





Family Transitions and Changes in Drinking from Adolescence through Midlife

Journal:	Addiction
Manuscript ID:	ADD-12-0992.R1
Manuscript Type:	Research Report
Date Submitted by the Author:	n/a
Complete List of Authors:	Staff, Jeremy; Pennsylvania State University, Sociology Greene, Kaylin; Montana State University, Sociology Maggs, Jennifer; Pennsylvania State University, Human Development and Family Studies Schoon, Ingrid; University of London, Institute of Education
SUBSTANCE:	alcohol
METHOD:	time series analysis
FIELD OF STUDY:	social sciences
Keywords:	family roles, alcohol use, NCDS

SCHOLARONE[™] Manuscripts

Family Transitions and Changes in Drinking from Adolescence through Midlife

Jeremy Staff, Ph.D.¹

Kaylin Greene, Ph.D.²

Jennifer L. Maggs, Ph.D.³

Ingrid Schoon, Ph.D.⁴

¹ Sociology, Pennsylvania State University

² Sociology, Montana State University

³ Human Development and Family Studies, Pennsylvania State University

⁴ Institute of Education, University of London

Word Count (Abstract = 249; Text = 3,470; 4 tables)

Previous versions of the this manuscript were presented at the 2012 Society for Research on Child Development and the 2012 Society for Longitudinal and Life Course Studies. The preparation of this manuscript is supported by a grant from the National Institute on Alcohol Abuse and Alcoholism (AA019606 to J. Maggs) and a Mentored Research Scientist Development Award in Population Research from the National Institute of Child Health and Human Development (HD054467 to J. Staff). The analyses in this work are based on analysis of data from the National Child Development Study (NCDS). The data was deposited at the UK Data Archive by the Centre for Longitudinal Studies at the Institute of Education, University of London. NCDS is funded by the Economic and Social Research Council (ESRC). The findings and conclusions in this report are those of the authors and do not represent the views of the sponsors. The authors have no conflicts of interest to declare.

ABSTRACT

Aims: The present study examines how changes in social roles, particularly in the family, predict fluctuations in alcohol consumption from ages 16 to 50.

Design: Longitudinal data come from the National Child Development Study, an ongoing nationally representative birth cohort study.

Setting: The birth cohort includes 99% of British infants born in one week in 1958.

Participants: After initial assessment of 17,415 infants, the cohort was subsequently interviewed at ages 7, 11, 16, 23, 33, 42, 46, and 50. This study uses the six most recent waves of data collection (n = 7,212 women and 7,377 men).

Measurement. Alcohol use (i.e., quantity consumed in past week and heavy-daily drinking), symptoms of problem drinking (i.e., CAGE), and social roles (i.e., union formation and dissolution, parenthood, and employment status).

Findings: Alcohol use is significantly (p < .05) lower when women and men are married or cohabiting than when they are single or divorced. Parenthood also coincides with significantly lower alcohol use (p < .05), especially when respondents are residing with young children (i.e., ages 4 and under). When women and men are married, working, and residing with young children, past week alcohol use, heavy-daily drinking, and CAGE are lower compared to occasions when they are not in these roles (p < .05).

Conclusions: Family transitions across ages 16 to 50 are associated with rises and falls in alcohol consumption and problem drinking. From adolescence to midlife, women and men are most at risk for problem drinking when family roles are absent.

3

Family Transitions and Changes in Drinking from Adolescence through Midlife

As young adults move into their mid-20s and beyond, a normative developmental pattern is to mature out of heavy alcohol use (1-4). This discontinuity co-occurs alongside the adoption of adult social roles, such as cohabitation, marriage, parenthood, and work (5-10). Although research examining links between social roles and alcohol use has a long history, important gaps in knowledge remain. It is unclear, for instance, whether changes in the roles themselves are associated with changes in alcohol use, or whether background factors explain observed cooccurrences. In addition, we know little about how social roles and alcohol use are related during midlife, as prior research has focused on early adulthood. Finally, little research has considered the influence of diverse family roles and combinations of roles (i.e., marriage and parenthood) in altering alcohol use over long periods of time. Thus, the present study examines how social role transitions, particularly in the family, predict changes in alcohol use from adolescence (age 16) to midlife (age 50).

Background

The transition to adulthood is marked by the onset of family roles such as intimate cohabitation, marriage, and parenthood, as well as the completion of school and the acquisition of work. These transitions may have important consequences for alcohol use and misuse. Several theoretical perspectives, including role incompatibility theory (11), routine activities theory (12) and age-graded social control theory (13) posit that women and men reduce alcohol consumption when they transition into adult roles because heavy drinking conflicts with success in these roles. The attainment of adult social roles, particularly union formation and parenthood, also limits unstructured leisure activities with friends and provides norms against immoderate drinking, leading

to reductions in alcohol use. These perspectives lead to the *social role hypothesis*, which suggests that proximal or concurrent social roles during adulthood impact alcohol use (11-13).

Extant research, mostly on young adults, provides support for the social role hypothesis. For instance, research documents a strong positive association between college attendance (or, a "student" role) and heavy alcohol use (6,10). In addition, family role transitions, such as engagement, marriage, pregnancy, and parenthood, are associated with reductions in alcohol use (5,6,10,14,15). These associations may occur because family responsibilities "crowd out" heavy alcohol consumption (5). Indeed, divorce and separation—or transitions out of family roles—are associated with increases in drinking (5,6,10). Some studies have also shown a negative relationship between heavy alcohol use and employment (16,17).

Certain family social roles may have a stronger association with alcohol use than others. For instance, although research has linked both cohabitation and marriage to less alcohol use (18), marriage appears more closely linked to alcohol use than cohabitation. Marriage is a clearly defined legal relationship whereas cohabitation can be a more ambiguous status whose meaning and strength of commitment varies across couples and contexts (19). In addition, the meaning and demands of parenthood change as children develop. Younger children require more time investment than older children (20), and therefore the association between parenthood and alcohol use may depend on the age of the children. Thus, family roles and alcohol use are linked, but the strength of associations may vary by the type of family role.

Although substantial research documents links between family roles and alcohol use (supporting the *social role hypothesis*), this association may vary by gender. For instance, prior research has linked the transition to cohabitation (18) and to marriage and parenthood (21) to reduced binge drinking and drinking frequency, respectively, for women, but not men. Although

by no means universal, these findings suggest that links between family roles and alcohol use may differ by gender.

An alternative explanation for the association between social roles and alcohol use is selection. According to the *role selection hypothesis*, contextual and individual background characteristics determine both social roles in adulthood and alcohol consumption (11). In line with this proposition, difficult-to-measure risk factors often predict both the timing and stability of adult role acquisition as well as alcohol use. In childhood and adolescence, for instance, conduct problems, school failure, and parental alcoholism increase the long-term risk of alcohol misuse (22-24), as well as intimate relationship difficulties (25,26). Thus, a myriad of childhood and adolescent background factors may influence success in adult family roles and alcohol misuse. Not adequately controlling for selection factors increases the risk of overestimating the impact of adult social roles on alcohol use.

The Current Study

Using longitudinal data from the National Child Development Study, the current study examines whether changes in family roles from adolescence through midlife predict variation in alcohol use and misuse. We contribute to the literature in five primary ways. First, we examine changes in alcohol use over a 34-year period (from ages 16 to 50), whereas the majority of research has focused on a much shorter evaluation period in adolescence or young adulthood. Second, we consider an extensive set of family roles, and role combinations, in order to determine the relative influence of each role in contributing to alcohol use. Third, we include several time-varying measures of drinking, including the quantity of alcohol consumption (i.e., units in past week), as well as measures of more problematic drinking, such as heavy-daily

drinking (i.e., 2 or more units per day for women and 3 or more for men), and CAGE symptoms (1 or more symptoms for women; 2 or more for men). Fourth, we use fixed-effects regression models to control statistically for time-stable factors that might affect individuals' social role attainments, and their drinking behavior, from ages 16 to 50 (27,28). This methodological approach allows us to assess whether between-person selection influences are accounting for the relationship between social roles and alcohol use. Last, given documented gender differences in alcohol use and in the timing and sequencing of adult role transitions (1,29,30), as well as previous research documenting gender differences in links between family roles and alcohol use (18,21), we consider whether associations differ for women and men.

Method

Data

We use data from The National Child Development Study (NCDS), an ongoing birth cohort study that sampled all British infants born in one week in 1958 (31). After initial assessment of 17,415 infants (99% of births), the cohort was subsequently interviewed at ages 7, 11, 16, 23, 33, 42, 46, and 50. The current study uses data from the six most recent waves of data collection (N = 7,212 women and 7,377 men). The sample represents the general population born in 1958 in Britain both in terms of socioeconomic diversity and ethnic/racial homogeneity (i.e., 95% White) (32,33).

Retention has been relatively high for a national longitudinal study lasting over 50 years (ranging from 76% at age 23 to 62% at age 50, excluding those lost through death or migration). Overall, males and respondents from disadvantaged backgrounds were less likely to be retained (34-36). However, research suggests that these differences in nonresponse are small and have

little effect on substantive results (33,34,37). Furthermore, adult drinking frequency is not linked to survey retention (38).

Measures

We measured alcohol use and social roles from ages 16 to 50. Unless noted otherwise, the measures listed below were assessed at all six waves.

Alcohol use. Based on available data, we created three indicators of alcohol use and misuse: 1) Units of alcohol consumed in the past week. Participants who reported drinking in the past week were asked how many units they had consumed during that time (note that at age 46 respondents reported units in an "average week"), from which units were summed. One unit equaled ¹/₂ pint of beer, a small glass of wine, or a standard pub measure of spirits (25 ml). Those who did not drink in the past week were assigned a zero, and the range was restricted from 0 to 15 or more units. We omitted information on units from age 42 due to inconsistent coding as a result of interviewer error (39). 2) Heavy-daily drinking. Because the unit measure assesses quantity but not frequency, we also created a measure of heavy-daily drinking. At ages 23, 33, 46, and 50, a dichotomous variable distinguished women who averaged 2 or more units each day in the prior week (coded 1) from those who drank less or not at all (coded 0). For men, this variable was coded "1" if they had consumed 3 or more units each day in the past week. (Frequency of past week drinking was not assessed at age 16.) 3) CAGE. Problem drinking was also assessed at ages 33 and 42 with the CAGE, a pre-diagnostic screening tool for alcohol dependence which measures past year incidence of 4 types of problems due to alcohol use (e.g., felt you should cut down) (40,41). To maximize predictive power for identifying harmful drinking, we used a cut-point of 1 or more of the 4 CAGE items as a marker of potential problems with alcohol for women and a cut-point of 2 or more for men (42,43). Finally, because

7

lifetime abstention was very uncommon (about 1% of respondents), analyses include abstainers.

Family roles. Marital status at each wave was measured with a categorical variable indicating whether the respondent was single, married, separated, divorced, or widowed. Divorce and separation were hypothesized to have similar effects on alcohol use, so they were combined. Widowhood was rare, so we combined widowed with separated and divorced. We then combined marital status with information about cohabitation to create five mutually exclusive dummy variables (1=in role; 0=not in role) to indicate partnership status (single and not cohabiting; single and cohabiting; married; separated, widowed, or divorced and cohabiting; separated, widowed, or divorced and not cohabiting). Using information collected from a household roster of each respondent, we assessed whether the respondent was residing with any biological, adoptive, or step children, and if so, the ages of these children. We used this information to create three dummy variables indicating whether the respondent was currently residing with a child (or children): under age 5; from ages 5 to 16; or from ages 17 to 21 (each coded 1=yes; 0=no). These parenthood variables were compared to occasions when respondents were not residing with (a) child(ren).

Work roles. Because studies have found a link between alcohol use and work (21,24), our models controlled for employment status at each wave (coded 1=employed; 0=not employed).

Results

Table 1 displays descriptive statistics for alcohol use and social roles by gender and age. Results demonstrate that past week alcohol units and heavy-daily drinking (i.e., 2+ units daily for women and 3+ for men) varied considerably with respondents' age (see Table 1). For instance, alcohol consumption increased from ages 16 to 23 and then declined by age 33. However,

alcohol consumption (both past week units and heavy-daily drinking) increased in midlife (ages 46 and 50). The percentage of women and men with CAGE symptoms was similar at ages 33 and 42.

[Table 1 here]

These age-related changes in alcohol use coincided with dramatic changes in family roles. For instance, 99% of cohort members were single and not cohabiting at age 16, compared to only 6% of women and 8% of men at age 50. The prevalence of marriage rose from 54% at age 23 to 72% a decade later for women (for men, the prevalence rose from 35% to 69%), and then remained relatively stable for both women and men. Rates of being divorced, separated, or widowed increased steadily from age 23 to 50. In addition, as respondents aged, they were more likely to be parents. For instance, by age 23, 30% of women and 16% of men were residing with at least one child who was aged 4 or under. By age 33, 40% of women and 41% of men were residing with a young child, and 59% and 39% of women and men, respectively, were residing with a child ages 5 to 16. By age 50, approximately one third of women and men were residing with a child ages 17 to 21. Finally, approximately one half of respondents were employed at age 16. Employment was then very prevalent across adulthood, particularly among men: for example, approximately 90% of men were employed at each wave from age 33 to age 50. Employment among women increased from 68% to 81% over the same period.

In Table 2, we used fixed-effects models to demonstrate how within-person changes in social roles are associated with within-person changes in past week units of alcohol use (square-root transformed to reduce positive skew) from ages 16 to 50 (44). Given that alcohol use and the amount of time spent in each family role varied by gender, we estimated the models in Table 2 separately for women and men. Using the "xtreg, fe" command in STATA (45), coefficients for

each social role capture within-person across-time changes in alcohol use as a function of changes in social roles. By comparing individuals to themselves across occasions, these models also – by design – statistically control for time-stable factors related to role transitions and alcohol use in adulthood. As shown in Table 2, when women and men were single and not cohabiting they consumed more units of alcohol than when they were in any other relationship category (e.g., married, cohabiting, or divorced [with and without cohabitation]). In addition, changes in parenthood were linked with changes in units of alcohol, but this association depended on the child's age. When women and men resided with young children (i.e., under age 5), they consumed fewer units of alcohol, relative to not residing with any children. Residing with school-aged children (i.e., ages 5 to 16) was also associated with reduced alcohol consumption, but the link was not as strong. Residing with older children (ages 17 to 21) had little association with women's alcohol use, whereas for men the link was positive, that is, their use was higher when older children resided in the household. Alcohol consumption was also higher when respondents were employed. These results are independent of the curvilinear effects of age.

[Table 2 here]

In Table 3, we examine associations between social roles and problem drinking separately for women and men. A similar pattern of results was observed for heavy-daily drinking as for past week units of alcohol. Women were more likely to drink 2 or more units daily and men more likely to drink 3 or more units daily when they were single and not cohabiting and less likely when they were single and cohabiting, married, or divorced and not cohabiting. Heavy-daily drinking was less likely when respondents resided with young children. Women, but not men, also were less likely to drink heavily when they resided with school-aged children (i.e., ages 5 to

16). Residing with older children was not related to changes in heavy-daily drinking. Both women and men were more likely to be heavy-daily drinkers when they were employed. In supplemental analyses (not shown but available from the first author upon request) the odds of daily drinking did not vary between periods of full-time versus part-time work (p > .05). Age had a curvilinear trend across adulthood, with a decline from ages 23 to 33 and then an increase at later ages. Results in Table 3 also show how social roles changes were related to CAGE symptoms. Changes in union formation and work had little associations with CAGE. However, women and men were less likely to report experiencing CAGE symptoms when they resided with young children.

[Table 3 here]

Finally, we considered the effects of *multiple* role statuses on alcohol use, particularly related to roles that had the most robust links in Tables 2 and 3 (i.e., marriage, work, and young children). We first created a set of dummy variables assessing at each wave whether women and men were employed, residing with a child or children under age 5, and married. The most common combination of roles for respondents was marriage and work only (i.e., no young children), which occurred on 34% of occasions across ages 16 to 50. On 5% of occasions women held all three roles (12% for men), whereas women and men were absent all three roles on 12% and 14%, respectively, of the data collection waves. Table 4 then shows fixed-effects estimates predicting how changes in these role combinations predicted changes in past week units, heavy-daily drinking, and CAGE, separately for women and men. Alcohol consumption and problem drinking (i.e., heavy-daily and CAGE) was lower when respondents were engaged in all three roles (i.e., married, residing with a young child, and employed), compared to when they were not

in any of these roles. The combination of marriage and the parenting of a young child was associated similarly with reduced alcohol consumption and problem drinking.

[Table 4 here]

Discussion

Results suggest that alcohol use from ages 16 to 50 rises and falls in tandem with changes in union formation and dissolution as well as parenthood, lending support to the social role hypothesis. Even when tested in models that simultaneously examine multiple combinations of adult roles, as well as control for role selection influences and work status, family roles appear to have unique or independent links with alcohol use. These results in a national British sample followed from adolescence into midlife significantly extend yet are consistent with previous work in the United States based on young adult samples (5,6,10,12).

Though we do not address the *mechanisms* through which family roles influence alcohol use, there are many plausible reasons for these associations. We find, for instance, that union formation is associated with less units consumed and a lower likelihood of heavy-daily drinking, perhaps because significant others provide monitoring and sanctioning of alcohol use. Alternatively, adult social role demands may reduce the number of evenings that individuals choose or are able to socialize with friends, leading to less alcohol use (5). Although both cohabitation and marriage were associated with less drinking, links with marriage were more pronounced. This difference may result from marriage being a more clearly defined social and legal role, whereas the meaning and status of cohabitation is more variable between persons and across development (46). Residing with a young child was also associated with declines in quantity of alcohol consumption, heavy-daily drinking, and CAGE symptoms, though men in

particular showed a slight increase in alcohol consumption when they resided with older children (i.e., ages 17 to 21).

The current study focused on one cohort of adults in Britain, and the extent to which results generalize to younger cohorts or individuals in other countries is unknown. Future research should examine these linkages among a longitudinal sample of middle-aged or older adults in other Western countries. Regarding the age of the cohort, it is possible that patterns will differ for more recent-born cohorts, for example if norms have changed about drinking and family role responsibilities (47). In addition, although prior research on has shown that student status predicts drinking during the early 20s, we did not explore the impact of being a student as full-time education was rare in this sample after age 23. Education may be more important for recent cohorts given increasing rates of college attendance and the increasing age of post-secondary students. The ages at marriage and parenthood have also increased historically, resulting in many individuals remaining single and/or childless through early adulthood and much of midlife (48). It is possible that these cohort differences and increased diversity of paths with respect to adult social role attainment will affect life course trajectories of alcohol consumption.

In addition, we highlight several limitations of the current study. First, the present study lacks consistent longitudinal information on partners' alcohol use. Prior research suggests that husbands' alcohol use at the time of marriage influences wives' alcohol use a year later (49) and drinking decreases among women who divorce a problem drinker (50). Thus, future research should explore how social role transitions and partners' drinking jointly influence individuals' drinking behavior. Second, the relatively long time-lags between waves interfere with establishing temporal precedence between social roles and alcohol use. Though the alcohol measures captured the most recent week, and theoretically we expected social roles to influence

13

alcohol use, more fine-grained (e.g., monthly) data on social role changes and substance use and other problem behaviors (51) could be used to more firmly establish temporal if not causal relationships between social role change and alcohol use in adulthood.

Whereas most studies on alcohol use focus on adolescents and young adults, our study shows how changes in multiple social role statuses up to age 50 are linked to the quantity of alcohol consumption and problem drinking. Though the quantity of alcohol consumption increases in adolescence and then declines normatively from the twenties to the early thirties, it increased again in midlife in this cohort, in parallel with historical increases in alcohol consumption in the general population (52,53). Findings here suggest that efforts to reduce harmful alcohol use arly tho. should include adults in midlife, particularly those who are not residing with a partner or young children.

Acknowledgments

We thank the Centre for Longitudinal Studies, Institute of Education for the use of the NCDS data (DOIs for the data sweeps include: 10.5255/UKDA-SN-5566-1; 10.5255/UKDA-SN-5567-1; 10.5255/UKDA-SN-5578-1; 10.5255/UKDA-SN-5579-1; 10.5255/UKDA-SN-6137-1), and to the UK Data Archive and Economic and Social Data Service for making them available. Manuscript preparation was supported by a grant from the National Institutes of Health (AA019606 to J. Maggs). However, they bear no responsibility for the analysis or interpretation Jicolu of these data. We are also grateful to Nicole Morgan for research assistance.

15

References

- Chassin L., Hussong A., Beltran I. Adolescent substance use. In: Lerner R. M., Steinberg, L., editors. *Handbook of adolescent psychology, 3rd ed.* Hoboken, NJ: Wiley & Sons; 2009, p. 723-763.
- Muthén B. O., Muthén L. The development of heavy drinking and alcohol-related problems from ages 18-37 in a U.S. national sample. *J Stud Alcohol* 2000; 61: 290-300.
- Schulenberg J., O'Malley P., Bachman J., Wadsworth K., Johnston L. Getting drunk and growing up: Trajectories of frequent binge drinking during the transition to young adulthood. *J Stud Alcohol* 1996; 57: 289–304.
- 4. Sher K. J, Grekin, E. R., Williams N.A. The development of alcohol use disorders. *Annu Rev Clin Psychol* 2005; 1: 493-523.
- Bachman J. G., O'Malley P. M., Schulenberg J. E., Johnston L. D., Bryant A. L., & Merline A. C. Why substance use declines in young adulthood: Changes in social activities, roles, and beliefs. Mahwah, NJ: Erlbaum; 2002.
- Bachman J. G., Wadsworth K. N., O'Malley P. M., Johnston L. D., & Schulenberg J. Smoking, drinking and drug use in young adulthood: The impact of new freedoms and new responsibilities. Mahwah, NJ: Erlbaum; 1997.
- Brown, S. A., McGue M., Maggs J., Schulenberg J., Hingson R., Swartzwelder S., et al. A developmental perspective on alcohol and youths 16 to 20 years of age. *Pediatrics* 2008; 121: S290-S310.
- Green K. M., Doherty E. E., Reisinger H. S., Chilcoat H. D., Ensminger M. Social integration in young adulthood and the subsequent onset of substance use and disorders among a community population of urban African Americans. *Addiction* 2010; 105: 484-493.

- Schulenberg J., Maggs J. L., O'Malley P. M. How and why the understanding of developmental continuity and discontinuity is important: The sample case of long-term consequences of adolescent substance use. In: Mortimer J. T., Shanahan, M., editors. *Handbook of the life course*. New York: Kluwer Academic/Plenum Publishers; 2003, p. 413-436.
- Staff J., Schulenberg J.F., Maslowsky J., Bachman J. G., O'Malley P. M., Maggs J. L., & Johnston L. D. Substance use changes and social role transitions: Proximal developmental effects on ongoing trajectories from late adolescence through early adulthood. *Dev Psychopathol* 2010; 22: 917-932.
- 11. Yamaguchi K., Kandel D. B. On the resolution of role incompatibility: A life event history analysis of family roles and marijuana use. *AJS* 1985; 9: 1284-1325.
- 12. Osgood D. W., Wilson J. K., O'Malley P. M., Bachman J. G., Johnston L. D. Routine activities and individual deviant behavior. *Am Sociol Rev* 1996; 61: 635–655.
- Laub J. H., Sampson R. J. Shared beginnings, divergent lives: Delinquent boys to age 70. Cambridge, MA: Harvard University Press; 2003.
- Leonard K. E., Rothbard J. C. Alcohol and the marriage effect. *J Stud Alcohol* 1999; Suppl. 13: 139-146.
- Klaas-Jan H., Knibbe R. A. Changes in social roles as predictors of changes in drinking behavior. *Addiction* 1998; 93: 1717-1727.
- Sampson R. J., Laub J. H. Crime in the making: Pathways and turning points through life. Cambridge, MA: Harvard University Press; 1993.
- Gotham H. J., Sher K. J., Wood P. K. Predicting stability and change in frequency of intoxication from the college years to beyond: Individual-difference and role transition variables. *J Abnorm Psychol* 1997; 106: 619-629.
- Duncan G. J., Wilkerson B., England P. Cleaning up their act: The effects of marriage and cohabitation on licit and illicit drug use. *Demography* 2006; 43: 691-710.

- 19. Heuveline P., Timberlake, J. M. The role of cohabitation in family formation: The United States in comparative perspective. *J Marriage Fam* 2004; 66: 1214-1230.
- Craig L., Bittman, M. The incremental time costs of children: An analysis of children's impact on adult time use in Australia. *Fem Econ* 2008; 14: 59-88.
- Christie-Mizell C. A., Peralta R. L. The gender gap in alcohol consumption during late adolescence and young adulthood: Gendered attitudes and adult roles. *J Health Soc Behav* 2009; 50: 410-426.
- 22. Crum R. M., Ensminger M. E., Ro M. J., McCord J. The association of educational achievement and school dropout with risk of alcoholism: A twenty-five-year prospective study of inner-city children. *J Stud Alcohol* 1998; 59: 318-326.
- Gotham J. J., Sher, KJ, Wood PK. Alcohol involvement and developmental task completion during young adulthood. *J Stud Alcohol* 2003; 64: 32-42.
- Maggs J. L., Patrick M. E., Feinstein L. Childhood and adolescent predictors of alcohol use and problems in adolescence and adulthood in the National Child Development Study. *Addiction* 2008; 103, Suppl. 1: 7-22.
- Caspi A., Wright B. R., Moffitt T. E., Silva P. A. Early failure in the labor market: Childhood and adolescent predictors of unemployment in the transition to adulthood. *Am Sociol Rev* 1998; 63: 424-451.
- 26. Flora D. B., Chassin L. Changes in drug use during young adulthood: The effects of parent alcoholism and transition into marriage. *Psychol Addict Behav* 2005; 19: 352–362.
- 27. Halaby C. N. Panel models for the analysis of change and growth in life course studies. In Mortimer J. T., Shanahan M., editors. *Handbook of the life course*. New York: Kluwer Academic/Plenum Publishers; 2003, p.503-508.
- Osgood D. W. Statistical models of life events and criminal behavior. In Piquero A. R., Weisburd D, editors. *The Handbook of quantitative criminology*. New York: Springer; 2010, p. 375-396.

- 29. Martin P., Schoon I., Ross A. Beyond transitions. Applying optimal matching analysis to life course research. *Int J Soc Res Methodol* 2008; 11: 179-199.
- Ross A., Schoon I., Martin P., Sacker A. Family and nonfamily role configurations in two British cohorts. *J Marriage Fam* 2009; 71: 1-14.
- Power C., Elliott J. Cohort profile: 1958 British birth cohort (National Child Development Study). *Int J Epidemiol* 2006; 35: 34-41.
- 32. Ferri E., Bynner J., Wadsworth M. Changing Britain, changing lives: Three generations at the turn of the century. London: Institute of Education; 2003.
- Schoon I. Risk and resilience: Adaptations in changing times. Cambridge, UK: Cambridge University Press; 2006.
- Hawkes D., Plewis I. Modeling non-response in the National Child Development Study. J R Stat Soc Ser A Stat Soc 2005; 169: 479-491.
- 35. Shepherd P. Analysis of response bias. In Ferri E., editor. *Life at 33: The fifth follow-up of the National Child Development Study* London: National Children's Bureau and City University; 1993, p. 184-188.
- 36. Shepherd P. The National Child Development Study: An introduction to its origins and the methods of data collection. London: Institute of Education; 1995.
- 37. Bynner J., Parsons S. Social exclusion and the transition from school to work: The case of young people not in education, employment, or training (NEET). *J Vocational Dev* 2002; 60: 289-309.
- Atherton K., Fuller E., Shepard P., Strachan D. P., Power C. Loss and representativeness in a biomedical survey at age 45 years: 1958 British birth cohort. *J Epidemiol Community Health* 2008; 62: 216-223.
- 39. Centre for Longitudinal Studies. Data notes on possible over-reporting of beer consumption.2012. Available from:

http://www.cls.ioe.ac.uk/page.aspx?&sitesectionid=771&sitesectiontitle=Data+Notes

40. Ewing, J. A. Detecting alcoholism: The CAGE questionnaire. JAMA 1984; 252: 1905-1907.

- 41. Mayfield, D., McLeod, G., Hall, P. The CAGE questionnaire: Validation of a new alcoholism screening instrument. *Am. J. Psych.* 1974; 131: 1121-1123.
- Bradley, K. A., Boyd-Wickizer, J., Powell, S. H., Burman, M. L. Alcohol screening questionnaires in women. *JAMA* 1998; 280:166-171.
- 43. Rumpf, H., Hapke, U., Erfurth, A., John, U. Screening questionnaires in the detection of hazardous alcohol consumption in the general hospital: Direct or disguised assessment. *J Stud Alcohol* 1998, 59: 698-703.
- Snijders, T., Bosker, R. Multilevel Analysis: An Introduction to Basic and Advanced Multilevel Modeling. London: Sage Publications; 1999.
- 45. StataCorp. Stata Statistical Software: Release 12. College Station, TX: StataCorp LP; 2011.
- 46. Manning W., Smock P. J. Measuring and modeling cohabitation: New perspectives from qualitative data. *J Marriage Fam* 2005; 67: 989-1002.
- Schoon I., Parsons S. Life style and health-related behaviour. In: Bynner J., Ferri E., Wandsworth M., Shepherd P., editors. *Changing Britain, changing lives. Three generations at the turn of the century*. London: Institute of Education Press; 2002, p. 237-260.
- Amato P. R., Booth A., Johnson D. R., Rogers S. J. Alone together: How marriage in America is changing. Cambridge, MA: Harvard University Press; 2007.
- 49. Leonard K. E., Mudar P. Peer and partner drinking and the transition to marriage: A longitudinal examination of selection and influence processes. *Psychol Addict Behav* 2003; 17: 115–125.
- 50. Smith P. H., Homish G. G., Leonard K. E., Cornelius J. R. Women ending marriage to a problem drinking partner decrease their own risk for problem drinking. *Addiction* In press.
- 51. Horney J., Osgood D. W., Marshall I. H. Criminal careers in the short-term: Intra-individual variability in crime and its relation to local life circumstances. *Am Sociol Rev* 1995; 60: 655-73.
- 52. Academy of Medical Sciences. *Calling Time: The Nation's Drinking as a Major Health Issue*. London: Academy of Medical Sciences; 2004.

53. Leon D. A., McCambridge J. Liver cirrhosis mortality rates in Britain from 1950 to 2002: an analysis of routine data. *Lancet* 1950; 367: 52–6.

 Table 1. Descriptive Statistics by Gender and Age

Women	Age 16	Age 23	Age 33	Age 42	Age 46	Age 50
Alcohol Use						
Past week units (sd)	1.4 (2.1)	4.5 (5.5)	3.6 (5)	na	5 (5.2)	4.8 (5.3)
2+ units daily	na	9%	6%	na	15%	15%
1+ CAGE symptoms	na	na	14%	16%	na	na
Social Roles						
Union formation						
Single and cohabiting	1%	6%	4%	3%	4%	3%
Married	1%	54%	72%	71%	70%	68%
Divorced/cohabiting	0%	1%	5%	5%	6%	7%
Divorced/not cohabiting	0%	4%	8%	13%	13%	15%
Single and not cohabiting	99%	35%	10%	7%	6%	6%
Child(ren) in household						
Child under age 5	1%	30%	40%	10%	2%	0%
Child ages 5 to 16	0%	7%	59%	66%	46%	24%
Child ages 17 to 21	0%	0%	1%	29%	40%	31%
Work (vs. not employed)	49%	64%	68%	79%	83%	81%
Men	Age 16	Age 23	Age 33	Age 42	Age 46	Age 50
Alcohol Use						
Past week units	2.9(3.5)	10.1 (6.1)	8.4 (6.5)	na	8.4 (5.9)	8.3 (6.3)
3+ units daily	na	28%	15%	na	20%	20%
2+ CAGE symptoms	na	na	10%	10%	na	na
Social Roles						
Union formation						
Single and cohabiting	0%	5%	6%	5%	5%	4%
Married	0%	35%	69%	71%	72%	70%
Divorced/cohabiting	0%	0%	4%	5%	6%	7%
Divorced/not cohabiting	0%	2%	5%	10%	9%	11%
Single and not cohabiting	100%	58%	15%	10%	8%	8%
Child(ren) in household						
Child under age 5	0%	16%	41%	15%	5%	3%
Child ages 5 to 16	0%	2%	39%	60%	48%	31%
Child ages 17 to 21	0%	0%	1%	16%	32%	30%
Work (vs. not employed)	51%	83%	91%	91%	92%	89%

Note. na=not assessed in the wave; sd=standard deviation

	Women	Men		
Union formation	Est CI (95%)	Est CI (95%)		
Single and cohabiting	13 * [2502	2]20 *** [3109]		
Married	38 *** [4530)]30 *** [3722]		
Divorced/cohabiting	13 * [2601]18 ** [3105]		
Divorced/not cohabiting	29 *** [4019	9]22 *** [3411]		
Single and not cohabiting	reference category	reference category		
Child(ren) in household				
Child under age 5	38 *** [4332	2]29 *** [3623]		
Child ages 5 to 16	08 *** [1204	15 *** [1910]		
Child ages 17 to 21	03 [0802	2] .06 * [.0012]		
No child(ren) residing in				
household	reference category	reference category		
Work (vs. not employed)	.15 *** [.1120)] .21 *** [.1527]		
Age				
Age 16	reference category	reference category		
Age 23	1.08 *** [1.01 - 1.15	5] 1.74 *** [1.69 - 1.80]		
Age 33	.99 *** [.90 - 1.08	3] 1.55 *** [1.47 - 1.64]		
Age 42	not assessed	not assessed		
Age 46	1.34 *** [1.24 - 1.43	3] 1.58 *** [1.49 - 1.67]		
Age 50	1.23 *** [1.13 - 1.32	2] 1.48 *** [1.39 - 1.58]		
Intercept	.64 *** [.6068	3] 1.05 *** [1.00 - 1.10]		
N (person waves)	7,212 (25,660)	7,377 (25,184)		
Note. *** $p < .001$; ** $p < .01$; * $p < .05$				

 Table 2. Fixed-Effects Models of Social Role Changes on Past Week Units of

 Alcohol by Gender

Women	2+ units daily	1+ CAGE symptoms	
Union formation	OR CI (95%)	OR CI (95%)	
Single and cohabiting	.65 * [.4691]	1.05 [.58 - 1.93]	
Married	.55 *** [.4172]	.69 [.33 - 1.45]	
Divorced/cohabiting	.78 [.51 - 1.19]	.94 [.39 - 2.29]	
Divorced/not cohabiting	.63 * [.4491]	.95 [.41 - 2.20]	
Single and not cohabiting	reference category	reference category	
Child(ren) in household			
Child under age 5	.47 *** [.3662]	.66 ** [.5087]	
Child ages 5 to 16	.72 *** [.6186]	1.25 [.95 - 1.64]	
Child ages 17 to 21	1.03 [.84 - 1.26]	1.09 [.77 - 1.55]	
No child(ren) residing in household	reference category	reference category	
Work (vs. not employed)	1.30 * [1.05 - 1.61]	1.22 [.92 - 1.62]	
Age			
Age 23	reference category	not assessed	
Age 33	.92 [.74 - 1.14]	reference category	
Age 42	not assessed	1.15 [.95 - 1.39]	
Age 46	3.05 *** [2.43 - 3.84]	not assessed	
Age 50	2.79 *** [2.24 - 3.48]	not assessed	
N (person waves)	1,328 (4,759)	772 (1,544)	
Men	3+ units daily	2+ CAGE symptoms	
Men Union formation	3+ units daily OR CI (95%)	2+ CAGE symptoms OR CI (95%)	
Men Union formation Single and cohabiting	3+ units daily OR CI (95%) .38 *** [.2851]	2+ CAGE symptoms OR CI (95%) .86 [.38 - 1.94]	
Men <u>Union formation</u> Single and cohabiting Married	3+ units daily OR CI (95%) .38 *** [.28 - .51] .42 *** [.34 - .52]	2+ CAGE symptoms OR CI (95%) .86 [.38 - 1.94] .80 [.39 - 1.65]	
Men <u>Union formation</u> Single and cohabiting Married Divorced/cohabiting	3+ units daily OR CI (95%) .38 *** [.28 - .51] .42 *** [.34 - .52] .67 * [.47 - .95]	2+ CAGE symptoms OR CI (95%) .86 [.38 - 1.94] .80 [.39 - 1.65] .91 [.35 - 2.36]	
Men <u>Union formation</u> Single and cohabiting Married Divorced/cohabiting Divorced/not cohabiting	3+ units daily OR CI (95%) .38 *** [.28 - .51] .42 *** [.34 - .52] .67 * [.47 - .95] .56 *** [.42 - .75]	2+ CAGE symptoms OR CI (95%) .86 [.38 - 1.94] .80 [.39 - 1.65] .91 [.35 - 2.36] .78 [.33 - 1.84]	
Men <u>Union formation</u> Single and cohabiting Married Divorced/cohabiting Divorced/not cohabiting Single and not cohabiting	3+ units daily OR CI (95%) .38 *** [.28 - .51] .42 *** [.34 - .52] .67 * [.47 - .95] .56 *** [.42 - .75] reference category	2+ CAGE symptoms OR CI (95%) .86 [.38 - 1.94] .80 [.39 - 1.65] .91 [.35 - 2.36] .78 [.33 - 1.84] reference category	
Men <u>Union formation</u> Single and cohabiting Married Divorced/cohabiting Divorced/not cohabiting Single and not cohabiting <i>Child(ren) in household</i>	3+ units daily OR CI (95%) .38 *** [.28 - .51] .42 *** [.34 - .52] .67 * [.47 - .95] .56 *** [.42 - .75] reference category	2+ CAGE symptoms OR CI (95%) .86 [.38 - 1.94] .80 [.39 - 1.65] .91 [.35 - 2.36] .78 [.33 - 1.84] reference category	
Men <u>Union formation</u> Single and cohabiting Married Divorced/cohabiting Divorced/not cohabiting Single and not cohabiting <i>Child(ren) in household</i> Child under age 5	3+ units daily OR CI (95%) .38 *** [.28 - .51] .42 *** [.34 - .52] .67 * [.47 - .95] .56 *** [.42 - .75] reference category .64 *** [.53 - .77]	2+ CAGE symptoms OR CI (95%) .86 [.38 - 1.94] .80 [.39 - 1.65] .91 [.35 - 2.36] .78 [.33 - 1.84] reference category .69 * [.5194]	
Men <u>Union formation</u> Single and cohabiting Married Divorced/cohabiting Divorced/not cohabiting Single and not cohabiting <i>Child(ren) in household</i> Child under age 5 Child ages 5 to 16	3+ units daily OR CI (95%) .38 *** [.28 - .51] .42 *** [.34 - .52] .67 * [.47 - .95] .56 *** [.42 - .75] reference category .64 *** [.53 - .77] .91 [.79 - 1.04]	2+ CAGE symptoms OR CI (95%) .86 [.38 - 1.94] .80 [.39 - 1.65] .91 [.35 - 2.36] .78 [.33 - 1.84] reference category .69 * [.5194] .81 [.59 - 1.10]	
Men <u>Union formation</u> Single and cohabiting Married Divorced/cohabiting Divorced/not cohabiting Single and not cohabiting <i>Child(ren) in household</i> Child under age 5 Child ages 5 to 16 Child ages 17 to 21	3+ units daily OR CI (95%) .38 *** [.28 - .51] .42 *** [.34 - .52] .67 * [.47 - .95] .56 *** [.42 - .75] reference category .64 *** [.53 - .77] .91 [.79 - 1.04] .95 [.79 - 1.13]	2+ CAGE symptoms OR CI (95%) .86 [.38 - 1.94] .80 [.39 - 1.65] .91 [.35 - 2.36] .78 [.33 - 1.84] reference category .69 * [.5194] .81 [.59 - 1.10] 1.19 [.78 - 1.83]	
Men Union formation Single and cohabiting Married Divorced/cohabiting Divorced/not cohabiting Single and not cohabiting Child(ren) in household Child under age 5 Child ages 5 to 16 Child ages 17 to 21 No child(ren) residing in household	3+ units daily OR CI (95%) .38 *** [.28 - .51] .42 *** [.34 - .52] .67 * [.47 - .95] .56 *** [.42 - .75] reference category .64 *** [.53 - .77] .91 [.79 - 1.04] .95 [.79 - 1.13] reference category	2+ CAGE symptoms OR CI (95%) .86 [.38 - 1.94] .80 [.39 - 1.65] .91 [.35 - 2.36] .78 [.33 - 1.84] reference category .69 * [.5194] .81 [.59 - 1.10] 1.19 [.78 - 1.83] reference category	
Men Union formation Single and cohabiting Married Divorced/cohabiting Divorced/not cohabiting Single and not cohabiting Child(ren) in household Child under age 5 Child ages 5 to 16 Child ages 17 to 21 No child(ren) residing in household Work (vs. not employed)	3+ units daily OR CI (95%) $.38 ***$ [$.2851$] $.42 ***$ [$.3452$] $.67 *$ [$.4795$] $.56 ***$ [$.4275$] reference category $.64 ***$ [$.5377$] $.91$ [$.79 - 1.04$] $.95$ [$.79 - 1.13$] reference category $1.29 *$ [2+ CAGE symptoms OR CI (95%) .86 [.38 - 1.94] .80 [.39 - 1.65] .91 [.35 - 2.36] .78 [.33 - 1.84] reference category .69 * [.5194] .81 [.59 - 1.10] 1.19 [.78 - 1.83] reference category .96 [.57 - 1.59]	
Men Union formation Single and cohabiting Married Divorced/cohabiting Divorced/not cohabiting Single and not cohabiting Child(ren) in household Child under age 5 Child ages 5 to 16 Child ages 17 to 21 No child(ren) residing in household Work (vs. not employed) Age	3+ units dailyOR $CI (95\%)$.38 ***[.2842 ***[.3442 ***[.3457 *[.4756 ***[.4256 ***[.4264 ***[.5377].91[.95[.7995[.7929 *[1.05 -1.29 *[1.05 -1.29 *[1.05 -1.29 *[1.05 -1.29 *[2+ CAGE symptomsORCI (95%).86[$.38 - 1.94$].80[$.39 - 1.65$].91[$.35 - 2.36$].78[$.33 - 1.84$]reference category.69 * [$.5194$].81[$.59 - 1.10$]1.19[$.78 - 1.83$]reference category.96[$.57 - 1.59$]	
Men Union formation Single and cohabiting Married Divorced/cohabiting Divorced/not cohabiting Single and not cohabiting Child(ren) in household Child under age 5 Child ages 5 to 16 Child ages 17 to 21 No child(ren) residing in household Work (vs. not employed) Age Age 23	3+ units daily OR CI (95%) $.38 ***$ [$.2851$] $.42 ***$ [$.3452$] $.67 *$ [$.4795$] $.56 ***$ [$.4275$] reference category $.64 ***$ [$.5377$] $.91$ [$.79 - 1.04$] $.95$ [$.79 - 1.13$] reference category $1.29 *$ [$1.05 - 1.58$] reference category	2+ CAGE symptoms OR CI (95%) .86 [.38 - 1.94] .80 [.39 - 1.65] .91 [.35 - 2.36] .78 [.33 - 1.84] reference category .69 * [.5194] .81 [.59 - 1.10] 1.19 [.78 - 1.83] reference category .96 [.57 - 1.59] not assessed	
Men Union formation Single and cohabiting Married Divorced/cohabiting Divorced/not cohabiting Single and not cohabiting Child(ren) in household Child under age 5 Child ages 5 to 16 Child ages 17 to 21 No child(ren) residing in household Work (vs. not employed) Age Age 23 Age 33	3+ units dailyORCI (95%) $.38 ***$ $[.2851]$ $.42 ***$ $[.3452]$ $.67 *$ $[.4795]$ $.56 *** [.4275]$ $.56 *** [.4275]$ $.64 *** [.5377]$ $.91 [.79 - 1.04]$ $.95 [.79 - 1.13]$ reference category $1.29 * [1.05 - 1.58]$ reference category $.49 *** [.4157]$	2+ CAGE symptoms OR CI (95%) .86 [.38 - 1.94] .80 [.39 - 1.65] .91 [.35 - 2.36] .78 [.33 - 1.84] reference category .69 * [.5194] .81 [.59 - 1.10] 1.19 [.78 - 1.83] reference category .96 [.57 - 1.59]	
Men Union formation Single and cohabiting Married Divorced/cohabiting Divorced/not cohabiting Single and not cohabiting Child(ren) in household Child under age 5 Child ages 5 to 16 Child ages 17 to 21 No child(ren) residing in household Work (vs. not employed) Age Age 23 Age 33 Age 42	3+ units dailyOR $CI (95\%)$.38 ***[.2842 ***[.3457 *[.4767 *[.4756 ***[.4256 ***[.4275 reference category.64 ***[.5377 .91[.95[.79105[.7929 *[1.0549 ***[.4157 .57 .64 ***[2+ CAGE symptomsORCI (95%).86 $[.38 - 1.94]$.80 $[.39 - 1.65]$.91 $[.35 - 2.36]$.78 $[.33 - 1.84]$ reference category.69 * $[.5194]$.81 $[.59 - 1.10]$ 1.19 $[.78 - 1.83]$ reference category.96 $[.57 - 1.59]$ not assessedreference category.03 $[.83 - 1.27]$	
Men Union formation Single and cohabiting Married Divorced/cohabiting Divorced/not cohabiting Single and not cohabiting Child(ren) in household Child under age 5 Child ages 5 to 16 Child ages 17 to 21 No child(ren) residing in household Work (vs. not employed) Age Age 23 Age 33 Age 42 Age 46	3+ units dailyORCI (95%) $.38 ***$ $[.2851]$ $.42 ***$ $[.3452]$ $.67 *$ $[.4795]$ $.56 *** [.4275]$ $.56 *** [.4275]$ reference category $.64 *** [.5377]$ $.91 [.79 - 1.04]$ $.95 [.79 - 1.13]$ reference category $1.29 * [1.05 - 1.58]$ reference category $.49 *** [.4157]$ not assessed.74 ** [.6189]	2+ CAGE symptomsORCI (95%).86 $[.38 - 1.94]$.80 $[.39 - 1.65]$.91 $[.35 - 2.36]$.78 $[.33 - 1.84]$ reference category.69 * $[.5194]$.81 $[.59 - 1.10]$ 1.19 $[.78 - 1.83]$ reference category.96 $[.57 - 1.59]$ not assessedreference category.03 $[.83 - 1.27]$ not assessed	
Men Union formation Single and cohabiting Married Divorced/cohabiting Divorced/not cohabiting Single and not cohabiting Child(ren) in household Child under age 5 Child ages 5 to 16 Child ages 17 to 21 No child(ren) residing in household Work (vs. not employed) Age Age 23 Age 33 Age 42 Age 46 Age 50	3+ units dailyOR $CI (95\%)$.38 ***[.2842 ***[.3452 [.67 *[.67 *[.4795 [.4275]reference category.64 ***[.5377].91[.7995[.7979 -1.13]reference category1.29 *[1.0549 ***[.4157]not assessed.74 **[.6180 *[.6796]	2+ CAGE symptomsORCI (95%).86[$.38 - 1.94$].80[$.39 - 1.65$].91[$.35 - 2.36$].78[$.33 - 1.84$]reference category.69 *[$.5194$].81[$.59 - 1.10$]1.19[$.78 - 1.83$]reference category.96[$.57 - 1.59$]not assessedreference category.03[$.83 - 1.27$]not assessednot assessednot assessednot assessed	

Table 3. Fixed-Effects Logistic Models of Heavy Daily Alcohol Use and CAGE by Gende

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

Women	Past week units	2+ units daily	1+ CAGE symptoms % waves in
Role combinations	Est CI (95%)	OR CI (95%)	OR CI (95%) roles
Work only	.15 *** [.0821]	1.20 [.84 - 1.71]	.89 [.51 - 1.55] 29.4%
Young child (i.e., under age 5) only	29 *** [4414]	.80 [.40 - 1.59]	.57 [.25 - 1.30] 1.7%
Young child & work	09 [3012]	.98 [.47 - 2.06]	.58 [.26 - 1.32] 0.8%
Married only	27 *** [3718]	.76 [.49 - 1.19]	.52 [.27 - 1.00] 7.3%
Married & work	07 [1501]	.85 [.59 - 1.22]	.72 [.40 - 1.29] 34.3%
Married & young child	64 *** [7355]	.19 *** [.1131]	.34 ** [.1767] 8.9%
Married, young child, & work	51 *** [6141]	.49 ** [.3079]	.44 * [.2383] 5.2%
None	reference category	reference category	reference category 12.0%
N (person waves)	7,212 (25,660)	1,328 (4,759)	774 (1,548)
Men	Past week units	3+ units daily	2+ CAGE symptoms % waves in
Role combinations	Est CI (95%)	OR CI (95%)	OR CI (95%) roles
Work only	.19 *** [.1226]	1.30 * [1.01 - 1.68]	.55 [.27 - 1.10] 34.9%
Young child only	60 ** [9822]	.22 * [.0682]	.55 [.14 - 2.21] 0.3%
Young child & work	14 [3406]	.44 ** [.2481]	1.26 [.43 - 3.73] 0.9%
Married only	35 *** [5020]	.58 * [.3889]	.42 [.16 - 1.09] 2.4%
Married & work	02 [1106]	.72 * [.5595]	.62 [.30 - 1.30] 34.4%
Married & young child	51 *** [7230]	.40 ** [.2274]	.09 * [.0182] 1.1%
Married, young child, & work	34 *** [4425]	.47 *** [.3564]	.39 * [.1882] 11.8%
None	reference category	reference category	reference category 14.2%
N (person waves)	7,377 (25,184)	2,058 (7,086)	546 (1,092)

 Table 4. Fixed-Effects Models of Social Role Combinations on Alcohol Use by Gender

Note. Non-linear effects of age not shown; *** p < .001; ** p < .01; * p < .05