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EDUCATIONAL AND WORK STRATEGIES FROM ADOLESCENCE TO EARLY ADULTHOOD: CONSEQUENCES FOR EDUCATIONAL ATTAINMENT

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Abstract

Whereas sociologists have long recognized that adolescence marks the start of the socioeconomic career, the importance of this period has been attributed to school performance, aspirations, and significant others' influence that support educational attainment to a greater or lesser degree. The underlying premise of this study is that adolescent work is an expression of instrumental action with consequences for socioeconomic attainment. Using data from the Youth Development Study, we find that part-time work during high school is linked with patterns of schooling and working that persist during the succeeding years and are more or less conducive to the receipt of a BA/BS degree. Moderate work coupled with school appears to especially facilitate the educational attainment of low promise youth.

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An important premise of life course analysis is the principle of agency: "Individuals construct their own life course through the choices and actions they take within the opportunities and constraints of history and social circumstance" (Elder, Johnson, and Crosnoe 2003: 11). Clausen (1993), in his monumental study of *American Lives*, found that planfully competent adolescents, who exhibited self-confidence, intellectual investment and dependability, made choices regarding school, work, and intimate partners that led them to have more satisfying and successful lives than their less planful peers. They were more active in seeking out information about future options; their more informed and realistic decisions yielded better fits between their interests, resources, and personalities and the rewards and challenges of their subsequent roles and social environments.

Whereas social scientists recognize adolescents' capacity to formulate goals and anticipate future lines of action (Keating 1990), much empirical research and commentary stresses the lack of direction among contemporary teenagers, their uncertainty with respect to vocational goals, and their difficulties in navigating the school to work transition (Schneider and Stevenson 1999). Such problems are exacerbated by the near-exclusive emphasis on academic preparation for college in American high schools, the rapidly changing economic climate, and the loose coupling of education and work during the transition to adulthood. More so than in most other postindustrial societies, American young people must rely on their own resources and connections as they leave school, seek full-time jobs and become established in the world of work (Rosenbaum 2001). In this context, most adolescents attempt to obtain as much

schooling as they can to situate themselves favorably in the increasingly bifurcated labor market, where stable, high-paying jobs go to those who have been successful in obtaining college degrees. Contemporary teenagers have remarkably high educational aspirations, with more than 90 percent of high school seniors expecting to go to college (Schneider and Stevenson 1999: 75).

With social scientists, public policy makers, educators, and parents focused on enhancing student achievement, paid work during the teenage years is considered at best irrelevant, and at worst, an indicator of “pseudomaturity” that can derail the educational attainment process (Greenberger and Steinberg 1986). School and employment are seen as vying for adolescents’ time and psychological engagement. Adolescent work is said to impose major opportunity costs, drawing young people from school and promoting behaviors that interfere with achievement (Steinberg and Cauffman 1995).

Yet in the absence of school-based vocational training and institutional linkages between school and work (Kerckhoff 2003), adolescent employment may also be considered a normative expression of vocational exploration and semi-autonomy (Mortimer 2003). Because most college students must work to meet their living expenses at least partially (Horn, Peter, and Rooney 2002), teenage work can lay the groundwork for the effective coupling of post-secondary student and work roles that facilitate future educational attainment (Hudson and Hurst 2002). Through their choices regarding school and work, both during high school and in the years immediately following, young people can shape their biographical pathways and thereby influence their potential for socioeconomic attainment.

Our primary goal in this paper is to understand the ways in which youth achieve higher degrees in the contemporary U.S. where the sharing of school and work roles often begins in early adolescence (Entwisle, Alexander, and Olson 2000) and continues in young adulthood (Light 2001).¹ In this context, what strategies of human capital development do young people use in positioning themselves for the labor market?

EARLY WORK EXPERIENCES AND EDUCATIONAL ACHIEVEMENT

If early work experiences were to interfere with school performance, then paid work during adolescence would have lasting consequences for adult socioeconomic achievement. Indeed, a number of studies have shown a negative association between the number of hours worked during the school year and academic performance (see Staff, Mortimer, and Uggen 2004 for a review). The interpretation of this relationship is a matter of considerable debate (see the National Research Council 1998). Some researchers conclude that paid work has a causal effect on achievement, whereas other studies suggest that the relationship is spurious.

If working youth have less time to devote to activities that promote achievement, then paid work would have a negative effect on educational outcomes. A long-standing critique of teenage employment is premised on this “zero-sum” model of time use: paid work during adolescence limits time that could be spent completing homework, studying for examinations, or getting help from teachers (Greenberger and Steinberg 1986; Steinberg and Cauffman 1995). Youth who work more than twenty hours per week during the school year do report fewer hours of homework and lower test scores than youth who do not work or who limit their hours (D’Amico 1984; Marsh and Kleitman 2005). The rates of school absenteeism and risk of dropout are also higher for “intensive” workers than for non-workers and moderate workers (Schoenhals, Tienda, and Schneider 1998; Warren and Lee 2003). However, some involvement

¹According to Light (2001), the average high school graduate acquires almost 1,500 hours of employment between their 16th birthday and graduation from high school. On average, college graduates combine school and work for nearly 8 years and gain approximately 5,000 hours of work experience by graduation.

in paid work during adolescence does not necessarily restrict time for homework, school activities, and reading outside of class (Mihalic and Elliott 1997; Schoenhals et al. 1998). The “well-rounded” adolescent often combines paid work, school, and extracurricular activities (Shanahan and Flaherty 2001).

Other research challenges the thesis that paid work has a causal effect on achievement by suggesting that the observed findings are explained by selection processes. Differences between students in their school performance and orientations toward work and school, as well as family background and demographic characteristics, predate employment and may explain the association between work hours and achievement. Some scholars argue that youth employment, fostered by a lack of success in school, is one component of a syndrome that precipitates a hastened transition to adulthood, evidenced by withdrawal from the student role, more intensive engagement in paid work, and early onset of adult-like behaviors such as drinking and smoking (Bachman and Schulenberg 1993). Such a syndrome, and not work per se, could continue to undermine achievement in young adulthood.

Strategic instrumental action, on the part of adolescents or adults, is bounded by diverse resources and constraints associated with social location (Shanahan 2000). Among those lacking the intellectual and financial resources to attend college, investment in employment may be a viable alternative means of preparation for entry to the full-time workforce. Youth who have less interest, involvement, and success in school are more likely to invest themselves in paid work and to prefer work over these activities. Those who expect that they will accrue human capital mainly through their efforts in the educational system may still have reason to be employed, but they will limit their investment in work during high school.

Some empirical evidence supports such a strategic process of time use. Disinterest and poor performance in school, as well as structural disadvantage (i.e., low socioeconomic status of origin) foster attempts to acquire human capital through early intensive employment (Entwisle et al. 2000). Youth who have low educational promise (gauged by educational aspirations and academic performance) are more likely to work long hours during the school year (Bachman and Schulenberg 1993; Mortimer 2003). Prior orientations toward work and school predict subsequent work hours as well as school performance (Warren 2002). Given these and other processes of self-selection, the observed associations between paid work and achievement could disappear once pre-existing differences are considered. Studies based on the National Educational Longitudinal Study (NELS88) find no effects of work hours on school performance once accounting for pre-existing grades, aspirations, problem behaviors, and family socioeconomic standing (Schoenhals et al. 1998; Warren et al. 2001; but see Marsh and Kleitman 2005).

Despite the short-term relationship between paid work and adolescent academic achievement, relatively few studies examine this relationship over the long-term. This lack of attention is unfortunate because the full benefits and costs of youth work may not appear until well after the adolescent period. For example, Carr, Wright, and Brody (1996) and Ruhm (1997) found that intensive work hours during high school decreased college attendance and the completion of 4 or more years of college. Furthermore, Mortimer (2003) reported that teenagers who moderated their hours of work during high school were more likely to receive a 4 year BA degree by their mid-twenties than youth employed intensively. A steady pattern of low-intensity work was especially beneficial to subsequent educational attainment.

Though the existing literature focuses on work investment and school performance during adolescence, it is our contention that behavioral patterns established in high school, linking education and work, persist during the transition to adulthood and have significant implications for human capital acquisition. Paralleling the general pattern of findings during the high school

years, we hypothesize that the combination of school and moderate work will yield significant advantages, rather than disadvantages, with respect to post-secondary educational attainment. Because most college students are employed (approximately 80 percent; see Horn et al. 2002), those who have learned how to work while attending high school will meet the challenges of combining the college student and worker roles more effectively, enhancing their capacity to obtain the highly-coveted B.A. degree.

The educational advantages of balancing work and school may be especially true for the majority of college students who describe themselves as “a student working to meet expenses” rather than “an employee who decided to enroll in school” (Berker and Horn 2003), as the latter group of students tends to have lower rates of persistence and degree completion (Hudson and Hurst 2002). However, even among the self-described “students who work,” as involvement in paid work increases they are more likely to report that their work schedules limit the choices and the number of classes they can take, as well as adversely affect their academic performance (Berkner, Cuccaro-Alamin, and McCormick 1996). If the balancing of paid work and school is learned during the high school years and facilitates post-secondary educational attainment, early work experience could be an integral part of the higher educational attainment process in the contemporary United States.

METHODOLOGY

THE YOUTH DEVELOPMENT STUDY

Data are drawn from the Youth Development Study (YDS), an ongoing prospective longitudinal study of 1,010 teenagers located in a greater metropolitan area of approximately 3 million residents (Bureau of the Census 2000). The YDS began in 1988 with a randomly-chosen community sample of ninth graders enrolled in the St. Paul Public School District in Minnesota. Census data indicate that this site is comparable to the nation as a whole with respect to economic and social indicators (See Mortimer 2003). The YDS panel was surveyed annually from the ninth to twelfth grades in high school, with excellent panel retention (93%) through this period (1988–1991). Yearly questionnaires, administered in school, included a large battery of items tapping early experiences in work, achievement-relevant attitudes, school performance, and educational plans for the future. In the 12 years following high school, respondents completed up to ten follow-up surveys (at ages 19, 20, 21, 22, 24, 25, 26, 27, 29 and 30). During each survey, respondents provided monthly records of residential arrangements, educational attendance, unemployment, and both part- and full-time labor force participation (via life history calendars). In the year following each skipped year (at ages 23 and 28), life history calendars covered two years and thus provided continuous monthly records.

Approximately 76 percent of respondents have been retained during the most recent waves of survey collection. Although not shown, we estimated a logistic regression model predicting survey completion in adulthood (at ages 29 or 30). Panel retention through the study is not associated with numerous measures of socioeconomic background, mental health, delinquency, family structure, extracurricular involvement, and educational promise (see also Mortimer 2003). However, males were less likely to be retained than females; non-whites were less likely to be retained than whites; and youth who resided in households where no family members were employed during the prior year (1987) have a higher risk of survey attrition than those youth who resided in families where at least one family member was employed.

MEASURES

Our measure of educational attainment references the receipt of a four year college BA/BS degree or higher by 2003. We chose this educational threshold because of the salience of this

goal to youth and their parents and the absence of widespread recognition of intermediate degrees (e.g. Associates Degrees) in the labor market (Kerckhoff 2003: 264). In the Youth Development Study, 31 percent of the panel reached this educational milestone between 1995 and 2003. Nationally, 29 percent of young people ages 25 to 29 hold bachelor's or higher-level degrees (U.S. Department of Education 2002).

Though most prior studies measure teenage work involvement based on the number of hours worked at a given time of observation, or over a period of months or years, we use a more nuanced measure. Based on continuous work histories covering three years of high school (all but the 9th grade), we assess both the duration (measured in months) and the average hours of work (i.e. intensity) during the full period of employment. Each measure was dichotomized: months at the median for all who worked, which distinguished extensive, long-term employment from shorter investment in work; and hours, so as to separate those who on average worked more than 20 hours per week, from those who worked more moderately, limiting their hours to 20 or fewer during the periods in which they were employed (see Mortimer 2003). To appropriately address the zero-sum critique involving work investment and achievement, this measure focuses on employment during the school year and not during the summer months.

The resulting typology, based on the cross-classification of these two dimensions, yielded five distinct patterns of work investment during the 10th, 11th, and 12th grades of high school: (1) the “most invested,” high duration/high intensity workers; (2) “sporadic,” low duration/high intensity workers; (3) “occasional,” low duration/low intensity workers; (4) “steady,” high duration/low intensity workers; and (5) “non-workers.” Employed adolescents in the “most invested” and least invested “occasional” categories accrued the most and the least work experience, respectively, during high school. The “occasional,” “steady,” and “most invested” workers were about one quarter each of the total; sporadic workers constituted 17 percent. The fact that only 6.5 percent of the panel (remaining in 2003) reported no work experience at all during high school demonstrates the high prevalence of part-time work while school is in session in the U.S. context.

We also focus on patterns of work and school investment in the years following high school as potential mediators of the effects of adolescent employment on educational attainment. Involvement in full-time work (35 hours per week or more), part-time work (less than 35 hours per week), and school were recorded monthly from the beginning of the scheduled time of high school graduation (Spring of 1991) until the Fall of 2003. Note that our benchmark for hours of work changes from 20 or more during the high school years (dividing “intensive” versus “moderate” employment) to 35 or more during young adulthood (contrasting “full-time” versus “part-time” employment). During adolescence, the 20 hour mark is widely considered the point at which employment becomes “excessive” for in-school American youth, interfering with other activities and increasing problem behaviors (National Research Council 1998). Furthermore, few teenagers work 35 or more hours during the school year, especially during the sophomore and junior years of high school (Department of Labor 2004).

In the years after high school, we construct six mutually exclusive combinations of work and school during each month of the 12 year period. “School only” indicates attendance in school during a particular month while not working full-time or part-time. “School and full-time work” signifies school attendance combined with working 35 or more hours per week. Likewise, “school and part-time work” involves attending school but working less than 35 hours. “Part-time work only” references employment of less than 35 hours per week while neither attending school nor working full-time. “Full-time work only” involves working more than 35 hours per week and no school attendance. Finally, “idleness” indicates no school attendance and no work during a particular month.² In yearly intervals from the Spring of 1991 until the Spring of 2003,

the *cumulative* number of years (months divided by 12) was calculated for each of the six combinations of postsecondary schooling and work.

Information about socioeconomic status and other family background characteristics was obtained from mothers and fathers who were surveyed by mail in the first year of the study. Parents of 96 percent of students responded in the first wave. The highest educational credential of the mother or father is indicated by three dummy variables referencing: (1) a four-year BA/BS degree or higher; (2) some college, a vocational certificate, or an Associates degree; or (3) a high school degree or less. We also measure the natural logarithm of total family income (ranging from \$5,000 to \$100,000) and the number of siblings in the respondents' household (ranging from 1 to 3 or more, including step brothers and sisters who reside in the home with the respondent). We include a measure of family structure indicating whether the respondent resided with both their mother and father (coded 1) or with only one parent, one parent and a stepparent, a relative, a foster parent, or other (coded 0). In addition, the parents of the YDS respondents were asked to report the highest level of education they felt their child would eventually achieve (ranging from 1, "less than high school degree" to 8, "professional degree").

School performance and educational aspirations were also measured during the 9th grade. Grade point average is coded on a 12 point scale ranging from "F" to "A". Educational aspirations reference whether the respondent aspired to a BA degree or higher (vs. less than a BA degree or "unsure"). Self-perceived intelligence is an additive index derived from questions in the 9th grade: "how intelligent do you think you are, compared with others your age?"; "how good a reader do you think you are, compared with others your age?" and "how do you rate yourself in school ability, compared with other students in your grade?" (Each was scored from 5, "far above average," to 1, "far below average.") Intrinsic motivation to school is also an additive index of four items: "I put a great deal of myself into some things at school because they have special meaning to me"; "I have little interest in my classes in school" (scale reversed); "School helps me to improve my ability to think and to solve problems" (coded from 1, "not at all true" to 4, "very true"); and "how often does time seem to drag for you in school?" (coded from 1, "almost always" to 5, "never"). Extracurricular involvement is measured as the natural logarithm of hours spent in school-related activities per week (ranging from 0 to 40 or more hours per week).

Because family formation can interfere with educational attainment, parenthood and marital status were entered in the analysis as controls. Marital status and parenthood, based on monthly life history calendars, were recorded each month during this 10 year period (respectively coded 1=married during the month or 0=not married; and coded 1=residing with child or 0=not residing with child). Similar to the measures of school and work investments, the total number of accumulated months (divided by 12) of marriage and in parenthood was calculated annually beginning in the Spring of 1991.

Finally, since the local labor market can influence both the likelihood of employment and educational attendance, we include unemployment rates (derived from zip codes recorded yearly) during the high school period and in young adulthood (based on local area unemployment statistics from the U.S. Department of Labor).

ANALYTIC STRATEGY

Our analysis proceeds in three stages. First, we examine high school work patterns as precursors of time use during the transition to adulthood, indicated by cumulative investments in various combinations of activities that may be consequential for educational attainment (involving full-

²If respondents worked in both a full-time and part-time job in a given month, they were classified as "full-time work only" or "school and full-time work" depending on their school attendance during that month.

time and part-time work, post-secondary schooling, and idleness). To examine the noted self-selection process influencing young people's work investments, we conduct additional analyses that contrast the early careers of youth with high and low educational promise, as determined in the 9th grade. Youth with high educational promise scored above the median on at least three of four indicators measured during the 9th grade school year: overall grade point average, self-perceived intelligence, educational aspirations, and intrinsic motivation toward school. Youth with low educational promise scored below the median on two or more of these measures of early school performance and aspirations. Second, we examine the effects of high school work strategies and subsequent time investments on the likelihood of post-secondary school attendance for both low and high promise youth. Third, we use discrete-time logit models for event history analysis to predict the receipt of a four-year BA/BS degree among respondents who attend post-secondary school. Discrete-time logit models are preferred over analyses predicting events at particular end dates because they both appropriately handle the censoring of individuals who never receive a college degree and allow the effects of the explanatory variables (referencing cumulative work and school investments, as well as family states) to vary over time (Allison 1995).

FINDINGS

EDUCATIONAL PROMISE AND THE EARLY WORK CAREER

Table 1 presents mean values for the measures of high school work investment, as well as socioeconomic background, school performance, and aspirations by 9th grade educational promise. Youth with low educational promise have lower grades, aspirations, and feel less intelligent and motivated toward school than their high promise counterparts. Consistent with the notion of bounded agency, low promise youth are overrepresented in the “most invested” and “sporadic” teenage work patterns. Youth with high educational promise, in contrast, are more likely to moderate their hours of work (averaging 20 hours or less during the school year). High promise youth are also socioeconomically advantaged—their parents have more education, greater educational expectations for their child's schooling, and higher incomes. Low promise youth spend fewer hours per week in extracurricular activities than high promise youth. All of these differences between promise groups were statistically significant. However, the promise groups were similar in gender and racial composition, as well as the number of siblings residing in their households.

Next we examine the association between work patterns during adolescence and subsequent investments in various combinations of work and school activities in young adulthood. Table 2 lists for each of the high school work categories: (1) the average hours and the cumulative mean months and hours of work involvement during the high school years; (2) the cumulative mean months of the six measures of work and school patterns in the 12 years following the high school period; and (3) the percentage of respondents who had received a BA/BS degree by 2003. Table 2 also presents mean values separately for the high and low promise youth. These values are based on all youth, not just those who attend college.

During the high school period, the “occasional” and “steady” workers averaged approximately 14 hours of employment per week, whereas the “sporadic” and “most invested” workers worked nearly 30 hours per week. In each pair (occasional/steady vs. sporadic/most invested) similarity in the average hours of work obscures large differences in patterns of employment. The high duration workers (including both steady and most invested) were employed, on average, approximately 22 of the 24 months of observation; low duration workers (occasional and sporadic) accrued only about half that number. It is especially interesting that the “steady” and “sporadic” workers accumulated *almost identical* hours of work experience, despite variation in both the hours and duration of their work experience.

In young adulthood, the “most invested” teenage workers accumulated the most months of full-time work only, the “non-workers” and “sporadic workers” in high school accumulated the most months of idleness, and the “steady” workers accumulated the most months of school and part-time work. In general, these findings indicate consistency over time, as the “steady” work pattern during high school is more likely (than the other patterns) to be followed by part-time work combined with school; while the “most invested” work pattern precedes heavier post-secondary full-time involvement in the labor force (and relatively few months of idleness). Likewise, “occasional” and “not working” patterns of teenage employment are associated with greater post-secondary educational involvement that does not coincide with work. In analyses not shown, we found that the high school work patterns predicted subsequent work and school investments even after controlling for sociodemographic and academic factors.³

As shown in Table 2, youth with low educational promise in the 9th grade average fewer months of post-secondary schooling than their high promise peers (including “school only,” “school and full-time work,” and “school and part-time work”). Several other patterns are noteworthy: (1) High promise youth who do not work during the teenage years acquire the most months of school and no work during the transition to adulthood. (2) Among low promise youth, the accumulation of school and part-time work in the years following high school is nearly twice as large for the “steady” high school workers than for those in the other investment patterns. (3) With one exception, the cumulative months of full-time work by age thirty is nearly identical in the same high school investment categories across promise groups. But interestingly, the “sporadic” workers who have low educational promise acquire 20 more months of “full-time work only” than their high promise counterparts. (4) Finally, low promise youth who do not work during high school acquire the most months of idleness, which at 31 months is three times that of the high promise youth who do not work. Together, these findings suggest early educational promise influences work and educational patterns both during high school and during the transition to adulthood. The final column gives the percentages of youth who receive a BA/BS degree, based on their high school work investments and their educational promise. Despite the similarity in their cumulative work hours, the likelihood of BA/BS receipt is markedly different in the “sporadic” and “steady” work categories, irrespective of educational promise. For each promise group, “steady” workers are the most likely, and “sporadic” workers the least likely, to receive such degrees. It is also important to note that low promise youth who were steady workers acquired a college degree at nearly three times the rate as the next highest category (the non-workers). Among the high promise youth, “steady,” “occasional,” and “non-workers” are more similar in their rates of BA/BS completion. In the next section, we assess whether these high school work patterns influence post-secondary school attendance and the receipt of a BA degree when controlling for a range of precursors.

PREDICTING POST-SECONDARY EDUCATION AND THE RECEIPT OF THE 4-YEAR BA/BS DEGREE

To what extent do these distinct patterns of time use following high school—indicating differential investment in higher education and work—exhibited by the teenage work investment groups yield differential educational attainment? We can now link high school work patterns, post high-school work and school trajectories, and adult educational attainment.

³We estimated a series of regressions predicting the total cumulative months of school and part-time work, school only, school and full-time work, part-time work only, full-time work only, and idleness in young adulthood. Because the measures of cumulative months are count outcomes, we used a negative binomial regression to predict whether the high school work patterns affected the accumulation of work and school in young adulthood even after controlling for socioeconomic and academic factors. We found that the “most-invested” workers accumulated more months of full-time work than the “occasional” and “non-workers.” The “steady” workers accumulated more months of school and part-time work than the “occasional,” “sporadic,” and “non-workers.” The “non-workers” accumulated more months of school only than the “most-invested,” “sporadic,” and “steady” workers. Finally, the “sporadic” workers accumulated more months of idleness than the “most invested” workers. Consistent with Table 2, these data indicate continuity in patterns of work during high school and in young adulthood.

Obviously, youth can only be at “risk” for a BA degree if they choose to continue their educations past high school. Our first step was to assess whether the high school work patterns influenced the likelihood of post-secondary schooling. Table 3 reports estimates from a series of logistic regressions predicting post-secondary school attendance for the full sample and by educational promise.

Youth who moderated their hours of work during the school year, the “steady” and the “occasional” workers, along with the “most invested” workers, were more likely to continue their educations past the high school period than the “sporadic” workers. Parents’ educational expectations and respondent grade point average also increased the odds of post-secondary schooling.

We estimated these models separately by educational promise. Within each promise group we controlled for sociodemographic and academic factors that could affect the association between teenage work and postsecondary school attendance. For high promise youth, moderation in hours especially facilitated the continuation of schooling, as both the “steady” and “occasional” high school work patterns (both averaged 20 or fewer hours of work per week) increased the chances of post-secondary education. For youth who had low educational promise, near continuous employment throughout the high school period (evidenced by the steady and most invested workers) increased the chances of post-secondary school attendance. Both promise groups benefit from their parents’ encouragement for continued schooling, though grade point average affected the likelihood of post-secondary schooling only among the low promise youth.

The second step in these analyses was to assess whether the high school work patterns affected the completion of a college degree for those who attend college. Table 4 displays coefficients for several discrete time logistic regression models that predict the likelihood of a four-year BA/BS degree.⁴ As shown in Model 1, the “steady” workers and the “non-workers” were more likely to receive a college degree than the “sporadic” workers after controlling for a variety of sociodemographic and academic factors. For example, steady workers were more than twice as likely to receive this degree than sporadic workers (exponent is 2.39). In a series of supplemental analyses (not shown), we found that other work categories did not differentiate BA degree receipt. Not surprisingly, educational performance, aspirations, self-perceived intelligence, parental education, and parents’ educational expectations for the child have significant effects on the receipt of a college degree (see Appendix A).⁵ As indicated by the time dummy variables, youth were more likely to have obtained a BA degree five and six years after the scheduled date of high school graduation than at ages 29 and 30.

In Model 2, we added the time varying indicators of work and school investment, as well as the cumulative months spent married or as a parent. The inclusion of the post-secondary school and work variables reduced the effects of non-working to statistical non-significance, although the positive effect of “steady” high school work remained. Predictably, each additional year that youth spent attending school alone, the probability of a BA degree almost doubled (exponent is 1.87). But involvement in part-time work during months of school attendance conferred a similar advantage (i.e., the likelihood of degree completion increased by 92 percent

⁴The first step in estimating the event history models was to create a person-year data set for each year of observation from 1995, or four years after the scheduled date of high school graduation, until 2003. The risk period begins at 1995 because no respondent reported receiving a four-year degree prior to 1995.

⁵Though race was not a significant predictor of educational achievement in Model 1, whites were 47 percent more likely to receive a BA degree than non-white youth when we included only time in our analyses (not shown). This effect was reduced to statistical non-significance when controls for socioeconomic and academic factors were introduced. Likewise, since family disruption during adolescence influences educational achievement (Amato 1996), we included a dummy variable that distinguished youth from intact families and those in other family circumstances. Youth residing in intact two-parent families were 76 percent more likely to receive a college degree than youth residing with one parent, one parent and a stepparent, or with a foster parent or relative, but again this effect became statistically non-significant when socioeconomic background and academic performance were controlled (not shown).

with each additional year), as well as involvement in school and full-time work. Although the three combinatorial variables that included school—accumulated months of post-secondary “school only,” “school and full-time work,” and “school and part-time” work—each predict later educational attainment, we found in supplementary analyses (not shown) that the effect of the “steady” high school work pattern on the receipt of a BA/BS degree was not mediated by the accumulated years of total schooling (irrespective of whether education is the sole activity or combined with other states). “Steady” work in high school is not important just because it leads to more years of schooling.

The more years that youth spend in full-time work while not attending school, as well as in part-time work only, the lower their likelihood of a college degree (by 26 and 36 percent, respectively). Though marriage did not predict the receipt of a BA/BS degree, parenthood diminished the chances of obtaining a college degree by 15 percent. The receipt of a college degree was positively associated with increases in local unemployment rates during young adulthood.

In Model 3, we assessed whether the steady work category was more or less advantageous for youth who had high and low educational promise. The interaction between educational promise and the “steady” work category was negative and statistically significant. This suggests that the advantage of receiving a BA/BS degree from the “steady” high school work pattern is greater for the low promise youth, holding all other variables constant. To further explore this interaction, we assessed whether the effects of the teenage work patterns, as well as the work and school investments in young adulthood, on degree receipt at age 30 differed for youth who had low and high educational promise at age 14. Table 5 presents the results of discrete time logistic regression models predicting BA degree receipt by educational promise. Each of these models includes controls for sociodemographic and academic factors, though the coefficients are not shown in Table 5.

Among low promise youth (Model 5a), the “steady” high school workers are almost five times as likely to receive a BA degree than the “sporadic” workers. In fact, in analyses not shown, the “steady” workers were also more likely than the “occasional” and “most-invested” workers to receive a BA degree. When we included their post-high school investment strategies (Model 5b), however, this effect became just marginally significant (with a *t* value of 1.93). Importantly, each additional year of school and part-time work after high school tripled the odds of BA degree receipt, while the effects of the other investment patterns are statistically non-significant. Interestingly, years of “school only” conferred no benefit for attainment among low promise youth.

Among high promise youth (Model 5c), both the “steady” and non-workers are more likely than the “sporadic” workers to receive a BA degree (approximately double and triple the likelihood, respectively). The other high school work investment categories did not differentiate receipt of a BA degree (not shown). Inclusion of their post high school work patterns diminishes the effect of “steady” work to statistical non-significance, though the effect of non-work remains (Model 5d). Further analyses (not shown) indicated that the key mediator of the effect of “steady” work was its analogue after high school, the cumulative combination of school and part-time work. Other combinations of school and work did not mediate this effect. In fact, high promise youth gain advantages from various combinations of school and work during young adulthood. This suggests that staying in school is the central key to educational success among youth with high educational promise.

We also assess the robustness of the observed relationships using alternative specifications of the educational attainment model (not shown). First, we considered additional controls for pre-employment differences when predicting college completion: time spent doing homework,

economic efficacy, nativity, parents' attitude toward youth work, and parents' occupational earnings and education. None had statistically significant effects, nor any implications for our conclusions. Second, we examined whether the relationship between high school work and educational attainment would change if we used a different measure of paid work during young adulthood. Though the U.S. Department of Labor defines "full-time" work as 35 hours or more per week, employment at more than 20 hours per week could also be considered "intensive" among college students who need ample time for studying and completing homework. Furthermore, financial supplementation arrangements could limit the full-time employment of college youth to less than 35 hours of paid work per week. To address this issue we predicted the likelihood of a BA degree using: (1) a continuous measure of average work hours per week during young adulthood; and (2) a series of dummy variables with different specifications of full and part-time work (coded as "0," "1–20," "21–34," and "35 or more" hours per week). When substituting these measures for the cumulative years of school and work (all six cumulative variables), the pattern of findings for the teenage work typology did not change. Furthermore, the effects of working "1–20" hours and "21–34" hours per week on the receipt of a BA degree were not significantly different. Students who worked 35 hours or more per week were less likely to receive a BA/BS degree than those students who worked 1–20 hours per week.

Third, we considered whether the type of adolescent work may also influence educational attainment. In supplementary analyses predicting the receipt of a BA/BS degree (not shown), we included a variable referencing the job with the highest occupational education during the high school work career (non-workers during high school were excluded in these analyses). This measure is based on Hauser and Warren's 1997 classification that indicates the proportion of workers in a given occupation who have completed one or more years of college. Although job type was positively related to the likelihood of post-secondary attendance and BA degree receipt, the coefficients were not statistically significant. Furthermore, the effect of job type was not statistically significant in models that were estimated separately for high and low promise youth.

Fourth, because both gender and race influence the timing and average intensity of work involvement (National Research Council 1998), we also assessed whether the effects of teenage work on the receipt of a BA/BS degree varied by gender and by race. In analyses not presented, we found that none of the coefficients indicating the interaction of the high school work patterns by gender and by race were statistically significant.

Fifth, we considered alternative specifications of high school work involvement. When predicting BA degree receipt we included continuous measures of the months of paid work and the cumulative total hours of work (logged) during high school. Controlling socioeconomic and academic factors, the duration of high school work was positively related to BA receipt ($b = .044$; $p < .01$), whereas the cumulative total hours of work had a negative effect ($b = -.214$; $p < .01$). However, it is important to stress that the accumulation of work experience during adolescence must be interpreted in the context of high and low duration employment. Recall that the "sporadic" and "steady" workers acquired nearly the same cumulative hours of work even though their durations and average hours of employment were very different. Figure 1 highlights the complex relationship between cumulative work hours during adolescence and longer-term educational attainment.

The "x" axis in Figure 1 indicates the cumulative hours worked during the sophomore, junior, and senior year of high school. The measure of cumulative work hours during high school ranges from 0 to 6,264 and is grouped into 16 categories of approximately 46 students each. The bars on the graph indicate the percentage of "sporadic" and "steady" workers within each grouping of cumulative work hours, whereas the line indicates the percentage of respondents

(irrespective of work pattern) who had received a BA degree by 2003. The figure shows that when the percentage of “steady” workers is high, the percentage of college degree recipients is also high. The percentage of college completers drops as the percentage of sporadic workers increases. Thus, work experience during adolescence (as indicated by total hours) has disparate associations with educational attainment depending on the combination of average hours and duration of the employment.

DISCUSSION

An underlying premise of this study is that time use indicates strategic action; young people invest their time in different ways depending on their goals, resources, and opportunities. The pattern of findings suggests the operation of bounded agency during adolescence and the transition to adulthood through patterns of work and schooling. More advantaged youth, as gauged by their socioeconomic backgrounds and educational promise, limit their hours of work during high school; their less-advantaged counterparts tend to pursue more intensive work patterns. What is it about steady and occasional work that appears to attract teenagers who are more strongly engaged in the educational enterprise, who consider their classes more meaningful and interesting to them, and whose early efforts in the educational realm (as indicated by grade point average) are more successful?

Surely, the “steady” pattern of working is the most “balanced”, as it allows multi-faceted time use patterns through high school with substantial investment in paid work, schoolwork, extracurricular activities, the peer group, and the family (Mortimer 2003; Shanahan and Flaherty 2001). “Steady” work during high school may therefore be especially conducive to human capital development.

Working during the high school years also appears to establish strategies of time management that persist through post-secondary schooling and influence higher educational attainment. In general, we found continuity in employment patterns, as the “steady” work pattern during high school is followed by extensive part-time work combined with schooling, while the “highly invested” work pattern precedes heavier involvement in the full-time labor force.

Despite the predictive power of work involvement during high school with respect to educational attainment in young adulthood, the inclusion of subsequent work patterns in this key period of post-secondary educational investment renders the effect of the steady high school work pattern statistically non-significant in each educational promise group. In particular, the inclusion of accumulated months of post-secondary “school and part-time work” mediates the benefits of the “steady” high school work pattern on subsequent receipt of a BA/BS degree.

For “steady” high school workers, the effective combination of working and studying is a familiar pattern by the time they enter college. Most college students have to maintain employment to at least partially assume their educational (and/or living) expenses, and this is especially the case for low promise youth whose families have more limited economic resources (see also Berker and Horn 2003). Other research has drawn particular attention to the potential benefits of employment for subsequent achievement in the context of economic distress. Elder and his colleagues emphasize that Depression-era teenagers' work experience, as well as that of contemporary rural youth in hard-pressed farm families, builds confidence, instills positive work values, and has other lasting benefits (Elder 1974; Elder and Conger 2000). The time use strategies that low promise youth learned earlier—of balancing school and work—appear to enable them to continue combining school and work roles without compromising, and in fact enabling them to fulfill, their educational goals.

We conclude that young people follow different strategies of human capital acquisition as they move through high school and through the early adult period: one focused on acquisition of educational credentials through the combination of moderate work and schooling, a second emphasizing more intensive work investment during high school as well as during the succeeding years. When low promise youth follow the first strategy, their educational attainment is especially enhanced. Young people who have higher academic promise early on likewise benefit from combining school and steady part-time work during adolescence, as well as during the transition to adulthood. But the multiple advantages of these youth enable them to obtain higher degrees without combining school and work either during high school or the years following. It is important for them to stay in school.

The implication for sociological studies of socioeconomic attainment is clear: as early as high school, youth establish patterns of work and educational investment that are more or less advantageous with respect to future educational attainment. Whereas sociologists have long recognized that adolescence marks the start of the socioeconomic career, the importance of this period has been attributed to educational performance, aspirations, and significant others' influence that support educational attainment to a greater or lesser degree. We contend that part-time work during high school is likewise a key formative experience, which establishes patterns of schooling and working that persist during the succeeding years and are more or less conducive to higher educational attainment. As during the adolescent period, the combination of school and work in subsequent years does not hinder, and in fact promotes, educational attainment.

The Youth Development Study is unique in its capacity to assess both the precursors and consequences of adolescent employment for attainment outcomes. Given the long duration of the study, we were able to construct trajectories of labor force involvement and educational investment that cover a critical period of human capital formation. Although we did not find that work type during high school affected longer-term educational success (as measured by the occupational education of the students' jobs), our subsequent research will address the types of work experiences that young persons have during high school and during the transition to adulthood as predictors of wage attainments as well as the quality of adult work experiences.

Future research might also usefully assess the subjective strategic processes underlying the behavioral patterns revealed by this analysis. Whereas parents believe that working will make their children more successful in navigating the transition from school to work, to what extent do young people share this view, and deliberately plan their time use to accomplish this end? Do they anticipate, and can they articulate, strategies of school and work investment, through high school and during the following years, that enhance educational attainment and subsequent career progress? Qualitative interviews may be more useful than survey questionnaires in revealing such subjective processes.

Although our analyses focus on the receipt of a four year college degree, teenage work may also influence other post-secondary outcomes, such as the receipt of an Associates degree or technical and vocational certificates. And finally, the vast majority of youth in our sample began their early work careers in a labor market with relatively good employment opportunities. While we control for variation in the availability of jobs (both during adolescence and into young adulthood), youth residing in poor urban areas have less opportunities to acquire even menial fast-food jobs (Newman 1999). Future research should consider the long-term effects of early work careers on educational attainment for youth in poverty.

The use of school and work investment typologies during the high school period, and combinations of educational and employment states in the succeeding years as precursors of attainment, represent a somewhat novel approach in research on attainment in the early life

course. More commonly, these investments are examined singly, with interest in their independent effects. Apparently, not only schooling, but combinations of school and work have significant impact on subsequent educational attainment. We have yet to assess the long-term occupational and economic outcomes associated with teenage work because the more highly educated youth have had relatively little time to advance to higher paid positions. We would expect that the income “payoff” for the steady work pattern and the post-secondary time investment strategies they promote will become increasingly pronounced as occupational careers unfold.

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Appendix A. Table 4 Continued: Discrete Time Logistic Regression Models for BA/BS Degree Receipt

	b	Model 1 S.E.	Exp (b)	b	Model 2 S.E.	Exp (b)	b	Model 3 S.E.	Exp (b)
<i>Sociodemographic Factors</i>									
Male	-.056	(.168)	.95	-.143	(.193)	.87	-.140	(.195)	.87
White race	.143	(.214)	1.15	.159	(.265)	1.17	.113	(.269)	1.12
Two-parent	.175	(.178)	1.19	.082	(.204)	1.09	.079	(.205)	1.08
Parent(s) highest degree									
BA degree or higher	1.234 ***	(.253)	3.43	.722 *	(.285)	2.06	.665	(.289)	1.94
Associates, voc-tech, some college	.747 **	(.228)	2.11	.525 *	(.253)	1.69	.506	(.257)	1.66
Household income (log)	.090	(.073)	1.09	.086	(.079)	1.09	.072	(.080)	1.07
Number of siblings	-.039	(.073)	.96	-.012	(.086)	.99	-.030	(.087)	.97
Parent(s) expectations for child	.207 ***	(.054)	1.23	.118	(.064)	1.12	.112	(.065)	1.12
<i>Academic Factors</i>									
GPA	.964 ***	(.159)	2.62	.802 *	(.184)	2.23	.699 ***	(.196)	2.01
Self-perceived intelligence	.180 ***	(.054)	1.20	.157 *	(.065)	1.17	.115	(.069)	1.12
Educational aspirations	.729 **	(.260)	2.07	.543	(.289)	1.72	.438	(.296)	1.55
Intrinsic motivation to school	.043	(.046)	1.04	-.001	(.053)	1.00	-.027	(.057)	.97
Extracurricular involvement (log)	.159	(.083)	1.17	.162	(.100)	1.18	.135	(.100)	1.14

Note. Reference category is high school degree or less;

* $p < .05$,

** $p < .01$,

*** $p < .001$ (two-tailed tests)

Figure 1.
The Percentage of BA Degree Recipients and the Percentage of "Steady" and "Sporadic" High School Workers by the Cumulative Total Hours of Paid Work during High School

Table 1
Descriptive Statistics for Selected Predictor Variables across Low and High Promise Youth

	Low Educational Promise	High Educational Promise	Mean Difference Test
<i>Teenage Work History</i> ¹			
Not working	6%	7%	
Occasional (low duration; low intensity)	19%	29%	*
Steady (high duration; low intensity)	21%	34%	*
Sporadic (low duration; high intensity)	22%	13%	*
Most Invested (high duration; high intensity)	32%	18%	*
<i>Sociodemographic Factors</i>			
Male	43%	44%	
White race	75%	80%	
Parent's highest educational degree			
BA degree or higher	9%	28%	*
Associates, vocational, some college	37%	45%	*
High school degree or less	54%	27%	*
Number of siblings	0.96	1.10	*
Parent's educational expectations for child	3.46	5.05	*
Household income (log)	9.70	10.29	*
Two parent family	52%	66%	*
<i>Academic Factors</i>			
GPA	2.09	3.03	*
Self-perceived intelligence	8.97	11.04	*
Educational aspirations: BA degree or higher	50%	87%	*
Intrinsic motivation toward School	10.22	12.32	*
Extracurricular involvement (log)	1.32	1.80	*
Sample size	367	382	

¹ Note. See Table 2 for information regarding hours and months of work investment for these categories;

* p < .05 (one-tailed test)

Descriptive Statistics of Paid Work Involvement and Educational Attainment by Teenage Work Typology and Educational Promise

Teenage Work Typology	Paid work Involvement during High School			Paid Work Involvement during Young Adulthood (Cumulative Months)					Educational Attainment	
	Average Hours	Cumulative Months	Cumulative Hours	Full-time work & school	Part-time work & school	School only	Full-time work only	Part-time work only		Idle
Total Sample										
Not working	0	0	0	6	13	17	47	11	19	37%
Occasional	14	11	616	9	14	11	59	13	16	35%
Sporadic	29	11	1,284	8	9	6	64	12	19	16%
Steady	15	22	1,307	10	20	8	63	15	12	47%
Most invested	30	22	2,629	9	11	4	71	14	11	18%
Low Educational Promise										
Not working	0	0	0	6	5	12	47	17	31	9%
Occasional	14	11	645	6	8	5	59	13	23	4%
Sporadic	30	7	1,288	3	4	4	71	12	22	2%
Steady	16	22	1,393	8	14	5	62	18	18	26%
Most invested	31	22	2,714	7	8	3	71	16	15	6%
High Educational Promise										
Not working	0	0	0	7	20	21	46	7	10	59%
Occasional	14	11	598	11	18	14	59	12	12	55%
Sporadic	28	11	1,276	10	18	9	51	13	13	38%
Steady	14	22	1,255	11	24	10	64	14	9	60%
Most invested	28	22	2,482	13	18	6	72	12	5	40%

Table 3
Logistic Regression Models for Post-Secondary School Attendance by 9th Grade Educational Promise

<i>Teenage Work Typology¹</i>	Model 1 (Full Sample)			Model 1a (Low Promise)			Model 1b (High Promise)		
	b	se	exp (b)	b	se	exp (b)	b	se	exp (b)
Not working	-.312	(.415)	.73	-.788	(.537)	.45	.046	(.796)	1.05
Occasional	.864 **	(.326)	2.37	.368	(.401)	1.44	1.746 **	(.667)	5.73
Steady	1.121 **	(.335)	3.07	.919 *	(.418)	2.51	1.669 **	(.631)	5.31
Most invested	.656 *	(.287)	1.93	.748 *	(.341)	2.11	.464	(.586)	1.59
<i>Sociodemographic Factors</i>									
Male	-.239	(.219)	.79	-.143	(.273)	.87	-.582	(.414)	.56
White race	-.346	(.267)	.71	-.661	(.345)	.52	.270	(.465)	1.31
Household income (log)	.014	(.052)	1.01	.060	(.062)	1.06	-.121	(.134)	.89
Parent(s) highest degree ² BA degree or higher	.330	(.366)	1.39	-.514	(.460)	.60	1.317	(.823)	3.73
Associates, voc-tech, some college	.317	(.249)	1.37	.473	(.310)	1.60	-.077	(.469)	.93
Two parent family	.204	(.215)	1.23	.148	(.263)	1.16	.192	(.421)	1.21
Number of siblings	-.075	(.098)	.93	-.237	(.122)	.79	.273	(.197)	1.31
Parent(s) expectations for child	.313 ***	(.077)	1.37	.218 *	(.099)	1.24	.496 ***	(.150)	1.64
<i>Academic Factors</i>									
GPA	.435 **	(.154)	1.55	.506 **	(.195)	1.66	.241	(.363)	1.27
Self-perceived intelligence	.053	(.070)	1.05	-.081	(.093)	.92	.215	(.145)	1.24
Educational aspirations	.383	(.231)	1.47	.488	(.269)	1.63	-.352	(.591)	.70
Intrinsic motivation to school	-.103	(.054)	.90	-.130	(.067)	.88	-.098	(.131)	.91
Extracurricular involvement (log)	.082	(.089)	1.09	.127	(.108)	1.14	-.039	(.187)	.96
<i>Intercept</i>	-.984	(.860)	.37	.571	(1.169)	1.77	-1.473	(2.832)	.23
-2 Log Likelihood		588.328			372.981			179.673	

¹ Note. Reference category is sporadic workers;

² Reference category is high school degree or less;

* $p < .05$,

** $p < .01$,

*** $p < .001$ (two-tailed tests)

Table 4
Discrete Time Logistic Regression Models for BA/BS Degree Receipt

	Model 1			Model 2			Model 3		
	b	S.E.	Exp (b)	b	S.E.	Exp (b)	b	S.E.	Exp (b)
<i>Teenage Work Typology</i> ¹									
Not working	1.161 **	(.413)	3.19	.816	(.486)	2.26	.926	(.498)	2.53
Occasional	.574	(.303)	1.78	.475	(.347)	1.61	.440	(.355)	1.55
Steady	.870 **	(.293)	2.39	.854 *	(.335)	2.35	1.949 ***	(.534)	7.02
Most Invested	.581	(.332)	1.79	.530	(.379)	1.70	.595	(.391)	1.81
<i>Educational Promise</i>									
High Promise							1.097 **	(.402)	3.00
<i>Interaction of Teenage Work and Educational Promise</i>									
Steady Work							−1.300 **	(.492)	.27
<i>Cumulative Years of Work & School</i>									
School Only				.627 ***	(.147)	1.87	.647 ***	(.148)	1.91
School & Full-time Work				.458 **	(.151)	1.58	.498 **	(.153)	1.65
School & Part-time Work				.651 ***	(.135)	1.92	.657 ***	(.137)	1.93
Full-time Work Only				−.306 *	(.128)	.74	−.288 *	(.129)	.75
Part-time Work Only				−.441 *	(.186)	.64	−.443 *	(.190)	.64
Idleness				−.122	(.165)	.88	−.113	(.165)	.89
<i>Family Transitions</i>									
Cumulative Years of Marriage				.119	(.074)	1.13	.113	(.073)	1.12
Cumulative Years of Parenthood				−.160 *	(.079)	.85	−.168 *	(.078)	.85
<i>Labor Market Conditions</i>									
Unemployment Rate				.136 *	(.061)	1.15	.142 *	(.062)	1.15
<i>Year (vs. 2002–2003)</i>									
1995	−1.060 **	(.333)	.35	−2.057 *	(.968)	.13	−2.009 *	(.969)	.13
1996–1997	1.190 ***	(.281)	3.29	.366	(.748)	1.44	.390	(.749)	1.48
1998–1999	.409	(.312)	1.51	−.190	(.606)	.83	−.195	(.607)	.82
2000–2001	−.347	(.369)	.71	−.816	(.509)	.44	−.822	(.512)	.44
Constant	−11.848 ***	(1.091)		−10.267 ***	(1.786)		−9.834 ***	(1.879)	
−2 Log Likelihood	1079.58			832.99			823.10		
Improvement in Model Fit χ^2 (df)				Model 2 vs. Model 1 246.6(9) ***			Model 3 vs. Model 2 9.98(2) **		

¹ Note. Reference category is sporadic workers; all models include controls for sociodemographic and academic factors (see Appendix A);

* $p < .05$,

** $p < .01$,

*** $p < .001$ (two-tailed tests)

Table 5
Discrete Time Logistic Regression Models for BA/BS Degree Receipt by Educational Promise

	Low Promise Youth						High Promise Youth			
	Model 5a			Model 5b			Model 5c			
<i>Teenage Work Typology</i> ¹	b	(se)	exp (b)	b	(se)	exp (b)	b	(se)	exp (b)	b
Not working	.987	(1.137)	2.68	-.445	(1.962)	.64	1.151*	(.464)	3.16	1.252*
Occasional	.038	(.957)	1.04	.282	(1.201)	1.33	.565	(.329)	1.76	.454
Steady	1.578*	(.806)	4.84	2.059	(1.067)	7.84	.667*	(.323)	1.95	.683
Most Invested	.537	(.847)	1.71	.753	(1.033)	2.12	.551	(.375)	1.73	.406
<i>Cumulative Years of Work & School</i>										
School Only				.751	(.415)	2.12				.722***
School & Full-time Work				.754	(.444)	2.13				.554**
School & Part-time Work				1.118**	(.398)	3.06				.658***
Full-time Work Only				-.201	(.388)	.82				-.276
Part-time Work Only				-.521	(.508)	.59				-.429
Idleness				.249	(.463)	1.28				-.224
<i>Family Transitions</i>										
Cumulative Years of Marriage				.300	(.256)	1.35				.102
Cumulative Years of Parenthood				-.652*	(.307)	.52				-.119
<i>Labor Market Conditions</i>										
Unemployment Rate Year (vs. 2002–2003)				-.017	(.197)	.98				.161*
1995	-2.230	(1.200)	.11	-1.988	(3.083)	.14	-1.019**	(.360)	.36	-1.953
1996–1997	1.143	(.662)	3.14	.918	(2.267)	2.50	1.156***	(.313)	3.18	.446
1998–1999	.789	(.696)	2.20	.491	(1.785)	1.63	.247	(.353)	1.28	-.249
2000–2001	-.532***	(.933)	.59	-.611	(1.350)	.54	-.330***	(.405)	.72	-.751***
Intercept	-10.058***	(2.920)		-6.045	(5.335)		-10.839***	(1.466)		-9.195***
-2 Log Likelihood	210.28			142.81			840.51			648.98
Improvement in Model Fit χ^2 (df)				Model 5b vs. Model 5a						Model 5c vs. Model 5a
				67.5(9)***						191.5(9)***

¹ Note. Reference category is sporadic workers; all models include controls for sociodemographic and academic factors (not shown);

* $p < .05$,

** $p < .01$,

*** $p < .001$ (two-tailed tests)