these credentials can be obtained and normative pressures motivate young Britons to obtain them.*

Young Americans often combine going to school and working at the same time. This mix may be due to full-time students taking part-time jobs while still in school or to full-time workers taking courses during their non-working hours. The combination is not as institutionalized a part of the school-to-work transition as in either Germany or Great Britain, however. Most American students who work do so to obtain spending money rather than to initiate a career in the labor force, although early part-time work sometimes does improve later job opportunities (Mortimer & Johnson, 1998). Workers who take part-time courses are often motivated by a desire for a better job, but not all of those who take such courses obtain additional credentials or obtain better jobs (Grubb, 1993; Kerckhoff & Bell, 1998; Monk-Turner, 1990).

British and German adolescents are made very conscious of the strong institutionalized linkage between school and work early in their teens (Bynner & Roberts, 1991; Mortimer & Krüger, 2000), and they begin early to take the linkages into account. However, "in the United States, the pattern of employment is individualized and emergent, constructed by youths themselves in the relatively uncertain school-to-work context" (Mortimer & Krüger, 2000, p. 484).†

Another transition pattern can involve a combination of school and work. The individual can enter the labor force full-time, then leave the labor force and return to school full-time,

*It is interesting to note that, although large proportions of young people are led to combine work and school in both the German and British systems, those combinations are treated quite differently in most scholarly analyses. German apprentices are almost always classified as being in school, whereas young Britons who combine work and employer-sponsored training are classified as having left school. Thus, in comparative research about the school to work transition, Germans' "first jobs" are defined as those they obtain after completing an apprenticeship, whereas Britons' "first jobs" are defined as those they obtain when they leave full-time school (Shavit & Müller, 1998).

†It is not possible to take into account the part-time jobs of full-time American students or the occasional courses taken by full-time American workers in what follows because adequate national data do not exist on these joint activities or their effects on young people's careers. However, there are national data on part-time enrollments. For purposes of the discussion, I have assumed that those who are enrolled part-time are combining school and work.

and then return to the labor force. Americans use this method of mixing school and work over a period of time much more often than either Britons or Germans (Arum & Hout, 1998). Although such a pattern does not simultaneously "combine" school and work, it constitutes another way in which the transition from school to work can be other than a simple one-time change. My discussion of the patterns of transition from school to work in the three countries takes this largely American pattern into account to the extent possible, given the limited available data.

Another kind of deviation from a one-step transition from school to work needs to be acknowledged. Not everyone who leaves school actually enters the labor force, and of those who do, not everyone actually finds a job. Any comprehensive view of the transition from school to work needs to consider those exceptions. They are discussed briefly in a later section. In this section I focus on the schooling stages in the transition: full-time school, a combination of school and work, and the final departure from school. The discussion is thus concerned with leaving school rather than entering the labor force.

Age, Stage, and Leaving School

It is helpful to think about the departure from school as an overall population process, a process by which a youth cohort moves out of school and into adult roles. In any given country, there is a time when essentially all members of a cohort are in school, and there is a time when all have departed for good. It is informative to consider how old the cohort members are at those two points in time and to chart the overall flow of the members between the two points. Even in the same country, some members complete school at much younger ages than others, and in general, the more time spent in the role of full-time student, the older the individual is when leaving for good. However, some may spend more time than others in the transition stage that combines being a student and a worker, and that may affect the age at which they finally leave school for good.

In what follows I make estimates of the ages at which Germans, Britons, and Americans cease being students. To do this, I consider both the patterns of full-time schooling in the three countries and the patterns of involvement in a transition stage that combines school and work activities. I also estimate the effects of returns from the labor force to school. There are no wholly adequate data to make these estimates for cohorts in the three countries, so what follows is more speculative than ideal.

It is possible to specify the ages at which all young people in these three countries are in school, but it is not possible to exactly specify an age at which all members of a cohort in any of the three countries have completed school. Enrollments in graduate and professional schools, returns from the labor force to school, and enrollments in adult education courses all extend the ages of "students" beyond any age limit we might adopt.

Both Great Britain and the United States require school attendance to age 16 (although there is some variation among American states), but Germany requires attendance to age 18. We can assume that students are attending school up to those ages. To simplify the discussion, I will only chart young people's locations in the three countries up to age 28, even though small minorities are in school at that age in all three countries. Besides estimating the patterns of movement out of school by members of recent cohorts in the three countries, I suggest how the organizational and normative features of the three educational systems affect these patterns of movement.

Assuming that all 16-year-olds are in full-time school in all three countries, it is informative to ask where they are at various ages after that. Table 12-1 indicates, at two-year intervals,

Table 12-1. Estimated Percentage Distributions of German, British, and American Cohorts in School Situations between 16 and 28 Years of Age

Age	16	18	20	22	24	26	28
Germany							
Full-time School	100%	35%	17%	18%	20%	16%	9%
School & Work		49	51	16	6	2	1
Out of School		16	32	66	74	82	90
Great Britain							
Full-time School	100%	16%	13%	5%	2%	1%	1%
School & Work		21	11	8	3	2	1
Out of School		63	76	87	95	97	98
United States							
Full-time School	100%	42%	28%	20%	12%	9%	7%
School & Work		10	7	6	3	2	1
Out of School		48	65	74	85	89	92

the estimated proportions in each country that are in school full-time, in a status that combines school and work, or are completely out of school. The bases for these estimates are described in the Appendix. These proportions are estimates of the distributions of young people's locations in October of the year they were each age. As I explain later, such cross-sectional distributions do not tell the whole story, but they at least provide an overview of the flow of young people out of school.

Several country differences are immediately apparent:

1. Much larger proportions of both Britons and Americans are completely out of school at relatively early ages than are Germans.
2. Britons leave full-time school much earlier than do either Germans or Americans.
3. Germans most often combine school and work, and Americans least often combine school and work.
4. Although Americans are most likely to be in full-time school in their early twenties, Germans are most likely to be in full-time school in their late twenties.

These different distributions are clearly created by the organizational features of the three countries' educational systems. The central role of formal apprenticeships in the German educational system makes "school & work" the primary location of 18- and 20-year-old Germans. *Gymnasium* students and a few students in full-time vocational schools are in full-time school at 18, but by age 20 full-time students are almost all *Gymnasium* students. Yet, even at 20, only one third of the Germans have left school completely. Those Germans who enter higher education often do so relatively late by British and American standards, and they may remain in full-time school well into their twenties.

The definition of the British secondary school sixth form (between ages 16 and 18) as preparatory for university, together with highly restricted access to higher education, leads many Britons to leave full-time school before the age of 18. The great majority of these school-leavers get jobs, mostly full-time jobs. Because 16-year-old school-leavers have few job skills or vocational credentials, a sizeable proportion of those in beginning jobs engage in a combination of work and vocational training, usually with the assistance (and often the insistence) of their employers. This dual arrangement is concentrated in the early years, however. Higher education is also concentrated in the early post-secondary years. British university programs

are for three years, so most university students leave full-time school by 22. Thus, most Britons are completely finished with school in their early twenties.

The strong emphasis on going to college in the United States keeps a large proportion of Americans in full-time school at 18 and 20. But that same emphasis means that young Americans have few other choices. The American choice tends to be "college or nothing." Thus, those who are not in full-time school are likely to be out of school. Only small proportions participate in programs that combine school and work, although many American students do take on part-time jobs on an ad hoc basis.

It is important to remember that the estimates in Table 12-1 are of the cohort members' locations in October of the year they were the indicated ages. They are cross-sectional snap shots of the distributions at particular points in time. As such, they cannot indicate the full process of change. Two important kinds of information are missing.

First, there is an implicit logic to Table 12-1 that the overall flow is from full-time school to a combination of school and work and then to being out of school. Overall, the flow of young people is like that in all three countries, although many Americans, especially, never enter a formally combined school and work status (though almost all work at least some time while attending secondary and post-secondary schools). However, there are "back flows" as well. Some who at one time combine school and work move back to full-time school. This happens most clearly in Germany among apprentices who earlier attended the *Gymnasium* and after their apprenticeships enter university as full-time students. Also, some who have left school completely return to school either full-time or in a combined school and work arrangement. Returns to full-time school are most common in the United States, whereas returns to a combined school and work arrangement are most common in Great Britain. Having left school, Germans do not seem to return to school as frequently as Britons or Americans, but some do return (Heinz, 1999).

Second, because Table 12-1 reports locations at two-year intervals, it cannot show changes that occur during those two-year intervals. Many post-secondary courses cover relatively brief periods. More than one change of location can occur in a two-year period. Someone can be out of school at two successive measurement points but return to school briefly to take a course between them. This is especially likely for Britons' combined school and work arrangements, but Americans can also take short-term vocational courses or return for a year of college between measurement points.*

Given the complex sets of locations available at each age, there are large numbers of possible pathways students can follow as they move out of the school system. Adequate data do not exist to chart these multiple pathways in the three countries, and it is apparent that Table 12-1 provides only a crude indication of what they would be.

Entering the Labor Force

Once young people have left school completely, it is expected that they will enter the labor force. The vast majority does so, although there are many patterns of entry. To some extent, the varied patterns of entry are a function of age and educational attainments at the time of entry, but they are also due to the state of the economy at that time. In general, older entrants and those with higher educational attainments have smoother transitions into the labor force.

*Table 12-1 suggests that, at most, 26% of the Americans and 13% of the Britons were in any kind of school situation between ages 22 and 28. (This is because 74% of the Americans and 87% of the Britons were out of school at 22.) Yet, more detailed analyses of the data from those two countries show that 33.3% of the Americans and 17.6% of the Britons took some kind of course between those ages (Kerckhoff et al., 2000).

The younger and more poorly educated are more likely to have difficulty finding a job. This is especially likely if the economy is weak and unemployment rates are high (Arum & Hout, 1998; Brauns et al., 1999).

There are some exceptions to the general association between level of educational attainment and ease of labor force entry, however. In Germany, for instance, students with high academic secondary school credentials (the *Abitur*) more often experience difficulty finding a job than those who have completed a lower level vocational program (Brauns et al., 1999). Certified vocational skills make it easier to find a job. This is why some *Gymnasium* students complete an apprenticeship before entering the university. The firm where they were apprenticed may wish to hire them because of their combined technical skills and higher education credentials. The apprenticeship certification serves as a safety net for those in the less structured university labor market.

The patterns of labor force entry also vary by gender in all three countries. Both men and women in all three countries seek employment when they leave school. Women seldom leave the labor force even when they marry, but they are very likely to leave when they become mothers. Yet, men's and women's different kinds and levels of educational attainment as well as their different opportunities in the labor force produce gender differences in labor force entry.

The German labor force entry pattern reflects women's more restricted choices of apprenticeships. Many more German women than men fail to obtain apprenticeships in any of their chosen fields; the women can only prepare for female stereotyped jobs (Mortimer & Krüger, 2000). Partly as a result of these restrictions, female labor force participation declines by age more rapidly in Germany than in either Great Britain or the United States (Arum & Hout, 1998; Brauns et al., 1999).

More British women than men leave school at 16, and more British men than women attend vocational post-secondary courses at training centers and colleges of further education (Kerckhoff, Bell, & Glennie, 2000). British men thus have better chances of employment soon after leaving full-time school, and they are more likely to be hired by employers that are willing to invest in their vocational schooling.

American men and women differ much less in educational attainment (Kerckhoff et al., 2000; NCES, 1998). American men drop out of high school somewhat more often, and American women are somewhat more likely to obtain a college degree, but the differences in educational attainment are quite small compared with the gender differences of Germans or Britons. So, Americans' early labor force experiences do not differ by gender as much as those of young Germans or Britons.

Young workers of both genders in all three countries are always at greater risk of unemployment than are older workers. In addition, changes in the economy impact more immediately on their employability. Young British and American workers are more at risk for periods of unemployment than are German workers, however, because young Germans more often have certified skills when they enter employment. Some of the sorting into kinds of jobs that occurs after labor force entry in Great Britain and the United States occurs in Germany at the time apprentices are recruited. If at all possible, employers will not offer apprenticeships leading to jobs that will be in short supply when the apprenticeships are completed.

THREE PATTERNS OF TRANSITION FROM SCHOOL TO WORK

The transition from school to work follows very different patterns in Germany, Great Britain, and the United States. Those patterns differ primarily as the result of the way the educational

systems are organized in the three countries and the way they interface with the labor markets. We can think of them as "highly structured," "loosely structured," and "unstructured" patterns of transition.

The Highly Structured German Pattern

German secondary schools are highly stratified, programs at all levels are standardized, there are firm linkages between the organizational units at different levels, and most educational credentials are defined in highly specific occupational terms. Pathways through school and into the labor force are clearly outlined and differentiated. The German educational system has the "capacity to structure" the flow of young Germans into the labor force in the sense that Maurice et al. (1986) meant. By the time students exit the educational system, the great majority have a well-defined location to enter in the labor force.

The German educational system also has the "capacity to structure" the flow of students in another sense, however. Its highly structured channels, with firm linkages between stages, also structure the flow of students into the labor force according to age. Very few *Hauptschule* students remain in school much past age 18, and only *Gymnasium* students are likely to be in school past their mid-twenties. The age at which German students will enter the labor force can be predicted with some accuracy at the time they are separated into the three types of secondary schools. In fact, to the extent that leaving school and becoming a worker increases the likelihood of leaving the parental home, getting married, and becoming a parent, it can be said that the German educational system has a powerful influence on structuring the entire multidimensional transition from adolescence to adulthood.

The Loosely Structured British Pattern

British secondary schools have limited degrees of stratification, programs are only recently becoming standardized, organizational units at different levels are only loosely linked, and there is a mix of academic and vocational credentials. The only clearly outlined British educational pathway is the one that leads through the sixth form of secondary school to higher education. British secondary school students generally leave full-time school rather early (at 16 or 18) and enter the labor force. Very few enter any form of higher education.

If we assume that those who do leave at early ages are permanently "out of school," we miss a major part of the British transition process. Much of the sorting into the labor force occurs through vocational courses taken after they leave full-time school and obtain a full-time job. A wide range of important vocational qualifications can only be obtained through a combination of work and school after leaving full-time school. Those combinations are similar in many ways to the German apprenticeship arrangements in that they require an agreement between a worker and employer on a program of study. But they are much more individually negotiated in Great Britain than in Germany, and they depend much less on students' earlier accomplishments.

To the extent that there is a fit between vocational credentials and kinds of jobs, the British educational system does have the capacity to structure the flow of young people into the labor force. But it is a much more passive "capacity" than in the German case. Whereas the German system acts as an external force directing young people into particular niches in the labor force, the British system only provides the channels through which young people can move. The actual pathways followed are much more a function of ad hoc negotiations between young workers and employers.

The Unstructured American Pattern

American secondary schools are neither stratified nor standardized, there are no formal linkages between the organizational units at different levels, and nearly all credentials are academic rather than vocational. Equally important, in contrast to the wide array of credentials offered by the German and British systems, there are few nationally recognized American credentials. The two most significant credentials (a high school diploma and a Bachelor's degree) are widely spaced; it takes four years or more of full-time study to obtain the higher level credential once the lower level credential has been obtained. Because of the personal, academic, and economic problems involved in completing a four-year program, only about half of the Americans who go to college actually obtain a Bachelor's degree (NCES, 1998). Educational credentials between a high school diploma and a Bachelor's degree are available, but they are neither widely respected nor frequently obtained.

Very few American students who enter the labor force can present a potential employer with any kind of skill certification. Being a high school dropout, a high school graduate, a college dropout, or a college graduate affects the initial distribution of young Americans in the labor force, but only in a very general way. At each educational level, there is a wide range of jobs available, but there is almost no basis upon which to make a person-job match. The American educational system has almost no capacity to structure the flow of students into the labor force. The transition from school to work is less structured and orderly in the United States than in any other Western industrial country.

American students are urged to obtain as much education as possible, and the great majority at least obtains a high school diploma. The diploma, in turn, provides access to a college education, and a large proportion actually enters college. However, while more university degrees are obtained in the United States than in any other Western industrial country, even a university degree has little direct labor force relevance. Whatever their educational attainments, American students face a very ill-defined interface between school and the world of work. Thus, the transition from school to work is a journey that has less order and greater diversity in the United States than elsewhere.

Educational Systems and the Transition from School to Work

All three educational systems discussed here affect the transition process, but they do so in very different ways. The German system actively organizes and monitors the process from pre-adolescence on. It effectively guides students through pre-established channels and distributes them into "appropriate" jobs. It is a very "hands on" system. The British system provides several levels of general secondary school credentials, restricts access to higher education, but offers many post-secondary opportunities to obtain specialized credentials. However, access to those post-secondary opportunities is much less restricted by earlier school experiences than in Germany, and it depends much more on individual negotiations between workers and employers.

The American system leaves young people completely on their own to find their way through the transition process. It does not actively select students to follow specific transition pathways. It does not even provide nationally recognized programs of study leading to vocationally meaningful credentials. Except at the college level, it does little to facilitate students' contacts with employers. It emphasizes the importance of the amount, not the kind, of education obtained, and it imposes few limitations on students' access to additional education.

Whatever the amount of education obtained, however, negotiations with potential employers depend more on general intellectual and personal qualities (being well-organized, dependable, persistent, polite, etc.) than on job-related skills (Dreeben, 1968). Americans take pride in the "openness" of our educational system. Everyone can succeed by working hard and staying involved. But the very "openness" of the American system leaves its students with few explicit goals to pursue and little guidance about how to reach them.

APPENDIX

The age distributions shown in Table 12-1 are based on less than wholly adequate data. I have access to good longitudinal data for Great Britain and the United States, but the German estimates are based on secondary sources. Thus, the data are least adequate for Germany. Even the British and American data are limited by the fact that data were collected at wider intervals than two years, so some interpolation is required. All three sets of estimates are based on data from the mid-1970s to the early 1990s. Some data for all three countries are available in OECD (1996) and in Shavit and Müller (1998). In addition, the following sources were the basis for the estimates.

Great Britain

The National Child Development Study (NCDS) followed a cohort from their births in 1958 until 1991, with data collected when they were 7, 11, 16, 23, and 33 years old. I have used that data set in several of my previous studies (Kerckhoff, 1990, 1993; Kerckhoff et al., 2000). Another particularly relevant publication based on that data set is Bynner & Fogelman (1993). Some of the publications that compare Great Britain and Germany (listed for Germany) were also useful. The NCDS is the primary British data source used here.

The United States

The basic data source for the American estimates is the sophomore cohort of the High School and Beyond study. The original sample members were sophomores in American high schools in 1980, and additional data were collected in 1982, 1986, and 1992. These data have also been used in some of my previous research: Kerckhoff and Bell, 1998; Kerckhoff and Glennie, 1999; Kerckhoff et al., 2000. These data are the primary basis for the American estimates in Table 12-1.

Germany

A number of informal and published accounts helped to generate the German data in Table 12-1. Most of these sources used the younger age groups in the German General Social Survey or the Socio-Economic Panel. None of the sources is wholly adequate for the task, but the most useful were: Brauns, Gangl, and Scherer, 1999; Brauns, Müller, and Steinmann, 1997; Büchtemann, Schupp, and Soloff, 1994; Heinz, 1999; Scherer, 1999.

REFERENCES

Allmendinger, J. (1989). Educational systems and labor market outcomes. *European Sociological Review, 5*, 231–250.

Archer, M. (1979). *Social origins of educational systems*. Beverly Hills, CA: Sage.

Arum, R., & Hout, M. (1998). The early returns: The transition from school to work in the United States. In Y. Shavit & W. Müller (Eds.), *From school to work: A comparative study of educational qualifications and occupational destinations* (pp. 471–510). Oxford: Clarendon Press.

Brauns, H., Gangl, M., & Scherer, S. (1999). Education and unemployment: Patterns of labour market entry in France, the United Kingdom and West Germany. *Arbeitspapiere, Nr. 6—Mannheimer Zentrum für Europäische Sozialforschung*.

Brauns, H., Müller, W., & Steinmann, S. (1997). Educational expansion and returns to education: A comparative study on Germany, France, the UK, and Hungary. *Arbeitsbereich I, Nr. 23—Mannheimer Zentrum für Europäische Sozialforschung*.

Brint, S., & Karabel, J. (1989). *The diverted dream: Community colleges and the promise of educational opportunity in America, 1900–1995*. New York: Oxford University Press.

Büchtemann, C. F., Schupp, J., & Soloff, D. (1994). In J. Schwarze, F. Buttler, & G. G. Wagner (Eds.), Labour market dynamics in present day Germany (pp. 112–141). Boulder, CO: Westview Press.

Bynner, J., & Fogelman, K. (1993). Making the grade: Education and training experiences. In E. Ferri (Ed.), *Life at 33: The fifth follow-up of the National Child Development Study* (pp. 36–59). London: National Children's Bureau.

Bynner, J., & Roberts, K. (Eds.). (1991). *Youth and work: Transition to employment in England and Germany*. London: Anglo-German Foundation.

Culpepper, P. D., & Finegold, D. (Eds.). (1999). *The German skills machine*. Oxford: Berghahn Books.

Dreeben, R. (1968). *On what is learned in school*. Reading, MA: Addison-Wesley.

Elder, G. H., Jr., & Rockwell, R. C. (1979). The life course and human development: An ecological perspective. *International Journal of Behavioral Development, 2*, 1–22.

Gordon, P., Aldrich, R., & Dean, D. (1991). *Education and policy in England in the twentieth century*. London: Woburn Press.

Grubb, W. N. (1993). The varied economic returns to postsecondary education: New evidence from the class of 1972. *Journal of Human Resources, 28*, 365–382.

Heath, A., & Cheung, S. Y. (1998). Education and occupation in Britain. In Y. Shavit & W. Müller (Eds.), *From school to work: A comparative study of educational qualifications and occupational destinations* (pp. 71–101). Oxford: Clarendon Press.

Heinz, W. R. (1999). Job-entry patterns in a life-course perspective. In W. R. Heinz (Ed.), *From education to work: Cross-national perspectives* (pp. 214–231). New York: Cambridge.

Hogan, D. P., & Astone, N. M. (1986). The transition to adulthood. *Annual Review of Sociology, 12*, 109–130.

Kaestle, C. (1983). *Pillars of the republic: Common schools and American society, 1780–1960*. New York: Hill & Wang.

Kerckhoff, A. C. (1990). *Getting started: Transition to adulthood in Great Britain*. Boulder, CO: Westview.

Kerckhoff, A. C. (1993). *Diverging pathways: Social structure and career deflections*. New York: Cambridge.

Kerckhoff, A. C., & Bell, L. (1998). Hidden capital: Vocational credentials and attainment in the United States. *Sociology of Education, 71*, 152–174.

Kerckhoff, A. C., Bell, L., & Glennie, E. (2000). Comparative educational attainment trajectories in Great Britain and the United States. A paper presented to the International Sociological Association, Research Committee on Social Stratification, Libourne, France.

Kerckhoff, A. C., Fogelman, K., Crook, D., & Reeder, D. (1996). *Going comprehensive in England and Wales: A study of uneven change*. London: Woburn Press.

Kerckhoff, A. C., & Glennie, E. (1999). The Matthew effect in American education. *Research in Sociology of Education and Socialization, 12*, 35–66.

Lucas, L.R. (1999). *Tracking inequality: Stratification and mobility in American high schools*. New York: Teachers College Press.

Maurice, M., Sellier, F., & Silvestre, J.-J. (1986). *The social foundations of industrial power: A comparison of France and Germany*. Cambridge, MA: MIT Press.

Monk-Turner, E. (1990). The occupational achievements of community and four-year college entrants. *American Sociological Review, 55*, 719–725.

Mortimer, J. T., & Johnson, M. K. (1999). Adolescent part-time work and postsecondary transition pathways in the United States. In W. R. Heinz (Ed.), *From education to work: Cross-national perspectives* (pp. 111–148). New York: Cambridge.

Mortimer, J. T., & Krüger, H. (2000). Transition from school to work in the United States and Germany. In M. T. Hallinan (Ed.), *Handbook of the sociology of education*. New York: Plenum.

Müller, W., Steinmann, S., & Ell, R. (1998). Education and labour-market entry in Germany. In Y. Shavit & W. Müller (Eds.), *From school to work: A comparative study of educational qualifications and occupational destinations* (pp. 143–188). Oxford: Clarendon Press.

NCES. (1998). *The condition of education, 1998*. Washington, DC: National Center for Education Statistics.

OECD. (1996). *Education at a glance: OECD indicators*. Paris: Organization for Economic Co-operation and Development.

Rosenbaum, J. E., Kariya, T., Settersten, R., & Maier, T. (1990). Market and network theories of the transition from high school to work: Their application to industrialized societies. *Annual Review of Sociology, 16*, 263–299.

Scherer, S. (1999). Early career patterns: A comparison of Great Britain and West Germany. *Arbeitspapiere, Nr. 7—Mannheimer Zentrum für Europäische Sozialforschung*.

Shavit, Y., & Müller, W. (1998). *From school to work: A comparative study of educational qualifications and occupational destinations*. Oxford: Clarendon Press.

Soltow, L., & Stevens, E. (1981). *The rise of literacy and the common school in the United States*. Chicago: University of Chicago Press.

Turner, R. H. (1960). Sponsored and contest mobility and the school system. *American Sociological Review*, *25*, 855–867.

Vanfossen, B., Jones, J., & Spade, J. (1987). Curriculum tracking and status maintenance. *Sociology of Education, 60*, 104–122.

Walters, P. (1984). Occupational and labor market effects of secondary and post-secondary school expansion in the United States. *American Sociological Review, 49*, 659–671.