

Young men and the transition to stable employment

The transition from school to work among male high school students is more heterogeneous—and successful—than is often thought; by age 20, half of all graduates have jobs that will last more than 2 years, and by age 22, more than 3 years, but there is considerable variation within and across levels of education

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Although the vast majority of our young people leave high school to go directly to work, we typically offer them little or no assistance in this transition. . . . The result is that typical high school graduates mill about in the labor market, moving from one dead-end job to another until the age of 23 or 24.

—Report by the Commission on the Skills of the American Workforce entitled *America's Choice: High Skills or Low Wages*, 1990, p. 46

One frequently heard criticism of the U.S. education system is that it fails to provide a smooth transition for the average student who proceeds to the labor market directly after graduating from high school. Such young people are often characterized as facing a “period of floundering”—from high school graduation through their mid-20’s—during which they move into and out of the labor force, holding numerous jobs, none for very long, and being unemployed in between. Instead of settling into longer term jobs, these youth are portrayed as “milling about” or “churning,” with no clear progression toward any career.¹

This article explores whether the preceding characterization of the transition from school to work is accurate for the bulk of U.S. youth. We use data on young men from the National Longitudinal Survey of Youth to estimate the distri-

bution of their ages at entrance into jobs lasting various lengths of time—specifically, 1, 2, and 3 years. We view the time taken to reach a job with a 1-, 2- or 3-year tenure as the period of “settling down.” Although we do not examine the characteristics of these jobs (for example, the wages they pay or their “quality”), our approach offers a useful way to characterize the amount of “milling about” in the labor market by U.S. youth.

Consistent with much of the the previous literature on the subject, we find that young U.S. males hold a large number of jobs in their first few years in the labor market (even after excluding jobs held prior to leaving full-time schooling). Nevertheless, our dynamic perspective provides little support for the conventional wisdom that the typical male high school graduate does not settle into a long-term employment relationship until his mid-20’s. For the youth cohort of the National Longitudinal Survey, the median male high school graduate secured a job that would last more than a year shortly after his 19th birthday, a job that would last more than 2 years shortly after his 20th birthday, and a job that would last longer than 3 years while he was 22.

There is, however, considerable heterogeneity among these young jobseekers: whereas the median male high school graduate secured his

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"3-year job" while he was 22, his classmate in the first quartile of high school graduates obtained that job while he was 19, and his classmate in the fourth quartile of high school graduates did not get such a job until after he turned 25. There is also heterogeneity across education groups: while the median male high school graduate secured his "3-year job" while he was 22, the median high school dropout, who first entered the labor force several years earlier, did not enter that job until he was 23, and, in contrast, the median college graduate, who entered the labor force 4 years later than the high school graduate did, entered his "3-year job" shortly after turning 23.

The article first briefly reviews some of the literature on the transition from school to work (that is, the process of "settling down"), then describes the data and methods we employ, and, finally, presents our empirical results. The article concludes with a summary of these results and a discussion of directions for future research.

Background

Non-college-bound young men leaving school are sometimes described as drifting from activity to activity until their mid-20's, when they finally settle into long-term commitments to full-time jobs. During the period beginning with their leaving school and ending in their finding stable employment (jobs lasting several years), young people are perceived as spending a long period of unproductive time in school, in "dead-end" jobs, unemployed, or not even looking for work, with a "consequent loss of training and productivity."² According to one source:

The early years in the labor market for many graduating students are characterized not by an absence of jobs but rather by a "churning" process. High turnover and frequent job change are evident during this period when youth sample different jobs or simply move from one low-skill job to another. The phenomenon of churning represents a characteristic of the youth labor market that has important implications for program design. . . . What happens when the period of churning has concluded? Evidence suggests that a substantial fraction of this cohort has been unable to "settle down" into quality jobs. In the past, most youth in their late twenties—even if they did not attend college—could expect eventually to obtain stable employment; this is no longer true. . . . [A]s many as 50 percent of high school youth had not found a steady job by the time they reached their late twenties.³

This characterization implies that the transition period is spent unproductively. Two other perspectives have been advanced. One characterizes the period as time spent in "productive

job shopping":⁴ in the individual-choice-oriented U.S. society, young people try out various jobs, until they find something amenable to their tastes.⁵ The other perspective views the period as one of equalizing leisure:⁶ the intermittent employment pattern of non-college-bound youth allows them to reproduce the leisure pattern of their college-bound peers, who spend 4 years in an environment with a long summer vacation, several other vacations during the year, and a relatively flexible weekly schedule.

Finally, some perceive the transition as proceeding smoothly.⁷ Meyer and Wise conclude that

In general, summary statistics based on the National Longitudinal Study (High School Class of 1972) do not suggest severe employment problems for these high school graduates. On the contrary, they suggest a group of persons moving rather smoothly into the labor market.⁸

In contrast, some foreign countries have education systems that are often characterized as having a close relationship between schools and employers. Formal institutions, such as apprenticeships in Germany, and informal institutions, such as the "contracts" between Japanese schools and employers, help students in other countries gain the skills employers want and then help the students make smooth transitions from school to work.⁹ Prewo writes:

Seventy percent of young Germans sign up for apprenticeships—and, if they perform well, guaranteed jobs. Contrast this with the aimless wandering from minimum-wage job to minimum-wage job of many American high-school graduates. At age 25, Americans who have not attended college often find themselves no higher up the job ladder than they were at age 18. Their German counterparts, by contrast, usually hold well-paying skilled jobs.¹⁰

The empirical facts and their correct interpretation are important as policymakers and educators design programs to improve the transition from school to work. Many analysts see this high level of turnover, or "churning," as the cause of workers' low levels of skill and low wages:¹¹ because young workers will not stay on the job long enough to allow employers to recoup training costs through increased productivity,¹² many employers will not hire them, and those who do hire them do so at low wages and do not provide much training.

Paul Osterman and Maria Iannozzi, who have a negative view of the transition period, make explicit the link from the empirical facts of "churning" or "milling about" to program design:

For the bulk of youth not bound for college, the problem that public policy must address is not the

simple absence of jobs but rather the difficulties these youth face in settling down into quality jobs in the adult labor market—a problem that has been exacerbated by rising skill requirements. If we accept a period of churning as part of the process, many of the ideas regarding improved information systems between schools and employers seem less compelling.¹³

The empirical questions are “How long does the churning period last?” and “Is it an inevitable part of the process of entering the labor market?”

Data and methods

The data. The civilian sample of the Bureau of Labor Statistics sponsored National Longitudinal Survey of Youth began in 1979 with 12,686 young people aged 14 to 22 that year.¹⁴ Blacks, Hispanics, and economically disadvantaged whites were oversampled. The sampled individuals have been reinterviewed annually through 1990; thus, the sample is now old enough (25 to 32 years in 1990) for us to examine nearly completed transitions from school to work.

Each year, the interview collected complete retrospective calendars of employment. Beginning in 1981, monthly school attendance records were also collected.¹⁵ Using these data, we constructed monthly records of school attendance and work for each person in the sample for the period January 1, 1978, to the last completed interview date, usually mid-1990.

All of the individual education and employment histories were censored (that is, we do not know what happens at later ages) as of the 1990 interview, when the young people were 25 to 32 years of age. Furthermore, there was some attrition of the sample. To use all of the collected data, when computing the time to certain events or the percentage of people experiencing an event (by age or by time since an event), we computed monthly hazard rates. (For any event, the hazard rate is the probability of the event occurring in a given month, conditional upon its not having occurred until that month.) We then transformed these rates back into the percentage of people experiencing (or not experiencing) the event as of a given age or time since an earlier event. Although the raw data (on percentage of people experiencing an event) are sometimes nonmonotonic, due to sampling error (and, perhaps, nonstationarity with respect to calendar time, a property that is ignored in this article), our transformation procedure forces the plots to be monotonic. (That is, the percentage of people who have received a high school diploma never drops.)

Defining school-leaving groups. School-to-work transition patterns vary widely by the level

of schooling attained when the individual leaves school. Not only does the age at which the person leaves school vary, but (as we will show below), the pace of settling into stable employment in the period since the person left school also varies. Following this empirical observation, as well as most of the literature on the transition from school to work, we stratified our analyses by educational attainment at the time the individual left school. However, the heterogeneity and complexity of transitions among school, work, and leisure make operationalizing the concept of leaving school difficult and render the results sensitive to the definition chosen.¹⁶

We assigned each individual in the sample to a *school-leaving group*. Conceptually, an individual has left school when his primary activity is no longer school. However, summer vacation should not be considered leaving school. In practice, we used the following definition: an individual *leaves school* when he is no longer in school or when he has graduated from high school and is working full time.¹⁷ Given this definition, we then filled in gaps in school attendance that were probably due to school breaks (including the transition from high school to college). If the gap began in May, we filled in up to 5 months (that is, May through September); in June, we filled in 4 months (June through September). Gaps that began in any other month were allowed to last up to 3 months without signaling that the person had left school.

Once it was determined for an individual in the sample that a gap in schooling indicated that the individual had left school, the date at which he had left was set to the first month of the gap, and a permanent school-leaving group was assigned to the individual based on his school attendance and whether he received a degree at any time up to that date.¹⁸ Even if the person returned to school later, and even if he subsequently attained a degree, the school-leaving group ascribed to him was not changed. In what follows, we examine the importance of an individual's returning to school—and thus, the difference between the school-leaving group ascribed to that individual and his educational attainment at a given point in time. The five (mutually exclusive and exhaustive) school-leaving groups defined in this article are *high school dropouts*, *high school graduates*, those with *some college*, *college graduates*, and those with *some postcollege education*.

Restrictions on the sample. Because the National Longitudinal Survey of Youth oversampled blacks, Hispanics, and poor whites, the results that follow are all weighted by the 1979 interview weight, which corrects for the oversampling and for differential nonresponse to the first in-

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interview. We make no further correction for nonresponse to subsequent interviews or permanent attrition of the panel. Also, all of the results reported pertain to men only; we deliberately circumvent the complexity introduced into women's work histories by childbirth, either before a woman enters the labor market or when it interrupts her career. This means, of course, that the three-activity (school, work, and nonwork) analysis we present fails to capture a crucial element of young women's work histories.

Because our analysis required complete school and work histories up to a given date, we imposed important restrictions on the sample beyond the standard requirement that there be no missing data. First, we must have observed the beginning of the transition from school to work. Specifically, we required that the individual still be in school as of the period covered (retrospectively) by the first interview (January 1, 1978). Second, we included individuals' experiences in the estimation only until they missed an interview. After that, even if they were interviewed subsequently, the information obtained was not included in our calculations (because we could not fill in the experiences they had during the gap caused by the missed interview).

These restrictions, combined with the sampling scheme for the National Longitudinal Study of Youth (that is, it is a stratified sample from several cohort-year groups), made the sample extremely unbalanced. We oversampled men who were younger at the first interview and those who received more education. Table 1 shows the weighted distribution of school-leaving groups by age at the first interview. The percentage of high school dropouts fell 1.4 percentage points (from 35.32 to 33.95) between those aged 15 years and those aged 16 years at the first inter-

view. The drop was fully 9.3 percentage points between ages 16 and 17. This difference was due primarily to the increase in the fraction of men who left school before the retrospective period covered by the first interview, which began in January 1, 1978 (next-to-last column of the table). The proportion of men in this category increased steadily with the age at the first interview, and the total number of men in the category represented nearly 30 percent of the original sample from the National Longitudinal Survey of Youth. These men constituted the main group of individuals excluded from our sample. Problems with missing data led us to delete another 7.2 percent of the original sample.

Table 2 contains the final sample sizes by school-leaving group. The column headed "Number" lists the raw sample size of each group. Sample sizes for the first three groups are well over 700, and for college graduates, the number is greater than 300. The sample size for those with some postcollege education is under 150; consequently, we do not report results for them. The last three columns show the unweighted, weighted, and reweighted percentage distributions of the sample, respectively. The weighted percentages are derived from interview weights from the 1979 National Longitudinal Survey of Youth, which correct for nonresponse errors in the first wave of the survey. The reweighted percentages represent our best estimate of the true distribution of membership in school-leaving groups. The reweighted distribution is computed by aggregating across those aged 14 and 15 years at the first interview. (See table 1.) We use the reweighted estimates in the analyses that follow when we make statements about all youths (pooling across school-leaving groups).

Table 1. Distribution of school-leaving groups for men, by age at first interview, 1979

[In percent]

Age	Number	High school dropouts	High school graduates	Some college	College graduates	Some post-college education	Left school before January 1978 ¹	Missing data ²
All ages ..	5,579	17.78	22.30	13.95	7.35	2.71	28.67	7.24
14	504	33.31	35.00	16.62	4.97	1.59	.00	8.31
15	807	35.32	31.83	17.87	7.02	2.99	.13	4.84
16	781	33.95	31.39	13.17	7.38	1.57	1.12	11.42
17	753	24.63	33.03	16.05	7.03	1.97	7.73	9.56
18	770	15.46	30.80	12.64	6.37	2.08	22.82	9.93
19	642	3.79	19.16	14.34	6.70	5.19	44.61	6.21
20	620	.76	2.07	12.89	8.77	2.70	68.12	4.69
21	558	.00	.62	9.49	11.12	3.83	70.88	4.06
22	144	.00	.00	7.95	4.46	1.34	83.13	3.14

¹ And therefore categorized as missing data and excluded from sample.

² Specific missing-data problems, in order of importance, are: unable to distinguish high school diploma from equivalency certificate; gap caused by missing interview during which time individual left school; still in school; invalid date of receipt of bachelor's degree.

Thus, we estimate that, according to our definition of school-leaving groups, over the early 1980's, the youth population was about one-third high school dropouts (36.9 percent) and another third high school graduates (35.4 percent). About 1 in 5 men proceeded directly to postsecondary education, but did not receive a bachelor's degree before leaving school (18.5 percent), while fewer than 1 in 10 left school with a college degree (6.6 percent). Less than 3 percent proceeded directly from college to postcollege education (2.6 percent). The percentage of high school dropouts reported here is considerably higher than that reported in most other sources, and the percentage of college graduates is considerably lower.¹⁹ Before discussing our main results, we reconcile the difference between the distribution of sample members by school-leaving groups and the distribution by completed schooling. This discrepancy is due to a subsequent return to school after leaving it.

Return to school after leaving. We assigned men from the National Longitudinal Survey of Youth to school-leaving groups based on the degree, if any, they had earned as of the first time they were not in school (as their primary activity) for longer than the typical school break. Thus, by our definition, an individual leaves school when he works full time (with or without attending school simultaneously) or engages in an activity other than attending school for more than 3 to 5 months.

The assigned school-leaving group does not, however, indicate the final degree attained. To the extent that individuals return to school, either by combining full-time or part-time work with schooling or by attending school only after a break in their education, their school-leaving groups and attained schooling will differ. Thus, some high school students may be working 35 or more hours per week and attending school. In that case, we would permanently classify them into our dropout school-leaving group, even though they subsequently attained a high school degree or attended postsecondary school.

Table 3 addresses the extent to which individuals returned to school, by school-leaving group.²⁰ It presents the only results on completed schooling in this article. All other results pertain to the school-leaving group, regardless of how much actual schooling has been completed.

The table shows that a considerable number of men returned to school, even those who did not eventually receive a degree. More than 80 percent of those with some college (which includes men who received associate's degrees) returned to school, and about 60 percent of those with some college returned to school on a full-time basis. Almost 70 percent of high school

Table 2. **Sizes of school-leaving groups of men from National Longitudinal Survey of Youth**

School-leaving group	Number	Percent		
		Unweighted	Weighted	Rewighted ¹
All men	5,579	100.0	100.0	100.0
High school dropouts	1,223	21.9	17.8	36.9
High school graduates	1,235	22.1	22.3	35.4
Some college	735	13.2	13.9	18.5
College graduates	312	5.6	7.3	6.6
Some postcollege education	119	2.1	2.7	2.6
Left school before January 1978 ²	1,498	26.9	28.7	—
Missing data ³	457	8.2	7.3	—

¹ Reweighted percentages within the observations for which we could assign a school-leaving group among 14- to 15-year-olds at the first interview. (Very few of those who left school before January 1978 fall into this category.)

² And therefore categorized as missing data and excluded from sample.

³ Specific missing-data problems, in order of importance, are: unable to distinguish high school diploma from equivalency certificate; gap caused by missing interview during which time individual left school; still in school; invalid date of receipt of bachelor's degree.

Note: Dash indicates not included in reweighted percentages.

dropouts eventually returned to school, and more than half of all high school dropouts did so on a full-time basis. Rates of returning were almost as high—about 60 percent—for those who first left school immediately after having completed high school or having received bachelor's degrees, although full-time attendance was much less likely for these two groups. Completion rates were, however, much lower than rates of returning to school.

The figures for high school dropouts help to explain why the dropout rates presented in this article are higher than those reported elsewhere in the literature. Our definition corresponds to the general image of dropouts as those who leave school without attaining a regular high school diploma. Chart 1 plots returning to school and receipt of a diploma for high school dropouts by the number of years since they left school. One-third of the young men in this cohort eventually received regular high school diplomas, and another third received high school equivalency certificates. Not surprisingly, 95 percent of the high school diplomas and 4 of 5 of the equivalency certificates were obtained within the first 3 years after leaving school.²¹ Thus, while the school-leaving group of high school dropouts represents about one-third of our sample (36.9 percent), their prevalence in the adult population is only two-thirds of that figure (24.8 percent), or even slightly more than one-third of that rate (14.3 percent) if we include the equivalency certificate in the high school degree category.²²

The pattern of returning to school shown in table 3 implies a relatively standard distribution of completed education across all school-leaving groups. Eventually, 75.2 percent of the men

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who returned to school received conventional high school degrees, and another 10.5 percent received equivalency certificates. The remaining high school dropouts were 14.3 percent of the population. Another 25.2 (21.1 + 4.1) percent of all men eventually received college degrees, while 4.1 percent of all men received at least master's degrees.

Thus, the distribution of the sample by school-leaving group differs from the distribution by completed schooling because a substantial frac-

tion of men obtained their final degrees after gaps in their school attendance. Those leaving school without high school degrees were nearly evenly divided between those who eventually received high school diplomas, those who received equivalency certificates, and those who received neither diplomas nor equivalency certificates. Similar patterns exist at higher levels of education. Less than half of those who eventually received bachelor's degrees remained in school continuously until they received their degrees.

Chart 1. Returning to school and receipt of a diploma for male high school dropouts

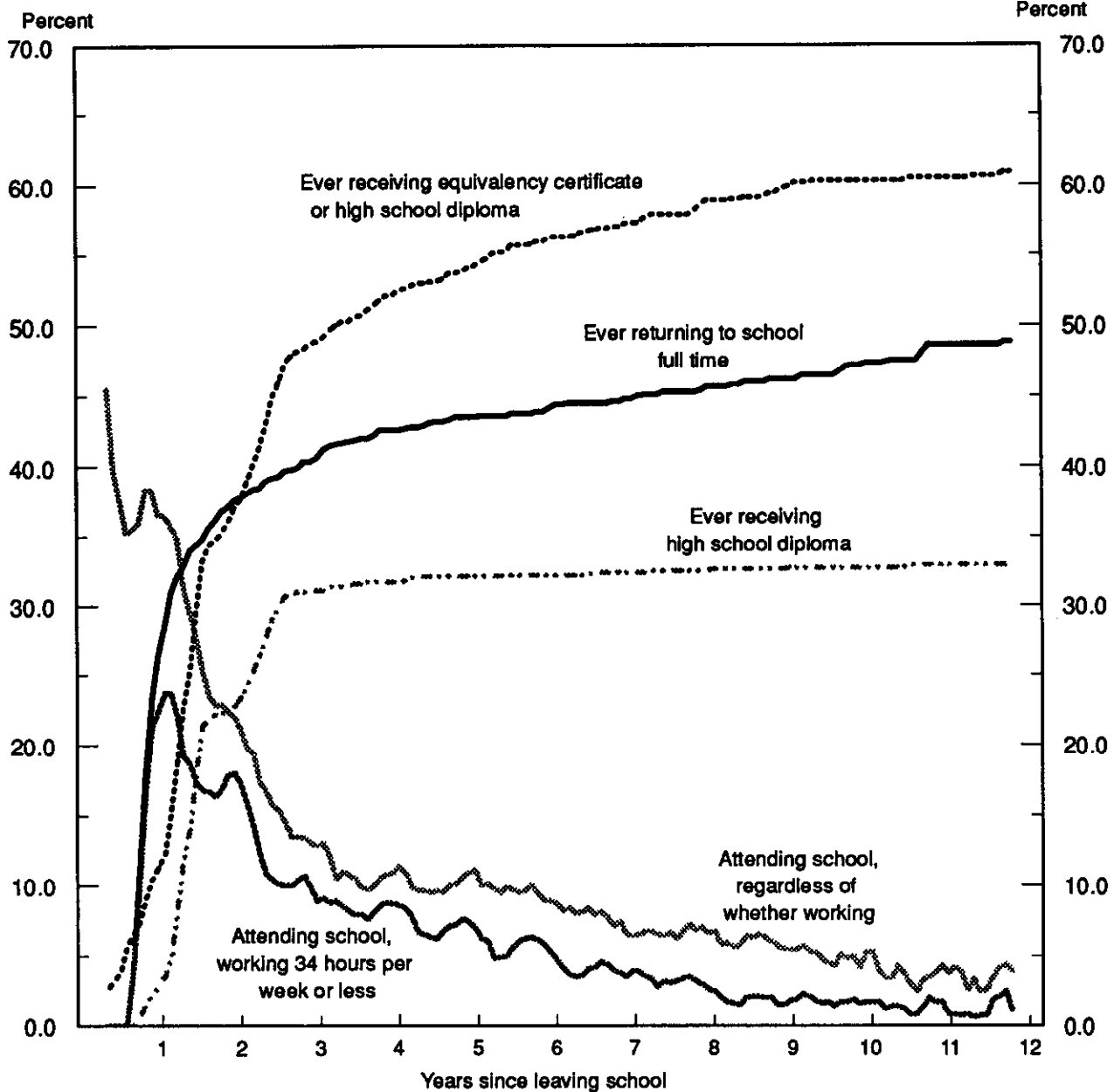


Table 3. Distribution of completed schooling for men, by school-leaving group¹

[In percent]

School-leaving group	Total	Returned to school		Final high school degree status ²			Final post-high school degree status	
		Ever	Full time ³	Dropout	Received equivalency certificate	Received diploma	Received bachelor's degree	Received master's degree or more
Total ⁴	100.0	14.3	10.5	75.2	21.1	4.1
High school dropouts	36.9	69.3	50.8	38.7	28.4	32.8	6.2	.8
High school graduates	35.4	61.3	31.0	.0	.0	100.0	7.9	.6
Some college	18.5	82.2	59.2	.0	.0	100.0	37.1	6.8
College graduates	6.6	59.7	22.4	.0	.0	100.0	100.0	13.5
Some postcollege education	2.6	55.9	32.2	.0	.0	100.0	100.0	54.5

¹ The sample consists of all individuals for whom we could assign a school-leaving group through the last interview they completed (in 1990). Final degree attainment is based on the last available interview.

² Data on final degree status are based on the last available interview. The three columns under this head are mutually exclusive and exhaustive. (That is, everyone either is a dropout, has received an equivalency certificate, or has received a high school diploma.)

³ Those in school full time are in school and working less than 35 hours per week.

⁴ The total is the reweighted percent from table 2 (computed from 14- and 15-year-olds at the first interview).

The transition to stable employment

Given our definition of leaving school (and realizing that there is some increase in the highest grade completed within the initial school-leaving group), we next explore the employment activities of young men by school-leaving group as they age. We begin with the conventional static picture, documenting patterns of schooling and employment at each age. A similar, but not identical, description could be generated from a cross-sectional survey such as the Current Population Survey.²³ The static analysis does not exploit the longitudinal nature of the data from the National Longitudinal Survey of Youth by which we can measure men's duration in various labor market statuses. In the dynamic analysis that follows, we examine patterns of job holding and job duration based on those men's longitudinal employment histories.

Static view of the transition from school to work. One picture of the transition from school to work can be gleaned from an analysis of changes in the work status of young men as they age. Our analysis differentiates four categories of work status (defined hierarchically—thus, those who might be included in two categories are included in the earlier category): working full time (35 or more hours per week); attending school and not working full time; working part time and not attending school; and neither working nor attending school. Note that, according to this analysis, men are classified as full-time workers even if they also attend school. The category is assigned the first month that the person turns the given age (not as an average over the

entire year in which the person was a given age). An individual is only included in the sample once he leaves school or begins to work full time (allowing him to be assigned a school-leaving group).²⁴

Table 4 presents the distribution of the sample of young men at each age across the four work status categories for 4 of the 5 school-leaving groups. (Because of the small sample size, data on those with some postcollege education are not presented.) For high school dropouts, the figures are consistent with Osterman's view of "hanging out":²⁵ at age 21, more than 20 percent of the high school dropouts were neither working nor in school, and through age 29, the figure did not drop below 14 percent. The table also indicates that there was some "hanging out" among high school graduates: through age 21, more than 20 percent were neither in school nor working full time. As with the high school dropouts, this fraction came down only slowly during a person's early 20's. Indeed, not until their 27th birthday did the percentage of high school graduates neither working full time nor in school drop below 10 percent. At that same age, 19.3 percent of high school dropouts were still neither working full time nor in school.

For the school-leaving groups with more education, it becomes relevant to ask whether we want to compare people by their chronological age or by the time elapsed since they left school. While the rows in table 4 present data for the various ages, each successive row represents approximately 1 additional year after a person leaves school. Comparing the entries for the four school-leaving groups, we see that the transition

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to full-time work became smoother as education increased. For college graduates, in approximately the second year after graduating (that is, at their 23rd birthday), less than 8 percent were not employed or in school, and only 6 percent were employed part time. Those with some college fared only slightly worse: at age 20 (at approximately the same point since they left school as did the college graduates), their nonemployment rate (that is, the incidence of those among them who were either unemployed or "out

of the labor force") was also under 8 percent, and their part-time employment rate was under 10 percent. The high school graduates, by contrast, fared much worse: at age 19, their nonemployment rate was 15.3 percent, and their part-time employment rate was 13.4 percent. And the high school dropouts fared worse still: at age 18, their nonemployment rate was 21.3 percent, and their part-time work rate was 10.0 percent. Thus, viewing full-time work as the norm, we find that the rates of full-time employment a little more than a year after leaving school are 80.8 for college graduates, 64.6 for those with some college, 62.1 for high school graduates, and 48.0 for high school dropouts.

As discussed previously, an alternative perspective is possible. The high rates of non-full-time work are consistent with the "leisure equalization hypothesis" discussed in the literature.²⁶ Panel 1 of chart 2 reinforces this perspective. Because the more educated school-leaving groups leave school later, the lines start farther to the right for each successive group. After age 25, once the nonemployment rate for college graduates drops sharply following their first 2 years out of school, the striking feature is the similarity of the nonemployment rate across all groups but high school dropouts. These men at the bottom of the education ladder stand out, with considerably higher rates of nonemployment over the entire period examined. The rates for high school graduates and for those with some college fall steadily as they age and their college-graduating peers leave school.

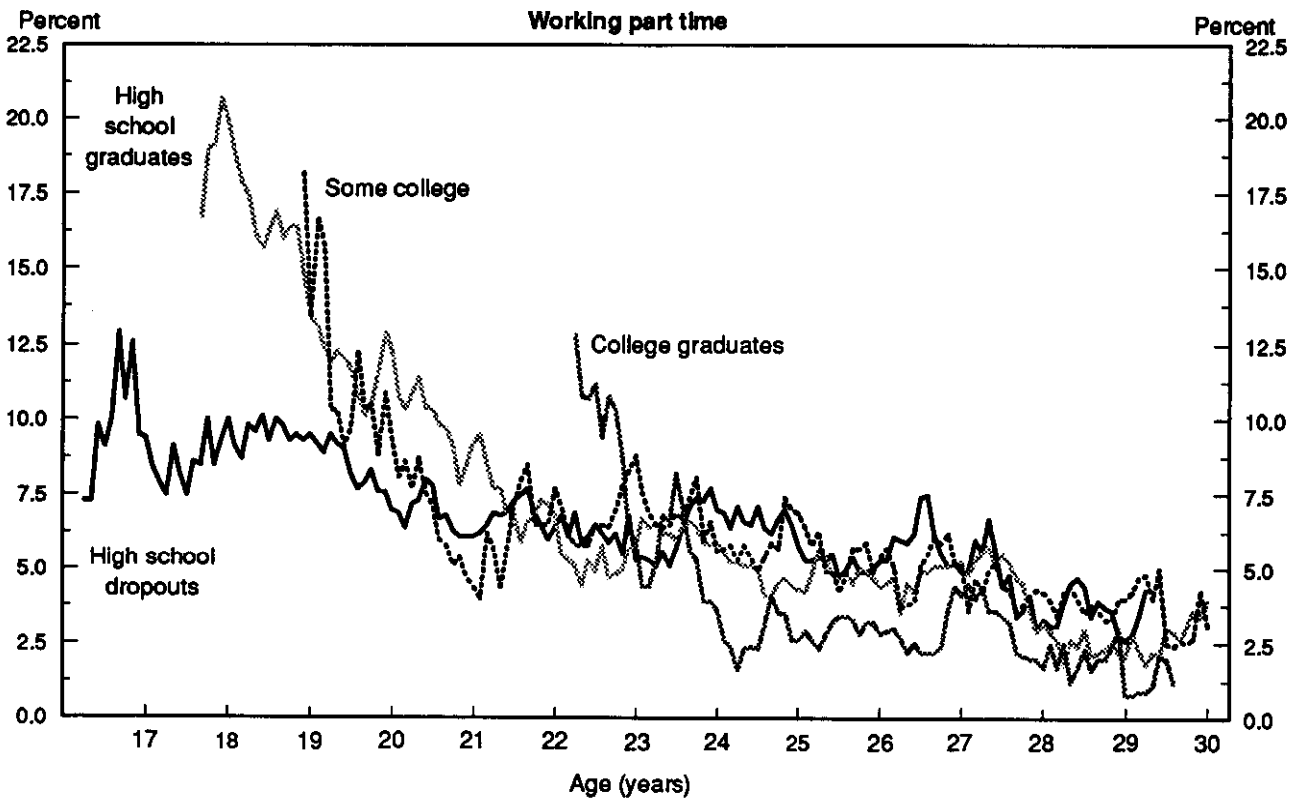
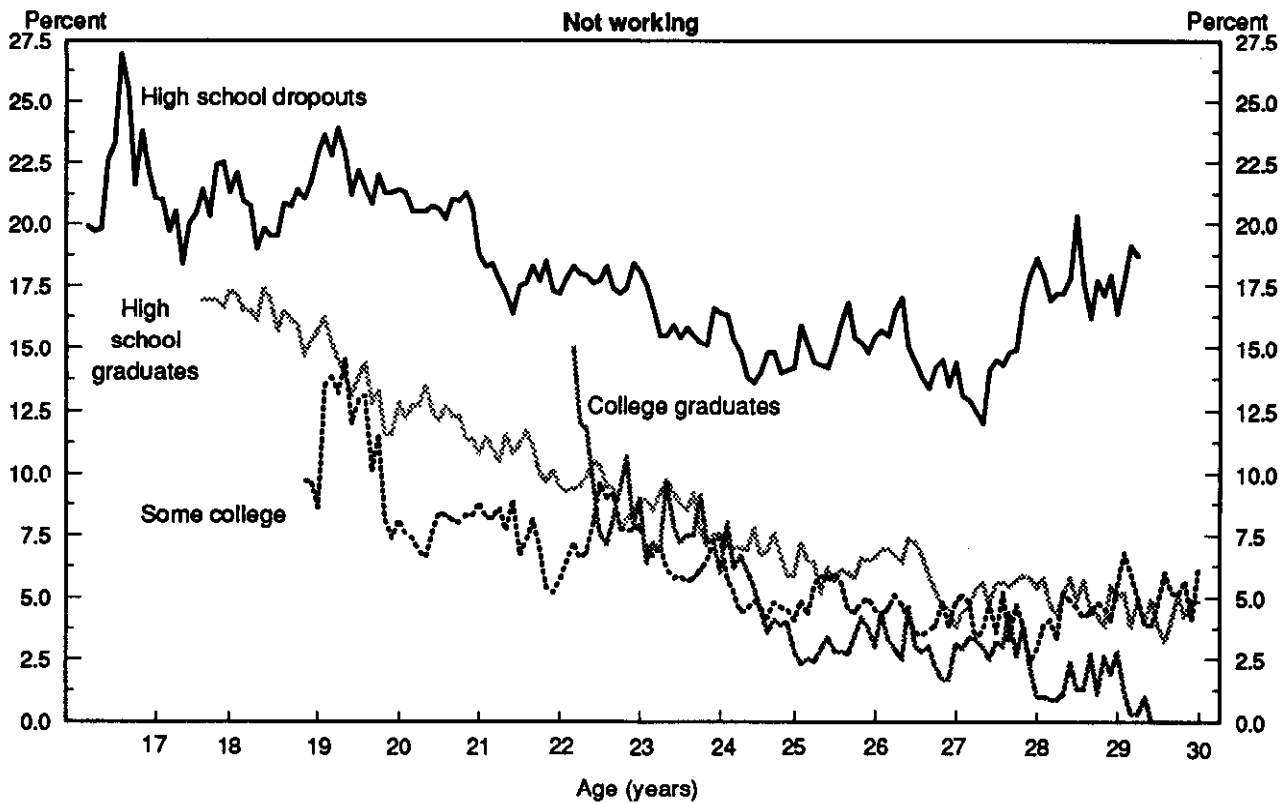
The results are similar for the fraction of each school-leaving group working part time at each age. (See chart 2, panel 2.) Again, except for high school dropouts, the other three school-leaving groups start out with a considerable amount of part-time work. This, however, is clearly transitional: within a few years of leaving school (about 3 for high school graduates, 2 for those with some college, and 1 for college graduates), the rates of part-time work fall sharply. Once again, the more educated school-leaving groups have a smoother transition, but the gaps between the groups close considerably over time.

Based on this static analysis of work status at each age, it appears that the outlier group is not high school graduates, but high school dropouts. Even at age 23, the nonemployment rate for dropouts is 18.4 percent, and their full-time employment rate is 71.3 percent. At age 25, the nonemployment rate is 14.2 percent, and the full-time employment rate only 77.9 percent. The latter figure is 10 percentage points below the rate for high school graduates and almost 13 percent below the rate for college graduates at the same age.²⁷

Table 4. Work status of men, by school-leaving group and age

School-leaving group and age (years)	Number	Percent			
		Working full time	In school, not working full time	Working part time, not in school	Not working, not in school
High school dropouts:					
17	437	51.7	16.7	9.4	22.2
18	820	48.0	20.6	10.0	21.3
19	1,031	55.6	13.2	9.5	21.7
20	1,070	62.7	9.1	7.0	21.3
21	1,069	66.7	6.6	6.1	20.6
22	1,056	70.6	5.7	6.4	17.3
23	1,039	71.3	5.1	5.3	18.4
24	1,014	73.1	3.3	7.0	16.6
25	992	77.9	2.2	5.8	14.2
26	898	77.5	1.7	5.3	15.5
27	661	79.6	1.1	4.9	14.4
28	412	75.2	3.0	3.3	18.6
29	193	79.9	1.1	2.6	16.4
High school graduates:					
18	446	58.4	4.5	19.8	17.3
19	1,025	62.1	9.2	13.4	15.3
20	1,173	66.6	9.4	12.3	11.6
21	1,177	71.2	8.3	9.2	11.4
22	1,165	76.5	6.5	6.8	10.1
23	1,157	80.8	5.0	5.8	8.4
24	1,143	84.2	2.4	5.9	7.5
25	1,123	87.9	1.9	4.3	5.9
26	1,035	87.4	1.5	4.4	6.6
27	817	88.9	2.1	5.2	3.8
28	598	90.3	1.0	3.2	5.4
29	376	89.3	3.6	2.1	5.0
30	183	89.5	1.9	3.9	4.8
Some college:					
19	165	66.6	10.3	13.4	9.7
20	385	64.6	18.6	9.4	7.4
21	536	63.6	23.6	4.4	8.3
22	620	62.0	25.2	7.7	5.2
23	656	66.0	17.4	8.8	7.7
24	675	76.4	10.6	5.6	7.3
25	668	80.7	8.3	6.9	4.1
26	634	82.9	7.2	5.4	4.5
27	516	85.3	4.9	5.1	4.8
28	425	89.7	3.2	4.2	2.9
29	323	87.0	3.4	4.0	5.5
30	228	85.8	4.8	3.1	6.3
31	156	85.8	5.1	2.7	6.3
College graduates:					
23	247	80.8	5.4	6.0	7.8
24	286	82.6	6.7	3.6	7.2
25	292	90.7	3.9	2.6	2.8
26	278	87.0	7.3	2.8	3.0
27	242	89.5	3.2	4.1	3.1
28	205	96.1	1.3	1.7	1.0
29	168	94.1	2.2	.8	2.8

Chart 2. Percent of men not working or working part time, by school-leaving group



Transition to Stable Employment

Dynamic view of the transition from school to work. An advantage of the data from the National Longitudinal Survey of Youth is that we can go beyond the static view to consider the transition from school to work in a dynamic framework. The perception that non-college-bound youth “mill about” in the labor market in the early years after leaving school is a statement about the dynamics of employment. In this section, we use the information in the National Longitudinal Survey employment histories to evaluate further the employment experiences of young men. First, we examine the transition process in terms of the distribution of the number of jobs held at successive ages. Then we consider the transition to stable employment, measured by job duration. As before, in these dynamic analyses, we continue to analyze each school-leaving group separately.

(1) *Number of jobs held.* For each school-leaving group and age, table 5 presents the mean number of jobs held, as well as the number of jobs held by the person at the 25th, 50th, and 75th percentiles of the distribution of the number of jobs held. Jobs are counted only after the individual has left school and are defined as employment with a given employer. According to the table, young men held a large number of jobs in the years immediately after leaving school; this is consistent with findings reported elsewhere.²⁸ Whether it can be viewed as productive job shopping or unproductive “milling about,” however, is not clear from the data.

Again, for number of jobs held, there were important differences by school-leaving group.²⁹ The number of jobs held by high school dropouts was large, compared with the numbers for

the other groups. The median male high school dropout had held 6 jobs by age 24 and 8 jobs by age 28. (The same is true for the mean male high school dropout.) A high school dropout at the 75th percentile, in contrast, had held 9 jobs at age 24 and 10 at age 28. As a summary measure, this represents about a job every other year at the median and nearly a job a year at the 75th percentile.

High school graduates started working about a year later (on average) than high school dropouts, and they accumulated jobs more slowly. After a year, they were accumulating about half a job a year at the median, less than a third of a job a year at the 25th percentile, and just over half a job a year at the 75th percentile. Similar patterns existed for those with some college. Finally, college graduates left school about 4 years later than high school graduates, and they accumulated new jobs the most slowly. Exact comparisons are difficult because most of them were still in their second or third job by the end of the survey.

These results suggest a considerable amount of “milling about” for all school-leaving groups. The amount is lower for those in the more educated school-leaving groups for the same number of years since entering the labor market following leaving school. However, an analysis of job duration suggests a different perspective.

(2) *Timing of the transition to stable employment.* We next use the longitudinal nature of the data in the National Longitudinal Survey of Youth to determine what percentage of a school-leaving group has ever held a job of a given duration—specifically, a job lasting for at least 1, at least 2, or at least 3 years. We view holding a job of 1 to 3 years’ duration as one useful definition of stable employment, as opposed to “milling about.”

Table 5. Number of jobs held, by school-leaving group and age, at mean and 25th, 50th, and 75th percentiles of distribution

Age	High school dropouts					High school graduates					Some college					College graduates				
	Number	Mean	Percentile			Number	Mean	Percentile			Number	Mean	Percentile			Number	Mean	Percentile		
			25th	50th	75th			25th	50th	75th			25th	50th	75th			25th	50th	75th
17 ...	1,122	0.5	0	0	1	1,225	0.0	0	0	0	729	0.0	0	0	0	307	0.0	0	0	0
18 ...	1,106	1.4	0	1	2	1,217	.4	0	0	1	727	.0	0	0	0	307	.0	0	0	0
19 ...	1,093	2.5	1	2	4	1,202	1.5	1	1	2	724	.3	0	0	0	306	.0	0	0	0
20 ...	1,082	3.5	2	3	5	1,193	2.5	1	2	3	721	1.0	0	1	2	304	.0	0	0	0
21 ...	1,074	4.3	2	4	6	1,179	3.3	2	3	4	707	1.8	0	2	3	303	.0	0	0	0
22 ...	1,059	5.2	3	5	7	1,168	4.0	2	4	5	700	2.7	1	2	4	301	.4	0	0	1
23 ...	1,040	5.9	3	5	8	1,160	4.7	2	4	6	693	3.6	2	3	5	297	1.3	1	1	2
24 ...	1,017	6.7	4	6	9	1,143	5.3	3	5	7	687	4.4	2	4	6	295	2.0	1	2	3
25 ...	994	7.3	4	7	10	1,125	5.9	3	5	8	672	5.0	3	5	7	294	2.5	1	2	3
26 ...	902	8.0	5	7	10	1,035	6.3	3	6	9	637	5.6	3	5	8	279	2.9	1	2	4
27 ...	662	8.6	5	8	10	817	6.7	4	6	9	517	6.2	3	5	8	242	3.3	2	3	4
28 ...	413	8.6	5	8	10	598	7.2	4	6	10	425	6.7	4	6	9	205	3.6	2	3	5
29 ...	194	8.8	6	9	10	376	7.6	4	7	10	323	7.0	4	6	9	169	3.8	2	3	5
30 ...	—	—	—	—	—	183	7.8	4	7	10	228	7.3	4	7	10	—	—	—	—	—
31 ...	—	—	—	—	—	—	—	—	—	—	156	7.7	4	7	10	—	—	—	—	—

¹ 10 or more jobs.

NOTE: Dash indicates fewer than 50 observations.

Chart 3. Percent of men ever in a job since leaving school, by duration of job and school-leaving group

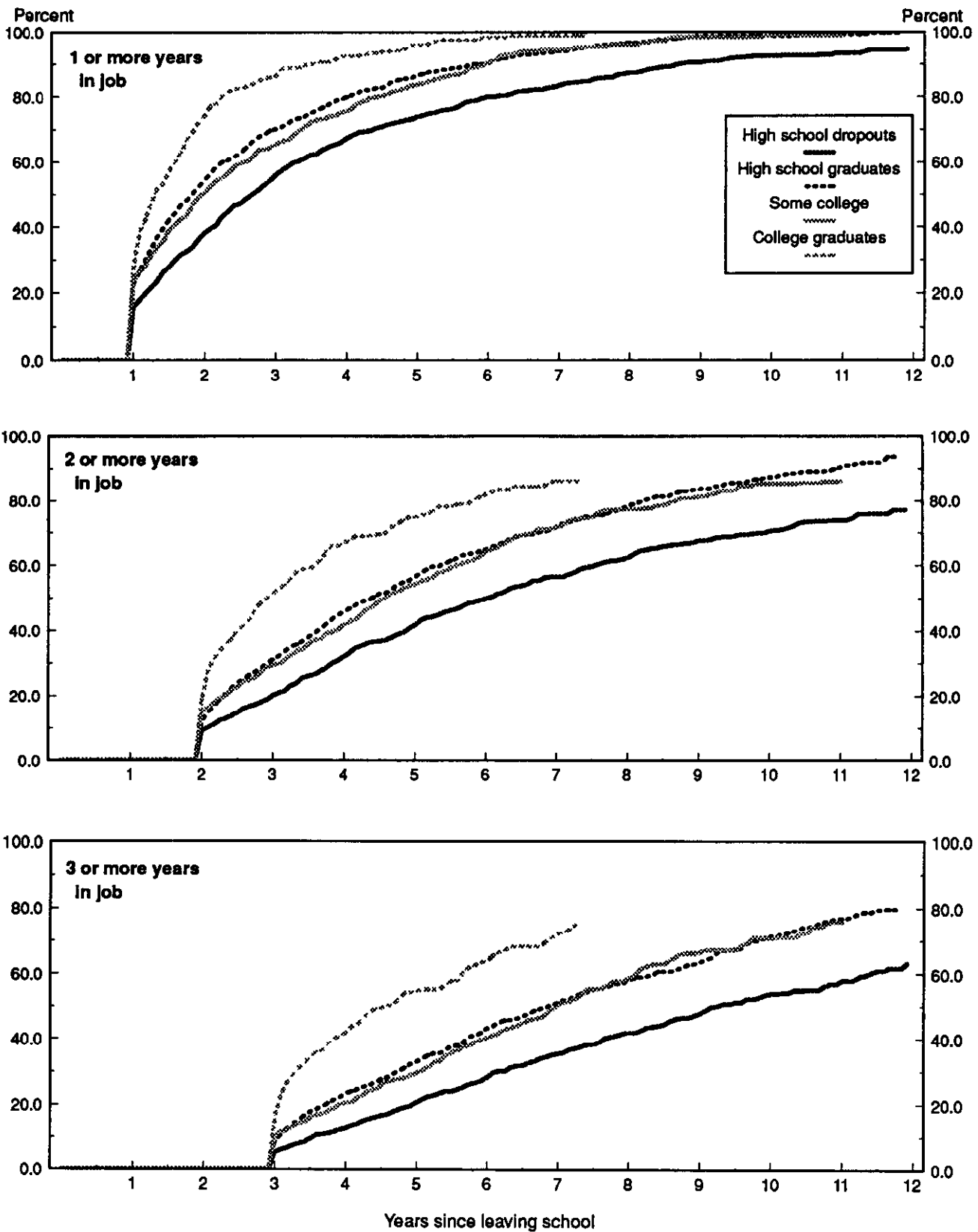


Table 6. Percent of men ever in a job since leaving school, by school-leaving group, duration of job, and age

School-leaving group and age	Number	Duration of longest job ever held		
		1 year	2 years	3 years
High school dropouts:				
16	1,132	0.0	0.0	0.0
17	1,122	2.1	.0	.0
18	1,106	11.9	1.2	.0
19	1,093	27.5	5.7	.8
20	1,082	49.0	13.7	2.8
21	1,074	63.2	28.6	7.5
22	1,059	72.2	39.1	18.4
23	1,040	77.4	46.6	26.0
24	1,017	81.9	54.1	32.4
25	994	86.4	61.4	40.1
26	902	90.0	66.2	47.1
27	662	91.8	70.3	52.7
28	413	93.7	73.7	56.8
29	194	93.8	75.6	60.8
High school graduates:				
16	1,227	.0	.0	.0
17	1,225	.0	.0	.0
18	1,217	.1	.0	.0
19	1,202	14.2	.1	.0
20	1,193	47.3	7.3	.1
21	1,179	67.4	27.4	5.2
22	1,168	77.1	41.8	19.7
23	1,160	84.9	53.4	30.5
24	1,143	90.5	63.7	41.3
25	1,125	94.3	70.9	49.9
26	1,035	95.9	77.4	57.0
27	817	98.2	83.4	63.6
28	598	98.6	87.1	70.1
29	376	98.6	89.0	75.7
30	183	99.2	91.7	79.5
Some college:				
16	732	.0	.0	.0
17	729	.0	.0	.0
18	727	.0	.0	.0
19	724	.6	.0	.0
20	721	8.4	.0	.0
21	707	24.8	4.5	.0
22	700	41.0	15.6	3.6
23	693	57.3	26.8	10.2
24	687	69.1	38.6	17.9
25	672	81.2	48.0	28.8
26	637	89.8	61.0	36.3
27	517	94.3	71.1	49.4
28	425	96.7	75.2	58.8
29	323	98.9	81.6	63.5
30	228	98.9	86.9	70.2
31	156	99.1	87.5	76.8
College graduates:				
16	309	.0	.0	.0
17	307	.0	.0	.0
18	307	.0	.0	.0
19	306	.0	.0	.0
20	304	.0	.0	.0
21	303	.0	.0	.0
22	301	.2	.0	.0
23	297	20.8	.0	.0
24	295	61.1	16.0	.0
25	294	78.8	40.9	13.6
26	279	90.4	60.7	35.4
27	242	94.9	73.4	50.5
28	205	97.4	81.3	60.6
29	169	98.2	84.1	68.0

While we do not evaluate whether these are "good jobs" on the basis of compensation or potential for career advancement, tenure on the job is one measure of the process of settling down and a possible indicator of the transition to a career job. Finally, we examine the sensitivity of our results to alternative definitions of job duration that have been used in the literature.

Chart 3 plots, for each year since leaving school, the percentage of men in each school-leaving group ever in a job that lasted 1, 2, or 3 years. For example, 5 years after leaving school, about 21 percent of high school dropouts had ever held a job that lasted 3 years, while 55 percent of college graduates had done so. About one-third of high school graduates and the same fraction of those with some college had achieved this status.

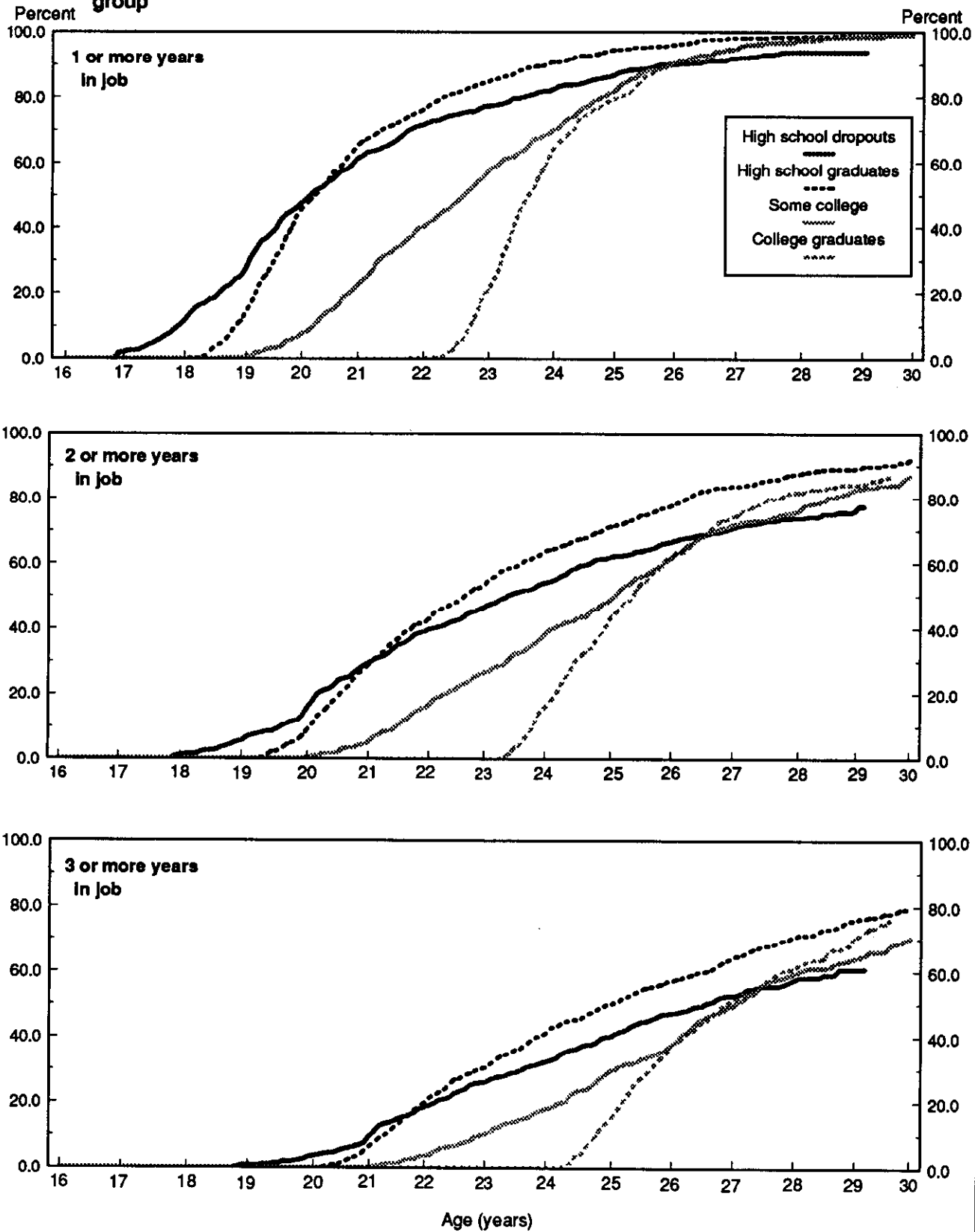
Similar general patterns existed for each measure of job duration. In all cases, measuring time since leaving school, college graduates made the transition to stable employment fastest, high school dropouts slowest. In the middle were high school graduates and those with some college; the behavior of these two groups was nearly indistinguishable.

Chart 4 displays the same information as chart 3, except by the age of the individual, rather than by the time since left school. Immediately after the person left school, the age at which he had left dominates the curve. High school dropouts were in the labor market for the longest period, so they had more time to experience a job lasting 1, 2, or 3 years.

Interestingly, this effect wore off quite quickly. Within 1 or 2 years after it was chronologically possible, high school graduates overtook high school dropouts in terms of the percentage who had ever held a job for 1, 2, or 3 years. By age 30, college graduates rose to the level of the other three groups. In some cases, college graduates overtook those with some college, as well as high school dropouts, within 1 or 2 years of the earliest time they could do so (that is, 4 or 5 years after they entered the labor market). In contrast, those with some college, while eventually overtaking high school dropouts, tended to lag behind high school graduates through age 30.

For college graduates, there was relatively little heterogeneity in the transition to stable employment. The median male college graduate held a job for 1 year before his 24th birthday, a job for 2 years before his 26th birthday, and a job for 3 years before his 27th birthday. (See table 6.) A man at the 25th percentile of the durational distribution also held a job lasting 1 year before age 24 and essentially stayed with that job, progressing to each later cutoff (2 years and 3 years) about a year later. Just before age 25, a man at the 75th percentile held a job for 1 year. He took 3 more years to stay in a job 2 years and had not yet

Chart 4. Percent of men ever in a job since leaving school, by age, duration of job, and school-leaving group



stayed in a job 3 years by age 29, when the data become too sparse for analysis.

The pattern for the median male with some college is similar to that for the median college graduate. (See table 6.) It is more heterogeneous, however, because of the variation in the date of leaving school and the fact that some men with some college return to school.

At the other extreme, the median male dropout did not hold a job for a year until just after his 20th birthday, despite the fact that he usually entered the labor force before his 17th birthday (See table 6.) The median dropout did not reach the 2-year tenure point until age 23 and the 3-year mark until age 26. This implies that the median dropout did not enter a job lasting 1 year until age 19, a job lasting 2 years until age 21, and a job lasting 3 years until age 23.³⁰

For high school dropouts, the variance was substantial. At the 25th percentile, dropouts reached the 1-, 2-, and 3-year tenure points before ages 19, 21, and 23, respectively, a pace that was faster than that of the median high school graduate. Dropouts at the 75th percentile did not reach the 1-year tenure point until age 22, and still had not reached the 2-year tenure point by age 29, when the data become too sparse for analysis.

Finally, we turn to the pattern for high school graduates, the focus of the concerns about the transition from school to work. The median high school graduate had held a job for at least 1 year by the time he turned 21, 2 years by the time he turned 23, and 3 years by the time he turned 26. (See table 6.) Subtracting the time required to achieve the stated tenure in each job, we conclude that the median male high school graduate entered a job that would last 1 year while he was 19, 2 years while he was 20, and 3 years while he was 22.³¹

If holding a job for 2 or even 3 years is not "milling about," then the patterns for high school graduates in table 6 do not support the impression conveyed in the report by the Commission on the Skills of the American Workforce³² that the typical high school student "mills about" in the labor market until age 23 or 24. True enough, the median high school graduate did not settle immediately (at 18 or 19) into a long-tenured job. However, characterizing the settling-down process as lasting into the mid-20's (for example, 23 or 24) is overly pessimistic for the typical member of that group. Furthermore, we reach this conclusion for a group of men that includes those who returned to school full time (nearly 30 percent of the sample). If we were to exclude those high school graduates who "failed" to make the transition to stable employment by a given age because they returned to school, the computed

median age at entry into stable employment among those who did not return to school would be even earlier,

Of course, while this is the pattern for the median high school graduate, the experience varies considerably at the extremes of the distribution. At the 25th percentile, high school graduates entered the 1-, 2-, and 3-year jobs when they were 18, 18, and 19 years, respectively, that is, from 1 to 3 years ahead of the median. This probably describes what is possible in the United States for young men with "successful" transitions. By contrast, at the 75th percentile, young male high school graduates experienced a transition from school to work that corresponds more closely to the common perception, embodied in the quote from the report by the Commission on the Skills of the American Workforce cited at the beginning of this article. At that level of the distribution, graduates entered their 1-, 2-, and 3-year jobs at ages 20, 23, and 25, respectively.

(3) *Sensitivity analysis.* The preceding results provide a considerably brighter picture than has been presented elsewhere in the literature using the same data.³³ The difference derives primarily from different methods of summarizing dynamic labor market data. We define "milling about" as ending *permanently* when a young person first stays in *any* job more than M years. When we find that to happen, we subtract M years, yielding the age at which the person first entered a job that would last M years.

At least two other concepts are possible: first, we could ask whether or not the job a person is *currently* in *will last* at least M years; and second, we can ask whether the *current* job *has already lasted* at least M years.³⁴

Table 7 compares the percent of high school graduates with job tenures of 1, 2, and 3 years under these different concepts of job tenure as of the time a person is exactly a given age, from ages 16 to 30. (For purposes of comparison, the table also presents results for high school dropouts, those with some college, and college graduates; the ordering of the ages is similar.) For each age and job tenure, these three numbers correspond to the three concepts just described. The column labeled "Longest" corresponds to the *longest* job a person has ever held as of the given age (the definition we adhere to). The column labeled "Eventual" corresponds to the *eventual* length of the *current* job at that age, and the column labeled "Current" corresponds to the length *to date* of the *current* job at that age. There is a formal relation among these concepts: the current duration of the job is always less than or equal to the eventual duration of the job, which is always less than or equal to the duration of the

Table 7. Percent of men with job tenures of 1, 2, and 3 years under different concepts of job tenure

Age	Number	1 year			2 years			3 years		
		Longest	Eventual	Current	Longest	Eventual	Current	Longest	Eventual	Current
High school dropouts:										
16	1,132	0.0	1.8	0.0	0.0	1.0	0.0	0.0	0.5	0.0
17	1,122	2.1	10.2	2.1	.0	5.2	.0	.0	2.4	.0
18	1,106	11.9	23.0	9.0	1.2	11.9	1.2	.0	6.8	.0
19	1,093	27.5	39.7	15.0	5.7	25.7	3.5	.8	17.3	.6
20	1,082	49.0	49.1	28.5	13.7	34.5	8.0	2.8	24.2	1.3
21	1,074	63.2	52.1	34.5	28.6	38.5	18.2	7.5	29.7	5.0
22	1,059	72.2	57.8	36.4	39.1	43.4	22.8	18.4	35.4	13.0
23	1,040	77.4	61.1	40.7	46.6	47.7	23.9	26.0	38.5	15.0
24	1,017	81.9	64.3	44.3	54.1	49.3	27.2	32.4	40.9	17.0
25	994	86.4	67.0	46.3	61.4	50.3	30.5	40.1	40.5	19.9
26	902	90.0	65.8	46.6	66.2	51.0	31.3	47.1	42.0	22.8
27	862	91.8	70.2	47.3	70.3	57.2	33.4	52.7	46.8	25.3
28	413	93.7	68.1	50.3	73.7	58.4	33.2	56.8	48.5	25.5
29	194	93.8	72.0	58.4	75.6	—	43.5	60.8	—	27.2
High school graduates:										
16	1,227	.0	.0	.0	.0	.0	.0	.0	.0	.0
17	1,225	.0	.1	.0	.0	.1	.0	.0	.1	.0
18	1,217	.1	11.5	.1	.0	5.7	.0	.0	3.7	.0
19	1,202	14.2	44.2	11.6	.1	26.0	.1	.0	18.5	.0
20	1,193	47.3	59.1	34.2	7.3	40.7	6.5	.1	29.8	.1
21	1,179	67.4	63.7	42.4	27.4	49.0	21.5	5.2	39.5	4.3
22	1,168	77.1	66.1	45.3	41.8	54.8	28.0	19.7	46.0	15.5
23	1,160	84.9	75.2	52.2	53.4	60.4	34.1	30.5	50.0	21.4
24	1,143	90.5	74.5	54.7	63.7	62.7	37.5	41.3	53.0	25.9
25	1,125	94.3	78.7	58.1	70.9	67.1	41.1	49.9	58.6	30.7
26	1,035	95.9	81.0	61.3	77.4	70.8	45.4	57.0	63.5	33.8
27	817	98.2	86.4	66.8	83.4	76.0	51.1	63.6	67.3	39.1
28	598	98.6	85.2	68.8	87.1	76.2	53.4	70.1	67.1	42.9
29	376	98.6	85.6	66.8	89.0	76.2	52.0	75.7	68.7	44.3
30	183	99.2	91.2	73.3	91.7	—	56.1	79.5	—	45.8
Some college:										
16	732	.0	.0	.0	.0	.0	.0	.0	.0	.0
17	729	.0	.0	.0	.0	.0	.0	.0	.0	.0
18	727	.0	.5	.0	.0	.0	.0	.0	.0	.0
19	724	.6	7.4	.4	.0	4.2	.0	.0	3.5	.0
20	721	8.4	23.0	6.3	.0	15.0	.0	.0	9.7	.0
21	707	24.8	35.5	17.5	4.5	25.4	4.1	.0	17.0	.0
22	700	41.0	48.1	25.6	15.6	34.3	11.8	3.6	27.2	3.4
23	693	57.3	57.5	37.4	26.8	41.4	17.7	10.2	33.7	8.3
24	687	69.1	67.6	42.0	38.6	51.4	25.2	17.9	42.7	12.9
25	672	81.2	76.4	50.3	48.0	60.1	29.9	28.8	50.8	20.0
26	637	89.8	81.3	59.0	61.0	64.6	36.5	36.3	54.8	21.3
27	517	94.3	81.4	59.6	71.1	69.6	43.7	49.4	59.2	28.9
28	425	96.7	86.0	64.7	75.2	73.1	45.8	58.8	63.5	34.0
29	323	98.9	84.5	66.8	81.6	75.0	48.8	63.5	67.8	36.6
30	228	98.9	80.8	64.4	86.9	72.3	52.2	70.2	66.1	38.3
31	156	99.1	—	69.5	87.5	—	53.6	76.8	—	45.2
College graduates:										
16	309	.0	.0	.0	.0	.0	.0	.0	.0	.0
17	307	.0	.0	.0	.0	.0	.0	.0	.0	.0
18	307	.0	.0	.0	.0	.0	.0	.0	.0	.0
19	306	.0	.0	.0	.0	.0	.0	.0	.0	.0
20	304	.0	.0	.0	.0	.0	.0	.0	.0	.0
21	303	.0	.2	.0	.0	.0	.0	.0	.0	.0
22	301	.2	18.9	.0	.0	14.2	.0	.0	12.4	.0
23	297	20.8	56.5	18.3	.0	38.2	.0	.0	33.0	.0
24	295	61.1	73.2	47.6	16.0	59.2	15.8	.0	48.8	.0
25	294	78.8	85.3	58.9	40.9	71.3	35.9	13.6	60.4	12.6
26	279	90.4	85.2	68.9	60.7	75.3	48.6	35.4	66.7	31.5
27	242	94.9	89.7	70.5	73.4	79.8	55.4	50.5	73.0	43.1
28	205	97.4	84.3	68.9	81.3	77.2	54.0	60.6	72.2	43.5
29	169	98.2	88.8	68.2	84.1	81.1	59.0	68.0	79.5	49.1

NOTE: Statistics are as of the birthday in the age column. "Number" denotes the number of individuals in the sample at least through the given age. Dash denotes fewer than 150 observations. Longest = Longest job ever held lasted at least M years. Eventual = Current job will eventually last at least M years. To compute this value, we need to be able to observe the person for another M years. Thus, some cells in the column headed "Eventual" will have fewer than 150 observations. Current = Current job has already lasted at least M years.

longest job held M years later (that is, M rows down the table in the column labeled "Longest").

According to the table, the time on the current job clearly gives the most negative results. Consider, for example, the job that the individual had held for 2 years as of age 26. More than half of all high school graduates, 54.6 percent (100.0 - 45.4), at age 26 had not been in their current job for even 2 years. Note, however, that for nearly half, 46.5 percent $[(70.8 - 45.4)/54.6]$, of those whose current job had not lasted 2 years, the current job would in fact last 2 years. Further, nearly one-quarter, 22.6 percent $[(77.4 - 70.8)/(100.0 - 70.8)]$, of the men whose current job would not last 2 years had already held a job that lasted 2 years. Put differently, half of all high school graduates at a given age were not in a job that would last 2 years until nearly age 27. However, just after his 21st birthday, the median high school graduate was in a job that would last at least 2 years. And even before his 20th birthday, the median high school graduate had, at some earlier point in his work career (perhaps not the current job), held a job that eventually lasted at least 2 years.

Following the labor economic literature on job matching,³⁵ we are reluctant to view all job turnover as bad. In fact, the literature suggests that most job changes involve sizable wage increases. From this perspective, we are concerned about measures of employment stability that consider individuals who, at an arbitrary point in time, have not been in their current job for several years as not having experienced a successful transition to stable employment.³⁶ A similar criticism applies to measures based on the eventual duration of the current job.

We agree that in and of itself, the failure to stay on a job for a significant period of time (1, 2, or, especially, 3 years) frequently indicates some problem. If employers do not expect young workers to stay on the job even for such a moderate period of time, they will not invest in training them. However, a worker who spends several years with one employer and then moves on to a new job (often with a large increase in pay) is not a failure: the new job could also last several years.

Even a short job (under a year) between two longer jobs need not be viewed as a failure. Perhaps the short job did not "work out"; perhaps it was deliberately viewed as temporary until an appropriate "career-enhancing" job became available. (The worker might even have known of that next good job.) For all of these reasons, we prefer our definition of the transition period as the time until the young worker first enters a job that will eventually last more than M years. And, again for the same reasons, we are concerned that the alternative definitions we have

discussed present an overly pessimistic view of labor market dynamics.

Conclusions

The analysis of data from the National Longitudinal Survey of Youth presented in this article supports the conclusion reached in previous research that a large share of young men are neither in school nor working full time after leaving school. In addition, in the years shortly after leaving school, they hold many jobs.

In our dynamic analyses of the transitions to stable employment, we use a different and, we argue, preferable measure of job duration than has been previously employed. As a result, we find less support for the common perception that the typical male high school graduate "mills about" in the labor market until well into his 20's. Indeed, while he was 20, the median male high school graduate (who did not proceed immediately to postsecondary education) had already entered a job that would last at least 2 years. The corresponding age for entering a job that would last 3 or more years is 22. These age patterns are remarkably similar across men who leave school earlier (high school dropouts) and those who leave school later (those who proceed directly from high school to postsecondary education, whether or not they receive a bachelor's degree).

The results suggest that the median male high school graduate does not move immediately from school to a long-term job. However, he will enter a long-term job (of at least 2 or 3 years' duration) in his early 20's—not the mid- or late 20's claimed by some other analysts. Thus, for the median male student, the transition to more stable employment does not appear to be a major problem: the 2- or 3-year jobs they secure may be "dead end" by some other criterion (for example, absolute earnings or earnings growth), but not by their longevity.

There is, however, considerable diversity among and within the school-leaving groups we examine. The foregoing characterization holds for the median male high school graduate. Male high school graduates at the 75th percentile did not reach a job with 1, 2, or 3 years of tenure until the ages of 20, 23, and 25, respectively. For high school dropouts, the time to reach this status was even longer. These results suggest that "milling about" is less typical for high school graduates and more common for the bulk of high school dropouts.

We further document that the proportion of young people who could be considered to be "milling about" is sensitive to the concept of job duration used. Compared with analyses based on whether the current job *will last* M years or whether the current job *has already lasted* M

years, our concept—*ever having held* a job lasting M years—presents a more favorable view of the transition. Nevertheless, we are inclined to believe that whether an individual has ever begun a job which will last that long is more important than whether that individual's current job has lasted or will last that long. Job turnover at these early ages is beneficial if the new job provides a better match between the youth's skills and the skill requirements of the employer.

As we noted earlier, our results for the frac-

tion of men in a given school-leaving group who had entered stable employment by a given age is a lower bound on the actual number: for many young men, the transition to stable employment is interrupted by returning to school, which most observers would view as a positive development. The next step in this line of research is to clarify the timing of an individual's return to school, the type of schooling he seeks and gets, and the interaction between that schooling and the timing of the transition to stable employment. □

Footnotes

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¹ See, for example, Paul Osterman, *Getting Started: The Youth Labor Market* (Cambridge, MA, MIT Press, 1980); Commission on the Skills of the American Workforce, *America's Choice: High Skills or Low Wages* (Rochester, NY, National Center on Education and the Economy, 1990); James E. Rosenbaum, Takehiko Karia, Rick Settersten, and Tony Maier, "Market and Network Theories of the Transition from High School to Work: Their Application to Industrial Societies," *Annual Review of Sociology*, Vol. 16, 1990, pp. 263–99; Wilfred Prewo, "The Sorcery of Apprenticeship," *The Wall Street Journal*, Feb. 12, 1993, p. A14; and Paul Osterman and Maria Iannozzi, "Youth Apprenticeships and School-to-Work Transitions: Current Knowledge and Legislative Strategy," Working Paper No. 14 (Philadelphia, National Center on the Educational Quality of the Workforce, 1993).

² Rosenbaum and others, "Market and Network Theories," p. 4.

³ Osterman and Iannozzi, "Youth Apprenticeships," p. 4.

⁴ See William R. Johnson, "A Theory of Job Shopping," *Quarterly Journal of Economics*, May 1978, pp. 261–78; and Brian P. McCall, "Occupational Matching: A Test of Sorts," *Journal of Political Economy*, Vol. 98, No. 1, 1990, pp. 45–69.

⁵ See Robert H. Meyer and David A. Wise, "High School Preparation and Early Labor Force Experience," in R. B. Freeman and D. A. Wise, *The Youth Labor Market Problem: Its Nature, Causes, and Consequences* (Chicago, University of Chicago Press, 1982), pp. 277–339; Charles F. Manski and David A. Wise, *College Choice in America* (Cambridge, MA, Harvard University Press, 1983); and Robert H. Topel and Michael P. Ward, "Job Mobility and the Careers of Young Men," *Quarterly Journal of Economics*, May 1992, pp. 439–479.

⁶ See George J. Nolfi, Winship C. Fuller, Arthur J. Corazzini, William H. Epstein, Richard B. Freeman, Charles F. Manski, Valerie I. Nelson, and David A. Wise, *Experiences of Recent High School Graduates: The Transition to Work or Postsecondary Education* (Lexington, MA, Lexington Books, 1986).

⁷ See Manski and Wise, *College Choice*; and Topel and Ward, "Careers of Young Men."

⁸ Meyer and Wise, "High School Preparation."

⁹ See S. F. Hamilton, *Apprenticeship for Adulthood* (New York, Free Press, 1990); James E. Rosenbaum and Takehiko

Kariya, "From High School to Work: Market and Institutional Mechanisms in Japan," *American Journal of Sociology*, Vol. 94, No. 6, 1989, pp. 1334–65; and Prewo, "Sorcery of Apprenticeship."

¹⁰ Prewo, "Sorcery of Apprenticeship," p. A14.

¹¹ See Rosenbaum and Kariya, "From High School to Work"; and Prewo, "Sorcery of Apprenticeship."

¹² Lisa M. Lynch, "The Economics of Youth Training in the United States," *Economic Journal*, September 1993, pp. 1292–1302.

¹³ Osterman and Iannozzi, "Youth Apprenticeships," p. 6.

¹⁴ Center for Human Resource Research, *NLS Handbook, 1988* (Columbus, OH, Ohio State University, 1988).

¹⁵ Prior to 1981, the survey collected more limited information on school attendance. During that period, most (but far from all) of the individuals in the sample were in school. Those who were in school and who seemed to be at grade level (given their age and previous answers to questions on school enrollment) were assumed always to have been in school. Details of our procedure for filling in the missing monthly information on schooling are available on request.

¹⁶ Other studies using data from the National Longitudinal Survey of Youth define schooling groups on the basis of the level of schooling attained at the end of the panel, which is not consistent with our perception of the way the terms "high school dropout" and "high school graduate" are used colloquially or in the literature on policy. (See, for example, Jonathan R. Veum and Andrea B. Weiss, "Education and the work histories of young adults," *Monthly Labor Review*, April 1993, pp. 11–20.)

¹⁷ We adopt such a definition because the National Longitudinal Survey of Youth does not have any indicator that a person is attending school full time. Before age 16, school attendance is used to define leaving school.

¹⁸ No one was included in our calculations until he left school and we could assign a school-leaving group to him. This means that school-leaving groups grow as people leave school. (For example, some of those in the school-leaving group designated "some college" (see shortly) entered the calculations at age 19, but many did not enter the calculations until age 20 or later.)

¹⁹ See Mary J. Frase, *Dropout Rates in the United States: 1988*, Report 89–609 (National Center for Education Statistics, 1989); and Gus Haggstrom, Tom J. Blaschke, and Richard J. Shavelson, *After High School, Then What? A Look at the Postsecondary Sorting-Out Process in the 1980s*, Report RAND–4008–FMP (Santa Monica, CA, RAND Corporation, 1991).

²⁰ The data on the incidence of returning to school and the final degree earned are based on information obtained from the last available interview, the date of which varies

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across individuals due to attrition and the individuals' different ages at the initial interview.

²¹ High school completion rates for the population were computed by multiplying the share of high school dropouts by the percentage of high school dropouts that ever received a high school diploma or an equivalency certificate. Because almost all of these degrees and certificates (sought through about age 31, at least) were awarded within the first 3 years after returning to school (see chart 1), the rates are a fair approximation for a recent cohort of the general population aged 21 and older.

²² See Stephen V. Cameron and James J. Heckman, "The Nonequivalence of High School Equivalents," *Journal of Labor Economics*, January 1993 (part 1), pp. 1-47. These researchers argue that a recipient of an equivalency certificate should be treated as a dropout, and not as a high school graduate.

²³ It would not be identical because one cannot identify school-leaving groups in the Current Population Survey. Instead, one would use current schooling, and, as we saw in the previous section, the two concepts are not identical.

²⁴ As a result, the sample sizes increase in the early years and then decrease in later years due to nonresponse to surveys and because many of the sample members had not yet reached the older ages by the 1990 interview. Results are given only if the cell size for a given age-school-leaving group combination exceeds 50.

²⁵ Osterman, *Getting Started*.

²⁶ See Nolfi and others, *Transition to Work*.

²⁷ The comparison with those with some college is not appropriate, because many of them are back in school.

²⁸ See "Work and Family: Jobs Held and Weeks Worked by Young Adults," Report 827 (Bureau of Labor Statistics, August 1992); Topel and Ward, "Job Mobility"; and Veum and Weiss, "Education and work histories."

²⁹ Our estimates of the mean number of jobs held by those in the more educated school-leaving groups are lower than estimates given in other analyses. The reason appears to be

that other authors (for example, Veum and Weiss, "Education and work histories") count all jobs held since age 18, while we count only jobs held since leaving school. For this reason, differences across school-leaving groups are more pronounced in our analysis.

³⁰ This computation proceeds by noting that if more than 50 percent of all people in a school-leaving group have been in a job M years by the birthday at which they turn A years, then the median person reached that point when he was $A - 1$ years old, and he entered the job at least $A - 1 - M$ years earlier. So, for example, reading from table 6, for high school dropouts, the percentiles for 2 years' job tenure are 47.4 and 55.4 at the birthdays at which the young men turned 24 and 25, respectively. Thus, the median male high school dropout reached his 2-year tenure date while he was 24 and entered a job that would eventually last at least 2 years by the time he was 22.

³¹ See footnote 30 for the computation of these figures.

³² Commission on the Skills of the American Workforce, *America's Choice*, p. 46.

³³ See, for example, Osterman and Iannozzi, "Youth Apprenticeships."

³⁴ Osterman and Iannozzi, *ibid.*, employ this definition.

³⁵ See, for example, Jacob Mincer and Boyan Jovanovic, "Labor Mobility and Wages," in Sherwin Rosen, ed., *Studies in Labor Markets* (Chicago, University of Chicago Press, 1981), pp. 21-64; Christopher J. Flinn, "Wages and Job Mobility of Young Workers," *Journal of Political Economy*, Vol. 94, No. 3, Part 2, 1986, pp. S88-S110; and McCall, "Occupational Matching."

³⁶ The distinction between length of time in a job on the one hand and an interview together with a completed job tenure on the other is discussed in Francis W. Horvath, "Job tenure of workers in January 1981," *Monthly Labor Review*, September 1982, pp. 34-36. Horvath's discussion is based on a prior *Monthly Labor Review* article by Norman Bowers ("Probing the issues of unemployment duration," July 1980, pp. 23-32).