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Drinking In the Age of the Great Recession

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Abstract

The United States has experienced the most severe economic crisis since the Great Depression. This paper presents an instrument (Life Change Consequences of the Great Recession; LCCGR) depicting work and personal life-related stressors reflecting the enduring effects of the Great Recession. A national sample of 663 respondents completed a mail survey including this instrument and measures of drinking outcomes. Multiple regression analyses addressed the links between the LCCGR and drinking. Economy-related stressors manifested significant effects on both male and female consumption patterns, but most LCCGR subscales were more clearly related to problematic drinking patterns in males compared to females.

Keywords

Economy-related social stressors; alcohol use and problem-related drinking; epidemiology

INTRODUCTION

The United States has been experiencing the most severe economic crisis since the Great Depression. The Great Recession, as it has been labeled, began in December, 2007 and was declared over, in National Bureau of Economic Research terms, in June, 2009.¹ However, the human devastation resulting from the U.S. economic crisis has persisted, starting with an unemployment rate that remained close to 10% in 2010² and including many other distressing social experiences such as the diminished quality of, and compensation from, employment (e.g., decreased hours, furloughs, lack of merit raises, increased responsibilities due to the layoffs of other workers, and not obtaining jobs congruent with education and

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skill level), home foreclosures, lack of access to health care, and loss of retirement savings. These experiences, deriving from macro level social conditions³, can be seen to constitute uncontrollable life stressors, and lack of control derived from uncontrollable life stressors has been linked to alcohol abuse.⁴

Classic research on the Great Depression and economic downturns has suggested that self-medication with alcohol or other substances functions as one means of coping with job loss and concomitant social and psychic losses as depicted in multi-method research^{5, 6} and research employing aggregate economic indicators such as rates of treatment for alcohol-related disorders.⁷ Subsequent studies addressing economically-derived stressors and drinking behaviors have focused primary attention on the impact of unemployment on drinking outcomes.⁸⁻¹¹ Other research, not addressing drinking per se, has shown that the transition from unemployment to employment only has positive consequences for overall mental health if employment involves work of high rather than poor quality (e.g., with job security, fair pay, and control over work conditions).¹² Moreover, research has evolved to suggest that in between employment and unemployment lies a central but understudied category of underemployment involving inadequate compensation, involuntary part-time work, and jobs perceived to be beneath the skill level of the worker.^{13, 14}

This study empirically addresses stressful work and non-work aspects of people's lives seen to result, at least in part, from the enduring effects of the Great Recession, and demonstrates the associations between these stressors and alcohol use and abuse. The theoretical perspective guiding our research first encompasses the notion that stress paradigm-oriented research has tended to focus on micro-level stressors and, until recently, has ignored the linkages between macro-level social forces and the daily stressors in people's lives.^{15, 16} In particular, macro-level social forces can impact on the magnitude of stressors experienced in people's lives and, thus, the extent to which they experience cumulative adversity.¹⁷ The focus here is on the types of stressors specifically linked with the state of the economy that were identified by focus group participants in Chicago and subsequently studied in a nationwide sample. In addition, this research focuses on chronic stressors which have been shown to have more devastating effects on individuals compared to acute stressors.¹⁸ It also addresses stressors related to personal life as well as work life, congruent with the Seeman et al.,¹⁹ argument that generalized feelings of powerlessness, which we view as deriving from constraints on both work and personal life, are more strongly related to alcohol outcomes than work alienation or unemployment per se.

This study addresses two main hypotheses. First, we hypothesized that overall economy-linked negative social experiences tied to work and personal life (home ownership problems, undesirable living situation, problematic employment, unemployment or underemployment, inadequate health insurance, social role constraints, inadequate sick time) would be associated with alcohol use and abuse. Second, we hypothesized that, given the greater propensity of males to express distress through problematic drinking²⁰, that there would be an interaction between gender and negative economy-related social experiences in relation to drinking outcomes such that males would manifest greater alcohol use and abuse compared to women in the wake of negative social experiences. Beyond these major hypotheses, we were interested in exploring the relative salience of the different dimensions of negative social experiences linked with the lingering effects of the U.S. economic crisis. Most importantly, given the mixed evidence for the salience of work per se¹⁹, we were interested in examining the relative salience of both work and personal life, as they may have been negatively affected by the overall economic context, in terms of drinking outcomes.

Method

The use of focus groups to develop the Life Change Consequences of the Great Recession (LCCGR) instrument

Focus group participants were recruited in the greater Chicago area via flyers in public places and ads in local newspapers that invited people to phone if they were interested in participating in a 2 hour focus group addressing “various societal or politically-based stressful life experiences” they may have had, with examples given of a variety of macro-level stressors which comprised the original intended focus of the study (experiences related to the economy, military service, distress and/or discrimination related to 9/11, contamination of the food supply, widespread illnesses, immigration issues or natural disasters). Participants chosen for the focus groups were adults (aged 18 or older) who experienced one or more of the stressors of interest, and who fit into our gender and racial/ethnic stratification. The selection process sought to obtain participants for 8 focus groups: separate male and female groups for whites, Hispanics, African-Americans and Arab-Americans/Middle Easterners of Arab descent. The groups ranged from 6 to 12 participants, and participants were compensated \$75 for their time and transportation expenses. The focus groups, conducted during the fall and winter of 2009, were moderated by trained-focus group moderators, and were audio-taped and transcribed. The university IRB approved this component of the study,

The first author and her collaborators viewed the focus groups through a one- way mirror and subsequently coded the transcripts. Most importantly, the overwhelming concern of the focus group participants was on stressors related to the economy, with only the two Arab-American groups additionally according prominent attention to post-9/11-related discrimination. Thus, for the purpose of instrument development, we focused on coding the transcripts with regard to the different facets of economy-related stressors, in contrast to our initial goal of exploring a broader set of macro-level stressors. The three collaborators in the study who coded the transcriptions compared and contrasted their coding schemas until one hundred percent inter-rater agreement was achieved. This process resulted in 53 items comprising the initial version of the Life Change Consequences of the Great Recession (LCCGR) instrument.

National Survey

1. Sampling—The data for the national study, conducted between June, 2010 and January, 2011, was derived from a Random Digit Dial (RDD) phone survey of the continental United States, followed by mailed questionnaires to individuals consenting to participate in the study. The phone screener was conducted using Computerized Assisted Telephone Interview (CATI) software. Eligibility criteria involved being aged 18 or older and English-speaking. Eligible respondents were selected from the households using the Trolldahl-Carter-Bryant method of respondent selection.²¹ Respondents were told during the phone screener that a \$50 American Express gift card would be sent to the eligible respondent if he/she completed the questionnaire. Respondents were sent: an initial mailing, a postcard reminder to non-respondents, and a second questionnaire mailed to those who were still non-respondents. The Institutional Review Board (IRB) of the first author’s university approved this component of the study

A total of 1,424 households were identified as eligible during the screening telephone calls. Of these, 1,006 agreed to have the questionnaire mailed to them, and 663 actually returned completed questionnaires. The cooperation rate to the telephone screening calls was 25.5%. That is, 25.5% of the eligible and assumed eligible households in the sample agreed to have the questionnaire mailed to them. Of these, 65.9% (n=663) subsequently completed and

returned the questionnaire. The telephone screening cooperation rate and the mail survey response rate were each calculated using the conservative AAPOR response rate formula 3.²² The overall survey response rate is the product of the telephone screening cooperation rate (25.5%) and the mail questionnaire return response rate (65.9%), or 16.8%.

The final sample obtained was weighted in two ways. Selection weights were calculated for each of the cases to weight for the different probability of selection for each case. Post-stratification weights were calculated for the dataset to ensure that the distribution of sample cases on important demographic variables (age, race/ethnicity and gender) conformed to the distribution of these variables in the Census Bureau's 2008 United States Population Estimates.

2. Measures—To assess drinking outcomes, quantity and variability of past month drinking, developed from Cahalen et al.,²³, included the following questions: 1. When you drank any type of alcoholic beverage during the last 30 days, how many drinks did you usually have per day? 2. During the last 30 days, what is the greatest amount of alcohol that you drank in any single day? The alpha coefficient measuring the internal consistency of these two items was .87 for males and .91 for females. Binge drinking was measured by one question, worded differently for men and women. 1. For men: During the last 12 months, how often did you have 5 or more drinks of wine, beer, or liquor in a single day? For women: During the last 12 months, how often did you have 4 or more drinks of wine, beer, or liquor in a single day?^{24, 25} Drinking to intoxication was measured by the question: About how often in the last 12 months did you drink enough to feel drunk—that is, where drinking noticeably affected your thinking, talking, and behavior?²⁵ Finally, problem drinking was measured by the 10 item BMAST. The BMAST correlates strongly with the full length MAST²⁶ and is used as a screening tool for alcohol dependence and problems among current drinkers.²⁷

The measure of economy-related stressors was the Life Change Consequences of the Great Recession (LCCGR) developed from the analyses of the focus group transcripts. The instrument elicits yes or no responses to a list of economy-related stressors which are preceded by the question: “The current economic recession has affected many people in different ways and to different degrees. Please indicate whether you experienced any of the following in the past twelve months”. The items comprising each subscale are listed in table 2 in the results section.

Finally, we addressed the extent to which the Chicago focus group sample finding that the economy was the central macro level stressor was also true for the national sample. The questionnaire included the list of macro level stressors that were used to select focus group members. Respondents were asked: “For the following types of stressful experiences”, please indicate whether they experienced each one during the past year.

Data Analyses

We first present the socio-demographic composition of the weighted sample. Next, the psychometric properties of the LCCGR were examined by conducting factor analyses. Using a preliminary data set of the first 491 respondents, an exploratory factor analysis using promax rotation and a robust least squares estimator was conducted in MPlus 5.21 (Muthen and Muthen, 2007).²⁸ Using the final complete sample, a confirmatory factor analysis was conducted.

After the final creation of the LCCGR and subscales, we first addressed gender differences in exposure to economic stressors as measured by the overall LCCGR economic stressor measure and each of the subscale components, using ANOVA analyses which controlled for

age, race/ethnicity and education. Next, multiple regression analyses were conducted, examining the main effects of the overall LCCGR and interaction with gender in the prediction of each alcohol outcome, controlling for age, race/ethnicity, and education. These analyses were repeated using each subscale of the LCCGR.

RESULTS

We first examined the percentage of respondents who reported experiencing each of the macro level stressors which were listed in the process of recruiting the focus group members. Economic problems (“financial problems linked with a recession or economic downturn”) were reported by 59.0% of the respondents. Experiences of other macro level stressors ranged from a high 16.0% (“having a close family member such as a spouse/partner, child, parent, or sibling, or friend fighting in a war or being in a war zone”) to a low of 1.4% (“fighting in a war or being in a war zone”). Thus, similar to the Chicago focus group participants, the effects of the economy were the most central issue to respondents in the national sample.

Table 1 presents the socio-demographic characteristics of the weighted sample. The sample is 51.3% female, 67.0% white, with the largest group being high school educated, and with respondents spread across age groups ranging from 18–29 (14.3%) to over 71 (9.6%).

In the exploratory factor analyses using the partial data set, ten items of the original instrument were dropped as they were problematic (e.g., univocal, multivocal items). A seven factor solution was found to provide the best fitting solution, statistically and theoretically. A confirmatory factor analysis, using the final data set, was conducted with this seven factor model. The model had an excellent fit according to descriptive fit indices ($X^2=62.934$, $p<.001$; CFI=0.956; RMSEA=0.043). The standardized item loadings were statistically significant. Except for three standardized item loadings that were around 0.4, the item loadings ranged from 0.632 to 0.993. Table 2 presents the factor loadings for each subscale of the LCCGR instrument, along with the alpha coefficients for each subscale for women and men separately. Not shown in the table are the alpha coefficients for the overall LCCGR instrument: .91 for women and .94 for men.

The results examining the extent to which males and females differed in exposure to overall economic stressors and the component subscales showed that their experiences did not differ significantly, with one exception. Women were significantly more likely to experience problematic working situations (mean for women=.164, mean for men=.026, mean difference =.138, $p<.05$).

Prior to conducting our more complex multivariate analyses using the LCCGR measure, we examined the extent to which the 59% of the sample who reported financial problems compared with the remainder of the sample in terms of each of our alcohol outcomes, using *t* test comparisons. The group reporting financial problems manifested significantly higher levels on each alcohol outcome in contrast to the group who did not report financial problems. While not the main focus of this study, it is also interesting to note that participants experiencing other macro level stressors (ethnic profiling or discrimination related to 9/11/01, exposure to a natural disaster, experiencing food poisoning and resulting illness, experiencing immigration problems and being affected by 9/11 through extensive involvement with media coverage) experienced higher levels of alcohol consumption on at least two alcohol outcomes compared to the groups not experiencing these macro level stressors.

The regression analyses in table 3 demonstrate support for hypothesis 1 predicting direct effects of the LCCGR measure on drinking outcomes and partial support of hypothesis 2

which predicted an interaction between the LCCGR and drinking such that males would be more affected by economic stressors in terms of using drinking as a way to cope compared to females. In particular, the LCCGR was significantly related to quantity of drinks per day in the last month and greatest number of drinks consumed in a day, with no interaction by gender. By contrast, for the three outcomes which can be seen as more clearly indicative of problematic drinking (drinking to intoxication, binge drinking and past year problem drinking), the regression analyses demonstrated significant interactions between the LCCGR and gender. Figures 1 through 3 illustrate these interaction effects. While LCCGR scores had little impact on female problematic drinking patterns, they were significantly associated with male drinking patterns. Males manifesting high scores on the LCCGR exhibited substantially higher levels of drinking to intoxication, binge drinking and past year problem drinking as represented by BMAST scores.

Table 4 presents the abbreviated results of the hierarchical linear regression analyses demonstrating main effects for the LCCGR subscales and the interactions of these subscales with gender in predicting each of the alcohol outcomes. (The full regression models are available from the first author). First, it is notable that many of these relationships are stronger when looking at particular subscales in contrast to the overall LCCGR. Several findings stand out, in particular. Undesirable living situation is strongly and directly related to two of the outcomes (quantity of alcohol consumption and greatest quantity of alcohol consumed), while the three more clearly problematic drinking outcomes interact with gender. More specifically, undesirable living situation is more strongly related to problematic drinking for men than it is for women. Similar patterns are shown for problematic employment, unemployment/ underemployment and social role constraints. By contrast, the data show strong direct effects for the relationships between both home ownership-related problems and inadequate sick time from work and problem drinking as measured by the BMAST. In summary, both work and personal life experiences related to economic issues were shown to impact on drinking outcomes. Moreover, these experiences are more likely to affect both genders in terms of consumption patterns, while most economy-related stressors have a greater impact on problematic drinking outcomes for men in contrast to women. The two economy-related stressors that affected both males and females in terms of problem-related drinking (as measured by the BMAST) encompassed home ownership problems and inadequate sick time from work.

Finally, the significant results from the major analyses conducted are summarized in Table 5.

Discussion

The findings from this study support the utility of expanding research on the economy and deleterious drinking outcomes to focus not only on the work role but to additionally examine broader ramifications of economic crises, encompassing negative effects on one's personal life. While unemployment, underemployment and problematic employment situations related significantly to deleterious drinking outcomes, additional influences on drinking outcomes included negative personal life experiences such as home ownership problems, undesirable living conditions, inadequate health insurance, and constraints on personal relationships.

With regard to gender, the overall measure of economic-related stressors and most of the sub-components manifested significant relationships with alcohol consumption patterns for both genders. However, the relationships between economic stressors and clearly problematic drinking patterns (drinking to intoxication, binge drinking and problem-related drinking) were significant for males but not for females for most dimensions of economy-

related stressors (the exceptions involving home ownership problems and inadequate sick time from work). Thus, these data suggest that drinking is associated with economic-based stressors for both genders, but alcohol abuse is more strongly manifested by males in association with most but not all economic stressors.

This study theorized that economically-rooted stressors involving both work and personal aspects of people's lives would be linked to alcohol use and abuse as a consequence of engendering feelings of powerlessness and psychological distress which lead to a desire to self-medicate with alcohol. Future research should empirically assess the extent to which these hypothesized mediators explain the links between economic stressors and drinking outcomes. Studies could also usefully address potential moderators such as drinking expectancies involving the belief that drinking will reduce the negative emotional effects of stress. In addition, an important issue involves the extent to which external social forces create stressors which affect people's use and abuse of alcohol or, alternatively, the extent to which people's personal characteristics affect the way they perceive their situation and also chose their mode of coping with it. Thus future studies might usefully incorporate personality characteristics such as the "big five" personality domains (extraversion, agreeableness, conscientiousness, emotional stability and openness to experiences²⁹ as well as examining the extent to which particular modes of coping (e.g., active coping versus denial of the situation) are more likely to be associated with alcohol use and abuse.

Since this study is cross-sectional in design, longitudinal research is necessary to demonstrate causality between the economy-based stressors focused on here and drinking outcomes. It is plausible to hypothesize that causality may go in both directions, as shown in longitudinal research on workplace harassment and drinking.³⁰ More specifically, while workplace stressors have been shown to impact on drinking outcomes, problematic drinking is also likely to have adverse effects on work performance and thus the quality of work roles.³¹ Similarly, the relationship between marriage/personal life functioning and drinking can potentially go in both directions.³²

Finally, methodological limitations of this study should be noted. The random digit dialing methodology for obtaining the sample only included individuals with land line phone numbers. Thus, individuals relying on cell phones only, along with those households without access to any telephone, were not included in this study. This potential non-coverage error is a source of concern, as comparisons of our unweighted and weighted sample demographics revealed the sample under-represented African Americans, Latinos, younger (under age 40) and less-educated (high school or less) persons. Although a source of concern, we note that findings such as these are very typical of RDD surveys. In addition, our response rate was 16.8%, a level very consistent in our experience with the findings from other national RDD surveys. It is now generally understood that it is non-response bias, rather than response rate, that is most critical when evaluating the quality of survey data.³³ Our data were weighted to reflect the demographics of the overall population and we compared the weighted and unweighted estimates of each of our dependent variables to determine if non-response and/or non-coverage may have introduced serious bias into one or more of them. In each instance, we found that the weighted values of each alcohol use measure fell well within one standard deviation of the unweighted values, suggesting that the distribution of our key measures were not appreciably influenced by these processes. The validity of self-reports of sensitive behaviors, such as alcohol consumption, may also be called into question, although there are several published studies that have generally confirmed the quality of self-reported alcohol consumption.^{34, 35}

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Figure 1.
Interaction of LCCGR and Gender in Predicting Drinking to Intoxication

Figure 2.
Interaction of LCCGR and Gender in Predicting Binge Drinking

Figure 3.
Interaction of LCCGR and Gender in Predicting Past-year BMAST

TABLE 1Sociodemographic characteristics of the sample ($N = 663$)*

Variable	Frequency	%
Sex		
Male	314	48.7
Female	331	51.3
Race/ethnicity		
White	436	67.0
Black	80	12.2
Hispanic	91	13.9
Asian	29	4.4
Other	17	2.5
Education		
Less than high school	45	6.8
High school graduate	350	53.4
College graduate	110	16.8
Post-college training	150	23.0
Age		
18–29	89	14.3
30–39	141	22.8
40–49	102	16.5
50–59	130	21.0
60–70	97	15.7
71+	60	9.6

* Missing data are excluded. Missing counts are as follows:
Sex: 18, Race: 11, Education: 8, Age: 45

TABLE 2

Factor loadings for the seven factor model of the Life Change Consequences of the Great Recession (LCCGR) Instrument

Factors	Unstandardized Factor Loadings	Standardized Factor Loadings
1. Home Ownership Problems (alpha: 0.753, 0.723)		
Difficulties with mortgage payments	1.000 (0.000)	0.827 (0.049) ***
Inability to refinance home	0.565 (0.171) ***	0.639 (0.079) ***
Difficulties paying property taxes	0.918 (0.294) **	0.804 (0.061) ***
Drop in credit rating	2.037 (0.849) *	0.949 (0.037) ***
2. Undesirable Living Situation (alpha: 0.722, 0.852)		
Problems paying rent	1.000 (0.000)	0.871 (0.047) ***
Not being able to afford to move to a more desired location	0.975 (0.234) ***	0.866 (0.039) ***
Difficulty buying a home due to credit rating	0.823 (0.255) ***	0.825 (0.056) ***
Moving to a less expensive place to save money	1.151 (0.313) ***	0.898 (0.044) ***
Gas, electricity, or heat shut off due to lack of money to pay bills	0.891 (0.310) **	0.845 (0.073) ***
3. Problematic Employment Situation (alpha: 0.747, 0.798)		
Working in a job for which you are overqualified	1.000 (0.000)	0.805 (0.060) ***
Furlough days	0.325 (0.134) *	0.403 (0.102) ***
Salary/Pay cut, or hours cut or job demotion	1.038 (0.274) ***	0.815 (0.044) ***
Lack of raises or bonuses	0.637 (0.166) ***	0.654 (0.056) ***
Not knowing if your employment situation will continue	1.211 (0.321) ***	0.854 (0.037) ***
Increased job responsibilities linked with cuts in the work force	0.399 (0.131) **	0.476 (0.081) ***
Increased feelings of competition with fellow employees	0.715 (0.145) ***	0.696 (0.062) ***
Delaying having children because of finances	0.716 (0.176) ***	0.697 (0.090) ***
Loss of satisfaction from one's job	1.345 (0.401) ***	0.877 (0.039) ***
4. Unemployment or Underemployment (alpha: 0.820, 0.835)		
Loss of job/Unemployment	1.000 (0.000)	0.842 (0.041) ***
Inability to find a job	1.872 (0.429) ***	0.946 (0.018) ***
Inability to find more desirable work that matches your skills	2.797 (1.010) **	0.975 (0.017) ***
Increased experiences of discrimination	1.241 (0.303) ***	0.889 (0.041) ***
Problems with your own business or self-employment	0.345 (0.110) **	0.474 (0.090) ***
Increased competition when applying for jobs	1.074 (0.228) ***	0.859 (0.033) ***
Going back to school as a way to deal with job loss	1.039 (0.370) **	0.851 (0.080) ***
5. Inadequate Health Insurance (alpha: 0.725, 0.809)		
Lack of medical coverage/health insurance	1.000 (0.000)	0.992 (0.017) ***
Lack of dental coverage	0.289 (0.354)	0.920 (0.022) ***
Decreased quality of medical or dental coverage	0.100 (0.119)	0.632 (0.071) ***

Factors	Unstandardized Factor Loadings	Standardized Factor Loadings
Inability to afford copays or overall cost of medical/dental coverage	0.156 (0.185)	0.784 (0.062) ***
Inability to obtain medical coverage due to pre-existing conditions	0.134 (0.158)	0.736 (0.071) ***
Use of free clinics and /or medical charities	0.189 (0.21)	0.838 (0.052) ***
6. Social Role Constraints (alpha: 0.739, 0.775)		
Living with relatives, friends, or roommates due to financial constraints	1.000 (0.000)	0.677 (0.068) ***
Dissolution of marital/significant other relationship due to financial problems	1.865 (0.727) **	0.864 (0.067) ***
Staying in an unwanted relationship due to financial constraints	0.925 (0.260) ***	0.648 (0.081) ***
Decreased social life due to financial constraints	3.040 (0.901) ***	0.942 (0.024) ***
Increased isolation due to financial constraints	3.162 (0.852) ***	0.946 (0.024) ***
Decreased ability to afford prior consumption patterns	1.554 (0.371) ***	0.819 (0.046) ***
7. Inadequate Sick Time (alpha: 0.621, 0.729)		
Having to work despite poor health since family depends on your salary	1.000 (0.000)	0.916 (0.041) ***
Lack of sick days & having to work when sick	0.727 (0.262) **	0.857 (0.046) ***

Notes: Cronbach's alpha values are reported for women and men respectively. Standard errors for factor loadings are displayed in parentheses.

*
p <.05;

**
p<.01;

p<.001

TABLE 3
Hierarchical linear regressions predicting drinking outcomes from the LCCGR measure and in interaction with gender

Predictors	Drinks per day last month		Greatest # drinks last month		Drinking to intoxication		Binge drinking		Past year BMAST	
	B(SE)	ΔR ²	B(SE)	ΔR ²	B(SE)	ΔR ²	B(SE)	ΔR ²	B(SE)	ΔR ²
Step 1		.234 ***		.201 ***		.213 ***		.158 ***		.070 ***
Age	-.026(.006) ***		-.039(.008) ***		-.026(.004) ***		-.027(.004) ***		.002(.008)	
Black	.063(.448)		-.531(.564)		-.625(.190) ***		-.716(.216) ***		.269(.398)	
Hispanic	.649(.292) *		.771(.364) *		.896(.193) ***		.592(.220) **		1.107(.370) **	
Asian	-1.060(.469) *		-2.072(.590) ***		-.865(.301) **		-1.499(.335) ***		.280(.580)	
Other race	-.373(.752)		-.339(.948)		-.353(.389)		-.259(.444)		.528(.775)	
HS graduate	-.750(.446)		-.412(.541)		.043(.253)		.287(.286)		-.254(.551)	
College graduate	-.655(.496)		-.046(.603)		.279(.281)		.248(.318)		-.445(.599)	
Post college	-.805(.472)		-.054(.570)		.204(.272)		.542(.307)		-.573(.580)	
Step2		.101 ***		.094 ***		.076 ***		.066 ***		.090 ***
Female	-.532(.284)		-1.029(.353) **		.315(.182)		.146(.208)		.576(.359)	
LCCGR scale	.071(.015) ***		.064(.019) ***		.086(.010) ***		.080(.011) ***		.155(.019) ***	
Step 3		.001		.000		.028 ***		.022 ***		.042 ***
Female * LCCGR	-.013(.022)		.002(.028)		-.072(.015) ***		-.069(.017) ***		-.146(.029) ***	
Total R ²	.336 ***		.295 ***		.316 ***		.245 ***		.202 ***	
N	280		287		561		565		477	

Notes: Unstandardized regression coefficients and standard errors (in parentheses) displayed are for the final model. ΔR² values are for each step. Male, White, and 'Less than High School' are the reference groups.

* p <.05;
** p<.01;
*** p<.001

Summary results of the hierarchical linear regression analyses predicting drinking outcomes from each LCCGR sub-scale and in interaction with gender

TABLE 4

	Drinks per day last month		Greatest # drinks last month		Drinking to intoxication		Binge drinking		Past year BMAST	
	B(SE)	ΔR ²	B(SE)	ΔR ²	B(SE)	ΔR ²	B(SE)	ΔR ²	B(SE)	ΔR ²
Home Ownership Subscale										
Step 1		.234***		.206***		.214***		.160***		.071***
Step 2		.048***		.070***		.011*		.022***		.041***
Female	-.479(.237)*		-1.032(.287)***		-.030(.155)		-.218(.173)		-.511(.300)	
Home ownership	.264(.113)*		.164(.138)		.187(.075)*		.212(.084)*		.530(.147)***	.006
Step 3		.012*		.002		.019***		.015***		
Female*Home ownership	-.349(.168)*		-.181(.206)		-.373(.101)***		-.362(.113)***		-.354(.202)	
Total R ²	.294***		.278***		.244***		.196***		.118***	
N	274		281		555		558		469	
Undesirable Living Situation Subscale										
Step 1		.240***		.208***		.212***		.156***		.074***
Step 2		.107***		.114***		.098***		.101***		.125***
Female	-.601(.225)**		-1.037(.273)***		-.014(.144)		-.187(.161)		-.171(.276)	
Undesirable Living	.454(.092)***		.475(.113)***		.557(.060)***		.563(.067)***		1.062(.119)***	
Step 3		.001		.000		.022***		.018***		.031***
Female*Undesirable Living	-.065(.128)		-.005(.158)		-.370(.088)***		-.359(.098)***		-.737(.172)***	
Total R ²	.348***		.322***		.332***		.275***		.231***	
N	269		275		547		550		463	
Problematic Employment Situation Subscale										
Step 1		.241***		.204***		.212***		.153***		.073***
Step 2		.074***		.078***		.083***		.075***		.058***
Female	-.489(.287)		-.810(.350)*		.199(.171)		-.020(.195)		.681(.338)*	
Problematic Employment	.180(.054)***		.170(.067)*		.295(.035)***		.271(.040)***		.467(.066)***	
Step 3		.001		.002		.022***		.015***		.055***

Drinks per day last month			Greatest # drinks last month		Drinking to intoxication		Binge drinking		Past year BMAST		
	B(SE)	ΔR ²	B(SE)	ΔR ²	B(SE)	ΔR ²	B(SE)	ΔR ²	B(SE)	ΔR ²	
Female [*] Problematic Employment	.058(.083)		-.085(.103)		-.218(.053)	***	-.197(.060)	***	-.557(.101)	***	
Total R ²	.317	***	.284	***	.317	***	.244	***	.185	***	
N	270		277		540		544		466		
Unemployment or Underemployment Subscale											
Step 1		.241	***	.209	***	.211	***	.158	***	.068	***
Step 2		.118	***	.128	***	.060	***	.061	***	.100	***
Female	-.678(.239)	**	-1.208(.293)	***	.071(.155)		-.071(.175)		.193(.299)		
Un/underemployment	.304(.064)	***	.312(.079)	***	.324(.043)	***	.327(.049)	***	.662(.079)	***	
Step 3		.000		.001		.026	***	.024	***	.041	***
Female [*] Un/underemployment	-.006(.089)		.068(.109)		-.271(.062)	***	-.284(.069)	***	-.551(.114)	***	
Total R ²	.359	***	.337	***	.297	***	.243	***	.208	***	
N	276		283		545		550		467		
Inadequate Health Insurance Subscale											
Step 1		.235	***	.202	***	.212	***	.158	***	.073	***
Step 2		.038	***	.059	***	.023	***	.026	***	.030	***
Female	-.255(.257)		-.773(.315)	*	.000(.166)		-.170(.186)		.012(.324)		
Health Insurance	.162(.079)	*	.065(.098)		.236(.052)	***	.203(.058)	***	.448(.101)	***	
Step 3		.021	**	.006		.017	***	.012	**	.027	***
Female [*] Health Insurance	-.326(.117)	**	-.220(.142)		-.273(.076)	***	-.248(.085)	**	-.575(.153)	***	
Total R ²	.294	***	.268	***	.253	***	.196	***	.130	***	
N	281		288		561		566		475		
Social Role Constraints Subscale											
Step 1		.234	***	.205	***	.215	***	.159	***	.069	***
Step 2		.085	***	.092	***	.065	***	.042	***	.056	***
Female	-.784(.270)	**	-1.174(.333)	***	-.035(.174)		-.158(.199)		.379(.357)		
Role Constraints	.245(.072)	***	.255(.090)	**	.327(.049)	***	.264(.056)	***	.651(.098)	***	

	Drinks per day last month		Greatest # drinks last month		Drinking to intoxication		Binge drinking		Past year BMAST	
	B(SE)	ΔR ²	B(SE)	ΔR ²	B(SE)	ΔR ²	B(SE)	ΔR ²	B(SE)	ΔR ²
Step 3		.000		.000		.009**		.008*		.049***
Female [*] Role Constraints	.025(.101)		.013(.124)		-.182(.071)**		-.197(.081)*		-.749(.143)***	
Total R ²	.320***		.297***		.289***		.210***		.175***	
N	284		291		568		570		479	
Inadequate Sick Time Subscale										
Step 1		.234***		.205***		.213***		.158***		.065***
Step 2		.041***		.059***		.012*		.019***		.025**
Female	-.450(.207)*		-.869(.254)		-.029(.136)		-.232(.153)		-.680(.289)*	
Sick Time	.519(.186)**		.382(.232)		.511(.129)***		.414(.144)**		.559(.275)*	
Step 3		.021**		.013*		.040***		.023***		.004
Female [*] Sick Time	-.898(.316)**		-.895(.392)		-1.030(.187)***		-.855(.211)***		-.618(.411)	
Total R ²	.296***		.278***		.265***		.200***		.095***	
N	284		291		571		575		482	

Notes: Unstandardized regression coefficients and standard errors (in parentheses) displayed are for the final model. Estimates are not shown for the step 1 predictors of age, race, and education. ΔR² values are given only for step 2 and step3. Male, White, and 'Less than High School' are the reference groups.

* p < .05;

** p < .01;

*** p < .001

TABLE 5**Summary Table of Significant Economy-Related Predictors of Drinking Outcomes**

Life Change Consequences of the Great Recession (LCCGR) Overall Measure	p value
Quantity of Drinks Per Day Last Month	p<.001
Greatest # Drinks Per Day Last Month	p<.001
Drinking to Intoxication (for males)	p<.001
Binge Drinking (for males)	p<.001
Past Year Drinking Problems (for males)	p<.001
Home Ownership Subscale	p value
Quantity of Drinks Per Day Last Month (for males)	p<.05
Greatest # Drinks Per Day Last Month	p<.001
Drinking to Intoxication (for males)	p<.001
Binge Drinking (for males)	p<.001
Past Year Drinking Problems	p<.001
Undesirable Living Situation Subscale	p value
Quantity of Drinks Per Day Last Month	p<.001
Greatest # Drinks Per Day Last Month	p<.001
Drinking to Intoxication (for males)	p<.001
Binge Drinking (for males)	p<.001
Past Year Drinking Problems (for males)	p<.001
Problematic Employment Situation Subscale	p value
Quantity of Drinks Per Day Last Month	p<.001
Greatest # Drinks Per Day Last Month	p<.001
Drinking to Intoxication (for males)	p<.001
Binge Drinking (for males)	p<.001
Past Year Drinking Problems (for males)	p<.001
Unemployment or Underemployment Subscale	p value
Quantity of Drinks Per Day Last Month	p<.001
Greatest # Drinks Per Day Last Month	p<.001
Drinking to Intoxication (for males)	p<.001
Binge Drinking (for males)	p<.001
Past Year Drinking Problems (for males)	p<.001
Inadequate Health Insurance Subscale	p value
Quantity of Drinks Per Day Last Month (for males)	p<.01
Greatest # Drinks Per Day Last Month	p<.001
Drinking to Intoxication (for males)	p<.001
Binge Drinking (for males)	p<.01
Past Year Drinking Problems (for males)	p<.001
Social Role Constraints Subscale	p value
Quantity of Drinks Per Day Last Month	p<.001
Greatest # Drinks Per Day Last Month	p<.001
Drinking to Intoxication (for males)	p<.01

Life Change Consequences of the Great Recession (LCCGR) Overall Measure	p value
Binge Drinking (for males)	p<.05
Past Year Drinking Problems (for males)	p<.001
Inadequate Sick Time Subscale	p value
Quantity of Drinks Per Day Last Month (for males)	p<.01
Greatest # Drinks Per Day Last Month	p<.001
Drinking to Intoxication (for males)	p<.001
Binge Drinking (for males)	p<.001
Past Year Drinking Problems	p<.001