U.S. and German youths: unemployment and the transition from school to work

In Germany, a social consensus on the value of apprenticeship training results in low youth unemployment and a relatively easy transition from school to work; can the German model be adapted to the United States?

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Unemployment among young people is a serious problem facing the United States today. The labor market difficulties of youths cause the members of this cohort economic hardship now, as well as hinder their future economic success. Moreover, the difficulties youths face impinge on the Nation as a whole: a well-trained work force is vital to the U.S ability to compete in the international market as a high-productivity, high-wage country. Youths who gain work experience and receive on-the-job training will reduce both the chances of future labor bottlenecks and the burden that might be imposed on others to pay for their support.

It can be argued that U.S. youth unemployment results from inadequate labor market preparation in schools, as well as an especially difficult school-to-work transition for young Americans. The comprehensive German apprenticeship system is often seen as a model for an improved school-to-work transition. As James J. Heckman, Rebecca L. Roselius, and Jeffrey A. Smith state:[1]

> A new consensus has emerged in influential policy circles that the American labor market and educational system are unable to equip workers with sufficient skills. American youth are said to experience a disorderly transition from school to work characterized by too much job turnover and too little training on the job. In contrast, the German apprenticeship system has been held up as a model of order that produces smooth school to work transitions and provides workers with human capital directly related to their career interests in a format especially helpful for workers poorly served by formal schooling.

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This article explores the school-to-work transition and youth unemployment in the two nations[2] and the lessons the United States might learn from Germany, but with an important cautionary note about the limited potential for transferring the German model. We begin with a discussion of some of the differences in the unemployment rates of various demographic and educational groups within the youth population of both countries. We then explore the reasons behind the lower German youth unemployment rates in terms of the vocational preparation of the two school systems and discuss the potential for transferring parts of the German model to the United States. We show that the key to Germany's success is the country's social consensus on the importance of work force training for youths. Whether Germany's methods could be successfully transferred is a direct function of another nation's likelihood of adopting such a social consensus.

Youth unemployment

We define the youth unemployment rate as the unemployment rate for youths 16 to 24 years of age in the United States and 15 to 24 years in Germany; we define the overall unemployment rate as the rate for all individuals 16 years of age and older in the United States and 15 years and older in Germany. Substantial differences exist in the youth unemployment rates of Germany and the

Table 1. Youth unemployment in the United States and Germany, 1993

[In percent]

Age, sex, and race	United States	Germany
Unemployment rate		
Total, 15 or 16 years and older[1]	6.8	7.7
Total, 15/16–24[1]	13.4	7.7
Men	14.3	7.7
15/16–19[1]	20.4	5.4
20–24	11.3	8.6
Women	12.2	7.7
15/16–19[1]	17.4	5.3
20–24	9.6	8.5
White	11.2	—
Black	27.3	—
Other	13.3	—
15- or 16- to 24-year-olds[1]		
Proportion unemployed:		
Men	10.0	3.3
Women	7.6	3.7
Proportion unemployed long term:		
Men	1.1	1.1
Women	5	1.4
Proportion of total unemployment:		
Men	31.1	14.4
Women	31.1	15.2
Proportion in population 15/16–64:		
Men	19.3	14.4
Women	18.7	13.8

[1] Lower limit of 15 years for Germany and 16 years for the United States.

NOTE: Dash indicates data not differentiated by race because Germany has almost no races other than white.

SOURCE: U.S. data, *Employment and Earnings* (Department of Labor, January 1994); German data, EUROSTAT.

the United States. Table 1 presents a detailed comparison of youth unemployment in the two nations. The figures are for 1993, a year in which the overall U.S. unemployment rate was less than that of Germany.

In 1993, the youth unemployment rate in the United States was roughly double the overall unemployment rate, in direct contrast to Germany, where the youth unemployment rate was equal to the overall rate. The unemployment rate for U.S. youths 16 to 19 years of age was substantially higher than the comparable German rate, but there was a much smaller difference for 20- to 24-year-olds.[3] Thus, unemployment has a much younger face in the United States, with almost 1 in 3 unemployed Americans being between the ages of 16 and 24. The figure is only 1 in 7 for German youths between 15 and 24.[4]

Youth unemployment is most severe among minorities in the United States, where racial composition is more heterogeneous than in Germany. Black American youths had an unemployment rate of more than 27 percent in 1993, compared with 11.2 percent for white youths. Further, the group with the most labor market difficulty, 16- to 19-year-old black men, has an unemployment rate of 38.9 percent. Hence, to the extent that those youths who experience unemployment have less labor market success as adults, minority youths will experience disproportionately more labor market problems in the future.

Education and unemployment

The difference in unemployment rates between the two countries suggests that the initial entry of young workers into the labor force is more difficult in the United States than in Germany. To what extent this is related to the educational systems and levels of educational attainment of youths in the two nations may be gleaned from the following tabulation, which presents unemployment rates for youths 20 to 24 years of age, by educational attainment, in both countries in 1991:[5]

Education level	*United States*	*Germany*
Total	12.2	6.6
Less than secondary	21.8	10.1
Upper secondary	13.2	5.5
Postsecondary	5.9	5.9

Two important conclusions emerge from the data. First, in both nations, youths with less than a secondary education fare worse in the labor market than those who have completed their secondary schooling. Second, with the exception of those with a postsecondary education, the unemployment rates in the United States are more than double those in Germany for groups with a comparable level of education.

Not only do American youths with lower levels of education fare worse than their German counterparts, but also, they constitute a greater share of the youth cohort. The OECD study cited in footnote 4 showed that 16.6 percent of U.S. youths aged 20 to 24 had not completed a secondary education, much larger than the figure for the same group in Germany. Furthermore, only 36 percent of 20- to 24-year-olds in the United States were currently employed in the year they left school.[6] In short, U.S. youths without a secondary school diploma fare worse in the labor market than their German counterparts, and there are relatively more of them in the youth population.

U.S. and German educational systems

In light of the greater degree of difficulty in integrating youths into the labor force in the United States, an examination of the educational systems of the two countries might shed some light on the causes of this unemployment disparity. The curriculum of U.S. high schools can be divided into three broad categories: college preparatory, vocational, and general (defined by the U.S. Department of Education as a "program of studies designed to prepare students for the common activities of a citizen, family member, and worker").[7] For the most part, these categories can be found in high schools throughout the Nation. The following tabulation of the percentage of 17-year-olds in each of the three programs in 1982 and in

1990 reveals an increase in students electing the college preparatory curriculum, with a decline in the other two areas:[8]

Program	*1982*	*1990*
College preparatory (academic)	43.8	54.4
Vocational	12.2	8.7
General	44.0	36.9

Although the share of high school students undertaking a general curriculum has declined in recent years, more than one-third of American youths still pursue this course of studies. From a labor market perspective, the problem is that the general curriculum is designed to provide students neither with vocational preparation nor with the ideal background for college. Students can, of course, pursue employment or further education with this background, but their preparation will not be focused on the skills that are required for labor market success either upon graduation from high school or after college.

Table 2 shows that slightly more than half of U.S. youths enroll in college, and approximately one-quarter of U.S. youths will receive at least a 4-year (bachelor's) degree. From an international perspective, this is a relatively large share of youths with a college degree. But for the 20 percent of Americans who leave college without even an associate's degree, two-thirds of them (13 percent of all youths) do not receive any vocational training in a program that leads to some type of certification.

Turning to the 48 percent of high school leavers who did not enroll in college, we find that roughly one-third of them (15 percent of all youths) obtained vocational training that led to a certificate, but two-thirds (31 percent of all youths) did not. Hence, the higher youth unemployment rates of the United States should not be surprising in light of the fact that 31 percent of U.S. youths received no postsecondary education or vocational training whatsoever, and another 13 percent attended college but failed to obtain even an associate's degree and also received no vocational training.[9]

Table 2. Postsecondary education and training in the United States, 1985

Level of education or training as of 1985	Percent of those who left school in 1972, 1973, or 1974
College	52
Attained college degree	32
Attained master's degree	7
Attained bachelor's degree	17
Attained associate's degree	8
Dropped out of college	20
Received certificated vocational training	7
Did not receive certificated vocational training	13
Did not enroll in college	48
Received certificated vocational training	15
Did not receive certificated vocational training	33
Received some postsecondary education or training, but no certificate or degree	2
Received no postsecondary education or training at all	31

NOTE: Percentages are from Christoph F. Buechtemann, Juergen Schupp, and Dana Soloff, "Roads to Work: School-to-Work Transition Patterns in Germany and the United States," *Industrial Relations Journal*, vol. 24, no. 2, 1993, pp. 97–111, based on data from United States Panel Survey of Income Dynamics.

The situation in Germany is quite different. (See table 3.) There, 84 percent of youths pursued a postsecondary vocational or educational certificate. Currently, two-thirds of German youths have passed through an apprenticeship program.[10] By contrast, in the United States, the figure is approximately 3 to 5 percent.[11]

Apprenticeship training in Germany combines classroom instruction with employment, a so-called dual system. For each of the more than 300 occupations that have apprenticeships, there is a nationally standardized curriculum. Students must pass an examination administered by external bodies (chambers of crafts and chambers of industry and commerce) in order to be awarded a journeyman certificate.

The employment portion of the apprenticeship typically lasts between 2½ and 3½ years. Apprentices are trained on the actual machines and equipment they will later use. The apprenticeship will teach the apprentice not only the skills needed for the profession, but also broader work skills, as well as an appreciation for what is needed in general to succeed in the world of work. Although the German Government builds vocational schools and provides some public sector apprenticeships, the overall success of the dual system depends on ensuring that private firms employ a sufficient number of apprentices.

Although unemployment is worse for youths with lower levels of education and training, there are relatively fewer of these people in the population of German youths. In 1990, among German students who left high school in 1978 or 1979, 80 percent either completed vocational education (through an apprenticeship or in some other form) or graduated college.[12] By contrast, among U.S. youths who left high school in the 1972–74 period, only 54 percent received either a college degree or a certificate for vocational training.

The German social consensus

The so-called German dual system tries to combine practical training in an economic enterprise with an education in vocational schools. Generally speaking, the aim of vocational training in Germany is twofold: to enable the individual to acquire the skills and knowledge judged to be necessary for employment; and to ease the person's entry into the labor market. German apprenticeship cannot be fully understood, or its potential transferability to the United States examined, without keeping in mind the fact that German society has a long historical tradition of a social consensus on providing

Table 3. Postsecondary education and training in Germany, 1990

Level of education or training as of 1990	Percent of those who left school in 1978 or 1979
Postsecondary vocational education or apprenticeship training	84
Received apprenticeship certifcate	46
Received full-time vocational education certificate	23
Did not receive vocational certificate	15
Higher education[1]	16
Attained college degree	11
Attained master's degree	9
Attained technical degree	2
Dropped out of college	3
Still enrolled in college	2

[1] Two percent of sample was enrolled in postsecondary vocational education or apprenticeship training, as well as in higher education.

NOTE: Percentages are from Christoph F. Buechtemann, Juergen Schupp, and Dana Soloff, "Roads to Work: School-to-Work Transition Patterns in Germany and the United States," *Industrial Relations Journal*, vol. 24, no. 2, 1993, pp. 97–111, based on data from German Socio-Economic Panel.

young people with good initial vocational training.

This social consensus can be summarized by the slogan, "First of all, vocational training for everybody."[13] In other words, vocational training in any field is said to be better than no training at all. The Germans believe this to be the case even if the apprenticeship will not result in employment in the field for the young, qualified worker now or anytime in the foreseeable future. Germans consider vocational qualifications as having value in themselves, as the training will result in skills that can transfer to other occupations.[14] Not only does apprenticeship confer broadly transferable skills on the individual, but also, it socializes the person into the work force—that is, it results in an understanding of the rules and values of the workplace, such as punctuality, discipline, and the acceptance of hierarchies. In addition, there is a perceived value in the feeling of belonging to a group of coworkers and sharing their common language and values. The German social consensus is that vocational training is important and should be provided to all youths.

A recent incident illustrates that this social consensus regarding vocational education is shared by employers, workers, and the German Government. A restructuring in the German economy had resulted in a shortage of apprenticeship placements in both the private and public sector. The shortage was made even more severe by a recession. The number of apprenticeships dropped from 500,000 in 1992 to 450,000 in 1994.[15] There was a consensus that the latter number was insufficient. The German chancellor, Helmut Kohl, invited the leaders of employers' associations and major trade unions, as well as the ministers of labor, the economy, training and science, and finance, to his office. A communiqué was issued stating that all parties agreed that both vocational training and further training appropriate to the qualifications of the person or to the current labor market situation would attract investors and be of the highest importance to the economic and social future of Germany.[16] An agreement was reached whereby the employers' associations promised that their members, together with the public employers, would create enough apprenticeships to raise the total to 600,000 by 1996. The Government pledged to aid in the implementation of the plan by increasing training subsidies if needed. Based on earlier, similar situations, it is extremely likely that the increase in promised apprenticeships will occur.[17]

The German dual system of apprenticeship training is a key factor in the more successful school-to-work transition in Germany than in the United States and helps explain the low level of German youth unemployment. The system is dependent, however, on a sufficient number of apprenticeship employment opportunities, particularly in the private sector. If the number of apprenticeships is too low, the Government can summon forth an increase with some financial incentives (for example, by awarding more procurement contracts or by allowing business leaders to accompany the chancellor on State visits abroad), but primarily through moral suasion. The Government's ability and even obligation to get firms to increase the number of apprenticeships is deeply rooted in the idea of a social consensus on training, namely, that training will be made available to all qualified youths and that private enterprises regard it as a social obligation to ensure that enough employment openings exist. Without this social consensus, Germany would not be able to create enough apprenticeship opportunities for the system to function well.[18]

Applicability to the United States

There is a substantially higher youth unemployment rate and more difficult school-to-work transition in the United States than in Germany. The rate is especially high for U.S. youths who lack a secondary school diploma, vocational training, or both. A greater share of U.S. youths fall into this category than do German youths. Germany's heavy reliance on an apprenticeship system both trains youths and eases their transition into the labor market. The German system is based on a social consensus that results in private firms providing an adequate number of apprenticeship placements at any given time.

The United States could copy some aspects of the German system with relatively little difficulty—for example, increased occupational certification, more vocational schools, and the use of common national curricula and external examinations. However, the success of any U.S. effort to use apprenticeship as a primary vehicle for reducing youth unemployment and easing the school-to-work transition is more problematic. The

German system is heavily dependent on an adequate number of apprenticeship employment opportunities in the private sector. In Germany, the social consensus on the value of apprenticeships will result in firms providing training slots.[19] To the extent that there is a weaker consensus in the United States, the success of increased apprenticeship training would be limited, and without such a consensus, the prospects for a transfer of the German model are questionable at best. □

Footnotes

ACKNOWLEDGMENT: The authors gratefully acknowledge the help of Helmut Rudolph of the IAB, Nuremberg, for data on the German labor market.

[1] James J. Heckman, Rebecca L. Roselius, and Jeffrey A. Smith, *U.S. Education and Training Policy: A Re-evaluation of the Underlying Assumptions behind the "New Consensus,"* Working Paper #CSPE 94–1 (Chicago, Center for Social Program Evaluation, University of Chicago, 1993).

[2] Unless otherwise indicated, all references to Germany are to unified Germany.

[3] On the face of it, one might view the situation of falling unemployment rates with age as meaning that there is no lasting effect from teen unemployment and that American youths are just taking longer to find a permanent job. A closer look, however, leads one to a different conclusion: a sizable number of youths—especially those with lower levels of education—are not able to attain stable employment in later years. Jacob A. Klerman and Lynn A. Karoly ("Young men and the transition to stable employment," *Monthly Labor Review*, August 1994, pp. 31–48) found that almost one-quarter of male high school dropouts had never held a job of even as little as 2 years' length by their late twenties. From this, one might argue that the longer run job prospects of this group may not be good either.

[4] The U.S. figure is even more surprising, given the fact that in the United States, over the period 1983–92, the number of 16- to 24-year-olds fell by 14.3 percent, while the overall population 16 years and older increased by 13.8 percent. With a decreasing supply of young workers, one might have expected a decline in the youth unemployment rate.

[5] Data from Organization for Economic Cooperation and Development, *The OECD Employment Outlook, July, 1994* (Paris, OECD, 1994), p. 23. For the most part, youths 15 to 19 years had not yet completed their secondary schooling; hence, they are omitted from the tabulation.

[6] National Center for Education Statistics, *Youth Indicators, 1993* (Washington, Department of Education, 1993).

[7] *Digest of Educational Statistics, 1995* (U.S. Department of Education, National Center for Educational Statistics, 1995), p. 493.

[8] *Ibid.*, p. 60.

[9] Christoph F. Buechtemann, Juergen Schupp, and Dana Soloff found that one-tenth of U.S. youths received no postsecondary training whatsoever and were working at a job that required less than three months of on-the-job training. Because replacements for these workers can easily be hired and trained, it is once again not surprising that a substantial number of U.S. youths will be facing difficulties in the labor market. (See Christoph F. Buechtemann, Juergen Schupp, and Dana Soloff, "Roads to Work: School-to-Work Transition Patterns in Germany and the United States," *Industrial Relations Journal*, vol. 24, no. 2, 1993, pp. 97–111.)

[10] See Hilary Steedman, "The Economics of Youth Training in Germany," *Economic Journal*, September 1993, pp. 1279–91.

[11] See Lisa M. Lynch, "The Economics of Youth Training in the United States," *Economic Journal*, September 1993, pp. 1261–78; and Robert J. Gitter, "Apprenticeship-trained workers: United States and Great Britain," *Monthly Labor Review*, April 1994, pp. 38–43.

[12] Substantially fewer German youths (16 percent) pursue higher education than do American youths (52 percent). Those German youths who do enroll, however, have a higher probability of completing their degree.

[13] Authors' translation of quote from Klaus Daweke, spokesperson for training policies of the governing Christian Democratic Union party in the *Bundestag*, the German lower House of Parliament.

[14] See Myriam Campinos-Dubernet and Jean-Marc Grando, "Formation professionnelle ouvrière: Trois modèles européens," *Formation emploi*, no. 22, 1988, pp. 5–29, especially p. 9. One example of the transferability of training occurred in the early 1960s. There was a shortage of trained workers in the chemical industry, and the industry was forced to employ people trained in other areas. One firm sought out cooks and bakers. As one manager explained, bakers and cooks had acquired a sense of timing in the food production process, and that skill is important in the chemical industry as well.

[15] The figures are for western Germany only. The situation in eastern Germany is unique due to the region's ongoing transformation from a planned economy to a market economy.

[16] See the *Frankfurter Allgemeine Zeitung*, Mar. 17, 1995, p. 18.

[17] In fact, there was a small increase in apprenticeship placements from 1994 to 1995; see Rudolf Werner, "Rückgang der Ausbildungsplätze betrifft Kernbereiche des dualen Systems—eine statistische Analyse," in *Berufsbildung in Wissenschaft und Praxis*, vol. 25, no. 3 (1996), pp. 14–20.

Arguably, the best known display of the social consensus on apprenticeship training was in the early 1980s, when Chancellor Helmut Kohl made the shortage of apprenticeship training positions a major issue in his election campaign. He promised to induce enterprises to fulfill their "duties" to training. Following his election, Kohl gathered together representatives of employers' organizations and chambers of industry, commerce, and crafts. After deliberations, the employers guaranteed an apprenticeship to every young German who was willing and able to assume one. With financial assistance from the Government, more than enough apprenticeships were created.

[18] Note, however, that although the social consensus exists, it does require the efforts of the German Government to keep it intact. Recently, concern has arisen about the availability of an adequate number of training places in core industries (see Werner, "Rückgang der Ausbildungsplätze"), and Chancellor Kohl has already begun efforts to ensure a sufficient number of places for 1997 (see "Kohl fordert mehr Lehrstellen," *Handelsblatt*, no. 120, June 25, 1996, p. 4).

[19] This consensus is not universal to all European nations. France, for example, lacks it. (See Odile Benoit-Guilbot, Helmut Rudolph, and Markus Scheuer, "Youth Unemployment in France and Germany," paper presented at the European Association of Labor Economists, Maastricht, the Netherlands, Sept. 30–Oct. 3, 1993.