Labor Market Experiences and Transitions to Adulthood

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Abstract

This paper analyzes labor market behaviors of young adults, their changing patterns among two cohorts that are twenty years apart, and their associations with transitions to adulthood as measured by living with parents, being married, or cohabiting. We analyze these issues using data from the 1979 and 1997 cohorts of he National Longitudinal Survey of Youth (NLSY), specifically focusing on young people ages 20–22 in 1984 and 2002. Consistent with data from other sources, we find that youth in the later cohort tend to live at home or cohabit with greater frequency, but to marry less frequently, than those in the earlier cohort. These findings can be observed among youth in all education/enrollment groups and all race/gender groups. Regression analyses show evidence of some link between contemporaneous labor market outcomes and living arrangements, but these effects are too small to account for changes over time in these behaviors. We also find some relationships between academic and labor market outcomes as well as risky behaviors of youth during high school, on the one hand, and later labor market outcomes and living arrangements, on the other. These suggest the presence of unmeasured characteristics (such as independence, maturity, and the like) that help to account for differences across individuals in their living arrangements as young adults.

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BACKGROUND

In a recent volume, Richard Settersten, Frank Furstenberg, and Ruben Rumbaut (2005, p. 5) concluded that "entry into adulthood has become more ambiguous and generally occurs in a gradual, complex, and less uniform fashion" than in previous years. Labor market outcomes are one indicator of the transition to adulthood, along with living independently, marrying, and having children. This paper examines the extent to which contemporaneous labor market outcomes and other personal characteristics may explain changes over time in young adults' living arrangements.

One commonly held view is that reduced economic opportunities lead to a reduced likelihood of marriage and a greater likelihood of remaining at home. Real wages stagnated or declined for many groups of American workers during the 1970s and 1980s, though they recovered modestly afterwards; less-educated young men experienced the largest declines in relative and real terms (Katz and Autor 1999). Employment trends also differ across gender and racial groups. For example, employment rates among young less-educated minority women—particularly African American single mothers—improved dramatically during the 1990s.[1] In contrast, employment rates among less-educated young white and Hispanic men declined a bit in the 1980s and stabilized in the 1990s, whereas those of young black men (especially those without high school diplomas) continued to decline fairly sharply throughout this period, while their incarceration rates rose.[2]

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[1]These improvements are frequently attributed to the combination of a very strong economy, welfare reform, and increases in work supports for low-income parents, such as the Earned Income Tax Credit and child care subsidies (Blank 2002). Rising wages and employment of women relative to men might also help account for the reduced willingness of the women to marry, as they become less dependent on potential spouses. But improved earnings outcomes for women would seem somewhat less consistent with a growing tendency on their part to live at home with parents as well.

[2]The declining real and relative wages of less-educated young men helps to explain their diminishing work effort (Juhn 1992). The rising participation of young black men in crime during the 1980s, and the large increases in their incarceration rates, help to account for their diminishing work effort (Holzer et al. 2005).

In addition to actual labor market opportunities, the decisions of young people regarding whether to marry and with whom to live might reflect family backgrounds and situations (including parental income and whether or not they have already become parents themselves), as well as a range of personal attitudes and behaviors. Together, these are likely to reflect their relative maturity, independence, and responsibility, as well as expectations of longer-term labor market opportunities and success. Higher expectations and more positive attitudes are likely to be reflected in a range of "productive" behaviors earlier in life—here measured during the high school years—that include both academic and labor market outcomes. In contrast, lower expectations and more negative attitudes might also be reflected by participation in risky behaviors during those years, including substance use and illegal activities. Previous literature has analyzed the effects of high school academic and employment outcomes, and also of crime and incarceration, on future labor market outcomes. The links between risky behaviors and employment outcomes have also been analyzed, to some extent.[3] But how all of these factors affect choices regarding living arrangements and marriage more broadly has received less attention.

In this paper, we present descriptive statistics for labor market and living arrangement outcomes and estimate regression models that predict living arrangements as functions of demographics, employment outcomes, and behaviors and outcomes observed during high school. The estimates from these models are not necessarily causal, but are intended to provide a starting point for considering how transitions to adulthood are affected by labor market trends and other behaviors of youth.

Our paper builds on work of David Card and Thomas Lemieux (2000), who analyze Current Population Survey (CPS) data on wages and hours worked across regions and over time to account for changes in living arrangements and other outcomes among youth and young adults ages 16 to 24 in the

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[3]See David Neumark (2002) for recent evidence on how early employment outcomes affect later ones for youth. The effects of crime and incarceration on future labor market outcomes are reviewed in Jeffrey Kling et al. (2000) and Harry Holzer et al. (2005), as well as Richard Freeman (1999). For the effects of smoking, drinking, and marijuana use on employment outcomes, see Robert Kaestner (1991, 1996) and Frank Chaloupka et al. (1999).

United States (as well as other data for Canada); Valerie Oppenheimer and Alisa Lewin (1999), who use National Longitudinal Survey of Youth (1979 cohort) data to examine the relationship between schooling and labor market variables to decisions to marry for young adults through age 33; and Mary Corcoran and Jordan Matsudaira (2005), who examine data from the Panel Study of Income Dynamics (PSID) and document changes in age at leaving home, educational outcomes, and labor market outcomes across cohorts who turned 27 to 34 years old in 1986 and 1996.

DATA AND METHODS

We use data from the 1979 and 1997 cohorts of the National Longitudinal Survey of Youth (NLSY79 and NLSY97). The NLSY79 is a nationally representative survey of persons ages 14 to 21 as of December 31, 1978; and the NLSY97 is a nationally representative survey of youth ages 12 to 16 as of December 31, 1996. The original sample sizes were 12,686 and 8,984, respectively.

We impose a few restrictions on these samples. First, we include only young adults who turned ages 20 to 22 in 1984 and 2002, respectively.[4] These young adults were old enough to have completed high school but not yet old enough to have completed college. We focus on the years 1984 and 2002 because they represent similar points in the business cycle at which young adults of the same ages in the two cohorts can be observed.[5] Second, we exclude any persons who were still enrolled in high school in 1984 or 2002, and persons enrolled in college for whom the type (two-year or four-year) could not be

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[4]This subsample of the NLSY79 was born in 1962 to 1964, and the subsample of the NLSY97 was born in 1980 to 1982. The youngest sample members in the NLSY79 turned 20 years old in 1984, and the oldest sample members in the NLSY97 turned 22 years old in 2002; thus in 1984 and 2002, the two cohorts overlap for members who turn 20 to 22 years old in these years.

[5]While unemployment rates in 1984 were somewhat higher than those in 2002 (7.5 versus 5.8 percent), labor market tightness seems comparable across the two years after adjusting for changing demographics. The labor market was recovering from a steep recession in the former case while approaching the trough of a more modest downturn in the latter one.

reliably determined. [6] Third, we include only the largest racial/ethnic subgroups: white non-Hispanics, black non-Hispanics, and Hispanics. Together, these restrictions result in samples of roughly 4,000 young adults who turned ages 29 to 22 in both 1984 and 2002. The sample sizes vary somewhat (due to missing data), depending on the variables examined.

The NLSY is advantageous because in addition to labor market information, it collects detailed information on school experiences and academic performance, family income, criminal behavior, family relationships, and living arrangements for a panel of individuals. These other factors are likely important correlates of labor market behavior.

The NLSY also includes data on some young people who are incarcerated at the time of the survey. Given the very high rates of incarceration among young black men, other analyses of this population are based on data that are seriously truncated. [7] Of course, the labor market outcomes and living arrangements of incarcerated men are somewhat predetermined, and including them might skew results in ways that would make them unrepresentative for those who truly have choices to make. In addition to the estimates presented here, we have a full set of estimates that do not include them (available from the authors on request). Virtually no qualitative result is changed by their inclusion or omission from the sample, though a few magnitudes are changed. [8]

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[6]One hundred thirty-two persons in our NLSY79 sample and 49 in our NLSY97 sample were enrolled in high school; the numbers of college enrollees for whom it was not possible to determine the type of college were 115 and 4 in our samples, respectively.

[7]The Bureau of Justice Statistics reports that roughly 12 percent of young black men between the ages of 16 and 34 are incarcerated at any time, while about twice that number are on parole or probation. Undercounts in the CPS and elsewhere of nonincarcerated young black men are discussed in John Bound (1986) and various Census reports.

[8]We measured incarceration status using the type of residence variable in the NLSY79 and the type of dwelling variable in the NLSY97. A respondent was considered incarcerated if the NLSY79 rounds 1984 or 1985 indicated incarceration, or if the NLSY97 rounds five (2001–02) or six (2002–03) indicated incarceration. During the 2002–03 survey year of the NLSY97, a total of 81 individuals in our sample were incarcerated, while an additional 22 were incarcerated during the previous survey period. Comparable numbers for the NLSY79 in the 1985 survey year are 42 and 23. Incarcerated individuals account for about 2 percent of our full sample in either the NLSY79 or NLSY9 cohorts, but nearly 5 percent of young black men in the 1979 cohort and 10 percent of young black men in the 1997 cohort.

We focus on three living arrangements at the time of the survey: whether the individual lives at home with parents; whether she or he is married and living independently of parents; or whether she or he cohabits with another person. Roughly 80 percent of NLSY youth has one of these three arrangements. The remainder live alone, with other relatives, or with roommates. We also consider three measures of labor market experience, both contemporaneously with (or generally in the previous year to) the observed living arrangements, and during the high school years (at ages 16 and 17): hours worked, weeks worked, and hourly wages. To achieve comparability across the two NLSY cohorts, the wage rate includes tips and bonuses as well as regular wages. Nominal wages are adjusted for inflation using the Consumer Price Index Research Series (CPI-RS), which represents the most complete effort of the Bureau of Labor Statistics to measure inflation and eliminate upward biases in the Consumer Price Index over time.[9]

As for other behaviors during high school, we focus on grade point average (GPA), as well as whether or not the individual has engaged in risky behaviors of drinking alcohol, smoking cigarettes, or smoking marijuana. Supplementary analyses also examined the effects of the Armed Services Vocational Aptitude Battery (ASVAB) and arrest and illegal activities before age 18 on later living arrangements for sample members in the NLSY97 (because these variables are available for the high school years only in the NLSY97) (see also Michael 2001). Appendix A contains further information about the definition and construction of our variables, and Table A1 presents summary statistics on those used as explanatory variables in the regression models.

We present two kinds of results: summary statistics on labor market outcomes and living arrangements, and regression equations in which the outcomes are the three categories of living arrangements noted above. The summary statistics are presented separately for the two NSLY cohorts,

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[9]See Katharine Abraham (2003) for a discussion of these issues, and http://www.bls.gov/cpi/cpiurstx.htm for further information. The CPI-RS eliminates some, though not all, of the upward bias in the CPI. Over the relevant time period, it is comparable to the Gross Domestic Product (GDP) Deflator for Personal Consumption Expenditures, which has been used by others (for example, Katz and Autor 1999) in analyzing real wage trends.

and by enrollment/education status, race, and/or gender within each cohort. The main regression

equations, estimated using Ordinary Least Squares (OLS), appear separately by gender and use pooled

samples across the two cohorts. The basic models contain cohort dummies to capture trends over time

between 1984 and 2002 and controls for age, education/enrollment, race/ethnicity, and parental income

during the sample members' teenage years. Then two sets of variables are added sequentially to the

models to ascertain the extent to which they can account for observed changes over time or differences

across education and race/gender groups. First, variables are added that capture contemporaneous

employment outcomes, as reflections of sample members' labor market opportunities. Next, educational

and employment outcomes and risky behaviors of young people during high school are added to the

model, as reflections of sample members' independence, maturity, and future expectations of success.[10]

Higher GPAs (as well as college enrollment) should capture expectations of future labor market success.

Whether or not the sample member already has a child is also included among the latter variables, since

this might be associated with greater marriage or cohabitation and less likelihood of living with parents.

We also present some estimated regression models separately by cohort, to decompose the changes over

time into those attributable to changes in variable means versus those attributable to changes in

coefficients. Sample weights are used in the summary statistics, but not in the regression analyses.

Several limitations of this analysis should be noted. First, the timing of the NLSY cohorts is not

ideal. The literature documents that real wages of less-educated workers stagnated or declined over the

period extending roughly from 1973 to 1995 and rose thereafter. By comparing outcomes in 1984 and

2002, we combine periods of modestly declining and then significantly rising wages. However, changes

in living arrangements between 1985 and 2003 might still reflect lagged responses to the long-term

deterioration in labor market opportunities of young workers that began in the 1970s.

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[10]We also explored the effects of a set of variables for self-reported expectations regarding educational attainment, having a child, and getting married, but these generally showed little change over time and little explanatory power in the regressions, so we omitted them from the regression specifications shown here.

Second, some variables, such as self-reports of risky behavior and crime, might be measured with considerable error, with the downward biases larger for blacks than for whites (Hindelang et al. 1981; Viscusi 1986; Abe 2001). The ways some of these variables are measured—such as whether or not one ever engaged in the behaviors, rather than with what frequency—also represent limitations. All in all, these measurement issues should likely bias our estimated regression relationships toward zero.[11]

Finally, it is well known (for example, Meyer and Wise 1982; Ellwood 1982; Gardecki and Neumark 1998) that estimates of the effects of early labor market outcomes on later ones will be upwardly biased due to the presence of unobserved heterogeneity. Estimates of earlier risky behaviors on later labor market outcomes or living arrangements might be similarly biased, as these behaviors often reflect self-selection by individuals according to unobserved personal attitudes or attributes. In estimated regressions that measure the effects of contemporaneous employment outcomes on living arrangements, the independent variables might well be endogenous with respect to the dependent variables.

Because of these limitations, we interpret our regression results not as causal impacts, but as correlations that suggest possible underlying causes. We note the findings and speculate about their interpretations, while deferring strong claims about causal relationships to future research.

DESCRIPTIVE STATISTICS ON EMPLOYMENT AND LIVING ARRANGEMENTS

Table 1 presents hourly wages, hours worked, and weeks worked. As is well-known, females and blacks tend to have lower wages, weeks worked, and hours worked than males and/or whites. Among the nonenrolled, persons with lower educational attainment lag behind those with more education in both wages and work effort.

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[11]Classical measurement error in independent variables, which is uncorrelated with other observed characteristics, tends to generate downward biases (toward zero, in absolute value) in estimated coefficients. The errors in measurement of the relevant variables in these models, such as underreporting of criminal activity, might not have that characteristic, and thus might generate biases that are harder to ascertain.

Table 1
Employment Outcomes of Young Adults Ages 20–22 in 1984 and 2002

	Hourly Wages		Total Hours Worked		Weeks Worked	
	1984	2002	1984	2002	1984	2002
Full Sample	$8.77	$9.94	1,240	1,286	33.2	35.3
By Educational Level:						
Not Enrolled						
High school dropout/GED	8.47	9.16	1,167	1,176	28.4	28.4
High school degree	8.94	10.03	1,467	1,478	36.0	35.9
Some college/college degree	9.66	10.98	1,445	1,616	36.0	39.7
Enrolled						
Two-year college	8.37	9.99	1,070	1,304	35.9	38.5
Four-year college	7.84	9.62	754	955	29.6	35.2
By Gender and Race:						
Male						
White	9.61	10.50	1,369	1,410	34.4	36.0
Black	8.61	10.14	1,143	1,118	28.7	28.6
Hispanic	9.55	10.38	1,326	1,402	33.7	34.3
Female						
White	8.12	9.53	1,221	1,247	35.0	37.7
Black	7.10	8.73	779	1,012	23.0	29.3
Hispanic	8.28	9.63	1,020	1,216	29.2	34.8

Sources: Authors' calculations using the NLSY79 and NLSY97.
Notes: Hourly wages are in 2002 dollars, adjusted for inflation using the CPI-RS. Full sample sizes for 1984 and 2002 are, respectively: 2,994 and 3,341 for hourly wages; 4,008 and 4,290 for total hours worked; and 4,039 and 4,420 for weeks worked.

Between 1984 and 2002, real wages for all respondents increased on average by 13 percent, from $8.77 to $9.94; annual hours worked increased by 4 percent, to 1,286; average weeks worked by 6 percent, to 35.3.[12] The trends over time show relatively constant or mildly increasing real wages and work effort for most groups, with black males and black females exhibiting the largest percentage increases in wages. Other studies using the CPS (for example, Katz and Autor 1999; Juhn 2000) have shown declining real wages and employment among less-educated young men during the period from 1987–88 through 1995. Presumably, the earnings gains experienced by these groups over the period beyond 1995 counteracted those declines. But real earnings and employment for these groups in 2002 did not achieve the levels reached in the early 1970s, before the lengthy period of declining real wages among less-educated men began to occur.[13]

Increases in wages and work effort are largest (in both absolute and percentage terms) for those who are enrolled and for those who are not enrolled but have some college experience, compared to high school dropouts or high school graduates. Specifically, real wages rose by 23 percent over this 18-year period for persons enrolled in four-year colleges, by 12 percent for high school graduates, and by just 8 percent for high school dropouts. Among the less-educated, increases were generally larger among women than men (results available from the authors). Together, these patterns suggest that labor market inequality with respect to educational attainment, but not gender, continued to widen overall during the period considered.

Black and Hispanic females showed the largest increases in work effort, perhaps due to welfare reform and the growth of work supports for low-income families like the Earned Income Tax Credit

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[12]Appendix Table A1 shows average hourly wages within quintiles. The largest percentage increases (for both males and females) between 1984 and 2002 were for those in the bottom and top quintiles.

[13]For instance, Lawrence Katz and David Autor (1999) show that the real wages of young men with only five years of labor market experience declined 16 percent between 1971 and 1987, and about 19 percent among high school graduates with five years of experience. Juhn's (1992, 2000) work has emphasized declining employment and labor force activity in response to these relative and real wage declines.

(Blank 2002). In contrast, black males show modest declines in total hours worked over this time period, which (in data not reported in the table) are quite dramatic among high school dropouts. When incarcerated persons are removed from the sample, hours for black males increase only slightly over time (by seven hours), yet black male dropouts still show declines over time in hours and weeks worked. The decline is less dramatic, but remains statistically significant.[14]

In Table 2 we present trends in the percentages of young people living with their parents, married, or cohabiting. Between 1985 and 2003, the percentages living with parents increased from 45.4 to 56.8 percent, the percentage married dropped dramatically from 23.6 to 10.3 percent, and the percentage cohabiting increased sharply from 6.7 to 14.4 percent.

The increasing propensities of young adults to live with parents and cohabit, and the decreasing propensity to marry, are exhibited across almost all subgroups. Marriage rates declined for all groups, but most dramatically for black females (12.3 percentage points, or 71 percent), and for black males (5.2 percentage points, or 63 percent).[15] Declines of similar magnitudes remain when incarcerated persons are removed from the sample. The increased tendency to live at home with parents was most pronounced among high school graduates (increasing by 24 percent, to 50.7 percent) and those enrolled in four-year colleges (increasing by 27 percent, to 74.6 percent). Cohabitation rates at least doubled for all educational and race/gender subgroups, except for white and black females, whose rates of increase were still quite high (84 and 74 percent, respectively).

Those who are enrolled in a four-year college are generally more likely to live at home (74.6 percent in 2003) and less likely to marry (3.7 percent) than the nonenrolled. Young women are less likely to live at home and more likely to be married than young men, presumably because they marry men who

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[14]Including incarcerated persons, mean hours for black male dropouts decline by 318 hours (from 1,198 in 1984 to 880 in 2002); when incarcerated persons are removed from the sample, mean hours for this group decline by 251 hours (from 1,292 in 1984 to 1,041 in 2002).

[15]Declines for black male high school dropouts were even more dramatic: 7.4 percentage points, or 91 percent).

Table 2
Living Arrangements of Young Adults Ages 20–22 in 1984 and 2002
(cells show percentages)

	Lived with Parents		Married		Cohabiting	
	1985	2002–03	1985	2002–03	1985	2002–03
Full Sample	45.4	56.8	23.6	10.3	6.7	14.4
By Educational Level:						
Not Enrolled						
High school dropout/GED	40.4	42.1	28.8	14.1	11.7	24.1
High school degree	41.0	50.7	31.3	12.3	7.2	18.5
Some college/college degree	40.7	47.9	25.5	15.5	6.1	14.7
Enrolled						
Two-year college	62.0	66.7	10.0	7.4	4.0	9.7
Four-year college	58.8	74.6	7.1	3.7	1.5	5.5
By Gender and Race:						
Male						
White	49.4	61.0	17.7	7.6	4.3	12.3
Black	56.6	62.8	8.3	3.1	5.5	12.4
Hispanic	53.2	63.8	21.7	8.6	6.8	13.4
Female						
White	37.1	51.8	33.3	14.8	9.1	16.7
Black	52.4	52.5	17.3	5.0	7.3	12.7
Hispanic	45.4	51.7	33.9	19.9	7.9	20.1

Sources*: Authors' calculations using the NLSY79 and NLSY97.
Notes*: Full sample sizes for 1984 and 2002 are, respectively: 4,035 and 4,420 for lived with parents; and 4,039 and 4,416 for married and for cohabiting.

are somewhat older, on average. Blacks tend to marry less than whites or Hispanics, black men being the least likely to be married.

REGRESSION MODELS FOR LIVING ARRANGEMENTS

Tables 3, 4, and 5 present estimates of our regression models for the probabilities that young people live with their parents, get married, or cohabit, respectively.[16] All estimates presented are from linear probability models.[17] For these models, we present separate estimates by gender, pooling the two cohorts. A subsequent table will further divide the samples by cohort.

We present three specifications in these tables: model 1 includes a year dummy, plus variables for age, education, race, and parental income during the sample members' teenage years (entered as a set of quintile dummies, to allow for possible nonlinear effects).[18] These variables are clearly exogenous to living arrangement decisions. Model 2 adds variables for contemporaneous labor market outcomes (that is, hours worked in the previous year and hourly wages entered as a set of quintile dummies), which might be partly endogenous but which also might constrain choices of living arrangements. Finally, model 3 adds a set of variables that reflect current needs as well as a set of underlying attitudes and behaviors that might be more or less associated with independence, maturity, future orientation, and risk:

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[16]According to Table 2, these three arrangements comprise roughly 80 percent of the living arrangements of the young adults in our sample. A fourth category might include living alone or with others, including roommates or other relatives. One can infer the effects of any of our independent variables on the probability that individuals choose this latter arrangement by summing the coefficients on this variable in the other three equations and subtracting that sum from zero.

[17]For binary dependent variables like the ones examined in Tables 3 to 5, logit or probit models are appropriate because they provide nonlinear coefficient estimates and correct standard errors. However, inferences using OLS are generally the same, especially for samples in which the means of the dependent variables are not very close to zero or one in magnitude and when evaluated for independent variables near their means. Given that the coefficients in OLS models are easier to interpret, we present them here. Estimates from corresponding logit models (either as a series of binomial models or as one multinomial model) show similar results and are available from the authors.

[18]Family income is averaged over three years, to generate a measure that is closer to the family's permanent rather than transitory income. See Appendix A.

Table 3
Linear Probability Models Predicting Living with Parents for Young Adults Ages 20–22 in 1984 and 2002

	Males			Females		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Constant	2.232***	2.087***	2.083***	1.985***	1.853***	1.788***
	[0.198]	[0.201]	[0.204]	[0.199]	[0.203]	[0.207]
Year = 2002 (omitted category: year = 1984)	0.079***	0.084***	0.095***	0.052***	0.052***	0.068***
	[0.016]	[0.016]	[0.017]	[0.015]	[0.016]	[0.017]
Age	-0.083***	-0.074***	-0.064***	-0.075***	-0.071***	-0.060***
	[0.009]	[0.009]	[0.009]	[0.009]	[0.009]	[0.009]
Educational level (omitted category: not enrolled, some college or college degree)						
Not enrolled, high school dropout or GED	0.008	-0.006	0.028	-0.100***	-0.111***	-0.051**
	[0.024]	[0.024]	[0.026]	[0.024]	[0.025]	[0.026]
Not enrolled, high school degree	0.002	0.001	0.004	-0.017	-0.023	-0.008
	[0.023]	[0.023]	[0.023]	[0.022]	[0.022]	[0.022]
Enrolled, two-year college	0.123***	0.103***	0.092***	0.161***	0.154***	0.130***
	[0.033]	[0.032]	[0.032]	[0.032]	[0.032]	[0.031]
Enrolled, four-year college	0.151***	0.112***	0.105***	0.240***	0.225***	0.175***
	[0.025]	[0.026]	[0.026]	[0.023]	[0.024]	[0.025]
Race (omitted category: white)						
Black	0.083***	0.075***	0.065***	0.135***	0.130***	0.128***
	[0.019]	[0.019]	[0.019]	[0.019]	[0.019]	[0.020]
Hispanic	0.075***	0.074***	0.077***	0.094***	0.098***	0.086***
	[0.020]	[0.020]	[0.020]	[0.020]	[0.020]	[0.020]
Parents' average income (omitted category: 5th quintile)						
1st quintile	-0.070**	-0.082***	-0.086***	-0.077***	-0.088***	-0.071***
	[0.027]	[0.027]	[0.027]	[0.027]	[0.027]	[0.027]
2nd quintile	-0.031	-0.040	-0.057**	-0.052*	-0.059**	-0.04
	[0.027]	[0.027]	[0.026]	[0.027]	[0.027]	[0.027]
3rd quintile	-0.025	-0.030	-0.042	-0.056**	-0.058**	-0.042
	[0.028]	[0.027]	[0.027]	[0.028]	[0.028]	[0.028]
4th quintile	0.037	0.030	0.022	-0.057**	-0.058**	-0.049*
	[0.027]	[0.027]	[0.027]	[0.028]	[0.028]	[0.027]

(table continues)

Table 3, continued

	Males			Females		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Labor market variables						
Hours worked (100s of hours)		-0.004***	-0.003***		-0.001	-0.002*
		[0.001]	[0.001]		[0.001]	[0.001]
Hourly wage (omitted category: 5th quintile)						
1st quintile		0.106***	0.089***		0.115***	0.107***
		[0.028]	[0.027]		[0.029]	[0.029]
2nd quintile		0.102***	0.083***		0.093***	0.092***
		[0.027]	[0.026]		[0.029]	[0.029]
3rd quintile		0.044	0.040		0.070**	0.065**
		[0.027]	[0.027]		[0.031]	[0.030]
4th quintile		0.052**	0.044*		0.077**	0.082***
		[0.025]	[0.025]		[0.030]	[0.030]
Had a child by 1984 (79 cohort) or 2002 (1997 cohort)			-0.220***			-0.207***
			[0.020]			[0.018]
GPA in high school			-0.041***			-0.018
			[0.011]			[0.011]
Hours worked, ages 16–17 (100s of Hours)			-0.003***			-0.004***
			[0.001]			[0.001]
Substance use before age 18						
Drank alcohol			-0.018			0.014
			[0.018]			[0.018]
Smoked cigarettes			-0.029			-0.027
			[0.018]			[0.018]
Smoked marijuana			-0.052***			-0.025
			[0.017]			[0.018]
Number of observations	4281	4281	4281	4170	4170	4170
R-squared	0.059	0.073	0.116	0.113	0.118	0.156

Sources: Authors' calculations using the NLSY79 and NLSY97.

Notes: Robust standard errors, clustered for siblings, are shown in parentheses. Missing data dummies were included for all explanatory variables except for cohort and age. Statistical significance is denoted: * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$.

Table 4
Linear Probability Models Predicting Being Married for Young Adults Ages 20–22 in 1984 and 2002

	Males			Females		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Constant	-0.734***	-0.609***	-0.397***	-0.505***	-0.549***	-0.334**
	[0.125]	[0.126]	[0.123]	[0.160]	[0.163]	[0.165]
Year = 2002 (omitted category: year = 1984)	-0.084***	-0.085***	-0.094***	-0.126***	-0.121***	-0.132***
	[0.009]	[0.009]	[0.010]	[0.012]	[0.013]	[0.014]
Age	0.043***	0.037***	0.023***	0.039***	0.041***	0.028***
	[0.006]	[0.006]	[0.006]	[0.007]	[0.008]	[0.007]
Educational level (omitted category: not enrolled, some college or college degree)						
Not enrolled, high school dropout or GED	0.008	0.018	-0.017	0.045**	0.035	-0.009
	[0.017]	[0.017]	[0.017]	[0.022]	[0.022]	[0.023]
Not enrolled, high school degree	0.002	0.004	-0.002	0.039**	0.036*	0.019
	[0.016]	[0.016]	[0.015]	[0.019]	[0.019]	[0.019]
Enrolled, two-year college	-0.058***	-0.046**	-0.034*	-0.096***	-0.103***	-0.082***
	[0.019]	[0.019]	[0.018]	[0.023]	[0.023]	[0.023]
Enrolled, four-year college	-0.079***	-0.055***	-0.045***	-0.163***	-0.170***	-0.124***
	[0.015]	[0.015]	[0.015]	[0.017]	[0.018]	[0.018]
Race (omitted category: white male)						
Black	-0.093***	-0.087***	-0.106***	-0.155***	-0.159***	-0.185***
	[0.011]	[0.011]	[0.011]	[0.014]	[0.014]	[0.015]
Hispanic	0.005	0.006	-0.009	-0.001	-0.002	-0.012
	[0.014]	[0.014]	[0.013]	[0.018]	[0.018]	[0.018]
Parents' average income (omitted category: 5th quintile)						
1st quintile	0.027	0.036**	0.021	0.011	0.009	-0.019
	[0.017]	[0.017]	[0.016]	[0.021]	[0.021]	[0.021]
2nd quintile	0.038**	0.044***	0.045***	0.019	0.016	-0.006
	[0.017]	[0.017]	[0.016]	[0.021]	[0.021]	[0.020]
3rd quintile	0.001	0.004	0.008	0.030	0.031	0.017
	[0.016]	[0.016]	[0.015]	[0.022]	[0.022]	[0.021]
4th quintile	-0.002	0.001	0.003	0.013	0.013	0.005
	[0.016]	[0.016]	[0.015]	[0.021]	[0.021]	[0.020]

(table continues)

Table 4, continued

	Males			Females		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Labor market variables						
Hours worked (100s of hours)		0.002***	0.002***		-0.002*	0.000
		[0.001]	[0.001]		[0.001]	[0.001]
Hourly wage (omitted category: 5th quintile)						
1st quintile		-0.061***	-0.057***		0.015	0.004
		[0.018]	[0.017]		[0.022]	[0.022]
2nd quintile		-0.085***	-0.071***		0.043*	0.031
		[0.016]	[0.015]		[0.023]	[0.022]
3rd quintile		-0.055***	-0.050***		0.036	0.032
		[0.018]	[0.017]		[0.025]	[0.024]
4th quintile		-0.032*	-0.030*		0.034	0.027
		[0.018]	[0.017]		[0.025]	[0.024]
Had a child by 1984 (79 cohort) or 2002 (1997 cohort)			0.271***			0.215***
			[0.017]			[0.016]
GPA in high school			0.022***			0.009
			[0.007]			[0.009]
Hours worked, ages 16–17 (100s of Hours)			0.001			0.002***
			[0.000]			[0.001]
Substance use before age 18						
Drank alcohol			0.004			-0.032**
			[0.011]			[0.015]
Smoked cigarettes			0.005			0.011
			[0.011]			[0.014]
Smoked marijuana			-0.021**			-0.044***
			[0.010]			[0.015]
Number of observations	4281	4281	4281	4170	4170	4170
R-squared	0.069	0.082	0.180	0.118	0.120	0.174

Sources: Authors' calculations using the NLSY79 and NLSY97.
Notes: Robust standard errors, clustered for siblings, are shown in parentheses. Missing data dummies were included for all explanatory variables except for cohort and age. Statistical significance is denoted: * p < 0.10, ** p < 0.05, and *** p < 0.01.

Table 5
Linear Probability Models Predicting Cohabiting for Young Adults Ages 20–22 in 1984 and 2002

	Males			Females		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Constant	-0.287**	-0.231*	-0.136	-0.037	0.013	-0.051
	[0.118]	[0.122]	[0.123]	[0.142]	[0.146]	[0.153]
Year = 2002 (omitted category: year = 1984)	0.081***	0.080***	0.089***	0.093***	0.088***	0.078***
	[0.009]	[0.009]	[0.010]	[0.011]	[0.011]	[0.012]
Age	0.014***	0.011*	0.005	0.005	0.002	0.001
	[0.006]	[0.006]	[0.006]	[0.007]	[0.007]	[0.007]
Educational level (omitted category: not enrolled, some college or college degree)						
Not enrolled, high school dropout or GED	0.067***	0.074***	0.034**	0.059***	0.073***	0.058***
	[0.014]	[0.014]	[0.016]	[0.018]	[0.019]	[0.020]
Not enrolled, high school degree	0.015	0.018	0.011	0.020	0.025	0.024
	[0.013]	[0.013]	[0.013]	[0.016]	[0.016]	[0.016]
Enrolled, two-year college	-0.031*	-0.023	-0.017	-0.052***	-0.044**	-0.037*
	[0.017]	[0.017]	[0.017]	[0.020]	[0.020]	[0.020]
Enrolled, four-year college	-0.059***	-0.039***	-0.023*	-0.084***	-0.070***	-0.058***
	[0.012]	[0.012]	[0.013]	[0.014]	[0.015]	[0.016]
Race (omitted category: white male)						
Black	-0.025**	-0.014	-0.021*	-0.068***	-0.061***	-0.047***
	[0.011]	[0.011]	[0.011]	[0.013]	[0.013]	[0.014]
Hispanic	0.000	0.001	-0.005	-0.020	-0.019	-0.007
	[0.013]	[0.013]	[0.013]	[0.015]	[0.015]	[0.015]
Parents' average income (omitted category: 5th quintile)						
1st quintile	0.032**	0.040***	0.036***	0.072***	0.076***	0.078***
	[0.014]	[0.014]	[0.014]	[0.017]	[0.017]	[0.017]
2nd quintile	0.049***	0.052***	0.057***	0.059***	0.062***	0.060***
	[0.014]	[0.014]	[0.014]	[0.017]	[0.017]	[0.017]
3rd quintile	0.025*	0.027**	0.030**	0.053***	0.050***	0.046***
	[0.014]	[0.014]	[0.014]	[0.018]	[0.018]	[0.017]
4th quintile	0.013	0.015	0.018	0.033**	0.032*	0.030*
	[0.013]	[0.013]	[0.013]	[0.017]	[0.017]	[0.016]

(table continues)

Table 5, continued

	Males			Females		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Labor market variables						
Hours worked (100s of hours)		0.002***	0.002***		0.002***	0.002***
		[0.001]	[0.001]		[0.001]	[0.001]
Hourly wage (omitted category: 5th quintile)						
1st quintile		-0.038**	-0.031*		-0.040*	-0.031
		[0.017]	[0.017]		[0.022]	[0.022]
2nd quintile		-0.015	-0.007		-0.038*	-0.032
		[0.017]	[0.017]		[0.021]	[0.021]
3rd quintile		0.000	0.000		-0.031	-0.027
		[0.018]	[0.017]		[0.023]	[0.023]
4th quintile		-0.011	-0.010		-0.028	-0.028
		[0.017]	[0.016]		[0.023]	[0.023]
Had a child by 1984 (79 cohort) or 2002 (1997 cohort)			0.114***			0.040***
			[0.016]			[0.014]
GPA in high school			-0.008			0.010
			[0.006]			[0.008]
Hours worked, ages 16–17 (100s of Hours)			0.001			0.001**
			[0.000]			[0.001]
Substance use before age 18						
Drank alcohol			0.010			0.017
			[0.010]			[0.012]
Smoked cigarettes			0.006			0.022*
			[0.010]			[0.012]
Smoked marijuana			0.032***			0.019
			[0.010]			[0.013]
Number of observations	4281	4281	4281	4170	4170	4170
R-squared	0.046	0.058	0.085	0.046	0.050	0.061

Sources: Authors' calculations using the NLSY79 and NLSY97.

Notes: Robust standard errors, clustered for siblings, are shown in parentheses. Missing data dummies were included for all explanatory variables except for cohort and age. Statistical significance is denoted: * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$.

whether the individual had a child,[19] their high school grade point average (GPA), their hours worked while ages 16 and 17, and their substance use (alcohol, cigarettes, or marijuana) by age 18. At least a few of these variables, such as high school GPA, might also proxy for long-term labor market expectations or potential, to augment our contemporaneous (and therefore more short-term) labor market outcomes.

A number of findings are apparent in Tables 3 to 5. First, the regressions confirm the trends in living arrangements over time shown in Table 2—namely, the coefficients on the year dummies indicate that young adults are living with parents and cohabiting more frequently but marrying less frequently than two decades ago. Furthermore, the magnitudes of the estimated year effects in these tables are not much different from those observed in the summary data of Table 2: the tendency to live with parents now rises by 8 to 10 percentage points for males and by 5 to 7 points for females; marriage rates fall by 8 to 9 points and about 13 points respectively, while cohabitation rises 8 to 9 points for both groups. The estimated year effects in Tables 3 to 5 also do not vary greatly across the different models. Together, these findings suggest that *our ability to account for the trends we observe over time with this set of explanatory variables is quite limited*, even with the set of controls that we have included for demographic characteristics, parental income, contemporaneous labor market characteristics, and high school behaviors.

A number of cross-sectional findings are also worth noting. Not surprisingly, marriage rates rise with age while the tendency to live with parents falls. Those who are enrolled in two-year and especially four-year colleges are more likely than others to live with parents and less likely to marry or cohabit; since enrollment rates have risen over time, these developments likely contribute to the observed trends in living arrangements (though Table 2 shows the trend occurring among the nonenrolled as well). The tendency to live at home is greater among blacks and Hispanics than whites, while marriage and

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[19]We tested a measure of whether the sample member had a child before age 18. Using this variable did not substantively change the results, so we chose to include the measure of having children closer to the time that living arrangements were measured.

cohabitation rates are lower among blacks. The effects of parental income are notable as well: those from

higher-income families tend to live at home more, and to marry or cohabit less, than those from lower-

income families. Perhaps their parents' greater ability to "feather their nests" enhances the appeal of

living at home for the more affluent young adults.

The contemporaneous labor market outcomes that have been added in model 2 have the expected

signs, with varying patterns of statistical significance: overall, higher wages and more hours of work

reduce the tendency to live at home and raise the tendency to marry or cohabit. The magnitudes of the

hours worked variables are relatively small, though differences across hourly wage quintiles seem

somewhat more substantial. For instance, being in lower wage quintiles increases the probability of living

with parents by 4 to 9 percentage points for young men, as compared to being in the top quintile.

Consistent with our hypotheses (see footnote 1), neither hours worked nor wages are statistically

significant predictors of being married for females, while both are significant for males. Results for

cohabitation show a more mixed pattern. Finally, in all cases the contribution of the labor market

variables to the explanatory power of the regression equations (measured by the changes in R-squared

between models 1 and 2) is quite small, and the change in magnitude for the cohort dummy is

negligible.[20] The potential endogeneity of the labor market outcomes with respect to living arrangements

may account for these apparently modest effects, but this seems unlikely, for two reasons: first, the effects

of living arrangement choices on wages and work effort should go in the same direction, and second,

other studies that use more aggregated labor market outcomes to avoid the endogeneity problems (such as

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[20]Of course, the distribution of individuals across wage quintiles between the two cohorts is unchanged by definition, though the returns to being in lower versus higher quintiles might change over time as inequality in the labor market has widened. We explore this possibility in Table 6.

Matsudaira 2006, as well as Card and Lemieux 2000) generate magnitudes of effects that are quite similar to our own. [21]

The variables added in model 3 have somewhat greater additional explanatory power with regard to living arrangements than do the labor market variables. In particular, having a child significantly reduces the likelihood of living at home and raises tendencies to either marry or cohabit. Productive behavior in high school—either academically (as measured by GPA) or in the labor market (as measured by hours worked at ages 16 and 17)—tends to reduce living at home and raise marriage, even after accounting for contemporaneous labor market impacts.

The estimated effects of productive behavior likely reflect expectations of longer-term earnings outcomes, or attitudes and values more broadly showing independence, maturity, and responsibility. In contrast, substance use by age 18 likely reflects a different set of personal traits—perhaps less orientation to the future and less aversion to risk. While many of the estimated effects of these variables are not significant, there is some evidence of reduced tendencies to live at home or marry and greater tendency to cohabit among young adults who use these substances. We also estimated effects of two sets of variables that appeared only in the NLSY97: ASVAB math/verbal aggregate score percentiles, and participation in a range of illegal activities before age 18 (results available from the authors on request). We found virtually no effects of ASVAB scores on living arrangements, and only modest effects of illegal activity that (in a few cases) resemble those of substance use—namely, by reducing the tendency to live at home or marry (especially if one has been arrested) but increasing cohabitation among those who attacked others or carried handguns.[22]

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[21]Findings from Card and Lemieux (2000, Table 9) indicate that a 10 percent decline in real wages would increase the tendency to live at home by 1.3 percentage points, while a 10 percent decline in employment would raise this tendency by 0.4 percentage points.

[22]ASVAB scores were measured as age-adjusted percentiles. The illegal activities measured were damaged property, physical attacks/carried a handgun, sold drugs or joined a gang, and were ever arrested. A few anomalous results were found, such as positive effects of attacks/handguns on marriage for males.

Given the generally modest magnitudes of estimated results in Tables 3 to 5, and our inability to account for observed trends in living arrangements, we have explored whether the pooled results in those tables might be masking some changes over time in estimated coefficients that might better help us account for these trends over time. In Table 6, we present estimates of model 3 for all three living arrangements, now estimated separately for the NLSY79 and NLSY97.

In general, the patterns of estimates across the two cohorts are quite similar, which lends support to our decision to present pooled estimates earlier in the chapter. Yet some changes in the magnitudes of coefficients are evident. For instance, young men in the bottom quintile of the wage distribution are much more likely to live at home (relative to those in the top quintile) in the later period. But the positive effects of four-year college enrollment on living with parents become stronger over time, while the negative effects of GPA become weaker. These latter findings imply a shift toward living at home at the *higher* end of the educational spectrum, and argue against the notion that expectations of weak future labor market outcomes are driving the changes in living arrangements. Regarding marriage and cohabitation, we find high school graduates and dropouts clearly marrying less, but so do those with somewhat more positive labor market outcomes. The negative income effects on cohabitation weaken over time, while positive labor market effects become stronger. And those with children are now less likely to marry and somewhat more likely to cohabit than before.

In short, the trends observed over time seem to be visible for a variety of different groups with different future prospects and circumstances. To what extent does the pattern of changing estimated effects over time help account for observed trends in living arrangements? We have decomposed these overall changes into those accounted for by changes in values of the explanatory variables versus those accounted for by changes in coefficients, using the well-known Blinder-Oaxaca decomposition (Blinder 1973; Oaxaca 1973).

The results strongly suggest that changes in the outcomes over time are being driven by changes in the relationships between observable characteristics and outcomes (that is, the coefficients), rather than

Table 6
Linear Probability Models Predicting Living Situation for Young Adults Ages 20–22 in 1984 and 2002, Separately by Cohort

	Lived With Parents				Married				Cohabiting			
	Male		Female		Male		Female		Male		Female	
	NLS79	NLS97	NLS79	NLS97	NLS79	NLS97	NLS79	NLS97	NLS79	NLS97	NLS79	NLS97
Constant	1.734***	2.515***	1.639***	1.963***	-0.291	-0.607***	-0.365	-0.386**	0.048	-0.245	-0.077	-0.040
	[0.298]	[0.281]	[0.300]	[0.288]	[0.199]	[0.143]	[0.271]	[0.196]	[0.143]	[0.195]	[0.203]	[0.227]
Age	-0.043***	-0.083***	-0.053***	-0.066***	0.017*	0.029***	0.026**	0.028***	-0.002	0.014	0.004	0.002
	[0.014]	[0.013]	[0.013]	[0.013]	[0.009]	[0.007]	[0.012]	[0.009]	[0.006]	[0.009]	[0.009]	[0.010]
Educational level (omitted category: not enrolled, some college or college degree)												
Not enrolled, high school dropout or GED	0.035	-0.010	-0.038	-0.065*	-0.001	-0.037*	-0.005	-0.024	0.030	0.041	0.076***	0.063*
	[0.036]	[0.037]	[0.036]	[0.039]	[0.026]	[0.021]	[0.034]	[0.031]	[0.018]	[0.027]	[0.024]	[0.034]
Not enrolled, high school degree	-0.001	0.002	-0.030	0.016	0.018	-0.023	0.051*	-0.024	-0.001	0.026	0.034*	0.022
	[0.031]	[0.032]	[0.030]	[0.032]	[0.024]	[0.018]	[0.028]	[0.025]	[0.014]	[0.022]	[0.018]	[0.026]
Enrolled, two-year college	0.111**	0.082*	0.166***	0.119***	-0.093***	-0.006	-0.082*	-0.091***	-0.026*	-0.003	0.002	-0.052*
	[0.052]	[0.042]	[0.052]	[0.041]	[0.024]	[0.024]	[0.044]	[0.026]	[0.016]	[0.027]	[0.028]	[0.030]
Enrolled, four-year college	0.065	0.126***	0.148***	0.185***	-0.059**	-0.042**	-0.158***	-0.116***	-0.018	-0.021	-0.039**	-0.061**
	[0.040]	[0.035]	[0.038]	[0.034]	[0.024]	[0.019]	[0.029]	[0.023]	[0.013]	[0.020]	[0.018]	[0.025]
Race (omitted category: white male)												
Black	0.071**	0.051*	0.172***	0.083***	-0.142***	-0.072***	-0.211***	-0.151***	-0.012	-0.029	-0.030	-0.061***
	[0.028]	[0.028]	[0.029]	[0.027]	[0.018]	[0.012]	[0.025]	[0.018]	[0.013]	[0.018]	[0.019]	[0.020]
Hispanic	0.076***	0.075***	0.096***	0.073***	-0.004	-0.007	-0.035	0.016	0.004	-0.014	-0.023	0.008
	[0.029]	[0.027]	[0.029]	[0.028]	[0.021]	[0.015]	[0.028]	[0.022]	[0.016]	[0.019]	[0.019]	[0.023]
Parents' average income (omitted category: 5th quintile)												
1st quintile	-0.073*	-0.090**	-0.064	-0.069*	0.018	0.036**	-0.027	-0.011	0.038**	0.019	0.100***	0.047*
	[0.039]	[0.038]	[0.040]	[0.036]	[0.025]	[0.018]	[0.035]	[0.024]	[0.017]	[0.021]	[0.022]	[0.026]
2nd quintile	-0.057	-0.041	-0.014	-0.057	0.081***	0.022	-0.019	0.006	0.028*	0.072***	0.065***	0.049*
	[0.039]	[0.036]	[0.041]	[0.036]	[0.027]	[0.017]	[0.035]	[0.024]	[0.015]	[0.022]	[0.022]	[0.026]
3rd quintile	-0.010	-0.061*	-0.015	-0.066*	0.001	0.018	0.031	0.003	0.020	0.032	0.016	0.070***
	[0.040]	[0.036]	[0.043]	[0.037]	[0.025]	[0.017]	[0.037]	[0.024]	[0.016]	[0.021]	[0.020]	[0.026]
4th quintile	0.044	0.006	-0.054	-0.050	0.025	-0.013	-0.004	0.009	-0.006	0.033*	0.035	0.027
	[0.041]	[0.035]	[0.042]	[0.036]	[0.027]	[0.016]	[0.037]	[0.022]	[0.014]	[0.020]	[0.023]	[0.023]

(table continues)

Table 6, continued

	Lived With Parents				Married				Cohabiting			
	Male		Female		Male		Female		Male		Female	
	NLS79	NLS97	NLS79	NLS97	NLS79	NLS97	NLS79	NLS97	NLS79	NLS97	NLS79	NLS97
Labor market variables												
Hours worked (100s of hours)	-0.003**	-0.003***	0.001	-0.003**	0.003**	0.001	0.000	0.000	0.001	0.003***	0.001	0.003**
	[0.001]	[0.001]	[0.002]	[0.001]	[0.001]	[0.001]	[0.002]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]
Hourly wage (omitted category: 5th quintile)												
1st quintile	0.048	0.121***	0.127***	0.096**	-0.062**	-0.036*	0.049	-0.027	-0.016	-0.058**	-0.047	-0.023
	[0.041]	[0.037]	[0.045]	[0.038]	[0.028]	[0.019]	[0.039]	[0.025]	[0.021]	[0.026]	[0.033]	[0.029]
2nd quintile	0.087**	0.081**	0.093**	0.091**	-0.088***	-0.041**	0.086**	-0.01	0.004	-0.032	-0.040	-0.026
	[0.038]	[0.036]	[0.044]	[0.038]	[0.025]	[0.018]	[0.039]	[0.026]	[0.020]	[0.026]	[0.032]	[0.029]
3rd quintile	0.047	0.033	0.091**	0.043	-0.075***	-0.018	0.095**	-0.025	-0.009	0.002	-0.054*	-0.002
	[0.038]	[0.037]	[0.045]	[0.042]	[0.027]	[0.020]	[0.041]	[0.028]	[0.020]	[0.028]	[0.032]	[0.034]
4th quintile	0.019	0.067*	0.089*	0.071*	-0.034	-0.027	0.091**	-0.014	0.005	-0.026	-0.063*	-0.004
	[0.035]	[0.035]	[0.046]	[0.040]	[0.027]	[0.019]	[0.042]	[0.028]	[0.019]	[0.027]	[0.032]	[0.032]
Had a child by 1984 (79 cohort) or 2002 (1997 cohort)	-0.238***	-0.204***	-0.191***	-0.215***	0.367***	0.161***	0.274***	0.157***	0.040**	0.198***	-0.032*	0.108***
	[0.027]	[0.030]	[0.025]	[0.026]	[0.025]	[0.022]	[0.024]	[0.021]	[0.017]	[0.027]	[0.016]	[0.021]
GPA in high school	-0.077***	-0.021	-0.035**	-0.002	0.024**	0.021***	0.017	-0.003	-0.005	-0.011	0.012	0.012
	[0.017]	[0.015]	[0.017]	[0.015]	[0.012]	[0.008]	[0.015]	[0.012]	[0.008]	[0.010]	[0.010]	[0.012]
Hours worked, ages 16–17 (100s of Hours)	-0.002	-0.003***	-0.006***	-0.003**	0.001	0.001	0.004***	0.001	0.000	0.001	0.001	0.002*
	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]
Substance use before age 18												
Drank alcohol	-0.028	-0.024	0.022	-0.014	0.000	0.011	-0.046**	-0.019	0.014	0.003	0.009	0.034*
	[0.028]	[0.025]	[0.025]	[0.026]	[0.019]	[0.012]	[0.023]	[0.018]	[0.012]	[0.016]	[0.016]	[0.019]
Smoked cigarettes	-0.026	-0.035	-0.043	-0.015	0.015	0.006	0.004	0.017	-0.013	0.019	0.035**	0.001
	[0.027]	[0.024]	[0.026]	[0.025]	[0.018]	[0.013]	[0.023]	[0.017]	[0.011]	[0.016]	[0.015]	[0.020]
Smoked marijuana	-0.087***	-0.017	-0.045*	-0.002	-0.021	-0.024*	-0.037	-0.056***	0.038***	0.027	0.021	0.018
	[0.023]	[0.024]	[0.025]	[0.025]	[0.016]	[0.012]	[0.023]	[0.018]	[0.010]	[0.017]	[0.017]	[0.021]
Number of observations	2064	2217	1971	2199	2066	2215	1973	2197	2066	2215	1973	2197
R-squared	0.116	0.122	0.150	0.155	0.223	0.110	0.171	0.124	0.051	0.113	0.049	0.082

Sources: Authors' calculations using the NLSY79 and NLSY97.

Notes: Robust standard errors, clustered for siblings, are shown in parentheses. Missing data dummies were included for all explanatory variables except for age. Statistical significance is denoted: * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$.

changes in the characteristics and experiences of the young adults themselves.[23] But no single set of

changes in coefficients—including those on contemporaneous labor market outcomes—can account for

much of the observed changes in outcomes. The growing tendency of young men in the lowest wage

quintile to live with their parents can account for less than 1.5 percentage points of the overall increase.[24]

For females and for the other living arrangements, these effects generally go in the opposite direction.

And, as noted, many of the changes can be observed for those with high GPAs in high school or who are

in college, and therefore with relatively higher earnings, as well as for those with less

achievement/education and lower earnings, in the future.

CONCLUSION

We use data from two NLSY cohorts to document changes over time and differences across

educational and race/gender groups in employment outcomes and living arrangements of youth in their

early twenties, and to estimate the effects of labor market outcomes and high school behaviors on the

living arrangements of youth. Our main findings can be summarized as follows:

1. In 2002, young people tended to live at home with their parents and to cohabit more frequently, and to marry less frequently, than was the case in 1984. These trends are similar across education and enrollment groups and race/gender groups.

2. Employment and wage outcomes at ages 20 to 22 are negatively related to contemporaneous tendencies to live at home with parents and positively related to marriage, at least among young men; and the relative tendency of low-wage workers to live at home rose over time. But the estimated relationships are too small and too mixed to account for very much of observed changes over time (or differences in levels across education or race/gender groups) in living arrangements.

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[23]Specifically, the results indicate that changes in living with parents (for females), marriage (for both males and females), and cohabiting (for males) are almost completely explained by changes in the coefficients over time. Living with parents (for males) and cohabiting (for females) show more mixed results, depending on whether the changes in coefficients and variables are weighted by earlier or later variable and coefficient values.

[24]This computation is based on the fact that 20 percent of all young men are in each quintile and that the coefficient on this quintile rises from 0.048 to 0.121 in Table 6.

3. We find positive statistical relationships between academic and labor market outcomes in high school and the tendency of young people to marry in their early twenties, as well as negative relationships between these high school outcomes and tendencies to live with parents. We also find some evidence of positive relationships between risky behaviors during high school and the tendency to cohabit a few years later, while we find negative relationships between these behaviors and a tendency to live at home. These findings at least suggest that personal attitudes and behaviors that reflect independence, maturity, and the like are associated with living arrangements across young people, though not necessarily with changes in outcomes over time.

How should we interpret these findings? The modest estimated relationships between contemporaneous labor market outcomes and living arrangements suggest that the long-term declines in labor market opportunities for less-educated young workers cannot account for much of their greater tendencies over time to live at home or cohabit, nor for their reduced tendency to marry.

Of course, it is possible that our measures of contemporaneous labor market outcomes do not fully capture the effects of changes in labor market opportunities. For one thing, the labor market outcomes might reflect transitory, rather than permanent, employment behaviors and outcomes; and perhaps it is the latter that more strongly affects these living arrangements. Perhaps these outcomes over time have fallen short of rising costs (especially for housing, in some regions of the country; see Yelowitz 2006), and also short of rising expectations, in ways not captured by the data. Still, the fact that we observe similar trends over time in living arrangements across different education and race/gender groups reinforces the notion that these trends are not largely driven by changes in labor market opportunities, which have diverged greatly across education and gender groups in the past two or three decades.

As for the relationships between high school outcomes and subsequent living arrangements, these are more likely to capture a range of unobserved personal expectations and behaviors across people, and opportunity sets over time, that influence living arrangements in the short term—above and beyond the effects that work through current labor market outcomes. Those individuals with good grades or employment outcomes in high school can afford more independence, and have better marriage prospects, than those with weaker outcomes. Those who engage in risky behaviors during high school are perhaps less welcome or less comfortable living at home with their parents, but also might have weaker

preferences for and worse prospects for marriage; in these circumstances, cohabitation might be the preferred outcome for them, at least in the short term.

Of course, even for the latter set of findings, estimated effects are quite small. And a range of other statistical caveats have already been noted—including potential endogeneity of independent variables, measurement error, and unobserved heterogeneity. Thus, we emphasize that these findings and interpretations are a starting point, suggestive at best, for future research efforts that should consider how transitions to adulthood are affected by labor market trends and other behaviors of youth.

APPENDIX A
VARIABLE DESCRIPTIONS

Lived with parents, married, cohabited. These statuses are constructed from the household rosters, and are measured at the time of the 1985 survey (January to June 1985) for NLSY79 sample members, and at the time of the round six survey (November 2002 to July 2003) for NLSY97 sample members. "Parents" are defined as biological, step, adopted, or foster parents. Cohabiting relationships include only opposite-sex relationships.

Enrollment and education level. These variables are measured as of September of the corresponding year (1984 or 2002). Some values were imputed using information about enrollment status and educational level at the time of the interview in rounds prior to and following these dates. Enrollment levels are "not enrolled" (and include separate categories for high school dropouts, GED, high school degree, some college, or college graduate); and "enrolled" (and include separate categories for two-year college, including vocational and technical schools, and four-year colleges and universities, including graduate school).

Parental income. We averaged values over three years when the sample member turned ages 16, 17, and 18. If income information in all three years was not available, then information for the subset of available years was used. For the 1997 cohort, in the first round we used the NLSY-constructed variable for income, along with the constructed variable for income source (to identify parental information); we used the income updates from parents in subsequent rounds. For the 1979 cohort, we used the created variable for total net family income, and used only cases that had completed Version A of the screener (indicating that parental income, not that of independent youth, was included in this variable). Quintiles were calculated separately by cohort, pooling across gender.

Hourly wages. Measured in 2002 dollars, adjusted for inflation using the CPI-RS. When observed wages were nonzero, but less than $2 or greater than $50, the value for this variable was set to missing.[25] Wages were used from the job worked as of December 31 of the corresponding year (1984 or 2002), or from the last known job in the year if the sample member was not employed on December 31. To assure comparability between the NSLY79 and NLSY97 measures, we used a measure of hourly earnings, or hourly compensation. This is the hourly wage, plus any overtime, tips, or bonuses. (An hourly wage variable is not available in the NLSY79 for this year.) Quintiles were calculated separately by cohort, pooling across gender.

Total hours worked. Measured for calendar years 1984 and 2002. We used created variables in the NLSY79 and NLSY97.

Had a child by 1984 or 2002. For the 1997 cohort, we used created variables that provide the date of each child's birth, along with the round six interview date. For the 1979 cohort, we used information from the fertility and relationship history taken in the 1985 round of the survey.

Grade point average. Used course grades from transcript data for NLSY79 sample members, and course grades from self-reports for NLSY97 sample members (transcript data are not yet available for all sample members in the NLSY97). Calculated GPA by converting grades to a numeric four-point scale (A = 4.0).

Hours worked, ages 16 and 17. Summed hours worked for all weeks between the youth's sixteenth and eighteenth birthdates.

Drank alcohol before age eighteen. Constructed from a series of questions in the NLSY97 and NLSY79. With information about the sample member's birthdate, as well as about date at which the

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[25]Fifty-one observations in our NLSY79 sample, and 45 observations in our NLSY97 sample, had nonzero wages less than $2. No observations in our NLSY79 sample, and 40 observations in our NLSY97 sample, had wages greater than $50.

respondent started drinking, we created a binary variable indicating whether the sample member had started drinking before the eighteenth birthday.

Smoked cigarettes before age 18. Constructed in a similar way to that described for drinking alcohol before age 18.

Smoked marijuana before age 18. Constructed in a similar way to that described for drinking alcohol before age 18.

Weights. Used the 1985 survey year weights for the NLSY79, and the round 6 (November 2002 to July 2003) weights for the NLSY97. These weights were used only in tables showing means and proportions, not in any regression analyses.

Missing data indicators. These are included in all regressions for any explanatory variables that have missing values.

Appendix Table A1
Means for Control Variables

	Male		Female	
	NLSY79	NLSY97	NLSY79	NLSY97
Age on December 31, 1984 (79 cohort) or 2002 (97)	21.54	21.49	21.54	21.49
White (percent)	78.5	69.5	78.8	71.4
Black (percent)	14.7	16.0	14.6	16.1
Hispanic (percent)	6.9	14.5	6.5	12.6
Enrollment Status and Education Level (percent)				
Not enrolled, high school dropout or GED	24.7	20.4	17.3	14.8
Not enrolled, high school degree	30.9	31.3	32.6	25.0
Not enrolled, some college or college degree	19.8	15.8	24.9	18.5
Enrolled, two-year college	6.3	8.3	5.9	10.2
Enrolled, four-year college	18.3	24.3	19.3	31.5
Parents' average income ($ average within quintile)				
1st quintile	$16,051	$6,348	$15,474	$6,375
2nd quintile	33,437	25,003	32,833	24,911
3rd quintile	48,191	44,427	48,303	44,061
4th quintile	64,243	67,272	64,399	66,887
5th quintile	100,498	132,364	99,141	132,503
Hourly wage in 1984 or 2002 ($ average within quintile)				
1st quintile	$4.94	$5.75	$4.92	$5.70
2nd quintile	6.35	7.27	6.28	7.24
3rd quintile	7.43	8.51	7.46	8.51
4th quintile	9.11	10.15	9.16	10.18
5th quintile	14.61	16.47	13.27	16.15
Had child by 1984 or 2002 (percent)	14.5	13.9	29.5	27.3
GPA in high school	2.3	2.7	2.6	3.0
Hours worked, ages 16–17	1,173	1,116	897	1,016
Substance use prior to age 18 (percent)				
Drank alcohol	78.1	72.8	68.0	74.0
Smoked cigarettes	76.3	60.6	71.5	60.7
Smoked marijuana	52.5	42.1	42.4	38.2

Source: Authors' calculations from the NLSY79 and NLSY97.

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