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Job Loss and Alcohol Dependence among Blacks and Whites in a National, Longitudinal Survey

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Abstract

We used the 1979 National Longitudinal Survey of Youth to test whether the association between job loss and incidence of alcohol dependence differed across Blacks and Whites. Respondents were interviewed annually from 1979–94; DSM-IV dependence was assessed in 1989 and 1994. Analyses included only those employed in 1989 and involved lagged logistic regressions predicting past-year dependence in 1994 from job loss during 1990–1993. Unexpectedly, results showed stronger and more robust associations between job loss and dependence among Whites (AOR=1.93, p<.05) than Blacks (AOR=0.82, nonsignificant). Findings diverge from prior research, suggesting disparities may differ as a function of age and/or time.

Introduction

Unemployment affects many millions in the U.S., and Blacks much more than Whites. Data from 2015 suggest an unemployment rate of 9.6% among Blacks, over double that among Whites (at 4.6%). The Black-White differential in unemployment has remained remarkably consistent over time, with rates among Blacks approximately 1.74–2.53 times that among Whites from 1972 through 2015 (mean=2.18) (Bureau of Labor Statistics, 2016). Among the unemployed, long-term unemployment (i.e., job loss lasting more than 6 months) is also substantially higher among Blacks than Whites (Bureau of Labor Statistics, 2016; Kosanovich & Sherman, 2015). Because unemployment has been associated with significantly poorer mental and physical health (Catalano et al., 2011; Paul & Moser, 2009; Strully, 2009; Wanberg, 2012), these differentials may contribute to the very large disparities between Blacks and Whites in quality of life and health (Andrulis, Siddiqui, Purtle, & Duchon, 2010; Centers for Disease Control and Prevention, 2011; Murray et al., 2006).

Job loss can result in a constellation of negative effects that may impact health, such as loss of healthcare benefits and financial strain (Price, Choi, & Vinokur, 2002), reduced relationship quality and social support (Backhans & Hemmingsson, 2012; Howe, Levy, &

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Caplan, 2004), increased psychological distress (Catalano et al., 2011; Flint, Bartley, Shelton, & Sacker, 2013; Paul & Moser, 2009; Price et al., 2002; Wanberg, 2012), and changes in health-related behaviors, including heavy drinking (Dooley & Prause, 1998; Eliason & Storrie, 2009). Effects of job loss on alcohol use and problems are particularly relevant to understanding, and intervening on, racial/ethnic health disparities because of the large impacts of heavy and chronic alcohol use on health. However, rigorous research examining racial/ethnic differences in the associations between job loss and alcohol outcomes remains extremely limited.

One key limitation of existing research is that longitudinal studies of associations between job loss and alcohol outcomes remain rare. Such studies are needed to support or disconfirm causal associations between job loss and alcohol use and problems, particularly given that selection effects (such as the overrepresentation of heavy drinkers among those who experience job loss) may cloud the interpretation of effects. Indeed, reviews of the literature have consistently called for better study designs that can address selection effects. For example, McKee-Ryan et al. (2005) have argued, “Studies need to be designed to strengthen causal inferences that can be drawn from them regarding the impact of unemployment on employee well-being” (p. 69), and Wanberg (2012) has called for “more work designed to carefully attend to selection issues” (p. 388).

Additionally, very little research targets racial/ethnic differences in associations between job loss and alcohol outcomes. Multiple, recent reviews of the literature on job loss and health have identified research on racial/ethnic minorities as a high priority (Paul & Moser, 2009; Wanberg, 2012). Studies on unemployment have rarely examined racial/ethnic differences and, where they have, have typically aggregated minorities—an extremely problematic approach given that results may mask important differences between Blacks and other racial/ethnic groups. Even so, existing evidence tentatively suggests potential racial/ethnic differences in the effects of job loss. Supporting that point, Paul and Moser (2009) reported in their systematic review that cross-sectional studies including higher percentages of “minority” respondents produced stronger associations between unemployment and poorer mental health, though this effect was only marginally significant. (Power limitations prevented these authors from also examining moderator effects in findings from longitudinal studies.) Further, a few individual-level studies have reported stronger associations between job loss/unemployment and poorer mental/physical health among Blacks than Whites, including studies of men experiencing the 1987 General Motors plant shutdowns (Hamilton, Broman, Hoffman, & Renner, 1990) and men interviewed in 1976 and 1981 for the National Longitudinal Surveys of Labor Market Experiences (Rushing, Ritter, & Burton, 1992). Meanwhile, cross-sectional analyses of the 2010 National Alcohol Survey, a nationally representative study conducted by the Alcohol Research Group, showed that associations between job loss during the 2008–9 recession and both heavy drinking and alcohol dependence symptoms were stronger among Blacks than Whites (Jones-Webb, Karriker-Jaffe, Zemore, & Mulia; Zemore, Mulia, Jones-Webb, Lui, & Schmidt, 2013). Also relevant, Lo et al. (2015), analyzing the 1979 National Longitudinal Survey of Youth (or NLSY, with 11 waves of alcohol measurement since recruitment in 1979), reported that associations between weeks of unemployment and frequency of heavy drinking were stronger for Blacks than Whites. These two studies suggest stronger associations between job loss and problem

drinking among Blacks than Whites despite the fact that, overall, Blacks in the U.S. typically (and historically) have reported similar or lower rates of any drinking, heavy drinking, and alcohol use disorders compared to Whites (Grant et al., 2015; Kerr, Mulia, & Zemore, 2014; Mulia, Ye, Greenfield, & Zemore, 2009; Zemore, Karriker-Jaffe, & Mulia, 2013). Yet, individual-level studies on job loss and alcohol outcomes *per se* remain extremely sparse, and to date there are no known longitudinal studies examining racial/ethnic disparities in associations between job loss and alcohol dependence. Thus, racial/ethnic disparities in the effects of job loss on alcohol outcomes remain unclear.

We address the above limitations by examining Black-White disparities in relationships between job loss and alcohol dependence within a longitudinal context. The paper's primary objective is to elucidate possible differences in the impact of job on alcohol dependence across Blacks and Whites. To address this objective, we directly explore (and analytically address) the potential for selection biases that could affect the estimated effects, such as differential selection into job loss by heavier drinkers. Following Lo et al. (2015), we adopt the 1979 NLSY as our data source. These data offer a uniquely strong basis for examining racial/ethnic disparities in the effects of job loss given the NLSY's multi-wave assessment; rigorous measures of employment and alcohol variables; and large oversample of Black respondents. By addressing the above question, the current study should help to clarify the societal costs of unemployment and identify populations at greatest risk for problematic alcohol use and consequent health repercussions in times of economic downturn.

Method

Data Source

The 1979 National Longitudinal Survey of Youth (NLSY79) is an ongoing panel study conducted by the Bureau of Labor Statistics of young men and women first recruited in 1979 (Bureau of Labor Statistics, 2006; Center for Human Resource Research, 1995). Investigators used a stratified, clustered design to select a nationally representative sample, achieving a baseline response rate of ~91%. Surveys focus on education and labor force behavior, but also assess family income and assets, mental and physical health outcomes, health behaviors, healthcare use, marital history, and other topics. Alcohol dependence measures were administered in 1989 and 1994 only; hence, analyses target these time points.

The NLSY79 sample included 12,686 respondents aged 14–21 when first surveyed and 24–31 in 1989. Respondents were interviewed, primarily in-person, annually through 1994. Response rates at each wave through 1994 exceeded 90%. For the current analysis, we selected only respondents who were employed (either part- or full-time) in 1989 and surveyed in 1994. Because of limited sample sizes for individual racial/ethnic groups, we also restricted the sample to those identifying as Black or White. Further, we excluded oversamples of economically disadvantaged Whites and the military oversample from all analyses, as these subgroups were not followed through 1994 (study N's= 1,791 Blacks and 2,898 Whites). Our choice of measures and analysis capitalized on the longitudinal data structure to ensure complete lagging between alcohol control variables (1989), job loss (1990–93), and alcohol dependence (1994).

Measures

Employment Variables—All surveys assessed current (past-week) employment using items and variable definitions consistent with those of the U.S. Census Bureau's Current Population Survey (Bureau of Labor Statistics, 2016). The current analysis adopted an NLSY-created variable coding respondents, based on their employment activities, as employed full/part-time, unemployed, or out of the labor force for each year. We also created summary variables indicating any (vs. no) unemployment (job loss) from 1990–93, and separately any period (vs. none) out of the labor force from 1990–93.

Alcohol Variables—*Past-year alcohol dependence* symptoms were assessed among respondents who drank in 1989 and 1994 using measures based on the APA's DSM-IV (American Psychiatric Association, 1994). Twelve questions tapped symptoms in 7 domains, including tolerance (2), withdrawal (2), drinking larger amounts/for longer than intended (2), unsuccessful attempts to cut down/quit (2), neglect of important activities (1), excessive time spent on drinking and recovery (1), and continued use despite physical/psychological problems (2). Respondents were coded as positive on dependence if they reported 3+ symptoms at least once in the past year, and total count of positive domains in 1989 was used as a covariate. Supporting measure validity, rates of abuse and dependence as measured in the 1989 NLSY were highly similar to population rates obtained in the 1988 National Health Interview Survey (Harford & Grant, 1994). Further, NLSY studies have linked alcohol dependence in 1989 and 1994 to earlier age of onset and other theoretically relevant variables (e.g., gender, age) as hypothesized (Dooley, Prause, Ham-Rowbottom, & Emptage, 2005; Grant, Stinson, & Harford, 2001). Additionally, *past-month frequency of binge drinking* was determined for both 1989 and 1994 using responses to a quantity-frequency measure assessing frequency of drinking 6+ drinks on one occasion in the past 30 days. Respondents were coded into 3 categories: none, less than weekly, or weekly or more.

Demographic Variables—*S*elf-reported racial/ethnic origin in 1989 was used to categorize respondents into White/Black/Other. Additional demographics, also assessed in 1989, included gender (male vs. female), age (continuous), marital status (never married and separated/widowed/divorced vs. married), highest grade completed (continuous), and net family income, coded using a quartile split and with missing as a separate category.

Analysis

The analysis was conducted in two parts. First, we explored associations between job loss from 1990–93 and demographic and alcohol variables as assessed in 1989, separately by race/ethnicity. The purpose of this analysis was to inform the core analyses by establishing key correlates of job loss, such as *prior* heavy drinking. Disaggregation by race/ethnicity allowed us to examine whether predictors of job loss might vary across race/ethnicity. If so, then standard approaches to statistical control would be inappropriate. Next, we explored the effects of job loss from 1990–93 on subsequent drinking (i.e., our main question of interest) in both bivariate and multivariate models. Specifically, we tested bivariate associations between job loss from 1990–93 and alcohol dependence in 1994, and used preliminary logistic regressions *incorporating interaction terms* to test whether associations between changes in employment and alcohol dependence differed statistically across Whites and

Blacks. Our final analyses were informed by these preliminary tests and involved hierarchical logistic regressions, conducted separately by race/ethnicity, first with 1) employment variables only, then adding 2) demographic variables (assessing demographic confounding), and finally adding 3) heavy drinking and dependence symptoms in 1989 (assessing selection into job loss by heavier drinkers). NLSY79 custom sample weights were used for all analyses, which adjust for oversampling of racial/ethnic groups and differential attrition over the 15-year study period. All analyses were conducted with Stata v.13.0 and using survey commands and robust standard errors to account for clustering within primary sampling units.

Results

Predictors of Job Loss

Descriptive statistics are shown in Table 1. Incidence of job loss from 1990–93 among Blacks (at 18.4%, N=329) was about double that among Whites (at 9.9%, N=301). Yet, exploratory analyses reveal a similar pattern of associations between job loss and baseline characteristics across Whites and Blacks. Among both racial/ethnic groups, job loss was significantly associated with unmarried status (vs. married status, p's<.001), lower family income (in linear fashion, p's<.001), and lower educational attainment (such that among Whites, those without a high school diploma were at greater risk than high school graduates and those with any college, the latter two groups showing similar risk; among Blacks, all those without a college education were at elevated risk compared to those with a college education, p's<.001). Age and gender were unrelated to job loss for both. Among Whites, job loss was significantly associated with a higher likelihood of any past-month binge drinking in 1989 and alcohol dependence in 1989 (p's<.001); among Blacks, job loss was significantly associated with binge drinking in 1989 only (p<.001), though prevalence of job loss among those with vs. without alcohol dependence in 1989 was nonsignificantly greater (at 24.6 vs. 18.2%).

Job Loss as a Predictor of Alcohol Dependence

Turning to our bivariate tests of associations between job loss and alcohol dependence (not shown), among Whites, job loss during 1990–93 was significantly and strongly associated with dependence in 1994 (with rates = 9.1% vs. 3.3% for those with vs. without job loss, p<.01); unexpectedly, the bivariate association between 1990–93 job loss and dependence in 1994 among Blacks was nonsignificant, though again rates were in the expected direction (i.e., 5.1% vs. 3.8% for those with vs. without job loss). Results from a logistic regression predicting alcohol dependence in 1994 from race/ethnicity, any job loss in 1990–93, any period out of the labor force in 1990–93, and interactions between race/ethnicity and the latter variables showed significant interactions between race/ethnicity and both employment variables (both *p*'s<.05). These interactions indicate significantly different associations between job loss (as well as time out of the labor force) and alcohol dependence across Whites and Blacks.

Last, Table 2 shows the results of our hierarchical logistic regressions predicting alcohol dependence from employment variables and covariates, separately by race/ethnicity.

Consistent with the bivariate results, Whites showed a significant effect for 1990–93 job loss on 1994 alcohol dependence symptoms in Model 1 that was impacted by the addition of demographic variables (Model 2) and again by controlling for alcohol variables in 1989 (Model 3), though remaining significant. Notably, controlling for heavy drinking in 1994 had minimal impact on Whites' job loss coefficient (OR=1.82, p=.07, not shown), suggesting that the effect of job loss was largely independent of heavy drinking at follow-up. By contrast, Blacks showed no effect for 1990–93 job loss in any model, but rather a marginally significant effect for being out of the labor force from 1990–93 and a significant effect for being unemployed in 1994. These effects became nonsignificant in models controlling for demographics and alcohol variables in 1989, suggesting the possibility of demographic confounding and selection effects.

Discussion

Black people tend to experience poorer health throughout the lifespan than Whites (Andrulis et al., 2010; Centers for Disease Control and Prevention, 2011; Murray et al., 2006). Policies and interventions aiming to reduce this disparity must be informed by an understanding of the impact of broad social conditions, including job loss, on alcohol outcomes and thus health.

Contrary to scant existing evidence (Jones-Webb et al.; Lo & Cheng, 2015; Zemore et al., 2013), the current longitudinal study did not find that incidence of job loss in the 3-year period from 1990–93 was more strongly related to subsequent alcohol dependence among Blacks than Whites; rather, this association was stronger and more robust among Whites than Blacks. This finding may be especially surprising because there are many reasons to believe that the effects of unemployment should be worse among Blacks than Whites. Blacks overall have a smaller buffer of personal and family financial resources than Whites (Smith, 1995; U.S. Census Bureau, 2011) and more limited access to social networks and information critical to accessing re-employment and financial support (Fernández-Kelly, 1998). This pattern would seem to imply greater and more prolonged financial strain for Blacks than Whites following job loss. Blacks are also less likely than Whites to be married or living with a partner (United States Department of Labor, 2013), and thus may have decreased access to emotional and instrumental social support during periods of financial stress (Fleming, White, & Catalano, 2010; Jones-Webb & Snowden, 1993). Finally, the limitations in access to and use of health services (Alegría et al., 2002; Mulia, Schmidt, Ye, & Greenfield, 2011; Wells, Klap, Koike, & Sherbourne, 2001) and heightened exposure to racial discrimination that Blacks experience seem likely to intensify the negative mental and physical consequences of job loss (Jackson et al., 1996; Kessler, Mickelson, & Williams, 1999; Williams, Neighbors, & Jackson, 2003). On the other hand, the fact that Blacks have consistently shown equivalent or lower levels of alcohol problems than Whites, as reviewed in the introduction, points to the possibility of protective factors (such as cultural norms proscribing alcohol use) that may buffer Blacks, at least at times, from the effects of stressors on problem drinking.

Regardless, the mixed evidence to date on racial/ethnic differences in the association between job loss and problem drinking suggests that moderator effects may be at play: that

is, that racial/ethnic disparities in the effects of job loss depend on other individual or environmental factors. One factor that may help explain our unexpected finding is the sample's age distribution. Respondents were very young (24–31) in 1989, with significant implications for their family structures and socioeconomic standing. Many were still living with their parents in 1989, more commonly for Blacks (20.5%) than Whites (9.8%). Moreover, those living at home were particularly likely to experience job loss (with job loss rates of 25.3% vs. 16.5% for Blacks living at home vs. not, and comparable job loss rates of 18.3% vs. 9.1% for Whites). Even more moved home following job loss: In 1994, 33.5% of Blacks and 15.2% of Whites experiencing job loss were living with their parents. Thus, family support may have buffered many who lost their jobs—and particularly Blacks—from heavy drinking via decreasing distress and supporting conservative drinking limits. The young age of the sample also means that differentials in financial and social capital between Blacks and Whites would have been attenuated, compared to older ages, when Whites differentially move into lucrative jobs and roles as spouses and parents. This too could have altered any Black-White differential in the negative effects of job loss. Finally, differences in typical life-course drinking patterns, in combination again with the sample's age, could have affected the results. Among Blacks, those who initiate heavy drinking typically do so at a later age than Whites, with data suggesting that heavy drinking peaks for Blacks in the late 20's (Evans-Polce, Vasilenko, & Lanza, 2015; Godette, Headen, & Ford, 2006; Mulia, Tam, Bond, & Zemore). Because the effects of job loss on problem drinking may be stronger among those with a history of heavy drinking (Dooley & Prause, 1998), these differences in life-course patterns could have substantial effect on the observed disparities.

It is also possible that the age of the *data* played a role in the above results. Alcohol affordability and marketing climbed dramatically from 1990 to the present (Adams Beverage Group, 2007; Xu & Chaloupka, 2011). Thus, alcohol is far more accessible to poor populations, including Blacks, in the current period than it was in 1990. In the past, restricted access to alcohol among Blacks may have limited their consumption, even when under stress.

In sum, the present results unexpectedly suggest greater effects of job loss on alcohol dependence among Whites than Blacks at young ages, implying that racial/ethnic differences in the effects of job loss may depend on the age of the study population at assessment or other individual or environmental factors. However, several limitations suggest a cautious interpretation, particularly the relatively small sample sizes when considering race/ethnicity, job loss, and alcohol dependence together. Further, we acknowledge that data on perceptions regarding the cause(s) of job loss were not available for this analysis, nor could we account for type and sector of employment given our limited sample sizes. Accordingly, we could not examine whether the obtained effects might differ as function of attribution for/cause of job loss or job type and sector. It may be, for example, that the effects of job loss are worse for Blacks than Whites when that loss is attributed to discrimination. Perceived discrimination is associated with both job loss and drinking (Gilbert & Zemore, in press; Mays, Coleman, & Jackson, 1996), and will be an important variable to address in future analyses as both a potential moderator and confound.

Though the availability of large datasets with relevant variables is currently quite limited, future research using larger samples (and ideally disaggregating by gender) should be a priority. It would be particularly helpful for future studies to explicitly examine potential moderators of racial/ethnic differences in the effects of job loss, such as respondent age, attributions for job loss, and job type. It will also be important for future research to examine varying durations of job loss, as some have found that the effects of job loss on heavy drinking are strongest among those experiencing three or more years of unemployment (Mossakowski, 2008). The Black-White disparity in duration (as well as prevalence) of job loss in the U.S. further underlines the importance of such work.

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Table 1

Demographic and alcohol-related correlates of job loss from 1990–93.

	Whites		Blacks	
	Any job loss in 1990–93	***p* value**	**Any job loss in 1990–93**	***p* value**
N=	9.5% (333)		18.7% (352)	
Gender				*
Female	9.4% (151)		16.3% (139)	
Male	9.6% (182)		20.6% (213)	
Age in 1989		†		†
24–25	10.5% (61)		19.0% (63)	
26–27	10.1% (96)		18.5% (97)	
28–29	10.7% (98)		18.1% (94)	
30–32	7.5% (78)		19.1% (98)	
Education Attainment 1989		***		***
1–8	20.8% (12)		21.9% (6)	
9–11	17.2% (46)		33.1% (60)	
12 only	9.5% (144)		22.6% (192)	
13 and above	8.0% (128)		11.4% (94)	
Education Attainment 1994		***		***
1–8	21.6% (7)		16.0% (4)	
9–11	19.9% (37)		31.8% (185)	
12 only	10.0% (130)		23.5% (185)	
13 and above	8.6% (127)		11.2% (96)	
Marital Status in 1989		***		
Married	7.3% (150)		13.0% (88)	***
Never married	13.3% (142)		22.3% (206)	
Sep/div/widowed	10.2% (41)		20.6% (58)	
Marital Status in 1994		***		***
Married	7.5% (154)		13.0% (96)	
Never married	14.6% (80)		24.3% (161)	
Sep/div/widowed	15.2% (67)		18.3% (72)	
Net Family Income in 1989		***		***
$0–13,950	17.1% (74)		27.5% (101)	
$13,951–25,000	9.7% (72)		13.8% (71)	
$25,001–39,000	9.6% (77)		15.2% (43)	
$39,001–1,057,488	5.2% (54)		13.3% (40)	
Missing	12.6% (56)		23.2% (97)	
Net Family Income in 1994		***		***
$0–18,000	28.6% (94)		26.4% (108)	
$18,001–33,200	9.4% (51)		14.0% (56)	
$33,201–51,800	7.2% (57)		9.1% (29)	
$51,801–189,918	4.1% (36)		10.1% (20)	

	Whites		Blacks	
	Any job loss in 1990–93	***p* value**	**Any job loss in 1990–93**	***p* value**
Missing	10.2% (95)		25.2% (139)	
Living with parents in 1989		***		***
No	8.7% (274)		16.8% (249)	
Yes	17.2% (59)		26.0% (103)	
Living with parents in 1994		*		***
No	9.6% (274)		16.0% (253)	
Yes	15.2% (27)		33.5% (76)	
Heavy Drinking in 1989		**		***
No	8.3% (193)		16.5% (227)	
Yes	11.4% (139)		24.6% (123)	
Alcohol dependence in 1989		***		
No	9.0% (301)		18.6% (339)	
Yes	20.9% (32)		24.6% (13)	

*** p<.001

** p<.01

* p<.05.

† p<.10

Table 2

Odds of alcohol dependence status in 1994 as a function of employment during 1990–93 and covariates, separately by race/ethnicity.

	Whites		Blacks	
	OR	**[95% CI]**	**OR**	**[95% CI]**
Model 1.	**N=2,898**		**N=1,790**	
Employment Variables				
Any job loss in 1990–93	2.98***	[1.80, 4.90]	1.09	[0.57, 2.10]
Any year OLF in 1990–93	0.62	[0.32, 1.19]	1.76†	[0.92, 3.36]
Employment status in 1994				
Unemployed (vs. employed)	1.18	[0.39, 3.52]	2.40*	[1.10, 5.24]
OLF (vs. employed)	1.33	[0.62, 2.83]	0.85	[0.36, 2.00]
Model 2.	**N=2,895**		**N=1,788**	
Employment Variables				
Any job loss in 1990–93	2.37**	[1.40, 4.03]	0.82	[0.42, 1.59]
Any year OLF in 1990–93	0.55†	[0.28, 1.10]	1.79†	[0.91, 3.50]
Employment status in 1994				
Unemployed (vs. employed)	0.99	[0.31, 3.22]	2.22*	[1.02, 4.81]
OLF (vs. employed)	1.72	[0.80, 3.74]	0.81	[0.34, 1.95]
Demographics				
Male	2.78***	[1.64, 4.70]	11.77***	[4.58, 30.30]
Age in 1989	0.93	[0.85, 1.02]	1.14*	[1.01, 1.28]
Highest grade completed in 1989	0.78***	[0.71, 0.86]	0.88	[0.76, 1.03]
Marital status in 1989				
Never married (vs. married)	1.77*	[1.08, 2.90]	1.70	[0.90, 3.21]
Sep/div/widowed (vs. married)	1.45	[0.76, 2.76]	0.40	[0.12, 1.29]
Net Family Income 1989				
$13,951–25,000	0.85	[0.48, 1.51]	0.54†	[0.26, 1.11]
$25,001–39,000	0.48*	[0.25, 0.92]	0.36*	[0.19, 0.99]
$39,001–1,057,488	0.58	[0.29, 1.14]	0.42†	[0.15, 1.15]
Missing	0.20**	[0.08, 0.50]	0.56	[0.28, 1.14]
Model 3.	**N=2,889**		**N=1,776**	
Employment Variables				
Any job loss in 1990–93	1.93*	[1.10, 3.39]	0.82	[0.40, 1.67]
Any year OLF in 1990–93	0.55†	[0.28, 1.07]	1.74	[0.81, 3.75]
Employment status in 1994				
Unemployed (vs. employed)	0.89	[0.26, 2.98]	1.88	[0.83, 4.26]

	Whites		Blacks	
	OR	**[95% CI]**	**OR**	**[95% CI]**
OLF (vs. employed)	1.82	[0.82, 4.01]	0.67	[0.25, 1.83]
Demographics				
Male	1.94*	[1.13, 3.35]	6.86***	[2.44, 19.31]
Age in 1989	0.96	[0.87, 1.05]	1.15*	[1.02, 1.31]
Highest grade completed in 1989	0.81***	[0.73, 0.91]	0.96	[0.81, 1.14]
Marital status in 1989				
Never married (vs. married)	1.14	[0.66, 1.99]	1.55	[0.79, 3.04]
Sep/div/widowed (vs. married)	0.94	[0.48, 1.84]	0.33†	[0.10, 1.11]
Net Family Income 1989				
$13,951–25,000	0.75	[0.40, 1.40]	0.73	[0.34, 1.60]
$25,001–39,000	0.46*	[0.22, 0.95]	0.33†	[0.10, 1.06]
$39,001–1,057,488	0.52†	[0.25, 1.07]	0.41†	[0.14, 1.17]
Missing	0.22**	[0.08, 0.56]	0.70	[0.31, 1.56]
Frequency of Heavy Drinking in 1989				
Less than weekly	2.25**	[1.28, 3.97]	3.16**	[1.39, 7.18]
Weekly	3.21***	[1.67, 6.19]	3.96**	[1.60, 9.76]
More than weekly	3.34**	[1.51, 7.43]	11.09***	[4.59, 26.79]
Alcohol Dependence Symptoms 1989	1.53***	[1.29, 1.82]	1.41**	[1.13, 1.76]

*** p<.001

** p<.01

* p<.05.

† p<.10