Drinking Behaviors and Life Course Socioeconomic Status During the Transition From Adolescence to Adulthood Among Whites and Blacks

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ABSTRACT. **Objective:** This study sought to determine how socioeconomic status (SES) changes during the transition from adolescence into adulthood, and to understand the effects of SES on drinking behaviors in early adulthood among U.S. Whites and Blacks. **Method:** Secondary data analysis was conducted using three waves of the National Longitudinal Study of Adolescent to Adult Health (Add Health), a school-based sample of adolescents (Grades 7–12) followed through adulthood (age range: 25–31 years). Through latent class analysis, SES was operationalized as economic (i.e., income, home ownership) and human capital (i.e., education, occupation). Drinking behavior was categorized into no past-year use, current drinking without weekly heavy episodic drinking (HED), and weekly HED. Models were stratified by race: Whites (n = 5,248) and Blacks (n = 1,875). **Results:** For Whites, four economic capital groups (persistently low, upward, downward, and persistently high) and five human capital groups (persistently low, upward with work,

upward with school, downward with work, and persistently high) were found. Blacks had roughly similar SES groups as Whites but with lower economic and human capital levels across all groups and without downward groups in either domain. Among both Whites and Blacks, lower economic and human capital groups reported higher abstinence. Persistently low Blacks, however, reported higher HED, whereas persistently low Whites did not. Moreover, economically upward Whites reported lower HED, whereas upwardly mobile Blacks did not. **Conclusions:** Racial disparities were evident by economic and human capital during the transition into adulthood. Although abstinence profiles were similar for Whites and Blacks, both persistently low and upward trajectory groups signified differential HED risks. Future research should examine the mechanisms by which SES trajectories affect drinking behaviors. (*J. Stud. Alcohol Drugs, 76,* 68–79, 2015)

ACROSS THE LIFE COURSE, drinking behaviors are highest in young adulthood (ages 21–25 years) and remain high into early adulthood (ages 26–34) for non-Hispanic Blacks and Whites (Substance Abuse and Mental Health Services Administration [SAMHSA], 2011). Although Blacks have higher alcohol abstinence and lower heavy drinking than Whites during the transition from adolescence to adulthood, studies have suggested that Blacks who do drink are likely to have longer durations of heavy drinking and experience more alcohol-related problems in later adulthood than Whites (Caetano & Kaskutas, 1995;

Mulia et al., 2009; Muthén & Muthén, 2000). Although lower socioeconomic status (SES) has been associated with heavy drinking (Huckle et al., 2010; Paljärvi et al., 2013), higher SES has also been associated with heavy drinking in young adulthood (Humensky, 2010; Patrick et al., 2012). These patterns seem to collide differentially by race such that heavier drinking patterns appear more in both higher SES Whites and lower SES Blacks (Chen & Jacobson, 2013; Gilman et al., 2008).

Health disparities researchers have called for more studies to elucidate who is most at risk for heavy drinking within racial/ethnic groups (Chartier & Caetano, 2010; National Institute on Alcohol Abuse and Alcoholism, 2009). Having a better understanding of how socioeconomic disparities within racial/ethnic groups influence drinking behaviors is of particular interest during the transition from adolescence to adulthood, when divergent racial/ethnic trends in SES and alcohol use begin to solidify (Chartier & Caetano, 2010; Oesterle et al., 2004). However, this relationship has been understudied given the challenge of conceptualizing SES

and the focus on SES differences *between* rather than *within* racial/ethnic groups (Williams, 1996).

Although SES is a significant predictor of alcohol-related disparities, how it is operationalized and what its direct effects are on drinking behaviors require more attention for several reasons. First, as a multidimensional construct (Krieger et al., 1997; Oakes & Rossi, 2003), there may be varying SES implications on alcohol use and misuse. The economic capital dimension of SES represents both resources and financial stresses that may influence access to and use of alcohol (Adler & Rehkopf, 2008; Mulia et al., 2014). In contrast, the human capital dimension (e.g., education, occupation) accounts for health-relevant habits and abilities (Mirowsky & Ross, 2003) as well as social networks and lifestyles that promote or discourage heavy drinking (Barbeau et al., 2004; Crosnoe & Riegle-Crumb, 2007). Studies have highlighted the need to decompose the different aspects of SES and their impacts on health (Braveman et al., 2005; Patrick et al., 2012). If certain SES dimensions have greater effects on drinking behaviors, then alcohol interventions and policies might place greater emphasis on these dimensions.

Second, guided by the life course perspective's themes of interdependence of human lives (e.g., parent–child relationship) and the influence of early life experiences on later trajectories (Elder et al., 2004), SES changes over the life course, especially during the transition into adulthood. Because intergenerational transmission of poverty or wealth largely shapes one's SES early in the life course (Furstenberg, 2008), parental SES serves as a foundation for one's childhood and adolescent SES. Young adults, however, are accruing their own economic capital of financial resources and human capital of education and work experience, and SES measures at any one time during young adulthood may be misleading (Lui et al., 2014). Although SES stabilizes again by adulthood, traditional SES measures often fail to capture both adolescent (via parent) SES and trajectories of SES established during young adulthood. Repeated SES measures from adolescence to adulthood or alternative measures for young adult SES could better inform our understanding of the SES–alcohol relationship.

Last, within-racial-group analysis of SES is necessary because of how early advantages/disadvantages accumulate over the life course. According to cumulative disadvantage theory, social inequalities between groups only become greater over time (Dannefer, 1987). As a result, a "nonequivalence of socioeconomic indicators" across racial/ethnic groups is evident (Kaufman et al., 1997; Williams et al., 2010). For example, Blacks in 2011 had 7 cents for every dollar of wealth that Whites possessed (U.S. Census Bureau [Census], 2013). This contrast in wealth signifies large inequalities for racial groups even if annual income is similar. Furthermore, differential rates of return were found in education, where Whites have consistently reported higher earnings than Blacks with the same education levels (Census, 2012). Traditional SES measures, therefore, may not have the same meaning or effect across racial groups. This nonequivalence underscores the importance of examining SES components separately between Whites and Blacks to highlight potential socioeconomic disparities between and within groups.

Research questions

Using the life course perspective and cumulative disadvantages theory, this study aims to examine the role of SES during the transition into adulthood on drinking and heavy episodic drinking (HED) for Whites and Blacks. These theories provide a framework for explaining how the accumulation of advantages/disadvantages early in life can affect adult drinking behaviors (Dannefer, 1987; Elder et al., 2004). Although the life course perspective is commonly used to study substance use behaviors (Hser et al., 2007), its application to elucidate alcohol-related disparities is not as common. Situating adult alcohol use and HED as outcomes of key life course SES developments can further expand our understanding of how SES affects drinking during this transitional period. Furthermore, cumulative disadvantages may affect Whites and Blacks differently (Williams & Sternthal, 2010). Current interventions and policies for alcohol-related disparities may need to account for potentially different SES–alcohol relationships for Whites and Blacks.

The primary research questions are (a) how are SES trajectories during the period from adolescence to adulthood associated with drinking behaviors in adulthood for Whites and Blacks, and (b) does this relationship vary by different SES dimensions of economic and human capital? We hypothesized that socioeconomic disadvantages that accrue over the life course have a positive association with heavy drinking for Blacks and a negative association for Whites. Furthermore, this relationship should differ by economic versus human capital. Given how peer networks and social norms are influential on young adult drinking (Keyes et al., 2012; Stone et al., 2012), it is expected that human capital should have a larger effect than economic capital on drinking behaviors.

Method

Participants

The National Longitudinal Study of Adolescent to Adult Health (Add Health) is an ongoing, nationally representative school-based study of U.S. adolescents followed into adulthood. Using a multistage stratified cluster design (using region, school characteristics, and racial/ethnic composition), a sample of 132 high schools and feeder schools was selected to be representative of U.S. schools (Harris et al., 2009). Following an in-school survey, an in-home sample was collected

in 1994–1995 at ages 12–18 years (Wave 1; 76% response rate [RR], n = 20,745) and followed up in 1995–1996 at ages 13–18 years (Wave 2; 88% RR), 2000–2001 at ages 18–26 years (Wave 3; 77% RR), and 2007–2008 at ages 24–32 years (Wave 4; 80% RR). Parents of the Wave 1 in-home sample participated in an interview in 1994–1995 (85% RR).

The analytic sample was restricted to individuals who participated in Waves 1, 3, and 4 (hereafter referred to as W1, W3, and W4) in-home interviews, self-identified as non-Hispanic White (n = 5,248) and African American or Black (n = 1,875), and had valid sample weights and no missing data on W4 drinking behaviors. W4 age ranged from 25 to 31 years (M = 27.9 years, SD = 1.57), and 50.7% were female. The excluded sample was more likely to be male, be older, and have lower parental SES at W1. To account for study design, oversampling (e.g., Blacks with at least one college-educated parent), and survey attrition, data were weighted and standard errors adjusted. This study was approved by the UCLA Human Subjects Protection Committee (Institutional Review Board #10-001106).

Measures

Drinking behaviors. In W4, respondents were asked, "During the past 12 months, on how many days did you drink [for males] 5 or more or [for females] 4 or more drinks in a row?" Responses included *none, 1–2 days, once a month or less, 2–3 days per month, 1–2 days a week,* and *almost every day or daily.* Past-year drinking behaviors were categorized into no alcohol use, used alcohol with no weekly HED (anywhere from 1–2 days in the past year to 2–3 days per month), and engaged in HED on a weekly basis (from 1–2 days a week to daily).

Economic capital. Twenty measures assessed financial resources, financial strain, and wealth from adolescence to early adulthood. Financial resources included income, public assistance, and family transfers. Missing data for W1 household income (22.9%) were taken into consideration by using full-information maximum likelihood (FIML) estimation. W3 and W4 personal income measures were included because of excessive missing data in W3 household income (80%) and categorical responses in W4 household income. Income was standardized to 2008 dollars, 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; W1, W3, W4) and parental assistance for living expenses (W3, W4) were included. In W4, respondents were asked whether they gave financial assistance to parents. Past-year financial strain (e.g., trouble paying bills, rent/mortgage) and no health insurance were captured at each wave. Home ownership (W3, W4), W4 household assets (e.g., bank accounts, retirement), and W4 household debt (e.g., loans, credit card debt, excluding mortgage) were used to capture wealth. For assets and debts,

dollar values were assigned by recoding categorical values to the midpoint value. To capture intergenerational transfers, respondents were asked whether they received family help to buy or remodel a home in W4.

Human capital. To capture knowledge and skills, 15 measures were used. W1 respondent-reported parent's education was categorized into *less than high school, high school degree/General Educational Development (GED) credential, some college, college degree,* and *graduate/professional school.* Two variables captured whether a mother or father figure was present during adolescence. Respondents were assumed to be out of high school by W3, and thus, an indicator for high school degree or GED by young adulthood was included. W3 and W4 current school status (e.g., enrolled in school), as well as W3 vocational training, were assessed. W4 educational attainment had the same categories as parent's education. For occupation, using U.S. Census classifications, W1 respondent-reported parent's occupation was categorized into *not working; manual or blue collar (including farming); sales, service, or administrative; other professional (e.g., social services, education/library); professional or managerial;* and *unspecified other.* At W4, respondents were classified into most recent or current job using these same categories. To measure employment history and time at work, respondent's number of hours worked per week was included from each wave. Work hours were top coded at the 99th percentile. A value of zero hours was given if no occupation was listed or respondent was not working at W4.

Covariates. Demographic variables included gender (male = 0, female = 1) and age. A combined race and ethnicity construct was used and included respondents who self-identified as non-Hispanic White or Black.

Statistical analysis

This study applies a person-oriented approach of latent class analysis (LCA) to better conceptualize SES. LCA was used to identify substantively meaningful SES subgroups within the larger population (Collins & Lanza, 2010; Nylund et al., 2007). This approach goes beyond identifying the effect of a single variable on an outcome to understanding patterns of a set of variables on an outcome (Bergman & Magnusson, 1997). LCA identified (a) the optimal number of latent classes and (b) class size/characteristics. For each SES component of economic and human capital, a series of LCA models was tested specifying 1 to 6 classes in Mplus (Muthén & Muthén, 1998–2011). Model selection was based on fit statistics (e.g., Akaike Information Criteria and Bayesian Information Criterion, and sample size–adjusted Lo–Mendell–Rubin likelihood ratio test) (Lo et al., 2001; Schwarz, 1978; Sclove, 1987). (Because of space limitations, fit statistics are not presented but are available on request.) Other model-fit criteria were high class homogeneity (degree

TABLE 1. Sample demographic characteristics and drinking behaviors

Demographic characteristics	Whites (n = 5,248) M (SD) or %	Blacks (n = 1,875) M (SD) or %	Total (N = 7,123) M (SD) or %
Adolescence (W1)			
Age, in years	14.95 (1.45)	15.16 (1.85)	14.98 (1.53)
Female	50.4%	52.2%	50.7%
Adulthood (W4)			
Age, in years	27.80 (1.48)	28.05 (1.89)	27.85 (1.57)
Past-year heavy episodic drinking (HED)			
No drinking	20.8%	42.4%	24.7%
Drinking with no HED	65.4%	50.2%	62.7%
Weekly HED	13.8%	7.4%	12.6%

Notes: W1 = Wave 1 data; W4 = Wave 4 data.

that individuals follow the same observed response pattern) and high class separation (degree of distinction between latent classes) (Collins & Lanza, 2010).

Once the best-fit model was identified, additional LCA models were estimated to include drinking behavior as the distal outcome and covariates. Within the LCA model, the statistical significance between class membership and the distal outcome was assessed via multinomial logistic regression. Single covariates were included in these models and found to be statistically significant ($p < .05$) using log-likelihood ratio tests. In sensitivity analyses that account for multiple covariates, respondents were assigned to a class based on their maximum predicted probability of class membership, and drinking behaviors were examined across SES groups using Stata (StataCorp LP, College Station, TX). These multinomial regression models examined outcomes of past-year alcohol abstinence and HED relative to the reference group of current drinking with no weekly HED. Findings aligned well with the LCA results, and thus, these are presented below. All models were conducted separately for Whites and Blacks.

Descriptive and multivariate statistics were obtained using Stata Version 12.0 (StataCorp LP, College Station, TX), and LCA was conducted in Mplus Version 6.11 (Muthén & Muthén, 1998–2011). Survey procedures corrected for unequal probability of selection, attrition, and the complex sample design (Harris et al., 2009). Missing data in SES measures were handled using 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

Overall, age and gender were similar between Whites and Blacks (Table 1). Although one quarter of the total sample reported no drinking in the past year, abstinence was twice as high among Black respondents as among White respondents. For both Whites and Blacks, the majority of respondents were non–heavy drinkers (65.4% and 50.2%, respectively). Weekly HED was nearly twice as prevalent among Whites (13.8%) as Blacks (7.4%).

Whites

Economic capital. Model-fit statistics and conceptual reasoning provided support for a four-class LCA model of economic capital for Whites. Table 2 presents the latent class prevalences, the conditional response probabilities, and the means for each observed economic capital indicator by class. The table also shows the mean values and proportions for the total sample of White respondents. Distinct profiles of life course economic capital are characterized by four classes: Class 1—persistently low (20.5%); Class 2—upwardly mobile (22.1%); Class 3—downwardly mobile (28.7%); and Class 4—persistently high (28.6%). The most disadvantaged and advantaged groups resembled that of their parents, signifying intergenerational stability at both extremes in financial resources of income/assets/debts; experiences (or lack) of financial strain and public assistance; and home ownership. The persistently high group not only received the lowest levels of public assistance and experienced the least financial strain but also received the most family economic support—almost two thirds received help from family in young adulthood, and one third received financial assistance for their homes.

Social mobility was just as prevalent as stability, with a slightly larger downward trajectory group. Although the downwardly mobile group resembled that of the persistently high group in adolescence, their paths started to deviate in young adulthood and more visibly so in adulthood. More than half received family financial help in young adulthood and almost one quarter in adulthood. They had the lowest home ownership of all four groups. Despite receiving less family support, respondents in the upwardly mobile group received less public assistance and experienced less financial strain by adulthood than did the downwardly mobile group. The upwardly mobile group also had the highest proportion of home ownership of all four groups.

TABLE 2. Four-class latent model of life course economic capital among Whites (n = 5,248)

Variable	Class 1 Persistently low	Class 2 Upwardly mobile	Class 3 Downwardly mobile	Class 4 Persistently high	Total
Percentage of sample	20.5%	22.1%	28.7%	28.6%	100.0%
Sample size	1,076	1,160	1,507	1,505	5,248
Conditional mean response (continuous indicators)[a]					
W1 household income	$30,800	$47,632	$71,117	$99,366	$70,539
W3 personal income	$8,051	$18,798	$10,154	$11,492	$15,510
W4 personal income	$10,791	$35,810	$20,310	$45,316	$33,332
W4 total assets	$9,173	$49,021	$19,130	$61,023	$28,567
W4 total debt	$7,778	$13,386	$12,247	$14,691	$11,968
Item-response probabilities (categorical indicators)					
Adolescence (W1)					
Received public assistance	.523	.294	.088	.055	.215
Financial strain	.296	.215	.060	.020	.132
No health insurance	.385	.261	.049	.022	.158
Young adulthood (W3)					
Received public assistance	.220	.026	.056	.005	.069
Financial strain	.458	.160	.214	.129	.229
No health insurance	.400	.166	.150	.011	.167
Owns home	.167	.295	.033	.058	.127
Received help from family	.337	.177	.537	.650	.445
Adulthood (W4)					
Received public assistance	.593	.092	.204	.021	.209
Financial strain	.560	.108	.282	.023	.229
No health insurance	.334	.097	.227	.004	.158
Owns home	.321	.694	.195	.632	.454
Received family help to purchase home	.156	.193	.162	.336	.216
Received family help for living	.179	.027	.239	.067	.131
Gave financial help to family	.113	.059	.070	.012	.060
Heavy episodic drinking (HED) in adulthood					
No drinking	.381	.197	.168	.127	.208
Drinking with no HED	.510	.710	.652	.721	.654
Weekly HED	.109	.093	.180	.151	.138

Notes: W1 = Wave 1 data; W3 = Wave 3 data; W4 = Wave 4 data. [a]Income data are standardized to U.S. dollars in 2008.

After we adjusted for age and gender in multinomial regression models, the persistently low group was the most likely to abstain from alcohol in the past 12 months, followed by the downwardly mobile group, relative to the persistently high group, $F(6, 123)$ = 24.18, $p < .001$ (Table 3). For heavy drinking, the upwardly mobile group was significantly less likely to engage in weekly HED than the persistently high group (relative risk ratio [RRR] = 0.54).

Human capital. The best-fitting LCA model for human capital among White respondents was a five-class solution. These classes are characterized as follows: Class 1—persistently low (8.8%); Class 2—upward with early work (39.4%); Class 3—upward with school and work (16.2%);

TABLE 3. Life course economic capital groups, race, and drinking behaviors

Variable	Nondrinkers vs. drinkers			Weekly heavy episodic drinkers vs. drinkers		
Economic capital groups	RRR	[95% CI]	p	RRR	[95% CI]	p
Whites (n = 5,248)						
Persistently low	4.11	[3.05, 5.56]	<.001	1.14	[0.80, 1.64]	.460
Upwardly mobile	1.41	[0.96, 2.06]	.077	0.54	[0.36, 0.80]	.003
Downwardly mobile	1.66	[1.18, 2.35]	.004	1.29	[0.87, 1.92]	.195
Persistently high	1.00			1.00		
Blacks (n = 1,875)						
Persistently low	3.74	[2.46, 5.67]	<.001	2.82	[1.42, 5.59]	.003
Upwardly mobile	2.23	[1.39, 3.59]	.001	1.59	[0.63, 3.99]	.318
Persistently high	1.00			1.00		

Notes: Multinomial logistic regression models with relative risk ratios (RRRs) and 95% confidence intervals (CIs) adjusted for age and gender. Models were conducted separately for Whites and Blacks.

TABLE 4. Five-class latent model of life course human capital among Whites (*n* = 5,248)

Variable	Class 1 Persistently low	Class 2 Upward with early work	Class 3 Upward with schoolwork	Class 4 Downward with early work	Class 5 Persistently high	Total
Percentage of sample	8.8%	39.4%	16.2%	17.3%	18.2%	100%
Sample size	461	2,069	851	911	956	5,248
Conditional mean response (continuous indicators)						
Education						
Mother's education (1–5)[a]	1.75	2.13	2.56	3.22	4.05	2.72
Father's education (1–5)[a]	1.75	1.94	2.47	3.88	4.29	2.81
W4 adult education (1–5)[a]	1.29	2.74	4.08	3.01	4.41	3.17
Hours worked per week						
W1 adolescent work hour	15.62	16.59	12.37	14.80	13.92	14.98
W3 young adult work hour	26.01	33.08	20.61	30.59	18.75	27.27
W4 adult work hour	39.00	41.36	41.28	39.29	43.34	41.10
Item-response probabilities (categorical indicators)						
Adolescence (W1)						
Mother present in adolescence	.911	.954	.964	.947	.983	.955
Father present in adolescence	.681	.781	.842	.727	.896	.792
Mother's occupation						
Not working	.348	.206	.099	.113	.108	.166
Manual	.115	.085	.048	.017	.024	.058
Sales/service	.303	.424	.491	.310	.137	.351
Other professional[b]	.088	.097	.172	.344	.528	.233
Professional/managerial	.036	.051	.085	.073	.105	.069
Other (unspecified)	.110	.137	.106	.143	.098	.123
Father's occupation						
Not working	.197	.063	.028	.031	.012	.052
Manual	.498	.547	.403	.154	.051	.351
Sales/service	.115	.127	.182	.191	.139	.149
Other professional[b]	.018	.041	.078	.242	.231	.118
Professional/managerial	.024	.076	.129	.256	.494	.196
Other (unspecified)	.148	.146	.180	.127	.074	.134
Young adulthood (W3)						
Received high school degree	.271	.964	1.000	.969	1.000	.911
Currently in school	.066	.159	.822	.380	.779	.413
Received vocational training	.219	.331	.099	.278	.081	.227
Adulthood (W4)						
Currently in school	.025	.127	.176	.236	.206	.159
Adult occupation						
Not specified	.062	.005	.003	.012	.003	.011
Manual	.472	.304	.034	.209	.026	.207
Sales/service	.418	.489	.276	.520	.206	.401
Other professional[b]	.014	.037	.289	.058	.291	.127
Professional/managerial	.033	.165	.399	.200	.475	.254
Heavy episodic drinking (HED) (W4)						
No drinking	.412	.237	.153	.191	.106	.208
Drinking with no HED	.464	.628	.748	.630	.748	.654
Weekly HED	.124	.135	.099	.180	.146	.138

Notes: 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 General Educational Development (GED) credential, 3 = some college or technical school, 4 = college graduate, 5 = graduate school; [b]other professional = community/social services, education/training/library, and arts/design/entertainment/sports/media occupations.

Class 4—downward with early work (17.3%); and Class 5—persistently high (18.2%) (Table 4). As with economic capital, groups representing both intergenerational stability and mobility were evident in the human capital domain. In the persistently low group, adult education levels, on average, were lower than that of their parents. In contrast, the persistently high group had higher average education levels than their parents. Overall, those who continued their education after high school (i.e., upward with schoolwork and persistently high groups) reported the highest levels of education and occupational status in adulthood. Alternatively, those who entered the workforce early had lower human capital levels in adulthood (e.g., upward and downward groups with early work).

TABLE 5. Life course human capital groups, race, and drinking behaviors

Human capital groups	Nondrinkers vs. drinkers			Weekly heavy episodic drinkers vs. drinkers		
	RRR	[95% CI]	p	RRR	[95% CI]	p
Whites (n = 5,248)						
Persistently low	6.20	[4.29, 8.95]	<.001	1.28	[0.82, 2.00]	.270
Upward with work	2.60	[1.94, 3.48]	<.001	1.07	[0.79, 1.43]	.665
Upward with schoolwork	1.50	[1.02, 2.20]	.040	0.78	[0.54, 1.12]	.178
Downward with work	2.08	[1.54, 2.81]	<.001	1.31	[0.89, 1.93]	.173
Persistently high	1.00			1.00		
Blacks (n = 1,875)						
Persistently low	6.45	[2.23, 18.64]	.001	2.49	[0.39, 16.13]	.335
Upward with work	2.26	[1.38, 3.69]	.001	1.89	[0.98, 3.63]	.056
Upward with schoolwork	1.25	[0.73, 2.14]	.423	1.23	[0.57, 2.65]	.586
Persistently high	1.00			1.00		

Notes: Multinomial logistic regression models with relative risk ratios (RRRs) and 95% confidence intervals (CIs) adjusted for age and gender. Models were conducted separately for Whites and Blacks.

Compared with the persistently high human capital group, the persistently low human capital group was the most likely not to drink (RRR = 6.2), followed by the upward with work (RRR = 2.6), downward with work (RRR = 2.1), and upward with schoolwork (RRR = 1.5) groups, $F(8, 121)$ = 14.21, p < .001 (Table 5). None of the HED findings was statistically significant.

Blacks

Economic capital. A three-class LCA model was found to be the best fit for life course economic capital among Black respondents. Class 1 is labeled as the persistently low group (42.5%), Class 2 as the upwardly mobile group (27.8%), and Class 3 as the persistently high group (29.6%) (Table 6). More than two thirds of the total Black sample had adolescent experiences of limited financial resources, financial strain, and little wealth, compared with 42.6% of the White sample. One quarter of respondents escaped this disadvantage and elevated their economic capital by adulthood. The persistently high group fared much better; in addition to having low levels of financial strain and public assistance, more than half received family financial support in young adulthood, and almost one quarter received family financial assistance for their home.

Overall, past-year alcohol use was low among Blacks. The adjusted regression models showed the highest abstinence among the persistently low group followed by the upwardly mobile group when compared with the persistently high group, $F(4, 125)$ = 9.83, p < .001 (Table 3). Even though they had the highest alcohol abstinence, those in the persistently low group who did drink had significantly higher risks for frequent HED than the persistently high group. The upwardly mobile group also had a higher relative risk of heavy drinking than the persistently high group, but the confidence intervals are large.

Human capital. Model-fit statistics showed support for a four-class LCA model of human capital for the Black sample. Class 1 is labeled as the persistently low human capital group (4.1%), Class 2 as the upward with early work group (47.3%), Class 3 as the upward with school and work group (20.1%), and Class 4 as the persistently high human capital group (28.5%) (Table 7). Approximately one half of respondents exited school and entered work early, as shown by the high Class 2 prevalence.

The model results revealed that the persistently low group had 6.5 times lower risk and the upward with work group had 2.3 times lower risk of being current drinkers than did the persistently high human capital group, $F(6, 123)$ = 4.55, p < .001 (Table 5). Although the relative risk for HED was highest for the persistently low group then the upward with work group relative to the persistently high group, only the upward with work group association approached significance (p = .056).

Discussion

The transition from adolescence to adulthood is a sensitive period for status attainment where adolescence largely reflects parent's SES, and young adulthood becomes a crucial time for developing one's own economic and human capital (Furstenberg, 2008). Large SES differences between Blacks and Whites underscore the need to pay particular attention to how these disparities evolve early in the life course and affect later SES and associated health behaviors (Williams et al., 2010). Previous findings on the SES–alcohol relationship among Blacks and Whites in early adulthood suggest contrasting patterns wherein heavier drinking is more common among higher SES Whites and lower SES Blacks; however, incomplete conceptualization of SES and difficulties in comparing SES across racial groups may mask underlying racial differences.

This study addressed these issues by examining SES as a life course construct separately for Whites and Blacks using a nationally representative sample of adolescents followed into early adulthood. Using LCA, the study identified key

TABLE 6. Three-class latent model of life course economic capital among Blacks ($n = 1,875$)

Variable	Class 1 Persistently low	Class 2 Upwardly mobile	Class 3 Persistently high	Total
Percentage of sample	42.5%	27.8%	29.6%	100.0%
Sample size	798	522	555	1,875
Conditional mean response (continuous indicators)[a]				
W1 household income	$22,476	$22,854	$70,468	$41,248
W3 personal income	$5,993	$11,006	$10,668	$11,946
W4 personal income	$8,403	$27,767	$33,116	$25,269
W4 total assets	$5,464	$50,818	$24,197	$15,835
W4 total debt	$4,218	$11,148	$15,321	$8,103
Item-response probabilities (categorical indicators)				
Adolescence (W1)				
Received public assistance	.682	.586	.158	.501
Financial strain	.317	.472	.104	.299
No health insurance	.299	.346	.049	.241
Young adulthood (W3)				
Received public assistance	.295	.086	.060	.167
Financial strain	.437	.318	.188	.331
No health insurance	.363	.263	.043	.241
Owns home	.045	.115	.056	.068
Received help from family	.362	.372	.564	.423
Adulthood (W4)				
Received public assistance	.667	.140	.179	.376
Financial strain	.532	.147	.253	.341
No health insurance	.293	.187	.074	.199
Owns home	.093	.341	.341	.235
Received family help to purchase home	.092	.062	.239	.126
Received family help for living	.248	.169	.184	.207
Gave financial help to family	.178	.252	.090	.173
Heavy episodic drinking (HED) (W4)				
No drinking	.546	.415	.255	.424
Drinking with no HED	.376	.498	.690	.502
Weekly HED	.078	.086	.055	.074

Notes: W1 = Wave 1 data; W3 = Wave 3 data; W4 = Wave 4 data. [a]Income data are standardized to U.S. dollars in 2008.

life course SES trajectories that are differentially associated with drinking behaviors in early adulthood for Whites and Blacks. Results partially supported the first hypothesis that economically disadvantaged Blacks experienced greater heavy drinking, but there were minimal SES differences in heavy drinking among Whites. Although human capital was expected to have a more influential role on heavy drinking than economic capital, the results did not support this hypothesis.

Life course socioeconomic status for Whites and Blacks

Parental SES formed a stable foundation for economic and human capital levels for Whites and Blacks during the transition into adulthood. Consistent with the cumulative disadvantages theory, these stable patterns suggest the perpetuation of SES inequalities early in the life course with some remaining on the bottom (persistently low groups) and others on top (persistently high groups) (Dannefer, 2003).

Yet social mobility was also evident for both Whites and Blacks. For economic capital, the upwardly mobile group

signaled optimism in a pathway out of financial hardships in adolescence to more financial security and home ownership in adulthood. Although far more Blacks were in the persistently low group, Whites possessed an additional economically downward group for whom adolescent SES was similar to the most advantaged but adult economic capital levels were the second lowest. For human capital, although most respondents were more educated than their parents, continuing school after high school resulted in the greatest human capital gains by adulthood (i.e., upward with schoolwork and persistently high groups). A large proportion, however, were in the upward with early entry into work group, which sacrificed long-term educational gains for more immediate but smaller economic gains. Among Whites, a downwardly mobile group represented those who entered the workforce early and were less educated than their parents.

Overall, Whites and Blacks showed similar life course SES patterns during the transition into adulthood; however, absolute levels (whether income, education, etc.) were much lower for Blacks across the board. Furthermore, a greater proportion of Blacks lived in single-parent households dur-

TABLE 7. Four-class latent model of life course human capital among Blacks (*n* = 1,875)

Variable	Class 1 Persistently low	Class 2 Upward with work	Class 3 Upward with schoolwork	Class 4 Persistently high	Total
Percentage of sample	4.1%	47.3%	20.1%	28.5%	100%
Sample size	77	887	376	535	1,875
Conditional mean response (continuous indicators)					
Education					
Mother's education (1–5)[a]	2.00	1.99	2.43	3.34	2.47
Father's education (1–5)[a]	1.93	1.94	2.26	3.08	2.42
W4 adult education (1–5)[a]	1.81	2.34	2.99	3.78	2.86
Hours worked per week					
W1 adolescent work hour	1.60	2.81	36.48	3.30	9.66
W3 young adult work hour	10.69	23.40	28.32	20.19	23.19
W4 adult work hour	4.54	39.83	41.92	40.53	39.01
Item-response probabilities (categorical indicators)					
Adolescence (W1)					
Mother present in adolescence	.863	.953	.940	.982	.955
Father present in adolescence	.333	.383	.459	.611	.461
Mother's occupation					
Not working	.548	.264	.221	.082	.213
Manual	.064	.166	.107	.062	.120
Sales/service	.075	.320	.313	.280	.297
Other professional[b]	.184	.103	.198	.373	.204
Professional/managerial	.000	.026	.059	.104	.054
Other (unspecified)	.129	.122	.102	.099	.111
Father's occupation					
Not working	.239	.153	.143	.068	.121
Manual	.306	.502	.483	.262	.402
Sales/service	.207	.163	.182	.201	.182
Other professional[b]	.155	.026	.059	.208	.105
Professional/managerial	.000	.045	.092	.155	.094
Other (unspecified)	.093	.112	.042	.106	.095
Young adulthood (W3)					
Received high school degree	.497	.779	.883	1.000	.851
Currently in school	.162	.135	.266	.719	.329
Received vocational training	.223	.320	.291	.159	.264
Adulthood (W4)					
Currently in school	.055	.105	.241	.275	.178
Adult occupation					
Not specified	.603	.000	.009	.002	.027
Manual	.108	.309	.292	.100	.238
Sales/service	.282	.609	.444	.348	.488
Other professional[b]	.007	.025	.086	.193	.084
Professional/managerial	.000	.058	.169	.357	.163
Heavy episodic drinking (HED) (W4)					
No drinking	.725	.493	.358	.315	.424
Drinking with no HED	.215	.423	.565	.628	.502
Weekly HED	.060	.084	.076	.057	.074

Notes: 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 General Educational Development (GED) credential, 3 = some college or technical school, 4 = college graduate, 5 = graduate school; [b]other professional = community/social services, education/training/library, and arts/design/entertainment/sports/media occupations.

ing adolescence, had children during young adulthood, and did not marry in adulthood—all of which may contribute to lower SES levels. These differences are consistent with demographic trends and socioeconomic inequalities between Whites and Blacks in the general U.S. population (Census, 2012; Shapiro et al., 2013). Although our findings showed relatively similar SES patterns during the transition into adulthood, the degree of SES disparities by race indicates that these processes not only occur early and continue

through the life course but also are, in many cases, intergenerational phenomena. Future alcohol studies should not only account for SES differentials between Whites and Blacks during the transition to adulthood but also consider wealth or poverty that carries from one generation to the next, mobility patterns between generations, and parent–child SES transfers (Darity et al., 2001; Gee & Ford, 2011). Our study findings emphasize the importance of capturing life course SES during this transition to adulthood to examine the impact of

intergenerational influences and social mobility patterns on drinking behaviors.

Life course socioeconomic status and drinking behaviors

Compared with the 2010 National Survey on Drug Use and Health, we found that current drinking during early adulthood was slightly higher in our sample for Whites (68% vs. 79%, respectively) but similar for Blacks (60% vs. 58%, respectively) (SAMHSA, 2011). Overall, the SES pattern of alcohol abstinence was consistent with the previous literature for both races (Cerda et al., 2011; Chartier & Caetano, 2010). Regardless of domain, the most disadvantaged were least likely to drink in the past year. From an economic perspective, simply not having the disposable income to pay for alcohol may be a contributing factor in not drinking. Economic and human capital tend to be highly correlated (Oakes & Rossi, 2003); thus, low human capital may be indicative of not having the financial means to drink. Yet it could also reflect the social networks within one's educational or occupational affiliations/groups/standing, or cultural and religious influences where abstinence is common. Prior research suggests this may be a dominant influence on drinking behaviors among Blacks (Godette et al., 2006; Nasim et al., 2007; Zapolski et al., 2014). Compared with the most advantaged group, upwardly and downwardly mobile groups were also more likely to abstain from alcohol. In sum, current drinking occurs most often among the most advantaged SES groups, which is consistent with other studies of young adult and general population samples (Cerda et al., 2011; Patrick et al., 2012). This relationship suggests a social norm or greater acceptance of alcohol among high SES groups in both economic and human capital domains.

The relationship between life course SES and frequent heavy drinking presented a more complicated picture by race. Frequent heavy drinking was higher for Whites than Blacks, which supports other studies on Black–White drinking differences (Chartier et al., 2011; Lee et al., 2010). Interestingly, Whites who were economically upward were less likely to engage in heavy drinking, suggesting a potential protection against heavy drinking among those who shift from lower adolescent SES to higher adult SES. Although the patterns showed higher risks of heavy drinking for the persistently low and downwardly mobile groups in both SES domains, these patterns were not significantly different when compared with the persistently advantaged Whites. These results suggest that interventions to reduce heavy drinking among Whites may not need to be tailored by SES. However, further research should explore what protective factors operate against heavy drinking for upwardly mobile Whites.

Despite higher abstinence, persistently disadvantaged Blacks who do drink have the greatest risk for heavy drinking. However, this finding was only significant within the economic capital domain. This finding is consistent with other

studies, in which economically disadvantaged Blacks report greater alcohol-related problems and consequences (Chen & Jacobson, 2013; Paschall et al., 2000). Individual-level (e.g., economic stress) or environmental-level (e.g., impoverished neighborhoods with easy access to alcohol or greater policing) factors may help to set the stage for heavy drinking that persists into later adulthood among lower SES Blacks. In contrast, although drinking is more prevalent among Blacks in the most advantaged groups, they were the least likely to engage in heavy drinking. This, too, was significant only in the economic capital domain. Thus, heavy drinking for Blacks could be seen as a product of adverse economic circumstances rather than the social networks or norms reflective from one's kin or cultural background, educational or occupational standing, social networks/norms, or health knowledge of the risks of heavy drinking. Prevention and policy efforts should focus on the economic aspects of alcohol access as well as economic stress linked to problematic drinking behaviors among the most disadvantaged Blacks.

Interestingly, in contrast to Whites, upward mobility (with respect to human capital) was associated with more rather than less heavy drinking among Blacks. This trend could reflect the possibility among Blacks of drinking to cope with stress related to changes in one's SES environments and norms. Prior studies have shown elevated stress and mental health problems among upwardly mobile Blacks (Bennett et al., 2004; Bonham et al., 2004). Alcohol-related problems among Blacks have been reported to emerge later in adulthood. Future studies should examine the mechanisms by which upward mobility may place Blacks at higher risk for continuing heavy drinking and developing alcohol problems as they enter their 30s and beyond.

Limitations and strengths of the study

These findings are only generalizable to U.S. adolescents enrolled in school during the 1994–1995 academic year and those who self-identified as non-Hispanic White or Black. Although we focused on within-racial/ethnic group analyses, it is important for future studies to statistically test between-racial/ethnic group differences. LCA involves a degree of subjectivity in the latent class interpretation and some class misclassification error; thus, some groups that exist in the population may not be fully captured (Collins & Lanza, 2010). This study does not present findings by gender; however, prior research consistently shows that women have lower levels of SES and alcohol use than men do (Census, 2012; SAMHSA, 2011). Although post hoc descriptive analyses support these trends, our models do not acknowledge the intersection of race, SES, and gender on drinking behaviors. Future studies should consider this potential three-way interaction. Although we applied a social causation framework, we cannot rule out social selection in that early alcohol behaviors may have altered one's SES

(Adler & Ostrove, 1999). Given the elongation of the transition to adulthood (Furstenberg, 2008), our findings should be interpreted with caution because some W4 respondents are still young and in the process of accruing SES. Future research should apply these kinds of analytical methods to other longitudinal data sets that capture SES processes into mid-to-late adulthood.

One of the study's key strengths is the SES conceptualization via longitudinal data and multiple indicators to identify SES patterns over time. Although this study is limited to a school-based sample and overlooks individuals who were already out of school by W1, there was much heterogeneity in SES groups that reflected economic and human capital levels across the social ladder at the beginning and throughout the study. Furthermore, this study used a person-oriented framework (i.e., LCA) to develop life course SES constructs for economic and human capitals. Through this conceptualization, study findings provide a nuanced understanding of differential effects of SES during the transition from adolescence to adulthood and its relationship to drinking behaviors. Previous studies are often limited to cross-sectional data or lack the richness of multiple SES measures.

Conclusion

Using the life course perspective, this study extends the current alcohol-related disparities literature by examining the relationship between SES trajectories during the transition to adulthood and adult drinking behaviors by race. Although similar SES subgroups were evident for Whites and Blacks, the stark (dis)advantages in cumulative life course SES exposure were evident between and within racial groups. Findings were consistent with previous studies that report juxtaposition in alcohol behaviors where both abstinence and heavy drinking were most common among the most disadvantaged. Within-group differences, however, highlight potentially varying risks associated with upward mobility on heavy drinking, wherein upward mobility may reflect protection against HED among Whites but enhanced risk among Blacks.

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