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Social Status Attainment during the Transition to Adulthood

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Abstract

The transition from adolescence to adulthood is a critical time for status attainment, with income, education, work experience, and independence from parents accruing at varying speeds and intensities. This study takes an intergenerational life-course perspective that incorporates parents' and one's own social status to examine the status attainment process from adolescence into adulthood in the domains of economic capital (e.g., income) and human capital (e.g., education, occupation). Survey data from three waves of the National Longitudinal Study of Adolescent Health (analytic n=8,977) are analyzed using latent class analysis to capture the ebb and flow of social status advantages and disadvantages from adolescence (Wave 1) through young adulthood (Wave 3) into adulthood (Wave 4). The analytic sample is composed of 50.3% females and 70.2% Whites, 15.3% Blacks, 11.0% Hispanics, and 3.5% Asians ages 12 to 18 at Wave 1 and 25 to 31 at Wave 4. Four latent classes are found for economic capital and five for human capital. The importance of parents' social status is demonstrated by the presence of large groups with persistently low and persistently high social status over time in both domains. The capacity of individuals to determine their own status, however, is shown by equally large groups with upward and downward mobility in both domains. These findings demonstrate the dynamic nature of social status during this critical developmental period.

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AUTHOR CONTRIBUTIONS

CKL conceived of the present research questions, conducted the statistical analyses and drafted the manuscript; PJC obtained the data, made it available and contributed to the interpretation of the results and revisions of the text; SPW provided feedback on analyses and contributed to the interpretation of the results and; and CSA contributed to the interpretation of the results and revisions of the text. All authors read and approved the final manuscript.

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

Keywords

Transition to Adulthood; Social Status; Latent Class Analysis; Adolescence

Introduction

As educational and occupational expectations have evolved, many young people now face more obstacles to and longer delays in transitioning to adulthood, as reflected in such markers as leaving the parental home, completing school, getting married, and becoming a parent (Arnett 2000; Shanahan 2000; Berlin et al. 2010). This transition coincides with important social status developments in which individuals are accruing education and skills for the work force, as well as financial assets or debts that typically continue into later adulthood (Furstenberg 2008). The accumulation of advantage and disadvantage during this period affects one's lifelong opportunities and resources, and one's overall health and well-being (Duncan et al. 1998; Frytak et al. 2003; Warren 2009; Cohen et al. 2010).

Although social status is widely acknowledged in social science research to be a multidimensional construct that varies over the life course, few studies on young adults have used social status in this multifaceted and dynamic manner (Harris 2010; Scharoun-Lee et al. 2011). Rather, previous studies often use static indicators of parents' status as a proxy or use single point-in-time young adult status even though it is in flux (Goodman and Huang 2002; Chen et al. 2006; Cubbin et al. 2011). Furthermore, researchers often operationalize social status using indicators of income and education that may have different meanings during the transition to adulthood (e.g., measuring highest educational attainment regardless of age of attainment). Single indicators can also mask potential heterogeneity in the processes of accumulating advantage or disadvantage (Braveman et al. 2005; Pollack et al. 2007). As a result, studies that use a single point-in-time indicator of social status can draw misleading conclusions about the effects on various social and health outcomes (Pollack et al. 2007). With changing demographics and an elongated transition to adulthood, there is a critical need for longitudinal studies to enhance our understanding of social status over this period. The current study applies a person-oriented approach of latent class analysis (LCA) to study social status as a life-course construct during the transition to adulthood within the domains of economic and human capital. This approach provides insight into how the status attainment process unfolds as individuals make this transition.

Status Attainment

Social status is defined as the relative position of individuals in a stratified society as characterized by economic capital and human capital (Grusky et al. 2008). Economic capital refers to one's material resources like income and assets as means to procure further social status (Bourdieu 1986; Oakes and Rossi 2003). Human capital captures one's knowledge and skills as means to gain social status (Becker 1993; Oakes and Rossi 2003). Status attainment refers to the processes by which initial social status or "origin" (e.g., parents' social status) subsequently becomes social status over time or "destination" (Schoon 2008). Blau and Duncan's (1967) original status attainment model examined father-to-son occupational mobility in a variable-oriented approach (e.g., path analysis). The Wisconsin

model of status attainment highlighted key social, psychological, and institutional factors in adolescence that mediate the effects of social origins on adult education, occupation and income (Sewell and Hauser, 1975). However, variable-oriented approaches to study these processes are often unable to detect subgroups with different status attainment processes, which are better captured using a person-oriented approach (Bergman and Magnusson 1997).

Status attainment involves intergenerational (social status transferred across generations) and intragenerational (social status acquired within one's lifetime) processes that trace patterns of social stability and mobility in society (Grusky and Ku 2008). In the early 20th century, intergenerational processes played a large part in determining one's social status, such that individuals closely resembled their parents. This "stickiness" of social status can limit opportunities for movement up or down the social ladder (Grusky and Ku 2008). One's own achievements, however, provide an additional pathway for upward or downward mobility, and both intergenerational and intragenerational processes are often in dynamic tension. For instance, although education has traditionally played an integral role in upward mobility, intergenerational effects of increasing economic inequality have in recent decades led to more stickiness in educational attainment (Campbell et al. 2005). Since the transition to adulthood is a time when social status is in flux, an individual's experiences of accruing status during this transition should be considered in conjunction with the potential advantages or disadvantages bestowed by the previous generation.

In addition, previous studies often restrict status attainment models to a single dimension of social status and overlook the conceptual differences between types of capitals and nuances within capitals that contribute to one's social status (Krieger et al. 1997; Oakes and Rossi 2003). Specifically, economic capital plays a different role in determining one's social status than human capital (Bourdieu 1986; Braveman et al. 2005). Material resources such as income can elevate one's living conditions and ability to purchase goods that symbolize higher social status. Furthermore, experiences of poverty and wealth signal accumulated disadvantages and advantages that are not captured by a single measure of income. In contrast, human capital, such as education and occupation, represent one's skills, ability, and intellect that are associated with a particular lifestyle, social network, or environment of higher or lower social status (Bourdieu 1986; Becker 1993). Characteristics such as vocational training or time spent in school or work provide a more complete assessment of the human capital experiences during the transition to adulthood. These distinctions highlight the importance of investigating both economic and human capital, but draw attention to the markers that go beyond income (for economic capital) and education (for human capital) to capture diverse aspects of social status that may be especially important during the transition to adulthood.

Life-Course Perspective

The life-course perspective provides an optimal framework for studying status attainment over the transition to adulthood. Its themes of time and timing, trajectories, linked lives, and human agency serve as guiding principles for this study (Elder et al. 2004). Accruing, maintaining, and losing social status are viewed as key developmental processes that fit

within the life-course framework. Applying a life-course perspective identifies several limitations of previous research about the evolution of status attainment. First, conventional markers of social status —e.g., education, occupation, income— are sensitive to life stage, making it essential to study time and timing. For example, equating initial social status with parents' education or income may be appropriate for adolescence, but not young adults, and income among young adults may fluctuate considerably, especially when individuals are still in school, making the timing of educational attainment a key consideration (Furstenberg 2008; Do 2009; Scharoun-Lee et al. 2011). To assess intergenerational (from parents) and intragenerational (from self) mobility, these traditional markers should be captured over repeated time points. In addition, non-traditional markers (e.g., formal government resources, informal family resources) provide a broader assessment of status that may be especially relevant for some subgroups of the population, such as low income families. Furthermore, involvement in school and at work should be considered during this time given that individuals are accruing status at varying rates (e.g., time spent on education may exceed time spent working, or vice versa). For these reasons, the current study uses longitudinal data with a diverse set of social status measures to provide a deeper assessment of the status attainment process during the transition to adulthood.

Second, individual decisions and the timing of early life events can impact future status attainment by forming status attainment trajectories leading to the accumulation of advantages or disadvantages. This embodies the concept of human agency in decision making, which refers to the choices individuals make given the opportunities and constraints in their world (Elder et al. 2004). For example, early entry into adult social roles (e.g., becoming a teen parent) has long-term social status effects and creates a build-up of subsequent transitions, such as early exit from school or early entry into work (Elder et al. 2004). These early transitions have been linked to relatively low subsequent social status (Foster et al. 2008; Johnson and Mollborn 2009). Delayed entry into adulthood (e.g., continued schooling) also has long-term social status effects and leads to a build-up of transitions, such as further dependence on parents, delayed entry into work, postponement of marriage and parenthood (Arnett 2000; Furstenberg et al. 2005). These delayed transitions have been linked to relatively high subsequent social status (Furstenberg et al. 2005). This social bifurcation of the transition to adulthood demonstrates that although individuals are active agents in the status attainment process, the consequences of early decisions have compound effects on future trajectories.

Third, the role of parents is an application of the life-course theme of linked lives that is critical to the transfer of advantages and disadvantages from one generation to the next. The social status and resources of one's family of origin can aid or deter status attainment. Compared to individuals from advantaged families, individuals from disadvantaged families have fewer resources and capacities to navigate the various transitions of obtaining secondary education, entering the work force, and forming families (Furstenberg 2008). Furthermore, some individuals remain financially dependent on parents while others financially contribute to parents (Settersten et al. 2005). These patterns are evident for both economic and human capital, but with varying returns on one's social status. For instance, economic capital transfers may provide more immediate effects on status (e.g., money for living), whereas human capital transfers may be more intangible and long-term (e.g.,

parents' higher education provides exposure to higher status cultural preferences, dress, speech). Finally, social and economic inequality across parents creates different starting positions for status attainment among offspring. In this manner, the social status of parents impacts that of their sons and daughters, as do the choices these young people make with regard to transitions into adult roles and trajectories of economic and social capital.

The Current Study

Distinct life-course patterns of status attainment from adolescence (ages 12–18) to early adulthood (ages 25–31) are modeled by applying a person-oriented analytic approach to survey data from the National Longitudinal Study of Adolescent Health (Add Health). Specifically, LCA is used to group individuals into classes based on multiple indicators of social status in the domains of economic capital and human capital assessed at three times points during the transition to adulthood. Given the importance of both the intergenerational transfer of social status and individual agency, we expect to find patterns of stability for both high and low social status, and mobility, both upward and downward. These patterns are thought to be present for both economic capital and human capital. Although economic and human capital are distinct, they should correspond to each other to some degree because they are both forms of social status, such that low economic capital will be associated with low human capital, and high economic capital with high human capital. Furthermore, these patterns are expected to be linked to the bifurcation of adult social role trajectories, with low status groups being more likely than high status groups to be married and have children by early adulthood.

Methods

Data

Add Health is an ongoing study of a nationally representative sample of 7th–12th grade U.S. youth during the 1994–95 school year who were followed into adulthood (Harris et al. 2009). A multistage stratified (e.g., stratified by region, race/ethnicity) cluster design was used to select 80 high schools and 52 feeder schools (had 7th grade and sent graduates to sampled high school). More than 90,000 students participated in an initial school-based survey (response rate [RR]: 79%). A core in-home sample (n=20,745) was drawn from the school-based sample with oversamples based on ethnicity (Blacks with a college-educated parent, Chinese, Cubans, and Puerto Ricans), genetic (siblings and twins), adoption status and disability (Harris 2011). This core sample then completed a 1–2 hour survey at home (W1; 78.9% RR), and were surveyed again in 1996 (W2; 88.2% RR), 2001–02 (W3; 77.4% RR) and 2008–09 (W4; 80.3% RR). Parents (primarily mothers; 85.4% RR) were interviewed at W1 (Harris et al. 2009).

The current study's analytic sample is restricted to respondents with W1, W3, and W4 in-home and W1 parent interviews (n=13,034). W2 data are not used given the close proximity to W1 and lack of follow-up with W1 high school seniors. Members of small racial/ethnic groups (n=515) were excluded because there are too few for analysis and the category is too heterogeneous to be meaningful. Cases without a sample weight (i.e., selected outside the

sampling frame) were excluded. The final analytic sample is 8,977. Data are weighted and standard errors are adjusted for the complex sample design.

Weighted sample characteristics are presented in Table 1. Gender composition is fairly equal and the majority of respondents self-identified as Whites, with far fewer Blacks and Hispanics, and even fewer Asians. The mean age in adolescence is 15 (range of 12–18), young adulthood is 21 (range of 19–25), and adulthood is 28 (range of 25–31). Due to higher attrition among respondents with lower income and education, the results may be biased towards higher income and education although sample weights adjust for this factor.

This study was approved by the University of California, Los Angeles Human Subjects Protection Committee (IRB #10-001106).

Measures

Economic capital—This dimension of life-course social status assesses financial resources, financial strain, and wealth with a total of 20 measures.

Financial resources: Multiple measures were used to assess financial resources including income (3), public assistance (3), and family transfers (3). Annual household income in dollars from W1 was used to assess adolescent financial resources. A large percentage of missing for W1 income (22.9%) was taken into consideration by using full-information maximum likelihood estimation. Personal income in dollars from W3 and W4 was included for young adult and adult resources (household income was not used due to excessive missing data and categorical response options, respectively). To address inflation, income was standardized to 2008 dollars; it was top-coded at the 99th percentile and square-root transformed to improve the distribution. Past year receipt of public benefits (e.g., food stamps, public assistance) at each wave captured formal financial sources (0=none, 1=at least one). Past year family transfers at W3 and W4 assessed informal sources (0=no, 1=yes). Respondents were asked whether parents helped to pay or gave them \$50 or more for living costs. In W4 only, respondents were asked whether they helped to pay or gave \$50 or more for parent's living costs.

Financial strain: Financial strain in the past year (e.g., trouble paying bills, rent/mortgage) was included from adolescence, young adulthood, and adulthood. No health insurance (0=has insurance, 1=none) was also captured from each wave.

Wealth: A total of 5 measures were used to capture wealth. Home ownership was measured in W3 and W4. Respondents were asked their total household assets (e.g., bank accounts, retirement) and total household debt (e.g., loans, credit card debt, excludes mortgage) at W4. Dollar values were assigned to assets and debts by recoding categorical values to the midpoint of the interval. To capture additional intergenerational financial transfers, respondents were asked whether they received family help to buy or remodel a home in W4 (0=no, 1=yes).

Human capital—This dimension of life-course social status assesses knowledge and skills with a total of 15 measures.

Education: Four parental measures and five respondent measures captured education. In W1, respondents were asked, “How far did your ___ (mother or father) go in school?” Parent’s education was categorized into less than high school (1), high school degree/GED (2), some college (3), college degree (4), and graduate or professional school (5). Two binary variables captured whether a mother (i.e., biological or non-biological mother figure) and father (i.e., biological or non-biological father figure) were present in the household during adolescence. Since respondents were at least 18 years old in W3, it was assumed that they were no longer in high school, and thus, an indicator for high school degree or GED by young adulthood was included (0=no, 1=yes). Two binary items accounted for current school status in W3 and W4 (0=not in school, 1=in school). An additional W3 indicator documented receipt of vocational training (0=no, 1=yes). Educational attainment at W4 had the same categories as parent’s education.

Occupation: A total of 6 measures captured parent and respondent occupational characteristics. Type of occupation captures skills set and presumed prestige associated with a job. Using U.S. Census classifications, W1 respondent-reported parent’s occupation were categorized into five dummy variables of manual or blue collar (including farming); sales, service, or administrative; other professional (e.g., community/social services, education/training/library); professional or managerial; and, unspecified other — in reference to not working. Since job changes are frequent in young adulthood, W3 occupation was excluded. At W4, respondents were classified into most recent or current job using the same dummy variables as parents. To measure employment history and time spent at work, respondent’s number of hours worked per week was included from W1 (work hours during the summer), W3 and W4. Work hours were top-coded at the 99% percentile. A respondent was given a value of zero hours if no occupation was listed or they were not working at W4.

Transition to adulthood—For young adulthood, markers of living with parents, currently in school, full-time work status, ever married, and having children were included (0=no, 1=yes). For adulthood, currently in school, full-time work status, and having children were included (0=no, 1=yes). Adult marital status was categorized into two dummy variables of currently married, and divorced/separated/widowed, relative to never married, the omitted reference category.

Covariates—Demographic variables included gender (male=0, female=1), age, combined race and ethnicity construct (three dummy variables for Black, Hispanic, Asian relative to White, the omitted reference category), and family structure (two dummy variables for single parent household and “other” relative to two-parent household, the omitted reference category). These variables were selected because of the significant demographic associations with both to the transition to adulthood (e.g., gender and racial/ethnic differences in marriage and parenting) and status attainment (Furstenberg 2010; Settersten and Ray 2010).

Statistical Analyses

This study applies a person-oriented approach of latent class analysis (LCA) for analyzing longitudinal data. LCA is a technique to identify substantively meaningful subgroups within the larger population (Nyland et al. 2007; Collins and Lanza 2010). This approach allows

researchers to go beyond identifying the effect of a single variable on an outcome to understand patterns of a set of variables as a whole on an outcome (Bergman and Magnusson 1997). It is especially beneficial for studying complex constructs such as social status. LCA is a non-parametric statistical technique that assumes that patterns among a set of observed variables are explained by an unmeasured latent variable with discrete classes where classes are groups with similar values on the variable set (Lazarsfeld and Henry 1968; McCutcheon 1987; Collins and Lanza 2010). LCA is similar to factor analysis except that the resulting latent variable is categorical with a multinomial distribution (Collins and Lanza 2010). Observed variables are assumed to be ‘locally independent’ within each class such that any intraclass correlations or multicollinearity between variables are not an issue in LCA whereas they are common and problematic in variable-oriented frameworks (Clogg 1995, Hagenaaers and McCutcheon 2002). Respondents are assumed to belong to only one class (Lanza et al. 2007). In this study, LCA was used to identify (1) the optimal number of latent classes, and (2) class size/characteristics.

A series of LCA models was tested specifying 1 to 6 classes. Model selection was based on model fit statistics (e.g., Akaike Information Criteria [AIC] and Bayesian Information Criterion [BIC], and sample size adjusted Lo-Mendell-Rubin [LMR] likelihood ratio test (Schwarz 1978; Sclove 1987; Lo et al. 2001; Nylund et al. 2007). Other model fit criteria were high class homogeneity (degree that individuals in one class follow the same observed response pattern, implying that the pattern is highly characteristic of the class) and high class separation (degree of distinction between latent classes on item-response patterns) (Collins and Lanza 2010).

Once the best-fit model was identified, additional LCA models were estimated adding covariates of demographic characteristics and transition to adulthood markers. The statistical significance of the association between class membership and each covariate was assessed with a multinomial logistic regression models; each covariate was statistically significant at a p-value of less than 0.05 using log-likelihood ratio tests. In sensitivity analyses, respondents were assigned to a class based on their maximum predicted probability of class membership, and covariates were compared across groups using conventional bivariate statistical techniques, specifically chi-square tests for categorical covariates and F-tests for continuous covariates. These findings aligned well with the LCA results. For ease of interpretation, the bivariate relationships are presented as proportions and means using these conventional methods.

Descriptive statistics were conducted in Stata version 12.0 (StataCorp 2011), and LCA was conducted in Mplus version 6.11 (Muthen and Muthen 1998–2011). Survey procedures in Stata and Mplus corrected for unequal probability of selection, attrition, and the complex sample design (Harris et al. 2009). Missing data in social status measures were handled using full information maximum likelihood (FIML) estimation. FIML assumes that data are missing at random (MAR); however, even if the MAR condition is not completely satisfied, FIML estimation can reduce bias while maximizing the number of observations (Arbuckle 1996; Wothke 2000).

Results

Economic Capital

With each additional class, the log-likelihood, AIC and BIC values first decreased and then leveled off between 3- and 6-class solutions [Appendix A]. LMR test statistics also supported 3- to 6- class solutions. However, there were trivial class sizes (<5%) in the 5- and 6-class solutions, and item-response probabilities showed poor class homogeneity (where a dominant pattern was not apparent within the 5- or 6-class solution) and poor separation (in which these small classes did not differ substantially from the other larger classes). These considerations point to a 4-class LCA model as having the most distinct groupings of economic capital.

Table 2 presents the latent class prevalences for the 4-class model, and the conditional response probabilities and means for each observed economic capital indicator by class. The table also shows the mean values and proportions for the total sample. Profiles of life-course economic capital are characterized as Class 1— Persistently disadvantaged (18.1%); Class 2 — Upwardly mobile (21.1%); Class 3 —Downwardly mobile (27.8%); and Class 4— Persistently advantaged (33.0%). Stability in economic capital is about as common as mobility. More than half of respondents were in groups with high economic capital in adolescence; however, only one in two of these persons maintained that high level in adulthood.

The persistently disadvantaged group was characterized by accumulated disadvantages over the life course. In adolescence, the mean household income was substantially lower than the total sample. Personal income grew slightly from young adulthood to adulthood. Public assistance and not having health insurance were consistently high at each wave, and home ownership was low relative to the sample overall. Despite receiving family financial support, this group was the second highest in giving financial help to their families in adulthood.

The upwardly mobile group possessed characteristics of increasing economic capital from adolescence to adulthood. In adolescence, this group had the second lowest household income among the four classes. By young adulthood, this group represented the highest mean income, and by adulthood, the second highest. Financial strain, public assistance, and not having health insurance declined over time. By adulthood, almost half of respondents owned a home. This group received little family financial support, and was most likely to provide financial support to family in adulthood.

The downwardly mobile group had the second highest mean household income in adolescence. However, by young adulthood and adulthood, personal incomes were the second lowest of all classes, on average. Economic hardships gradually increased over time and only one-quarter owned a home in adulthood. A majority received family financial support in young adulthood and adulthood with little return to family in adulthood.

The persistently advantaged group was characterized by an economic environment of high incomes and little economic hardship over this period of the life course. In adolescence, the

mean household income was the highest of any group and personal income grew substantially from young adulthood to adulthood. Over half owned a home in adulthood. Family financial support in young adulthood was highest across all groups, but was lowest of all groups by adulthood. This group was also likely to receive financial support for their home purchase, but provided little support back to family in adulthood.

Table 3 presents demographic characteristics for each economic capital group as defined by the highest predicted probabilities of class membership. The persistently disadvantaged had more females, Blacks, and Hispanics than the persistently advantaged, which had more males, Whites, and Asians. Males and Hispanics made up higher proportions of the upwardly mobile group than the downwardly mobile group, which had more Whites and slightly younger persons. The downwardly mobile had the youngest mean age in adulthood. However, the mean age for all groups is 27.9, which signals a young sample.

Turning to the two types of capital, Table 3 also presents education as a representative human capital indicator for each economic capital group. Parents' and respondent's education were very similar within the persistently advantaged and disadvantaged groups. When compared to parents, respondent's education levels were lower for the downwardly mobile group but higher for the upwardly mobile group. When examining across economic capital groups, the downwardly mobile had higher education levels than the upwardly mobile.

For the transition to adulthood markers, also shown in Table 3, the persistently disadvantaged had early adoption of adult social roles, being most likely to have left the parental home and school, and second most likely to be married by young adulthood. Having the highest proportion of those who have children in young adulthood and adulthood suggests early childbearing. In contrast, the persistently advantaged had patterns of delayed entry into adult roles; in young adulthood, a majority was still in school, and few had married or had children. By adulthood, however, the persistently advantaged had higher proportions of marriage than the persistently disadvantaged. The upwardly mobile resembled the persistently disadvantaged with respect to early adoption of adult roles, in particular full-time work status; marriage in this group, however, remained high in adulthood. The downwardly mobile group was similar to the persistently advantaged except with higher proportions living at home in young adulthood and being in school in adulthood. While they had a high proportion of never married compared to the persistently advantaged, the downwardly mobile also had a higher proportion of being a parent.

Human Capital

The log-likelihood, AIC and BIC values, and LMR statistic supported four or higher class solutions for LCA models [Appendix B]. However, the 4-class and 5-class solutions had large clusters in one class, suggesting that a large proportion of respondents shared similar human capital characteristics. Although class prevalences were equally distributed in a 6-class solution, class separation was poor in that patterns were similar from one class to another class. In the 5-class solution, class separation and homogeneity were good. Therefore, a 5-class model was selected as the best-fitting model. Table 4 shows the class prevalences and probabilities for this model: Class 1 —Persistently low (10.6%); Class 2—

Upward mobility with early entry to work (42.1%); Class 3 —Upward mobility with continued schooling (15.0%); Class 4— Downward mobility with early entry to work (16.4%); and Class 5 —Persistently high (16.0%). Similar to economic capital, the persistently low made up the smallest human capital group. A plurality of respondents falls into the upward mobility with early entry into work group, while the remaining three groups are similar in size.

Class 1, the persistently low, accumulated disadvantages in human capital over this period of the life course. In young adulthood, a majority had not completed high school, and very few were in school, suggesting that most of this group had attained their maximum education. Adult education ranged from less than high school to high school degree or GED. Among parents who worked, occupations were in sales/service (for mothers) and manual (for fathers). Typical adult occupations were manual or sales/service.

Class 2 was similar to Class 1 in adolescence; however, several key differences signal upward mobility during young adulthood. First, 95.8% of respondents in this class had a high school degree in young adulthood, compared to 27.7% in Class 1. Adult education levels were between a high school degree and some college, which was higher than their parents but lower than other groups, suggesting relatively early exit from school and entry into work. Second, this group worked more in adolescence and young adulthood compared to all other groups. This group had the highest proportion who received vocational training. The modal adult occupations include sales/service and manual.

Class 3 also had an upward trajectory; the key difference with Class 2 is that a majority continued schooling during young adulthood. Intergenerational gains are evident when comparing parents' education (between high school degree and some college) and respondent's education (between college degree and graduate school). An upward path is also evident with occupation. Mothers worked primarily in sales/services and fathers in manual sectors. Respondents, however, worked in professional or managerial, other professional, and sales/service sectors.

In contrast, Class 4 shows downward mobility. Their parents had the second highest education levels of some college. The majority of respondents, meanwhile, had a high school degree by young adulthood, but by adulthood, the mean education level was less than both parents. In addition to early work in young adulthood, there was also continued schooling in young adulthood and adulthood. Therefore, the downward pattern may have the potential to reverse later in life, but the combination of working may have made educational attainment slow for this group. Mother's occupation was high while father's occupation had a wide variation. The modal respondent occupation is sales/service. \

Class 5 represents accumulated advantages in human capital. The majority had completed high school by young adulthood, and a large proportion continued schooling in young adulthood. The average adult education was between a college degree and graduate school. Average work hours were the lowest in young adulthood, but highest by adulthood. Parents' and respondent's occupation were high at a professional or managerial level.

Table 5 shows the relationships between demographics and human capital classes. Similar to economic capital, the persistently low had more Blacks and Hispanics than the persistently high, which had more Whites and Asians. Gender patterns were reversed for human capital; the persistently low had more males while the persistently high had more females. Upward with continued schooling group comprised of more females than males. The upward with early work group resembled the persistently low with more Blacks and Hispanics than Whites, but with equal gender composition. The downward with early work group included more males and Whites than females and non-Whites. Groups that continued schooling (i.e., upward and persistently high groups) in young adulthood were characterized by younger respondents, whereas the groups that entered work early were older respondents.

To compare the two forms of capital, Table 5 presents income as an indicator of economic capital across the three life stages. The correspondence between economic and human capitals is most evident for the two extremes: the persistently low group has the lowest incomes at all three times and the persistently high have the highest incomes except for young adulthood when they were in school. Income in young adulthood is highest instead among the two groups who entered the workforce early. Furthermore, by adulthood, this pattern reverses, and a positive association of higher human capital and income is evident among the upward with continued school and persistently high groups. Thus the notion of the positive association between economic and human capitals is clearly challenged by the time-dependent effects of continued school on income during this period.

For the transition to adulthood markers, human capital tends to correspond to trends of being in school, marriage and parenthood, but not with living with parents. The persistently low human capital had patterns of earlier adult roles (e.g., not in school, full-time work, marriage in young adulthood, parental status by young adulthood and adulthood) relative to the persistently high human capital (e.g., currently in school, fewer with children). Yet a higher proportion of persistently low lived with parents than the persistently high. The upward with early work and downward with early work had patterns similar to the persistently low, which signal earlier adult roles. The upward with continued schooling exhibited characteristics of delayed adult roles that were comparable to the persistently high.

Discussion

While adolescence is a time of significant biological, psychological, and social developments, the transition from adolescence to adulthood is a time of critical turning points for the accrual of social status that can have lifelong effects on one's overall health and social well-being (Arnett 2000). Social status in childhood and adolescence is often assessed via parent's social status (Hansen and Chen 2007; Furstenberg 2008), but during this transition, one's own status, as this study has shown, may result in a continuation of the level of parental social status—both advantaged and disadvantaged, or discontinuity, with some experiencing gains in status and others drifting downward. Income, education, and work experience begin to replace parental status, sometimes abruptly and other times as a slowly evolving process. Understanding the status attainment process during this period is essential to identifying mechanisms for intervention in adolescence and early adulthood to deter the further accrual of social disadvantages and generation of social inequalities.

This study provides a more comprehensive and holistic view of the status attainment process during this transition period in the life course than existing research that relies on single indicators of social status and/or treats social status as static. Our analysis of life-course social status captures the ebb and flow of social status advantages and disadvantages from adolescence (ages 12–18) through young adulthood (ages 19–25) to adulthood (ages 25–31). This analysis incorporates the intergenerational transmission of economic capital and human capital as well as the intragenerational attainment of status. Our results indicate that social status has stable (persistent advantages and disadvantages) as well as fluid (upward and downward mobility) patterns. Furthermore, these trajectories are significantly associated with transition to adulthood markers. Our hypothesis that economic and human capital trajectories would mirror each other during this period, however, was only partially supported in that economic and human capital trade-offs became clearly evident. Next, we discuss these findings separately by stable versus fluid patterns of social status.

Social origin and destination remain similar for some groups. For both economic and human capital, there are stable patterns that point to the “stickiness” of parents’ social status and are consistent with previous studies documenting a cumulative build-up of social disadvantages and advantages that start early in life and continue into adulthood and old age (Dannefer 2003; Palloni 2006). For the persistently advantaged groups, benefits from the intergenerational transmission of parents’ status enabled them to stay on top of the status hierarchy. As a result, social inequalities between the most disadvantaged and advantaged grew wider by adulthood as evidenced by differences in subsequent income and education levels.

However, these stable patterns were present only at the top and bottom of the social ladder. This may indicate that stability is less common among the middle class, or it may be an artifact of the data or modeling procedures. It is possible, for example, that a larger sample would yield a greater number of latent classes and that the additional latent classes would reveal stickiness in the middle class too. Alternately, stability in the middle class may be embedded in the persistently advantaged group. Although the mean level of income in this group is well above the sample average, the range is relatively wide, providing some support to this interpretation. However, our construct of social status accounts for different trajectories of multiple dimensions in addition to income, and thus stability may represent other aspects of social status such as experiences of economic hardship, wealth, or occupations (e.g., family of teachers or physicians). Nevertheless, the stickiness of the most disadvantaged groups speaks to the need for social policy directed at reducing poverty and inequality early in the life course.

Bifurcation of the transition to adult social roles is evident between these two stable patterns of social status. Compared to the persistently advantaged, those who are persistently disadvantaged in economic or human capital were more likely to be out of school, married, and have children by young adulthood. Marital patterns changed by adulthood, however, when the persistently advantaged group was more likely to be married but with fewer children suggesting that they are delaying marriage and parenthood, and investing time in young adulthood to accrue their higher social status in adulthood.

In contrast, social mobility patterns show that social destinations can differ from origins. With respect to economic capital, the upwardly mobile provide an initially optimistic outlook of how material resources can grow with limited intergenerational status contribution. However, their social status may not remain as high later in life when some other groups have completed higher education and the transition to adulthood. Nevertheless, this group is faring better than their parents. Thus, upward economic mobility may be evident between generations but may be less so when comparing across social status groups within a generation. The economically downward, in contrast, have the potential to reverse course because this group has the highest proportion still in school in adulthood. Therefore, this group's economic status may yet come to resemble that of their parents' status. The potential for these groups to change course signals a need for research that spans from adolescence to even later in adulthood.

Within the human capital domain, upward mobility is evident through two pathways: (1) leaving school early to work and (2) delaying work to continue schooling. Although both of these groups have higher human capital levels than their parents, the benefits of the second trajectory of continuing school are evident by adulthood. Those who entered the workforce early received immediate economic gains in young adulthood. Those who continued school, however, attained educational, occupational and income levels similar to levels in the persistently high human capital group. An analogous pattern is also evident with the adult role trajectories of marriage and parenthood. Those who entered the work force early resembled, in contrast, the persistently disadvantaged in taking up these roles.

The downward with early entry into work, in contrast, did not accrue benefits from their parents' high education levels, and while their relative economic gains were noticeable in young adulthood, their status dropped by adulthood. Although some members of this group continued school and invested in vocational training in young adulthood, this juggling of work and school may have delayed their human capital attainment and transition to adulthood. This combination appears to be a downward trajectory, but this group still has the potential to reap benefits from their education in the future.

Inequalities by social status patterns are evident by gender and race/ethnicity. Females make up a larger proportion of the most disadvantaged economic capital group. However, within the human capital domain, females have a larger proportion in the upward with continued schooling and the persistently high groups. These patterns highlight the potential social status benefits via human capital for females, but less so in the economic capital domain. Alternatively, human capital could be a leading indicator for future economic capital, which may not have been captured by the data to date. Blacks and Hispanics are more likely to be in the most economically disadvantaged and the persistently low human capital groups. Yet, they are also more likely to be in the economically upward group and upward with early entry into work group. Although Blacks and Hispanics tend to possess low social status regardless of domain, on average, it is important to look at ways to maximize the upward mobility pathways that can elevate the status of Blacks and Hispanics during the transition to adulthood.

These findings demonstrate the importance of looking at social status through a life-course perspective to capture stability and change over time because they show that status attainment is a dynamic process that ebbs and flows for some, while others follow a steady cause. Furthermore, although a unidimensional approach to conceptualizing social status is parsimonious, these results highlight several advantages of applying a multidimensional approach. First, the trajectories of economic and human capitals align with each other but do not necessarily match, and therefore, these dimensions should be considered both jointly and separately. Initial upward economic trajectories may come at the long-term cost of human capital accumulation, while long-term upward human capital investments may come at the initial cost of economic accumulation. More simply put, the meaning of economic trajectories may differ from human capital trajectories during this sensitive period in the life course.

Second, snapshots at a single point in time have very little meaning during the transition to adulthood, and even unidimensional trend analyses of single indicators of social status can be misleading. In separate analyses using indicators at one time point (not shown), earlier onset of adulthood (i.e., getting married, having children, not in school) is common among those with low adolescent income and low adult income. Yet, our results show that even though the economically upward (with low adolescent income and high adult income) is similar to the persistently advantaged by adulthood, this group exhibits earlier adult roles similar to the persistently disadvantaged. Thus, early adult onset is not necessarily associated with low social status, and anomalies exist in the intertwining pathways of status attainment and entry into adult social roles, indicating that the social bifurcation of the transition to adulthood is not certain.

Third, by examining non-traditional measures of economic capital and human capital, a fuller picture of status attainment and targets for potential intervention during the transition to adulthood are more evident. Specifically, while educational attainment and occupation are traditional measures, early exit from school and early entry into work are key turning points for human capital trajectories. Programs to reduce educational inequalities should focus on providing opportunities for delaying school exits. Finally, the status attainment process is for most participants in this study incomplete and the future remains undetermined.

There are several limitations to this study. These findings are only generalizable to U.S. adolescents enrolled in school during the 1994–95 academic year, and therefore, omit the experiences of those who are perhaps most at risk of persistently low or downward mobility—those who leave school early. The sample includes only Whites, Blacks, Latinos, and Asians, neglecting the experiences of other racial/ethnic groups whose status attainment is likely to be affected by their minority group status. LCA involves a degree of subjectivity in the interpretation of latent classes and some class misclassification error such that some groups that exist in the population are probably not fully captured in these classes (Collins and Lanza 2010). Furthermore, respondents were between the ages of 25 and 31 at Wave 4 (with an average age of 28). Although previous studies of status attainment assess final adult status between the ages of 25 and 30 (Sewell and Hauser 1975; Schoon 2008), our findings should be interpreted with caution given that the process of status attainment is not complete for most respondents. Given the elongation of the transition to adulthood, future research

should apply these kinds of analytical methods to other longitudinal datasets that capture the transition to adulthood period into mid-to-late adulthood to expand these findings.

Another limitation is the inability to consider larger societal influences on status attainment. The life course theory's principle of time and place emphasizes the importance of historical context on the life course of individuals and birth cohorts. For the Add Health study cohort, adolescence occurred during economic growth in the 1990s (Wave 1 was conducted in 1994–1995) while the transition to adulthood occurred during economic declines during the 2000s that culminated in the most recent Great Recession (Wave 3 was collected in 2001–2002 and Wave 4 was collected in 2008–2009). It is not possible to assess the impact of these economic forces, however, given that the study was conducted with a single cohort during one span of time. Future research that compares this process across different cohorts and/or different historical times may illuminate these historical contexts.

One of the study's key strengths is the use of longitudinal data to identify social status patterns over time. Although this study is limited to a school-based sample and overlooks individuals who were already out of school by wave 1, as just mentioned, there was much heterogeneity in social status groups that reflected economic and human capital levels across the social ladder at the beginning and throughout the study. Second, this study used a person-oriented framework (LCA) to develop life-course social status constructs for economic and human capitals. Through this conceptualization, this study's findings provide a nuanced understanding of social status during the transition from adolescence to adulthood. Previous studies are often limited to cross-sectional data or lack the richness of multiple social status measures.

Conclusions

This study's findings suggest key implications for research, practice, and policy. First, young adult research that incorporates social status should take a more comprehensive approach that accounts for intergenerational (i.e., parents' and one's own), time-varying (i.e., repeated measures), and multi-dimensional (i.e., economic, human, and even social or cultural capitals) aspects of social status. Second, the transition to adulthood and status attainment are deeply intertwined, which makes it difficult to tease these processes apart; therefore, the timing of these key events should be considered together to highlight patterns of social inequalities. For example, the effects of leaving school early and starting work can lead to lower human capital and later economic capital gains. In addition, becoming a parent early in adulthood is associated with less social status development. Finally, the process of reproducing social inequality is being played out in the lives of these young people as they make decisions and respond to external forces that set them on pathways of continuing to accumulate the disadvantage of their parents' lives or building advantage on advantage, or instead transform their destinations to bear little resemblance to their origins, overcoming disadvantage, or letting privilege slip through their fingers.

With a better understanding of the timing of key events that affect the different social status dimensions, we can develop appropriate interventions that function as safety nets during the transition to adulthood. These interventions can focus on elements of social status

development (e.g., academic or vocational counseling for continuing adult education) or transition to adult roles (e.g., support for new parents, childcare services). Furthermore, public policies that account for these variations in status attainment during the transition to adulthood can serve to buffer against times of economic uncertainty, create stronger links between school and work, and prevent build-up of disadvantages. In conclusion, the transition to adulthood is a period when social status may evolve rapidly across each economic capital and human capital domain. These changes indicate that social status trajectories are neither linear nor fixed except perhaps at the extremes. Accurately capturing the process of accruing (or losing) capital during this critical transition period of the life course is essential for the development of optimal interventions and public policies.

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References

- Arbuckle, J.L. Full information estimation in the presence of incomplete data. In: Marcoulides, G.; Schumacker, R., editors. *Advanced Structural Equation Modeling: Issues and Techniques*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc; 1996. p. 243-278.
- Arnett JJ. Emerging adulthood - A theory of development from the late teens through the twenties. *American Psychologist*. 2000; 55(5):469-480. [PubMed: 10842426]
- Becker, GS. *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*. 3. Chicago: The University of Chicago Press; 1993.
- Bergman LR, Magnusson D. A person-oriented approach in research on developmental psychopathology. *Development and Psychopathology*. 1997; 9(2):291-319. [PubMed: 9201446]
- Berlin G, Furstenberg FF, Waters MC. Introducing the issue: transition to adulthood. *The Future of Children*. 2010; 20(1):3-18.
- Blau, P.; Duncan, O. *The American Occupational Structure*. New York: Wiley; 1967.
- Bourdieu, P. The forms of capital. In: Richardson, J., editor. *Handbook of Theory and Research for the Sociology of Education*. Westport, CT: Greenwood; 1986. p. 241-258.
- Braveman P, Cubbin C, Egerter S, Chideya S, Marchi KS, Metzler M, et al. Socioeconomic status in health research: one size does not fit all. *JAMA*. 2005; 294(22):2879-2888. [PubMed: 16352796]
- Campbell M, Haveman R, Sandefur G, Wolfe B. Economic inequality and educational attainment across a generation. *Focus*. 2005; 23(3):11-15.
- Chen E, Martin A, Matthews K. Socioeconomic status and health: do gradients differ within childhood and adolescence? *Social Science & Medicine*. 2006; 62(9):2161-2170. [PubMed: 16213644]
- Cohen S, Janicki-Deverts D, Chen E, Matthews K. Childhood socioeconomic status and adult health. *Annals of the New York Academy of Sciences*. 2010; 1186:37-55. [PubMed: 20201867]
- Collins, LM.; Lanza, ST. *Latent Class and Latent Transitional Analysis: With Applications in the Social, Behavioral, and Health Sciences*. Hoboken, NJ: John Wiley & Sons, Inc; 2010.

- Cubbin C, Vesely SK, Braveman PA, Oman RF. Socioeconomic factors and health risk behaviors among adolescents. *American Journal of Health Behavior*. 2011; 35(1):28–39. [PubMed: 20950156]
- Dannefer D. Cumulative advantage/disadvantage and the life course: Cross-fertilizing age and social science theory. *Journals of Gerontology Series B-Psychological Sciences and Social Sciences*. 2003; 58(6):S327–S337.
- Do DP. The dynamics of income and neighborhood context for population health: do long-term measures of socioeconomic status explain more of the black/white health disparity than single-point-in-time measures? *Social Science & Medicine*. 2009; 68(8):1368–1375. [PubMed: 19278767]
- Duncan GJ, Yeung WJ, Brooks-Gunn J, Smith JR. How much does childhood poverty affect the life chances of children? *American Sociological Review*. 1998; 63(3):406–423.
- Elder, G.; Johnson, MK.; Crosnoe, R. The emergence and development of life course theory. In: Mortimer, JT.; Shanahan, MJ., editors. *Handbook of the Life Course*. New York: Springer; 2004. p. 3-19.
- Foster H, Hagan J, Brooks-Gunn J. Growing up fast: stress exposure and subjective ‘weathering’ in emerging adulthood. *Journal of Health and Social Behavior*. 2008; 49(2):162–177. [PubMed: 18649500]
- Frytak, JR.; Harley, CR.; Finch, MD. Socioeconomic status and health over the life course: capital as a unifying concept. In: Mortimer, JT.; Shanahan, MJ., editors. *Handbook of the Life Course*. New York: Kluwer Academic Publishers; 2003. p. 623-643.
- Furstenberg, FF. The intersections of social class and the transition to adulthood. In: Mortimer, JT., editor. *Social Class and Transitions to Adulthood: New Directions for Child and Adolescent Development*. Jossey-Bass; 2008. p. 1-10.
- Furstenberg FF. On a new schedule: transitions to adulthood and family change. *The Future of Children*. 2010; 20(1):67–87. [PubMed: 20364622]
- Furstenberg, FF.; Rumbaut, RG.; Settersten, RA, Jr. On the frontier of adulthood: emerging themes and directions. In: Settersten, RA., Jr; Furstenberg, FF.; Rumbaut, RG., editors. *On the Frontier of Adulthood: Theory, Research, and Public Policy*. Chicago: University of Chicago Press, Ltd; 2005. p. 3-25.
- Goodman E, Huang B. Socioeconomic status, depressive symptoms, and adolescent substance use. *Arch Pediatr Adolesc Med*. 2002; 156(5):448–453. [PubMed: 11980549]
- Grusky, DB.; Ku, MC. Gloom, doom, and inequality. In: Grusky, DB.; Ku, MC.; Szelenyi, S., editors. *Social Stratification: Class, Race, and Gender in Sociological Perspective*. 3. Boulder, CO: Westview Press; 2008. p. 2-28.
- Grusky, DB.; Ku, MC.; Szelenyi, S. *Social stratification: class, race, and gender in sociological perspective*. 3. Boulder, Colo: Westview Press; 2008.
- Harris KM. An integrative approach to health. *Demography*. 2010; 47(1):1–22. [PubMed: 20355681]
- Harris, KM. *Design features of Add Health*. Chapel Hill, NC: University of North Carolina; 2011.
- Harris, KM.; Halpern, CT.; Whitsel, E.; Hussey, J.; Tabor, J.; Entzel, P., et al. [Accessed March 25 2010] *The National Longitudinal Study of Adolescent Health: Research Design*. 2009. <http://www.cpc.unc.edu/projects/addhealth/design>
- Johnson MK, Mollborn S. Growing up faster, feeling older: hardship in childhood and adolescence. *Social Psychology Quarterly*. 2009; 72:39–60. [PubMed: 21921972]
- Krieger N, Williams DR, Moss NE. Measuring social class in US public health research: concepts, methodologies, and guidelines. *Annual Review of Public Health*. 1997; 18:341–378.
- Lanza ST, Collins LM, Lemmon DR, Schafer JL. PROC LCA: A SAS procedure for latent class analysis. *Structural Equation Modeling-a Multidisciplinary Journal*. 2007; 14:671–694. [PubMed: 19953201]
- Lazarsfeld, PF.; Henry, NW. *Latent structure analysis*. New York: Houghton; 1968.
- Lo YT, Mendell NR, Rubin DB. Testing the number of components in a normal mixture. *Biometrika*. 2001; 88(3):767–778.
- McCutcheon, AL. *Latent class analysis*. Newbury Park, Calif: Sage; 1987. (Sage university papers series Quantitative applications in the social sciences, Vol. 07-064)

- Muthen, L.; Muthen, B. *Mplus User's Guide*. 6. Los Angeles, CA: Muthen & Muthen; 1998–2011.
- Nylund KL, Asparoutiov T, Muthen BO. Deciding on the number of classes in latent class analysis and growth mixture modeling: A Monte Carlo simulation study. *Structural Equation Modeling-a Multidisciplinary Journal*. 2007; 14(4):535–569.
- Oakes JM, Rossi PH. The measurement of SES in health research: current practice and steps toward a new approach. *Social Science & Medicine*. 2003; 56(4):769–784. [PubMed: 12560010]
- Palloni A. Reproducing inequalities: luck, wallets, and the enduring effects of childhood health. *Demography*. 2006; 43(4):587–615. [PubMed: 17236536]
- Pollack CE, Chideya S, Cubbin C, Williams B, Dekker M, Braveman P. Should health studies measure wealth? A systematic review. *American Journal of Preventive Medicine*. 2007; 33(3):250–264. [PubMed: 17826585]
- Scharoun-Lee M, Gordon-Larsen P, Adair LS, Popkin BM, Kaufman JS, Suchindran CM. Intergenerational Profiles of Socioeconomic (Dis)advantage and Obesity During the Transition to Adulthood. *Demography*. 2011; 48(2):625–651. [PubMed: 21491185]
- Schoon I. A transgenerational model of status attainment: the potential mediating role of school motivation and education. *National Institute Economic Review*. 2008; (205):72–8282.
- Schwarz G. Estimating dimension of a model. *Annals of Statistics*. 1978; 6(2):461–464.
- Sclove SL. Application of model-selection criteria to some problems in multivariate-analysis. *Psychometrika*. 1987; 52(3):333–343.
- Settersten, RA.; Furstenberg, FF.; Rumbaut, RG. *On the Frontier of Adulthood: Theory, Research, and Public Policy*. Chicago, Ill: University of Chicago Press; 2005. (John D and Catherine T Macarthur Foundation series on mental health and development Research Network on Transitions to Adulthood and Public Policy)
- Settersten RA Jr, Ray B. What's going on with young people today? The long and twisting path to adulthood. *The Future of Children*. 2010; 20(1):19–41. [PubMed: 20364620]
- Sewell, WH.; Hauser, RM. *Education, Occupation, and Earnings: Achievement in the Early Career*. New York: Academic Press; 1975.
- Shanahan M. Pathways to adulthood in changing societies: variability and mechanisms in life course perspective. *Annual Review of Sociology*. 2000; 26:667–692.
- StataCorp. *Stata Statistical Software: Release 12*. College Station, TX: StataCorp LP; 2011.
- Warren JR. Socioeconomic status and health across the life course: a test of the social causation and health selection hypotheses. *Social Forces*. 2009; 87(4):2125–2153.
- Wothke, W. Longitudinal and multi-group modeling with missing data. In: Little, TD.; Schnabel, KU.; Baumert, J., editors. *Modeling Longitudinal and Multiple Group Data: Practical Issues, Applied Approaches and Specific Examples*. Mahwah, NJ: Lawrence Erlbaum Associates; 2000. p. 219-240.

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Table 1

Sample Demographic Characteristics, n=8,977

Demographic Characteristics	Mean (SD) or Percent
<i>Adolescence (W1)</i>	
Mean age	15.00 (1.59)
Female	50.3
Race/Ethnicity	
White	70.2
Black	15.3
Hispanic	11.0
Asian	3.5
Family structure	
Two-parent household	73.5
Single-parent household	22.5
Other	4.2
<i>Young Adulthood (W3)</i>	
Mean age	21.30 (1.67)
Live with parents	41.8
Currently in school	39.9
Employment status	
Not working	26.7
Part-time	30.3
Full-time	42.9
Ever married	16.0
Have children	17.7
<i>Adulthood (W4)</i>	
Mean age	27.87 (1.63)
Currently in school	16.4
Employment status	
Not working	7.5
Part-time	22.1
Full-time	70.4
Marital status	
Never married	52.8
Married	39.6
Divorced/separated/widowed	7.6
Have children	46.5

Note: W1=Wave 1 data; W3=Wave 3 data; W4=Wave 4 data

Table 2

Four-Class Latent Model of Life-Course Economic Capital, n=8,977

	Class 1		Class 2		Class 3		Class 4		Total
	Persistently Disadvantaged	Upwardly Mobile	Upwardly Mobile	Downwardly Mobile	Persistently Advantaged	Persistently Advantaged	Persistently Advantaged		
<i>Percentage of Sample</i>	18.1	21.1	27.8	33.0	100.0				8,977
Sample size	1,623	1,892	2,496	2,966					
<i>Mean</i>									
Conditional Response (continuous indicators)									
W1 Household income (dollars)	\$23,600	\$33,000	\$67,400	\$90,100	\$56,900				
W3 Personal income (dollars)	\$6,800	\$15,400	\$9,800	\$12,700	\$11,300				
W4 Personal income (dollars)	\$9,200	\$32,600	\$18,000	\$44,400	\$26,600				
W4 Total assets (dollars)	\$7,200	\$43,700	\$15,500	\$60,800	\$26,300				
W4 Total debt (dollars)	\$5,400	\$13,900	\$11,200	\$14,300	\$11,100				
<i>Percent</i>									
Item-Response Probabilities (categorical indicators)									
ADOLESCENCE (W1)									
Received public assistance	67.0	42.0	9.7	7.8	26.9				
Financial strain	36.0	33.3	6.8	3.8	17.1				
No health insurance	39.5	43.3	7.1	2.4	19.7				
YOUNG ADULTHOOD (W3)									
Received public assistance	28.2	4.5	7.8	0.6	8.7				
Financial strain	48.2	20.7	24.9	12.6	24.5				
No health insurance	40.3	25.8	17.7	2.4	19.0				
Owens home	9.9	18.6	7.2	9.4	11.0				
Received help from family	35.5	23.7	49.9	56.1	43.2				
ADULTHOOD (W4)									
Received public assistance	64.7	11.1	27.8	2.3	23.1				
Financial strain	54.6	13.1	35.5	3.1	24.1				
No health insurance	32.6	15.0	24.1	1.2	16.5				
Owens home	20.0	49.2	25.0	60.5	40.4				
Received family help to purchase home	11.1	12.6	18.9	29.8	19.4				

	Class 1 Persistently Disadvantaged	Class 2 Upwardly Mobile	Class 3 Downwardly Mobile	Class 4 Persistently Advantaged	Total
Received family help for living	21.6	7.1	24.1	7.0	14.6
Gave financial help to family	16.3	16.7	7.1	3.1	9.8

Note: W1= Wave 1 data; W3=Wave 3 data; W4=Wave 4 data

Table 3

Distribution of Covariates by Economic Capital Latent Classes, n=8,977

	Class 1 (n=1,623)	Class 2 (n=1,892)	Class 3 (n=2,496)	Class 4 (n=2,966)	Total
<i>Demographics</i>					
<i>Mean or Percent</i>					
Female	62.6	42.3	51.8	47.6	50.4
Race/Ethnicity					
White	52.6	59.2	75.3	82.6	70.2
Black	32.9	16.7	13.7	6.2	15.3
Hispanic	12.8	20.5	7.8	6.6	11.0
Asian	1.7	3.6	3.3	4.6	3.5
Family structure					
Two-parent household	47.4	64.4	79.7	88.3	73.5
Single-parent household	43.8	29.4	17.7	10.3	22.4
Other	8.8	6.2	2.6	1.4	4.1
Mean age in adulthood	28.00	28.1	27.68	27.82	27.87
Human Capital Characteristics					
<u>Parents' Education (%)</u>					
Mother received high school degree/GED	63.6	72.0	86.8	93.5	81.9
Father received high school degree/GED	56.8	67.8	85.9	92.7	81.3
<u>Respondent's Education by Adulthood (%)</u>					
Less than high school	24.5	10.4	6.2	0.9	8.6
High school or GED	26.7	23.1	17.2	6.4	16.6
Some college or technical school	43.4	47.8	49.6	33.5	42.8
College degree	4.1	11.4	17.3	37.3	20.3
Graduate School	1.4	7.3	9.7	22.0	11.7
Transition to Adulthood Markers					
<u>Young Adulthood</u>					

	Class 1 Persistently Disadvantaged (n=1,623)	Class 2 Upwardly Mobile (n=1,892)	Class 3 Downwardly Mobile (n=2,496)	Class 4 Persistently Advantaged (n=2,966)	Total
Living with parents	38.3	40.6	45.4	41.5	41.8
Currently in school	16.8	27.8	40.5	59.7	39.9
Full-time work status	31.8	59.3	38.3	42.0	43.0
Ever married	19.6	27.8	14.5	9.8	16.1
Have children	35.1	21.4	17.9	5.5	17.7
<u>Adulthood</u>					
Currently in school	14.3	14.9	19.5	15.8	16.4
Full-time work status	51.9	80.3	60.6	82.7	70.4
Marital status					
Never married	59.5	44.2	61.3	47.4	52.8
Currently married	27.2	47.0	31.3	48.6	39.6
Divorced/separated/widowed	13.2	8.9	7.4	4.0	7.6
Have children	69.7	51.7	46.3	30.7	46.5

* Note: Data presented are cross-tabulations of independent covariates with dependent latent classes. Chi-square tests and t-tests revealed significant differences at a p-level of less than 0.05 for each bivariate relationship.

Table 4

Five-Class Latent Model of Life-Course Human Capital, n=8,977

	Class 1 Persistently Low	Class 2 Upward with Early Entry into Work	Class 3 Upward with Continued Schooling	Class 4 Downward with Early Entry into Work	Class 5 Persistently High	Total
<i>Percentage of Sample</i>	10.6	42.1	15.0	16.4	16.0	100.0
Sample size	949	3,778	1,348	1,469	1,434	8,977
<i>Mean</i>						
Conditional Response (continuous indicators)						
EDUCATION						
Mother's education (1-5) ^a	1.74	2.01	2.44	3.33	4.03	2.60
Father's education (1-5) ^a	1.72	1.87	2.40	3.75	4.26	2.68
W4 Adult education (1-5) ^a	1.29	2.73	4.20	2.98	4.43	3.10
WORK HOURS						
W1 Adolescent work hour	13.65	14.49	11.97	13.77	13.32	13.69
W3 Young adult work hour	25.48	31.00	20.85	29.81	18.50	26.61
W4 Adult work hour	38.32	40.91	41.49	39.05	43.31	40.76
<i>Percent</i>						
Item-Response Probabilities indicators)						
ADOLESCENCE (W1)						
Mother present in adolescence	90.8	96.0	97.0	93.7	98.2	95.5
Father present in adolescence	58.9	71.4	80.7	70.1	87.2	73.6
Mother's occupation						
Not working	33.1	23.3	13.7	10.0	10.2	18.5
Manual	12.6	11.0	7.3	1.8	1.9	7.6
Sales/service	30.1	38.7	45.8	30.7	14.6	33.6
Other professional	8.7	9.3	14.3	37.3	51.9	21.6
Professional/managerial	3.0	4.2	7.3	8.1	11.9	6.4
Other (unspecified)	12.5	13.5	11.7	12.2	9.5	12.3
Father's occupation						
Not working	16.3	8.0	3.9	3.7	1.5	6.2

	Class 1 Persistently Low	Class 2 Upward with Early Entry into Work	Class 3 Upward with Continued Schooling	Class 4 Downward with Early Entry into Work	Class 5 Persistently High	Total
Manual	52.7	53.6	43.2	18.2	5.9	37.1
Sales/service	12.5	13.2	18.1	19.9	13.6	15.1
Other professional	1.6	3.6	7.0	23.7	23.9	11.1
Professional/Managerial	3.5	6.7	10.9	22.8	47.0	17.3
Other (unspecified)	13.4	14.8	16.9	11.7	8.1	13.3
YOUNG ADULTHOOD (W3)						
Received High School Degree	27.7	95.8	99.6	97.2	100.0	89.4
Currently in School	6.9	19.7	80.6	38.5	77.7	39.9
Received Vocational Training	22.4	32.0	11.3	27.6	8.4	23.2
ADULTHOOD (W4)						
Currently in School	3.9	14.3	18.1	24.4	20.5	16.4
Adult Occupation						
Not-Specified	7.1	0.7	0.4	1.4	0.3	1.5
Manual	46.2	28.3	3.6	20.3	2.8	21.3
Sales/Service	41.7	50.4	27.3	50.8	20.4	41.2
Other Professional	1.3	4.0	28.9	5.9	28.4	11.6
Professional/Managerial	3.7	16.5	39.7	21.6	48.1	24.4

Note: W1=Wave 1 data; W3=Wave 3 data; W4=Wave 4 data

^a Education Level: 1=Less than high school, 2=High school graduate or GED, 3=Some College or Technical school, 4=College Graduate, 5=Graduate School

Table 5

Distribution of Covariates by Human Capital Latent Classes, n=8,997

	Class 1 Persistently Low (n=949)	Class 2 Upward with Early Entry into Work (n=3,778)	Class 3 Upward with Continued Schooling (n=1,348)	Class 4 Downward with Early Entry into Work (n=1,469)	Class 5 Persistently High (n=1,434)	Total
<i>Demographics</i>						
<i>Mean or Percent</i>						
Female	40.5	51.1	59.3	44.3	52.7	50.4
Race/Ethnicity						
White	58.9	66.3	71.1	75.6	81.8	70.2
Black	23.0	17.1	12.9	13.9	8.2	15.3
Hispanic	17.2	13.9	10.5	6.8	3.9	11.0
Asian	1.2	2.7	5.5	3.7	5.1	3.5
Family structure						
Two-parent household	56.6	71.1	80.8	69.5	88.3	73.5
Single-parent household	33.7	24.0	17.1	27.3	11.1	22.4
Other	9.7	5.0	2.1	3.3	0.6	4.1
Mean age in adulthood	27.89	28.00	27.67	27.90	27.68	27.87
<i>Economic Capital Characteristics</i>						
W1 Household income (dollars)	\$36,500	\$48,300	\$65,400	\$72,000	\$109,900	\$63,800
W3 Personal income (dollars)	\$13,600	\$16,300	\$12,000	\$16,800	\$13,000	\$14,900
W4 Personal income (dollars)	\$19,300	\$28,100	\$39,600	\$31,600	\$44,900	\$32,200
Home ownership in adulthood	30.5	39.7	46.3	36.4	47.4	40.4
<i>Transition to Adulthood Markers</i>						
<i>Young Adulthood</i>						
Living with parents	45.7	43.4	40.3	46.1	32.3	41.8
Currently in school	7.8	19.8	79.5	39.1	77.4	39.9
Full-time work status	45.0	54.4	25.1	47.8	23.8	43.0
Ever married	22.0	21.2	9.9	15.3	5.1	16.1
Have children	34.3	24.0	7.1	14.9	2.5	17.7

	Class 1 Persistently Low (n=949)	Class 2 Upward with Early Entry into Work (n=3,778)	Class 3 Upward with Continued Schooling (n=1,348)	Class 4 Downward with Early Entry into Work (n=1,469)	Class 5 Persistently High (n=1,434)	Total
Adulthood						
Currently in school	4.3	14.2	16.7	25.5	20.5	16.4
Full-time work status	63.6	69.7	77.7	63.8	77.1	70.4
Marital status						
Never married	56.7	48.7	54.2	54.5	57.8	52.8
Currently married	31.6	41.2	42.3	38.4	39.6	39.6
Divorced/separated/widowed	11.7	10.2	3.5	7.1	2.7	7.6
Have children	66.6	59.5	30.5	44.5	16.3	46.5

* Note: Data presented are cross-tabulations of independent covariates with dependent latent classes. Chi-square tests and t-tests revealed significant differences at a p-level of less than 0.05 for each bivariate relationship.

Appendix A

Fit indices for latent class analyses of economic capital

Number of Classes	Parameters	Log-Likelihood	AIC	BIC	LMR-LRT	p-value	Smallest Class Size
1	25	-234,417	468,883	468,981	-	-	-
2	46	-230,312	460,717	460,897	8,166	< 0.01	3,571 (0.40)
3	67	-229,496	459,126	459,388	1,624	< 0.01	1,732 (0.19)
4	88	-228,906	457,988	458,334	1,173	< 0.01	1,690 (0.19)
5	109	-228,362	456,943	457,370	1,082	< 0.01	160 (0.02)
6	130	-228,008	456,275	456,786	705	< 0.01	162 (0.02)

Note: Data are unweighted. Akaike Information Criterion (AIC), sample size adjusted Bayesian Information Criterion (BIC; Schwarz 1978; Sclove 1987), sample size adjusted Lo-Mendell-Rubin adjusted likelihood ratio test (LMR-LRT; Lo et al. 2001), and parametric bootstrap likelihood ratio test (parametric bootstrap LRT; Nylund et al. 2007). In the far right column, numbers represent number of respondents in the smallest latent class, with the percentages in parentheses. Bolded model indicates best fitting model.

Appendix B

Fit indices for latent class analyses of human capital

Number of Classes	Parameters	Log-Likelihood	AIC	BIC	LMR-LRT	p-value	Smallest Class Size
1	32	-209,839	419,741	419,867	-	-	-
2	59	-204,019	408,157	408,388	11,458.48	<0.01	3,596 (0.40)
3	86	-202,605	405,382	405,720	2,784.61	0.10	1,500 (0.17)
4	113	-201,625	403,476	403,920	1,930.10	0.03	904 (0.10)
5	140	-200,592	401,464	402,013	2,034.44	<0.01	755 (0.08)
6	167	-199,987	400,308	400,963	1,191.50	<0.01	1,076 (0.12)

Note: Data are unweighted. Akaike Information Criterion (AIC), sample size adjusted Bayesian Information Criterion (BIC; Schwarz 1978; Sclove 1987), sample size adjusted Lo-Mendell-Rubin adjusted likelihood ratio test (LMR-LRT; Lo et al. 2001), and parametric bootstrap likelihood ratio test (parametric bootstrap LRT; Nylyund et al. 2007). In the far right column, numbers represent number of respondents in the smallest latent class, with the percentages in parentheses. Bolded model indicates best fitting model.