**"Failure to Launch?" Examining Age-Period-Cohort Influences
on Young Adults' Living Arrangements in the U.S., 1967 – 2013**

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Abstract

In this paper, I use pooled data from the 1967 to 2013 Current Population Survey Annual Social and Economic Supplement (CPS ASEC) to examine changes in the living arrangements of young adults ages 20 to 34 between 1967 and 2013. Specifically, I estimate hierarchical age-period-cohort models to determine the extent to which these changes reflect age, cohort and/or period effects. Further, I explore whether there are gender differences in cohort and period effects across the period. My results suggest an increase in the diversity in living arrangements, shaped to some degree by cultural shifts (cohort effects) through the early- to mid-1980s and then by changing economic conditions (period effects) over the last three decades. The influence of period effects in this latter period attests to the vulnerability of young adults in times of economic uncertainty.

Introduction

Research on the transition to adulthood often focuses on a set of life course events considered to be markers of increased independence from familial authority, such as leaving home, completing school, entering the labor market, getting married and having children. Yet, researchers have recognized that the transition to adulthood has become longer and more complex over the past several decades as technological changes and new opportunities for young women in the face of the gender revolution altered the value of postsecondary education, and the timing and sequencing of family formation (Fussell and Furstenberg 2005). Other studies suggest that declining real earnings and lower employment rates among young adults have resulted in a "failure to launch" into economic independence as evidenced by an increase in the proportion of young adults living in their parents' household and declines in household headship among young adults since the mid-1980s (Bell et all 2007). Although researchers have linked the lengthening transition to adulthood to both cultural shifts and economic conditions, few studies have specifically tried to discern the extent to which these factors have influenced the living arrangements of young adults and thus shaped the transition to adulthood.

In this paper, I use pooled data from the 1967 to 2013 Current Population Survey Annual Social and Economic Supplement (CPS ASEC) to examine changes in the living arrangements of young adults ages 20 to 34 between 1967 and 2013.[1] Specifically, I estimate hierarchical age-period-cohort models to determine the extent to which these changes reflect age, cohort and/or period effects. In doing so, I explore how social, historical and cultural conditions influence changes in young adults' living arrangements. Further, I explore whether there are gender differences in cohort and period effects across this time period.

Background

The last five decades have seen unprecedented change in the living arrangements of young adults. Marriage rates for men and women have declined to historic lows while the age at marriage has risen to its highest level in a century (National Center for Health Statistics 2011; US Census Bureau 2013). Almost half of 24–29 year olds have never been married, up from about a quarter in the mid-1980s (Kreider and Ellis 2011). In research on the protracted period between adolescence and adulthood, Rosenfeld (2007) reported that the number of unmarried 20–29 year olds living independently of parents rose from about 5% in the mid-20th century to one-third today.

Young adults have a plethora of options when it comes to who they live with. Historically, they lived in the parental home until marrying, waiting to form an independent household until doing so with a spouse (Hajnal 1965). Today young adults are taking longer to complete their education and assume the traditional markers of adulthood (Furstenberg 2010; Rosenfeld 2007. When they do form independent households, marriage is not the only choice. Increasingly cohabitation and living alone are options, as are living outside the parental home with roommates or other family members.

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[1] The estimates in this paper are based on responses from a sample of the population. As with all surveys, estimates may vary from the actual values because of sampling variation and other factors. All comparisons made in this paper have undergone statistical testing and are significant at the 90-percent confidence level unless otherwise noted. For information on confidentiality protection, sampling error, non-sampling error, and definitions see <www.census.gov/prod/techdoc/cps/cpsmar13.pdf>. Standard errors were calculated using generalized variance factors.

Today young adults are living with an unmarried partner at an age when prior generations used to marry (Manning, Brown & Payne 2013). Cohabitation among adults has increased more than two-fold from 2.8 to 7.8 million couples, since 1996 alone (US Census Bureau 2013; see also Kennedy and Bumpass 2008).

Since the Great Recession, young adults have returned to or remained in the parental home in large numbers (Mykyta 2012; Parker 2012; Qian 2012). Living in an independent household requires economic resources and thus is sensitive to young adults' income (Kent 1992).

In this paper, I analyze trends in young adults' living arrangements from 1967 through 2013 in order to provide a broader historical context of living arrangements. By examining changes in the prevalence of different kinds of arrangements, and not just trends in co-residence with parents or marriage and cohabitation as in the previous literature, I am able to look at a greater diversity of households. Further, I attempt to examine the differential role of age, period and cohort effects in explaining variation in young adults' living arrangements over time. *Age effects* reflect the aging process and may result in differences in living arrangements among chronological age groups. Thus, the youngest adults are more likely to reside with their parents than those ages 30 and older, as they have not completed their schooling and may not have entered into family formation. *Period effects* reflect variations over time periods that influence all age groups simultaneously. In this analysis, exogenous shocks such as the Great Recession may exert a period effect on living arrangements. Policy changes such as changes in the cost of post-secondary education might also induce period effects. *Cohort effects* reflect variations in living arrangements among young adults who were born in the same birth cohort. Birth cohorts experience the same historical and social conditions at the same stages during their life course. Disentangling the role of age, period and cohort effects also has important policy implications. For example, if period effects are stronger, then policy solutions could address minimizing the effect of the shock. If cohort changes take precedence, then policies could make housing and education more affordable for young adults.

While I expect that cohort shifts play a large role in explaining changes in living arrangements for young adults over the past 46 years, I also expect that period effects, particularly around deep recessions

(1981-1982 and 2007-2009), will increase the prevalence of living in parent's household, or with relatives and non-relatives among young adults. I also expect that males will be more susceptible to these period shocks than females.

Data

In order to examine changes in young adults' living arrangements over the last four decades, I use pooled data from the 1967 to 2013 Current Population Survey Annual Social and Economic Supplement (CPS ASEC).[2] The CPS ASEC samples nearly 100,000 households and is fielded between February and April of each year. The CPS ASEC is well-suited to examine changes in living arrangements over time because it is collected annually and contains detailed demographic information as well as information on household and family characteristics, including household members' relationship to the head of household.

Uncertain economic conditions and adverse economic shocks are likely to affect household and family formation and living arrangements among young adults. The time period analyzed here includes seven recessions: (1) December 1969 - November 1970 (11 months); (2) November 1973 - March 1975 (16 months); (3) January 1980 - July 1980 (6 months); (4) July 1981 - November 1982 (16 months); (5) July 1990 – March 1991 (8 months); (6) March 2001 – November 2001 (8 months); (7) December 2007 – June 2009 (18 months).[3] The long time frame analyzed herein enables me to examine any period effects on changes in living arrangements for young adults over the time period as well as cohort changes in living arrangements.

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[2] The CPS ASEC was formerly known as the March Supplement.
[3] A recession is defined by the National Bureau of Economic Research (NBER) as "a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales". The NBER also defines beginning and end dates for recessions. See http://www.nber.org/cycles/cyclesmain.html.

Pooling data across years yields an analytic sample of 1.7 million adults aged 20 to 34 years between 1967 and 2013. When weighted, this represents about 2.6 billion young adults. (See Table A-1 for unweighted and weighted sample sizes by year).

Methods

Defining Living Arrangements

In this analysis, I classify young adults into five mutually exclusive living arrangements: (1) Living with married partner, or Married; (2) Living alone; (3) Living in parent(s)' household; (4) Living with relatives; or (5) Living with non-relatives. Young adults defined as "Married" include married householders or spouses of householders. Young adults defined as "Living alone" include young adults living in single-person households as well as those residing only with their own minor children. Young adults defined as "Living in parent(s)' household" include those who reside in a household headed by their parent(s). Young adults "Living with relatives" include those living in a household headed by a grandparent, sibling or other relative (who is not their parent) as well as unmarried young adults heading a household shared with at least one relative (who is not their minor child). Young adults "Living with non-relatives" include those living in a household headed by a non-relative or cohabiting partner as well as unmarried young adults heading a household shared only with a non-relative(s) (i.e. housemate, roommate, boarder or cohabiting partner).[4]

Although the householder is typically assumed to be the person in whose name the housing unit is owned or rented, among young adults, particularly those living with non-relatives, responsibility for the household may be shared.[5] About 4.1 percent of all young adults in the pooled sample were unmarried householders who were living with relatives (other than their minor children) or non-relatives (excluding those residing with unmarried partners).

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[4] Prior to 1995, the CPS ASEC did not identify cohabiting partners of the household. Yet cohabitation has become increasingly common among young adults over the period analyzed. Since 1995, the CPS ASEC has permitted respondents to identify themselves as an "unmarried partner" of the householder. However, because the CPS ASEC lacks data on cohabitation prior to 1995, in this analysis I classify unmarried partners as "Living with non-relatives".
[5] In the CPS ASEC, the term "householder" refers to the person (or one of the people) in whose name the housing unit is owned or rented, or if there is no such person, any adult member, excluding roomers, boarders or paid employees.

"Living with a married partner" and "Living alone" are assumed to be "independent" living arrangements, in which the young adult maintains the household and requires minimal external support.[6] In contrast, "Living in Parents' Household" is assumed to reflect a "dependent" arrangement in which the young adult is supported by or dependent on housing from their parent(s). In this analysis, I consider "Living with relatives" and "Living with non-relatives" to represent "quasi-dependent" living arrangements as household members are likely to contribute resources to maintain the household.

Predicting Young Adults' Living Arrangements

In this analysis, I take advantage of repeated cross-section microdata from the CPS ASEC and estimate hierarchical age-period-cohort regression (HAPC) models in order to assess the contribution of age, period and cohort effects to changes in living arrangements for young adults aged 20 to 34 years for the period 1967-2013. HAPC models employ a mixed (fixed and random effects) models approach in which individuals in repeated cross-section survey data are simultaneously nested within cohorts and time periods. Individual responses thus vary by cohort and period (survey year), and period and cohort effects are estimated as random effects (Yang and Land 2013). The HAPC model predicting variation in living arrangements across individuals, cohorts and periods is specified as follows:

Level 1 model:

$$\text{Logit Pr(Living Arrangement}_{ijk} = 1) = \beta_{0jk} + \beta_1 AGE_{ijk} + \beta_2 AGE^2_{ijk} + \beta_{3jk} SEX_{ijk} + \beta_n X_{ijk} + e_{ijk},$$
$$e_{ijk} \sim N(0, \sigma^2)$$

Level 2 model

$$\beta_{0jk} = \gamma_0 + \mu_{0j} + \upsilon_{0k}, \mu_{0j} \sim N(0, \tau_\mu), \upsilon_{0k} \sim N(0, \tau_\upsilon)$$

Sex effect:

$$\beta_{3jk} = \gamma_3 + \mu_{3j} + \upsilon_{3k}$$

where i represents individuals within cohort j (n_j = 1930-1934 through 1990-1994) and survey year k (n_k = 1974 through 2013) and X represents a vector of covariates associated with individual i's probability of being in a given living arrangement. In this model, the intercept β_{0jk} represents the mean log odds of being

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[6] This assumption does not preclude the receipt of public assistance however.

in a given living arrangement for individuals in cohort j in survey year k. $\boldsymbol{\beta}_{0jk}$ varies by random cohort and period effects. $\boldsymbol{\beta}_1, \dots . \boldsymbol{\beta}_n$ are the level-1 fixed effects, e_{ijk} is the random individual-level effect, $\boldsymbol{\gamma}_0$ is the log odds of being in a given living arrangement for all individuals, $\boldsymbol{\mu}_{0j}$ is the contribution of cohort j averaged over all periods to the log odds of being in a given living arrangement, and $\boldsymbol{\upsilon}_{0k}$ is the contribution of period k averaged across all cohorts. The sex effect specified above enables the random cohort and period effects to differ by sex.

In the present analysis, my dependent variables describe types of living arrangements described above: (1) Living with married partner; (2) Living alone; (3) Living in parent(s)' household; (6) Living with relatives; and (7) Living with non-relatives.

I am primarily interested in the effects of age and the random effects of survey year and cohort on living arrangements. However, I also control for other socio-demographic characteristics likely to affect living arrangements, such as sex, race, educational attainment, employment status, and personal income-to-poverty ratio. I estimate models for all young adults ages 20 to 34, and then separately by age group (18 to 24 years, 25 to 29 years and 30 to 34 years).

All models are estimated using PROC GLIMMIX in SAS 9.2.

Results

Descriptive Analysis of Young Adults' Living Arrangements, 1967-2013

Figures 1(a) and 1(b) illustrate the percent of young adults by living arrangement for the period 1967 through 2013 (See also Table A-2). As shown in Figure 1(a), the percentage of young adults aged 20 to 34 years residing with their married partner declined steadily since 1967 from 69.3 percent to 30.6 percent. By 2013, less than one-third of young adults under 35 years of age were married and heading a household. This decline echoes the well-documented decline in marriage over the past half-century, and also reflects a delay in marriage among young adults.

In contrast, and consistent with the decline in living with a married partner over the period illustrated in Figure 1(a) , the percent of young adults in other living arrangements increased from 1967 to

2013. For example, as seen in Figure 1(b), 25.5 percent of young adults lived in their parents' household in 2013, representing a 7 percentage point increase from 1967. Over the period, the proportion of young adults living alone (or with a minor child) more than doubled (5.2 percent to 13.1 percent), as did the proportion of young adults living with other relatives (3.7 percent to 10.0 percent). However, the most dramatic change, likely driven in part by an increase in cohabitation, occurred among young adults living with non-relatives. By 2013, 20.7 percent of young adults shared a household with non-relatives, up from just 3.3 percent in 1967.

Although the percent of young adults residing with non-relatives increased fairly steadily over the period, the proportion of young adults living with relatives remained relatively flat until 1980, and increased thereafter. However, as shown in Figure 1b, most of the increase in young adults living alone occurred between 1967 and 1981.[7] By 1981, 13.1 percent of young adults were living alone, which was not significantly different from the proportion living alone in 2013. As shown in Figure 1(b), the percent of young adults living in their parents' home was more volatile over the period, increasing from about the mid-1970s to the early 1980s, remaining relatively flat until about 2001, and then increasing through 2013.[8]

Table A-2 highlights significant year-to-year changes in the proportion of young adults in each living arrangement. Notably, there were significant increases in the percent of young adults living in their parents' household during the recessions occurring in 1982, 1991 and 2008.[9] Although the percentage of young adults residing with their parents declined between 2000 and 2001 (another recessionary period), it increased by 0.8 percentage points between 2001 and 2002. Significant increases in the percent of young

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[7] There was a 0.7 percentage point decrease in young adults living alone between 1982 and 1983 and a 0.6 percentage point decrease in young adults living alone between 2008 and 2009 during the most recent recession. There was also a 0.5 percentage point increase in young adults living alone between 2010 and 2011 (from 12.5 percent to 13.0 percent).

[8] As shown in Figure A-1(a) through (e), these patterns in living arrangements from 1967 to 2013 are consistent across age categories (20 to 24 years, 25 to 29 years, and 30 to 34 years). Although young adults aged 30 to 34 years were more likely to be married in any given year than their younger counterparts, with few exceptions those younger than age 30 were more likely to be living with their parents or with other relatives and non-relatives than those aged 30 to 34. For most years, the difference in the percent of 25 to 29 year olds and 30 to 34 year olds living alone was not significant at the 0.05 level.

[9] There were also significant increases in the proportion of young adults residing with their parents in years immediately following recession (e.g. 1983, 2002 and 2010).

adults living with relatives also occurred during the 1982 recession and the most recent recession, two downturns which had a particularly profound effect on young adult unemployment rates. For young adults, adverse economic conditions may impede homeleaving and household formation.

Although annual increases in the percent of young adults living with non-relatives were significant through the most of the 1970s, it is striking that the proportion of young adults in this living arrangement also saw increases during and in the years immediately after the 1990-1991, 2000-2001 and 2007-2009 recession.

Results from Models Predicting Young Adults' Living Arrangements

I report results from HAPC models predicting young adults' living arrangements from 1967 to 2013 in Table 1 and Figures 2(a) through (e).

Living with a Married Partner

As reported in Table 1, analysis of the variance components reveals that period and cohort effects were both significantly associated with changes in the percent of young adults ages 20 to 34 living with a married partner between 1967 and 2013, although cohort effects were weakly significant ($p < 0.10$).[10] However, there were no significant differences in either period or cohort effects between males and females. Indeed, examining Figure 2(a), the predicted period and cohort effects demonstrate comparable patterns for males and females.

In terms of individual-level covariates reported in Table 1, the log odds of living with a married partner increased with age, albeit at a declining rate. Young adult males had lower log odds of being married, and this gender gap increased with age. Consistent with findings in the literature, disadvantaged young adults were less likely to be living with a married partner. For example, those having less than a high school education had lower log odds of being married than those holding a high school diploma.

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[10] An examination of the random effects shows that estimates for separate survey years (period effects) were also significant, except for the period 1981 through 1986. Random effects estimates for cohorts born between 1930-1934, 1935-1939, 1955-1959, 1975-1979, 1980-1984 were also significant

Moreover, being unemployed or having income below poverty[11] was also negatively associated with living with a married partner. Strikingly, those holding a bachelor's degree also had lower log odds of living with a married partner. However, young adults who are pursuing or have pursued higher education may be more likely to delay marriage than those holding a terminal high school diploma.

Turning to Figure 2(a), the predicted probability of living with a married partner for both males and females declined fairly steadily through 1992 and then remained relatively flat through 2013. Patterns for cohort effects shown in Figure 2(a) are less intuitive. The predicted probability of living with a married partner increased for cohorts born between 1930 and 1954, and decreased for cohorts born after 1964, controlling for age, period and other factors.[12] The first of these latter cohorts would have been aged 25 in 1990, just about when the period effects began to flatten. These results seem to suggest that period effects explained more of the decline in young adults' probability of living with a married partner than cohort effects before the 1990s. However, it is important to remember that these predicted probabilities are reported net of age, period and other covariates and reflect the experiences of a 27 year old white, employed high school graduate with personal income exceeding 400% of the single person poverty threshold (or $48,476 in 2013$).

Period and cohort effects for separate models estimated by age category (20 to 24 years, 25 to 29 years and 30 to 34 years) are shown in Figures A-2(a)(1) – (3). As shown, the period declines in living with a married partner are steepest for those under age 30, particularly from about 1980 to about the mid-1990s. The predicted probability of living with a married partner also varied less by cohort for the oldest young adults (i.e. ages 30 to 34 years). However, for those under 25 years of age, there was an apparent decline in the predicted probability for cohorts born after 1970 and there was a slight but visible decline for cohorts born after 1975 among those ages 25 to 29 years.

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[11] Here, I measure a young adult's income-to-poverty ratio by comparing their income to the poverty threshold for a single person in the relevant year. This provides a measure of the young adult's own resources.
[12] The apparent increase in the predicted probability of living with a married partner for cohorts born before 1955 counters the descriptive results indicating a decline in marriage. Yet, the early cohorts, particularly those born before 1945, contribute the oldest young adults to the model, and the odds of living with a married partner increase with age.

Living Alone

As shown in Table 1, period effects were significantly associated with changes in the percent of young adults ages 20 to 34 living alone or with minor child(ren), whereas cohort effects were not significant in explaining variation in living alone across time.[13] Moreover, there were significant gender differences in both period and cohort effects.

Table 1 also shows that, as with living with a married partner, the log odds of living alone increased with age for young adults, but at a declining rate. Males were significantly less likely to live alone than females. However, the negative coefficient on the age*male interaction term suggest that this gap narrowed with age. Although having fewer resources (in terms of personal income-to-poverty ratio) was negatively associated with living alone, other indicators of disadvantage were positively associated with living alone for young adults. For example, unemployed young adults and those having less than a high school education were more likely to live alone (or with minor child(ren)) than their employed counterparts or than those holding a high school diploma. However, those with at least some college experience also had higher log odds of living alone. Although one might expect that living on one's own requires resources to set up a household, this category includes both single-person households and single-parent households, the latter of which may be relatively disadvantaged.

Figure 2(a) reveals that the predicted probability of living alone increases steeply for both men and women through 1980 and then becomes more steady, declining for women from roughly 2007 to 2010, a period encompassing the most recent downturn. In terms of cohort effects, although there was little change in the predicted probability of living alone for women born between 1935 and 1959, the predicted probability of living alone for men more than doubled from 0.04 for the 1935-1939 cohort to 0.09 for the 1955-1959 cohort, controlling for age, period and other demographic characteristics. Although the predicted probability of living alone remained relatively stable for men born between 1960 and 1989, women born after 1964 experienced an increase in the likelihood of living alone. The decline in

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[13] Again, an examination of the random effects shows that estimates for several cohorts were significant.

the probability of living alone for the most recent cohort of men and women likely reflects the younger age of these young adults (in 2013, these adults were only 20 to 23 years of age).

Table A-2(b) shows period and cohort effects for separate models predicting living alone by age category. Note that the period and cohort effects of living alone were higher for men than for women aged 25 to 29 years. Further, the period effects of living alone for those ages 25 to 29 were more dramatic than for other age categories, increasing steeply between 1967 and the early 1980s for both men and women. Consistent with earlier period increases, the predicted probability of living alone increased for cohorts born before 1960 among young adults ages 25 and older. Among women, there appears to be a slight but visible increase in the predicted probability of living alone for 20 to 24 year old women born between 1960 and 1979.

Living in Parents' Household

As shown in Table 1, analysis of the variance components reveals that both period and cohort effects had a statistically significant contribution towards explaining variance in the log odds of young adults living in their parents' household over the period.

In terms of individual level covariates reported in Table 1, the log odds of living in parents' household declined at an increasing rate with age as expected. Moreover, males had significantly higher log odds of residing in their parents' household compared to females and the gender gap increased with age. Nonwhites and unemployed young adults were also more likely to live with their parents, as were those who had fewer personal resources. Strikingly, having less than a high school education was negatively associated with living with one's parents whereas having at least some college experience was positively associated with co-residence with parents. Yet this result is consistent with research that suggests that young adults are taking longer to complete their schooling and transition to adulthood. Young adults holding a terminal high school diploma may leave the parental home earlier than those who are pursuing post-secondary education.

As shown in Figure 2(c), males had a higher predicted probability of co-residence with parents throughout the years examined in this analysis, controlling for age and cohort effects and other factors.

For both males and females, predicted probabilities of residing with parents declined between 1967 to 1973 and then rose more steeply for males through the mid-1980s, before flattening out through the 1990s. A slight decline in the probability of living in parents' household in the early 2000s was followed by a sharp increase, particularly for males, after 2007. It is interesting to note that both period increases began during recessionary periods.

Males also had higher predicted probability of living with parents across the cohorts examined in this analysis. For males, the predicted probability of co-residence with parents declined for the 1935 cohort relative to the 1930 cohort, after controlling for age and period effects and other factors. Cohorts born between 1945 and 1960 experienced a higher predicted probability of residing with parents; these males were aged 25 years between 1970 and 1985, and thus experienced the 1973-1975, 1980 and 1981-1982 recessions as young adults. However, for young adult males born after 1964, the predicted probability of co-residence with parents declined in models controlling for age, period effects and other individual-level factors. For females, the predicted probability of co-residence with parents increased for cohorts born between 1940 and 1960, and then leveled off through the 1980 cohort. There was a slight decline in the probability of living with parents for females born after 1985. Although these cohort effects may seem counterintuitive given the increase in co-residence with parents during the recent recession (which would have impacted younger cohorts), these figures are based on the predicted probabilities of co-residence with parents among 27 year old white, employed high school graduates with substantial personal resources.

Figure A-2(c) illustrates cohort and period predicted probabilities by age category (20 to 24 years, 25 to 29 years, and 30 to 34 years). In terms of period effects, the predicted probability of living with one's parents was relatively stable from 1973 through 2006, but rose over the course of the recent recession. For those ages 25 to 29, the period effects for women were less pronounced than for men. However, increases in the predicted probability of living in parents household were evident during and after the 1981 recession (through 1988) and in the most recent recession. Young adults past college age may be more likely than other young adults to experience the adverse effects of economic downturn on

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household formation. The predicted probability of living with one's parents varied little across periods for those ages 30 to 34.

As shown, the cohort patterns appear strikingly different across the age categories. For the youngest adults (i.e. ages 18 to 24 years), the predicted probability of living with parents increased for cohorts born through 1959 for both men and women, and then declined, although the decline was larger for men than women. However, for those young adults ages 25 to 29, the predicted probability increased across cohorts for men and women through 1969, when it leveled off for men and continued gradually increasing for women. This general increase across cohorts suggests support for a lengthening transition to adulthood over the past decades as noted in the literature. Among 30 to 34 year olds, there was little change in the predicted probability for co-residence with parents for cohorts born between 1935 and 1950, but males and females born between 1950 and 1964 experienced an increase in the probability of residing in their parents' household. These young adults turned 30 years old between 1980 and 1994, and experienced recessions in the early 1980s and early 1990s. The timing coincides with a lengthening of the transition to adulthood noted by scholars in the mid-1980s and through the 1990s. Although the probability of living with parents remained steady for females born between 1965 and 1975, the probability of living with parents declined for males ages 30 to 34 born in these years. For both young adult men and women aged 30 years and older, there has been increase in the probability of living in parents' household among the most recent cohorts.

Living with Relatives

An analysis of the variance components in Table 1 reveals that period effects were significantly associated with variation in the likelihood of living with relatives for young adults but that cohort effects were not. Moreover, period and cohort effects did not exhibit a significantly different pattern for males and females.

Table 1 also reveals that, as young adults age, the log odds of living with a relative declines, albeit a decreasing rate. However, males had greater log odds of residing with a relative than females, even at older ages. Regression coefficients also suggest that disadvantaged young adults are more likely

to live with relatives than their more advantaged counterparts. For example, those with less than a high school education were more likely to live with a relative, while those with at least some college experience had lower log odds of living in this arrangement than their peers with a high school diploma. Further, those who were unemployed or had fewer personal resources (as evidenced by a lower personal income-to-poverty ratio) were also more likely to be sharing a household with a relative. Non-whites had higher log odds of living with kin than white young adults.

As shown in Figure 2(d), the predicted probability of living with relatives for males and females across periods and cohorts exhibited comparable patterns. Across periods, the predicted probability of living with relatives, controlling for age and period effects and other covariates, appeared relatively flat through 1980, and then rose steadily through the rest of the period. With respect to cohort effects, the predicted probability of living with relatives increases for cohorts born between 1935 and 1954, before leveling off for later cohorts. This suggests that there are few differences between these later cohorts in the predicted probability of living with relatives, when age, period and other socio-demographic characteristics are considered. Again, it is important to remember that Figure 2(a) through 2(e) reflect predicted probabilities for 27 year old white, employed high school graduates with substantial resources.

In Figure A-2(d), I illustrate estimated predicted probabilities for period and cohort effects by age category. As seen in this figure, although period effects varied little between 1967 and 2013, the predicted probability of living with relatives increased with birth cohort for each age category.

Living with Non-Relatives

Variance components reported in Table 1 reveal that, as with results for living with relatives, period effects are statistically significant in explaining the variation in the probability of young adults' living with non-relatives between 1967 and 2013. Again, however, cohort effects are not significant. Moreover, there were no significant differences in period and cohort effects by gender.

In addition, the coefficients in Table 1 suggest that the log odds of living with non-relatives declines with age, but at a decreasing rate. Males are more likely to live with non-relatives, even as they age. In contrast to results for living with relatives, non-whites had lower log odds of living with non-

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relatives than their white counterparts. Taken together, these results suggest a greater role for kin networks as sources of mutual support among non-whites. Further, those with less than a high school diploma as well as those with at least some college experience were more likely to live with non-relatives than those who received a terminal high school diploma. In addition, unemployed young adults as well as those with fewer personal resources were also more likely to live with non-relatives than their employed counterparts. However, those with the fewest resources (i.e. personal income lower than a single-person poverty threshold) had significantly lower odds of living with non-relatives. Young adults sharing a household with non-relatives may be expected to contribute substantially to the expenses of the household, and this may be more difficult for those with few resources.

As shown in Figure 2(e), the predicted probability of living with non-relatives increased throughout the period examined, although the increase occurred from about 1975 for young adult women. Consistent with cohort effects for living with relatives, Figure 2(e) also reveals an increase in the probability of living with non-relatives for cohorts born between 1934 and 1959, with less change in this probability for cohorts born after 1960.

Finally, Figure A-2(e) shows temporal variation in predicted probabilities for period and cohort effects of living with non-relatives. For all age categories, the predicted probability of living with non-relatives increased across periods from 1967 to roughly 2000, leveling off before increasing again from 2007 through 2013, a period encompassing the most recent recession. In contrast, cohort effects varied by age category. For example, as seen in Figure A-2(e), although the predicted probabilities of living with non-relatives showed little variation across cohorts for those ages 25 and older, the predicted probability of sharing a household with non-relatives increased across cohorts for 20 to 24 year olds. Strikingly, there was little difference in period and cohort effects for men and women under 30 years of age. However, across period and cohorts, men ages 30 years and older were more likely to live with non-relatives than their female counterparts.

Discussion

In this paper, I examine living arrangements of young adults over the past 46 years. Specifically, I present a preliminary analysis of the extent to which changes in living arrangements can be explained by cultural shifts (which might be described as cohort effects) or external shocks (which could be considered period effects). I also test for differences in age, period and cohort effects by gender. Finally, rather than focusing on homeleaving as in much of the literature on young adults, I investigate other kinds of living arrangements as well, including living alone, living with relatives and living with non-relatives.

The descriptive analysis presented here echoes patterns for all adults, with a decline in the proportion of young adults living with a married partner, but increases both in the proportion of young adults living alone (particularly through the mid-1970s)[14], and with others between 1967 and 2013. As shown in Figure 1-b, while the proportion of young adults residing with relatives and non-relatives increased rather steadily, the proportion of young adults living with their parents was more vulnerable to recession, with substantial increases during recessions in 1981-1982, 1991 and 2007-2009.

Results from HAPC models suggest that the likelihood of living in an independent arrangement (i.e. living with a married partner or living alone) increases with age. At the same time, age is negatively associated with living with others in dependent and quasi-dependent arrangements. This finding is not surprising as adults are likely to accumulate more resources as they age. Further, the youngest adults in the pooled sample (those ages 20 to 24) are more likely to not have completed schooling than those who are older.

Results from the regression models also suggest that period effects explained more of the variation in living arrangements than cohort effects overall. Indeed, predicted probabilities for quasi-dependent arrangements (living with relatives and living with nonrelatives) increased for most years throughout the period examined (See Figures 2(d) and 2(e)), and the predicted probability of living in parent(s)' household increased through the recession in early 1980s and also increased sharply with the

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[14] The percentage point change in the percent of young adults living alone was significant in most years during the 1970s.

most recent recession. The importance of period effects in the models firmly suggests that economic conditions play a substantial role in the living arrangement choices of young adults.

However, individual cohorts contributed to changes in living arrangements over time as well. For example, the predicted probability of living with relatives and non-relatives increased for cohorts born between 1935 and 1954 as did the predicted probability of living alone for males (See Figures 2(d), 2(e) and 2(b), respectively). These young adults would have been 25 years of age between 1960 and 1979, a period marked by substantial social change, including the expansion of the public safety net in the late 1960s, a rapid increase in the number of young adults enrolled in post-secondary institutions, and growth in cohabitation as a living arrangement.[15] Also, the predicted probability of living with parents increased for cohorts born between 1940 and 1964 (See Figure 2(c)). These young adults would have been 25 between 1965 and 1989, and would have been influenced by the changes described above.

Consistent with other research, I also find that young men are more likely to live in dependent and quasi-dependent arrangements then their female counterparts. Combined with findings from recent studies highlighting the gender gap in educational achievement, this finding suggests the need for additional research into gender differences in the transition to adulthood and the implications of these differences on later outcomes.

Notably, results from the HAPC suggest that there were also SES differences in the living arrangements of young adults over the period examined. For example, young adults with fewer resources were less likely to living in independently (i.e. with a married partner or alone). Moreover, those who were most disadvantaged were more likely to live with kin, either in their parents' household or with relatives, than with non-relatives. Young adults living with non-relatives may be expected to contribute towards maintaining the household, while living with kin may provide a private safety net. Of course, it cannot be assumed that young adults residing with kin do not contribute resources to the household, but

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[15] See http://www.census.gov/hhes/school/data/cps/historical/FigureA-6_2012.pdf for a graph illustrating the number of persons enrolled in college by age and sex over time.

the expectation in terms of supporting the household may differ. I intend to explore these differences in living arrangements by SES in future research.

This study has several limitations. The CPS ASEC is an annual survey, but it is not conducted on a longitudinal sample. From this cross-sectional analysis, I cannot make causal claims regarding the observed changes in living arrangements among young adults.

Moreover, changes in living arrangements over time may reflect changes in the characteristics of young adults over the period examined. For example, in other research Mykyta and Vespa (2014) found that changes in young adults living alone and living with parents between 1967 and 2013 were largely attributable to changes in the characteristics of young adults. Although the HAPC models enable me to control for individual-level characteristics of young adults in the sample, I do not explicitly examine the extent to which compositional changes may affect my results.

I also group unmarried households living with relatives and non-relatives into a quasi-dependent living arrangement. Yet, these householders may have formed an independent household. Still, results from models which categorize these householders into a separate living arrangement were consistent with those presented here.

Even with an HAPC model, it remains difficult to analyze the separate contribution of cohort and period effects. Indeed, recently researchers have criticized these models (Bell and Jones 2013; Luo and Hodges 2014). For example, Luo and Hodges (2014) point out that HAPC models assume that cohort effects are constant across the life course. In this paper, I try to address this limitation by estimating separate models by age category (See Figures A-2(a) through A-2(e)).

Despite the preliminary nature of this analysis and its limitations, these findings suggest that cohort effects (brought about by social and cultural changes) on living arrangements may have been more influential earlier in the period, through the 1970s and into the early 1980s. Although individual period effects were also evident for independent living arrangements in this period (See Figures 2(a) and 2(b)), period effects appear to have been more influential for dependent and quasi-dependent living arrangements from the early 1980s onward. This period was marked by two deep recessions (1981-1982

and 2007-2009) in which young adults were particularly vulnerable as recent labor market entrants. Indeed, Bell, et al. (2007) assert that declining real earnings and lower employment rates among young adults have resulted in a "failure to launch" as evidenced by increased proportions of young adults living with parents and a decline in household headship among young adults since the 1980s. Economic downturns – particularly the most recent recession -- stunted household formation among young adults, and may have an impact on wealth accumulation. As such, these findings attest to the vulnerability of young adults, particularly in times of economic uncertainty. Despite this, I would argue that my results do not suggest a failure to launch, at least not prior to 1980. Instead, my findings suggest an increase in the diversity in living arrangements, shaped to some degree by cultural shifts through the mid-1980s and then by changing economic conditions over the last three decades. Still, it is important to recognize that an economic shock may also exert a cohort effect. Elder's (1999) work suggests that the Great Depression had such an effect, but it may be too soon to identify the long-term implications of the most recent recession in terms of the experience of later cohorts.

REFERENCES

Bell, L., G. Burtless, J. Gornick and T. Smeeding. 2007. "Failure to launch: comparative trends in the transition to economic independence." In S. Danziger and C.E. Rouse (Eds.).*The Price of Independence: The Economics of Early Adulthood.* New York: Russell Sage. (pp. 27-55).

Bell, A. and K. Jones. 2013. Another 'futile quest'? A simulation study of Yang and Land's hierarchical age-period-cohort model. *Demographic Research 30* (pp. 333-360).

Elder, Glen H., Jr. 1999. *Children of the Great Depression: Social Change in Life Experience*. Boulder, CO: Westview Press.

Furstenberg, F.F., Jr. 2010. On a new schedule: transitions to adulthood and family change. *The Future of Children 20*: 1 (pp. 67-87).

Fussell, E. and F. F. Furstenberg, Jr. 2005. The transition to adulthood during the twentieth century: race, nativity and gender. In R. Settersten, Jr., F.F. Furstenberg, Jr. & R.G. Rumbaut (eds.) *On the Frontier of Adulthood*. Chicago: University of Chicago (pp. 29-75).

Hajnal, J. 1965. European Marriage Patterns in Perspective. In D.V. Glass and D.E.C. Eversley (Eds.) *Population in History*. New York: Aldine (pp.101-146).

Kennedy, S. and L. Bumpass. 2008. Cohabitation and children's living arrangements: new estimates from the United States. *Demographic Research 19* (pp.1663-1692).

Kent, R. 1992. Household formation by the young in the United States. *Applied Economics,* 24, 1129-1137.

Kreider, R. M. and R. Ellis. 2011. Number, timing and duration of marriages and divorces: 2009. Washington, DC: U.S. Census Bureau.

Luo, L. and J.S. Hodges. 2014. A new age-period-cohort method for describing and investigating inter- and intra-cohort effects, presented at the 2014 Annual Meetings of the Population Association of America..

Manning, W.D., S.L. Brown and K.K. Payne. 2013. Two decades of stability and change in age at first union formation. National Center for Family & Marriage Research Working Paper No, 13-06.

Mykyta, L. 2012. Economic downturns and the failure to launch: the living arrangements of young adults in the United States 1995-2011.

Mykyta, L. and J. Vespa. 2014. Historical changes in young adult living arrangements 1967-2013. Paper to be presented at the 2014 Annual Meetings of the American Sociological Association.

National Center for Health Statistics. 2012. First marriages in the United States: Data from the 2006-2010 National Survey of Family Growth. Hyattsville. MD: National Center for Health Statistics.

Parker, K. 2012. The boomerang generation: feeling ok about living with mom and dad. Washington, DC: Pew Research Center.

Qian, Z. 2012. During the great recession, more young adults lived with parents. Brown Unviersity: US2010.

Rosenfeld, M. 2007. *The Age of Independence: Interracial Unions, Same-Sex Unions and the Changing American Family.* Boston, MA: Harvard University.

U.S. Census Bureau. 2013. Median age at first marriage by sex: 1890-2013. http://www.census.gov/hhes/families/files/graphics/MS-2.pdf.

U.S. Census Bureau. 2013. America's families and living arrangements 2012. Washington, DC., P20-570.

Yang, Y. and K.C. Land. 2006. A mixed models approach to the age-period-cohort analysis of repeated cross-section surveys, with application to data on trends in verbal test scores. *Sociological Methodology 36*(1) (pp.75-110).

Yang, Y. and K.C. Land. 2013. Age-period-cohort analysis: new models, methods and empirical applications. Boca Raton, FL: CRC Press.

Figure 1(a) and (b). Living Arrangements of Young Adults Ages 20 to 34 Years, 1967-2013

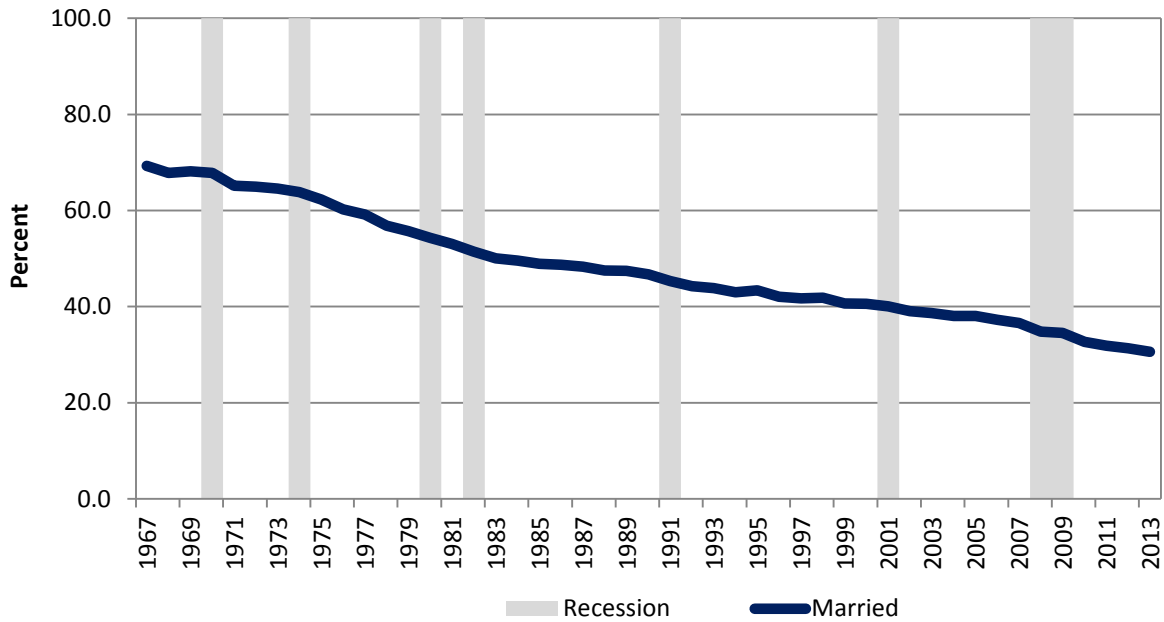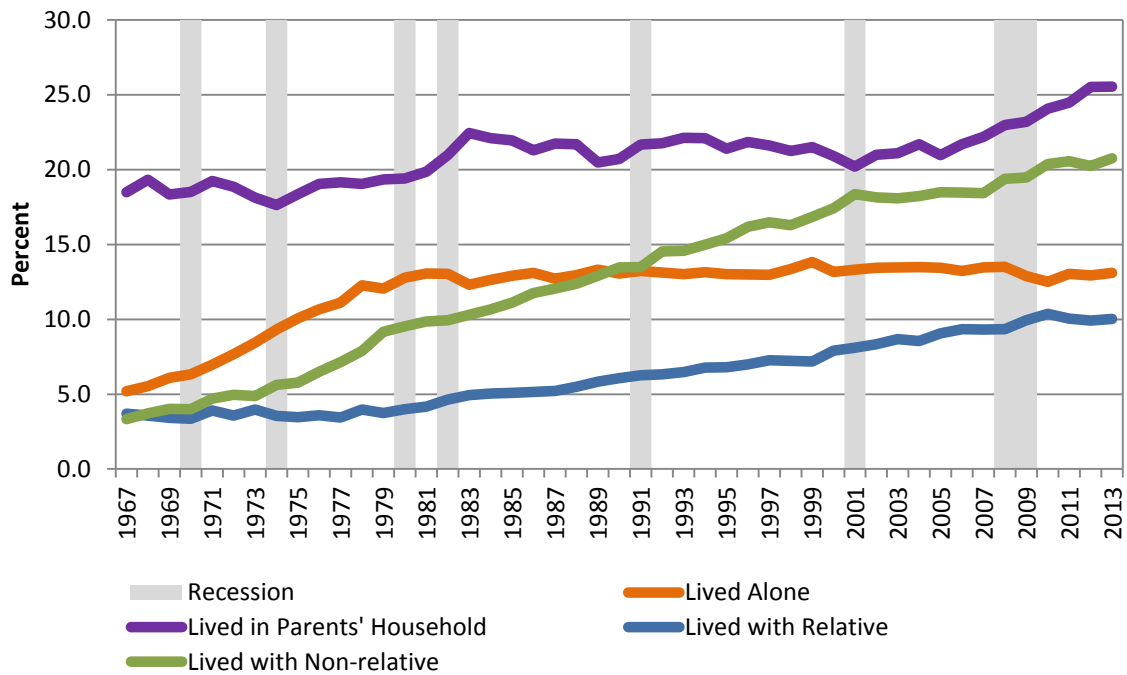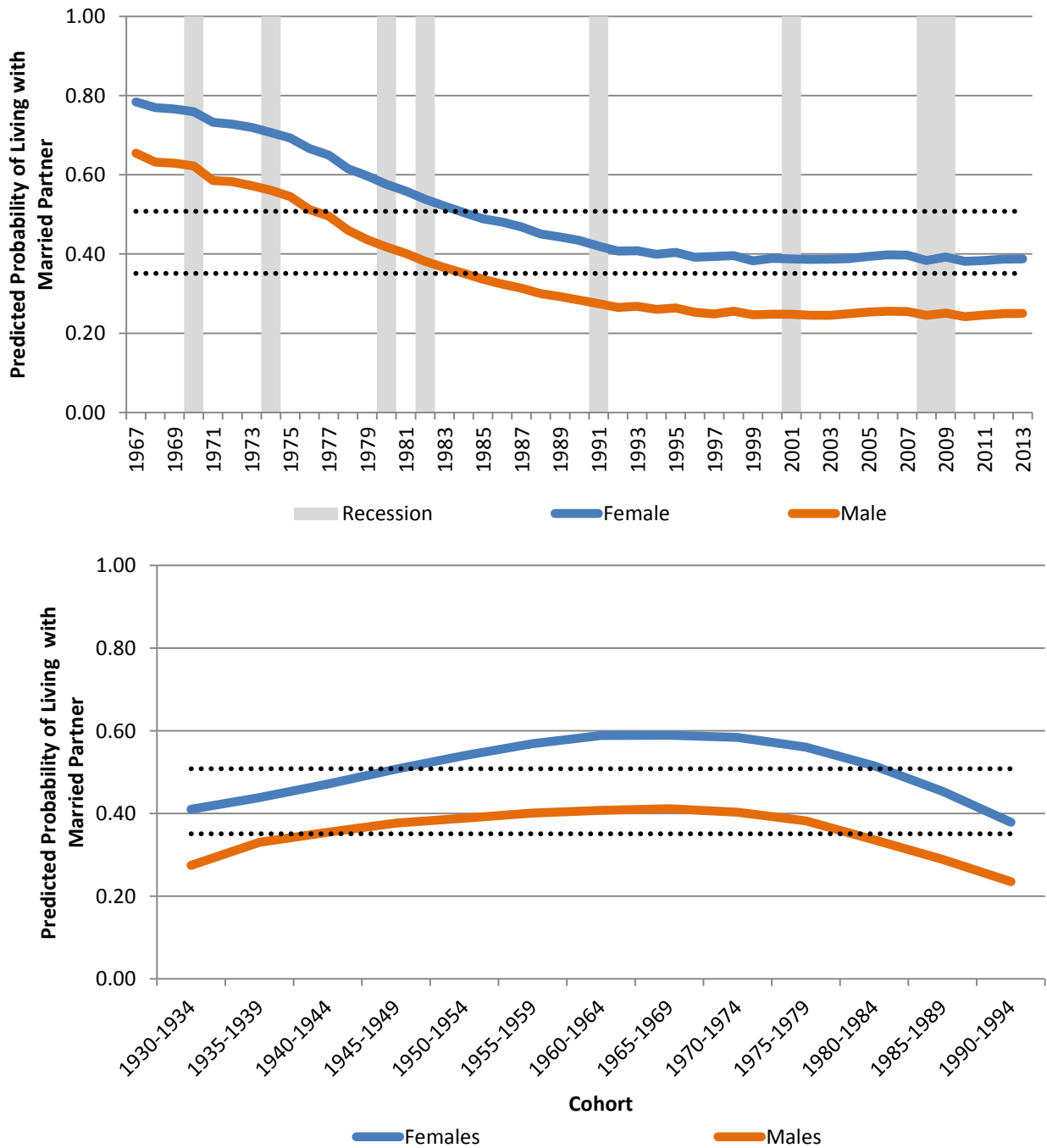**Figure 1(a). Living with Married Partner**

Figure 1(b). Other Living Arrangements of Young Adults

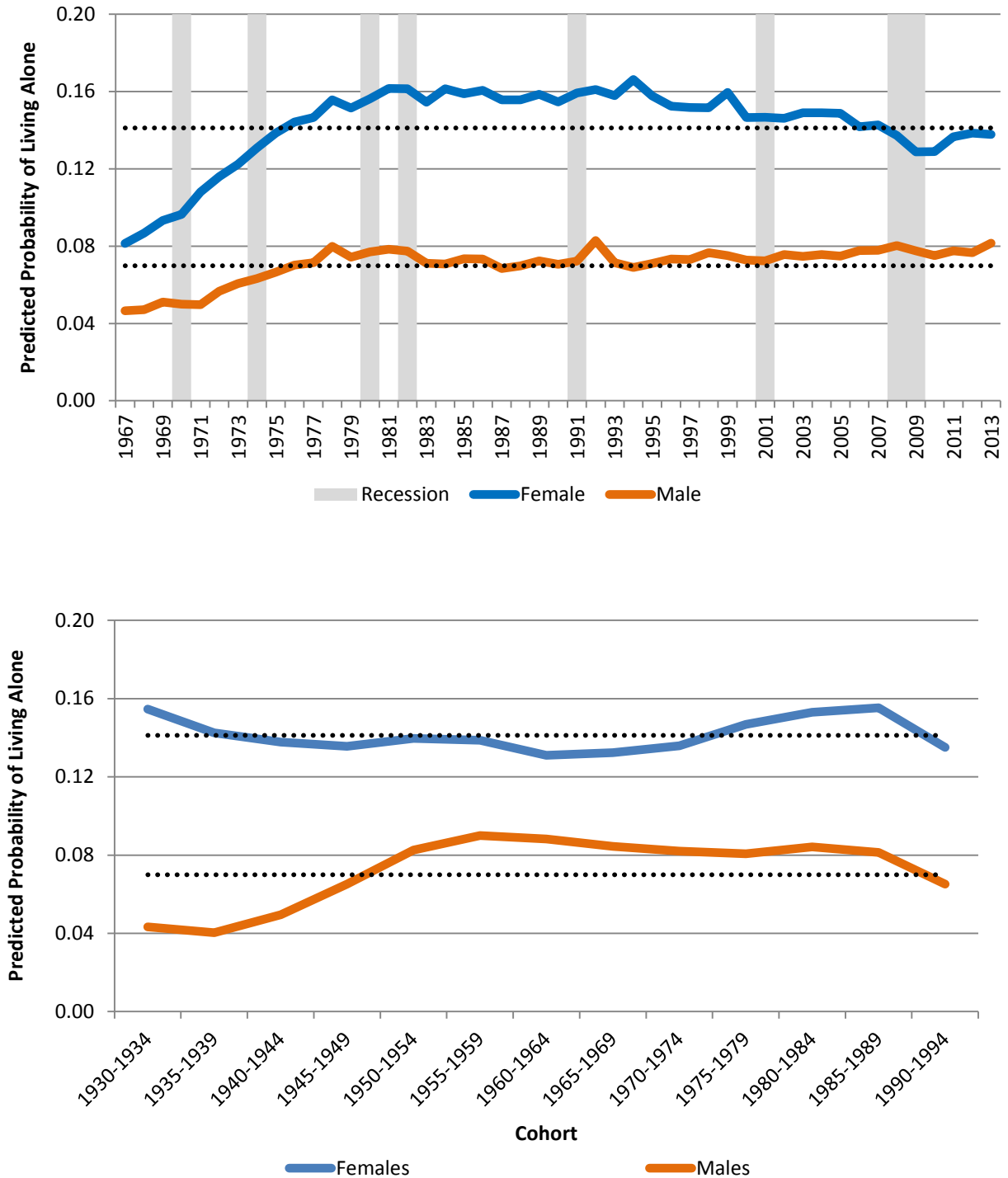Source: Current Population Survey Annual Social and Economic Supplement, 1967-2013

Figure 2(a). Estimated Period and Cohort Effects for Probability of Living with a Married Partner

Note: Reported predicted probabilities are based on a model assuming the young adult is a 27 year old, white, employed high school graduate, with personal income 400%+ a single-person poverty threshold ($48,476 in 2013$).

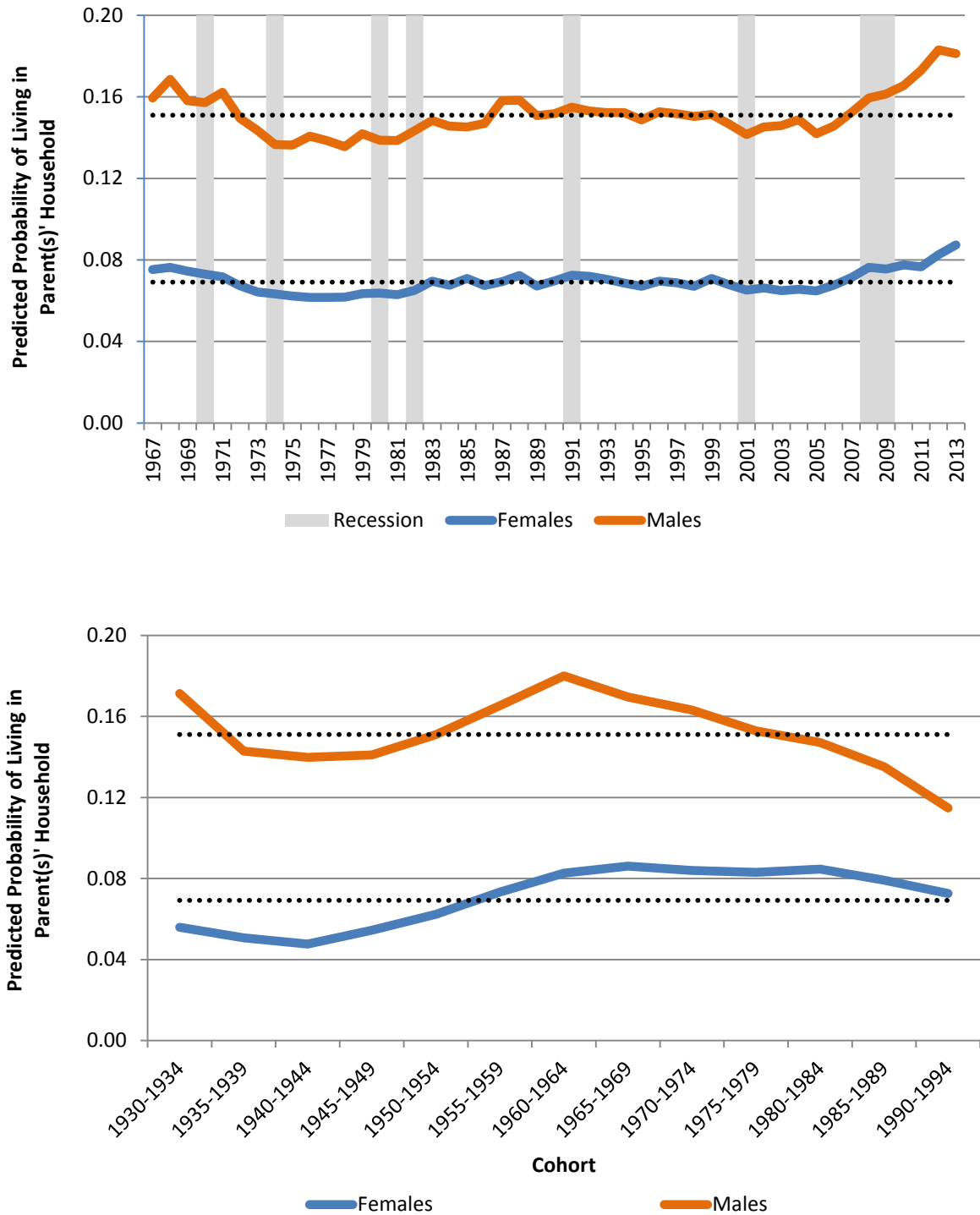Source: Current Population Survey Annual Social and Economic Supplement, 1967 – 2013

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Figure 2(b). Estimated Period and Cohort Effects for Probability of Living Alone

Note: Reported predicted probabilities are based on a model assuming the young adult is a 27 year old, white, employed high school graduate, with personal income 400%+ a single-person poverty threshold ($48,476 in 2013$).

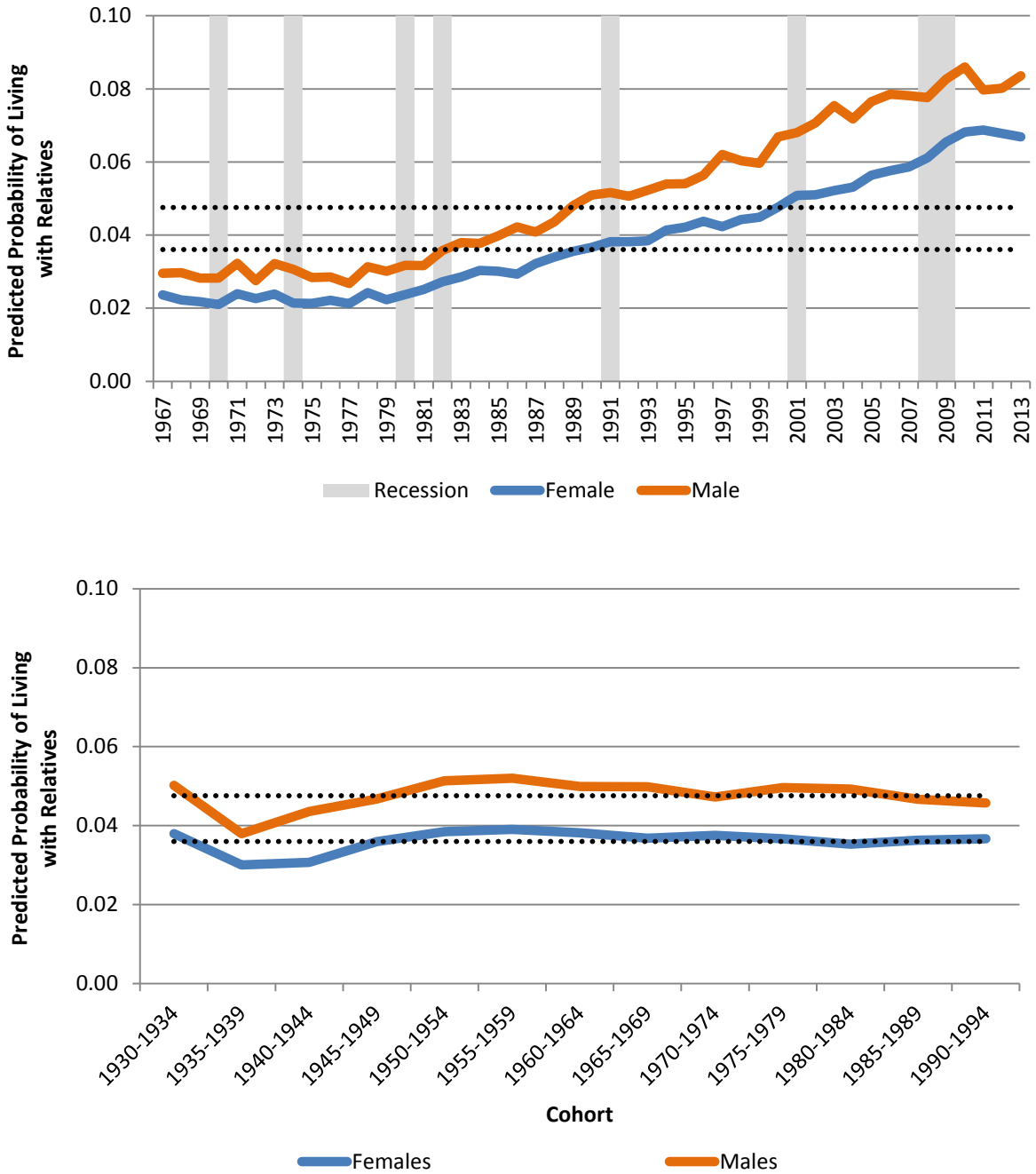Source: Current Population Survey Annual Social and Economic Supplement, 1967 – 2013

Figure 2(c). Estimated Period and Cohort Effects for Probability of Living in Parent(s)' Household

Note: Reported predicted probabilities are based on a model assuming the young adult is a 27 year old, white, employed high school graduate, with personal income 400%+ a single-person poverty threshold ($48,476 in 2013$).

Source: Current Population Survey Annual Social and Economic Supplement, 1967 – 2013

Figure 2(d). Estimated Period and Cohort Effects for Probability of Living with Relatives

Note: Reported predicted probabilities are based on a model assuming the young adult is a 27 year old, white, employed high school graduate, with personal income 400%+ a single-person poverty threshold ($48,476 in 2013$).

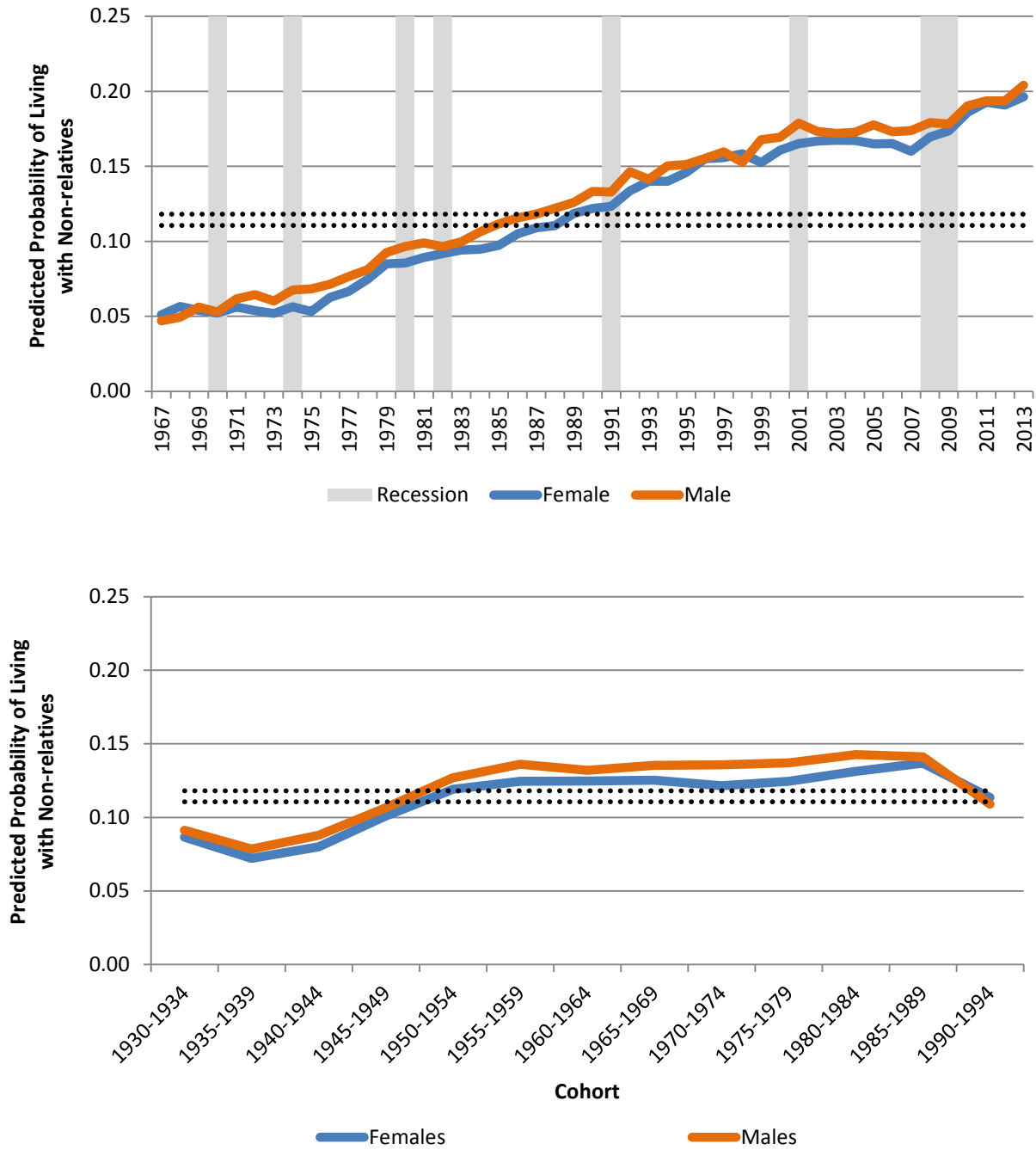Source: Current Population Survey Annual Social and Economic Supplement, 1967 – 2013

Figure 2(e). Estimated Period and Cohort Effects for Probability of Living with Non-relatives

Note: Reported predicted probabilities are based on a model assuming the young adult is a 27 year old, white, employed high school graduate, with personal income 400%+ a single-person poverty threshold ($48,476 in 2013$).

Source: Current Population Survey Annual Social and Economic Supplement, 1967 – 2013

Table 1. Variance Components and Coefficients from HAPC=CCREM Models Predicting Living Arrangements of Young Adults

	Lived with Married Partner		Lived Alone		Lived in Parents' Household		Lived with Relatives		Lived with Non-relatives	
	B	Adj. SE	B	Adj. SE	B	Adj. SE	B	Adj. SE	B	Adj. SE
Variance Components										
Period										
Intercept	0.350**	0.110	0.037**	0.012	0.007**	0.003	0.171**	0.057	0.252**	0.083
Male	0.000	0.000	0.012*	0.005	0.001	0.001	0.004	0.017	0.006	0.005
Cohort										
Intercept	0.085+	0.050	0.005	0.004	0.055+	0.032	0.008	0.006	0.054	0.037
Male	0.010	0.007	0.105+	0.063	0.058	0.037	0.002	0.002	0.003	0.002
Fixed Effects										
Intercept	0.960**	0.176	-1.492**	0.053	-3.663**	0.099	-3.466**	0.098	-2.322**	0.145
Age	0.167**	0.002	0.047**	0.002	-0.209**	0.002	-0.056**	0.002	-0.094**	0.002
Age-squared	-0.015**	0.000	-0.007**	0.000	0.013**	0.002	-0.002**	0.000	-0.007**	0.000
Male	-0.470**	0.043	-0.818**	0.136	0.987**	0.100	0.336**	0.026	0.260**	0.028
Male*Age	0.045**	0.001	-0.009**	0.002	0.029**	0.001	0.012**	0.002	0.047**	0.002
Nonwhite	-0.822**	0.006	0.695**	0.007	0.255**	0.006	0.751**	0.008	-0.154**	0.007
Educational attainment										
Less than high school	-0.106**	0.007	0.234**	0.010	-0.378**	0.008	0.486**	0.010	0.112**	0.009
Some college	-0.284**	0.005	0.099**	0.008	0.346**	0.006	-0.294**	0.010	0.054**	0.007
Bachelor degree or higher	-0.363**	0.006	0.193**	0.008	0.261**	0.008	-0.551**	0.013	0.320**	0.008
Employment status										
Unemployed	-0.440**	0.009	-0.272**	0.012	0.246**	0.010	0.092**	0.014	0.046**	0.011
Not in labor force	0.230**	0.006	0.040**	0.009	-0.015**	0.007	-0.197**	0.011	-0.262**	0.009
Personal income-to-poverty ratio										
Less than 100% of 1-person poverty threshold	-0.511**	0.008	-1.024**	0.011	1.644**	0.011	0.577**	0.016	-0.091**	0.011
100% to 199% of 1-person poverty threshold	-0.732**	0.007	-0.248**	0.010	1.236**	0.011	0.599**	0.016	0.297**	0.010
200% to 299% of 1-person poverty threshold	-0.467**	0.007	-0.199**	0.010	0.930**	0.011	0.437**	0.016	0.295**	0.010
300% to 399% of 1-person poverty threshold	-0.303**	0.008	-0.068**	0.010	0.569**	0.012	0.275**	0.018	0.237**	0.010

** $p < 0.01$; * $p < 0.05$; + $p < 0.10$

Source: Current Population Survey Annual Social and Economic Supplement, 1967-2013

Table 1. Variance Components and Coefficients from HAPC Models Predicting Living Arrangements of Young Adults
(continued)

| | Living with Married Partner | | | | Living Alone | | | | Living in Parents' Household | | | |
| | Female | | Male | | Female | | Male | | Female | | Male | |
	Estimate	Adj. SE	Estimate	Adj. SE	Estimate	Adj. SE	Estimate	Adj. SE	Estimate	Adj. SE	Estimate	Adj. SE
Random Effects												
Year												
1967	1.257**	0.134	-0.002	0.021	-0.619**	0.066	0.189*	0.080	0.092*	0.042	-0.028	0.036
1968	1.175**	0.133	-0.019	0.021	-0.549**	0.064	0.130+	0.076	0.107**	0.041	0.024	0.035
1969	1.154**	0.133	-0.008	0.021	-0.469**	0.062	0.133+	0.073	0.080+	0.040	-0.027	0.035
1970	1.117**	0.133	-0.002	0.021	-0.432**	0.061	0.076	0.070	0.058	0.039	-0.011	0.034
1971	0.977**	0.132	-0.016	0.020	-0.306**	0.058	-0.055	0.067	0.039	0.038	0.046	0.033
1972	0.953**	0.132	-0.002	0.020	-0.226**	0.058	0.002	0.063	-0.029	0.037	0.016	0.033
1973	0.910**	0.132	-0.002	0.020	-0.164**	0.056	0.012	0.060	-0.078*	0.037	0.018	0.033
1974	0.849**	0.131	0.012	0.020	-0.088	0.055	-0.020	0.058	-0.094*	0.036	-0.024	0.033
1975	0.783**	0.131	0.013	0.020	-0.023	0.054	-0.030	0.055	-0.111**	0.035	-0.008	0.032
1976	0.660**	0.131	0.005	0.020	0.024	0.053	-0.020	0.054	-0.124**	0.035	0.041	0.032
1977	0.586**	0.130	0.013	0.019	0.043	0.052	-0.020	0.052	-0.123**	0.034	0.021	0.031
1978	0.440**	0.130	0.017	0.019	0.115*	0.052	0.029	0.050	-0.122**	0.033	-0.005	0.031
1979	0.361**	0.130	-0.001	0.019	0.082	0.051	-0.016	0.049	-0.091**	0.033	0.018	0.031
1980	0.274*	0.130	0.010	0.019	0.119*	0.050	-0.014	0.047	-0.088**	0.032	-0.011	0.030
1981	0.203	0.130	0.013	0.019	0.158**	0.050	-0.033	0.046	-0.101**	0.031	0.000	0.030
1982	0.120	0.130	0.011	0.019	0.158**	0.050	-0.048	0.046	-0.066*	0.031	0.005	0.029
1983	0.052	0.129	0.013	0.019	0.106*	0.050	-0.087+	0.046	0.008	0.030	-0.028	0.029
1984	-0.014	0.129	0.017	0.019	0.158**	0.049	-0.145**	0.046	-0.024	0.030	-0.019	0.029
1985	-0.078	0.129	0.012	0.019	0.139**	0.049	-0.085+	0.045	0.027	0.030	-0.073*	0.029
1986	-0.109	0.129	-0.012	0.018	0.152**	0.049	-0.101**	0.030	-0.027	0.030	-0.005	0.029
1987	-0.160	0.129	-0.008	0.018	0.114*	0.049	-0.137**	0.045	0.002	0.030	0.052+	0.029
1988	-0.232+	0.129	-0.002	0.019	0.115*	0.049	-0.117**	0.044	0.049+	0.030	0.007	0.029
1989	-0.262*	0.129	-0.007	0.019	0.137**	0.048	-0.100*	0.044	-0.031	0.030	0.029	0.029
1990	-0.298*	0.129	-0.015	0.019	0.106*	0.048	-0.094*	0.044	0.008	0.030	-0.003	0.029
1991	-0.357**	0.129	0.000	0.019	0.142**	0.048	-0.107*	0.044	0.050+	0.029	-0.020	0.029
1992	-0.406**	0.129	0.003	0.019	0.154**	0.048	0.030	0.044	0.043	0.030	-0.027	0.029
1993	-0.405**	0.129	0.016	0.019	0.131**	0.027	-0.107*	0.044	0.021	0.027	-0.011	0.029
1994	-0.442**	0.129	0.012	0.019	0.193**	0.049	-0.207**	0.045	-0.008	0.030	0.017	0.029
1995	-0.420**	0.129	0.010	0.019	0.130**	0.049	-0.113*	0.045	-0.033	0.030	0.014	0.029
1996	-0.472**	0.129	0.005	0.019	0.090+	0.049	-0.038	0.045	0.006	0.030	0.007	0.029
1997	-0.465**	0.129	-0.027	0.019	0.084+	0.049	-0.036	0.046	-0.005	0.031	0.010	0.029
1998	-0.455**	0.130	0.001	0.019	0.083+	0.050	0.017	0.046	-0.034	0.031	0.029	0.029
1999	-0.511**	0.130	0.010	0.019	0.144**	0.050	-0.066	0.046	0.026	0.031	-0.024	0.030
2000	-0.484**	0.130	-0.011	0.019	0.044	0.050	0.000	0.047	-0.020	0.031	-0.015	0.029
2001	-0.490**	0.130	-0.003	0.019	0.045	0.050	-0.007	0.047	-0.062+	0.032	-0.014	0.030
2002	-0.496**	0.130	-0.012	0.019	0.040	0.050	0.045	0.047	-0.046	0.032	0.000	0.029
2003	-0.492**	0.130	-0.016	0.019	0.062	0.051	0.010	0.048	-0.067*	0.032	0.026	0.029
2004	-0.485**	0.131	-0.001	0.019	0.063	0.051	0.022	0.048	-0.057+	0.033	0.039	0.029
2005	-0.463**	0.131	-0.001	0.019	0.060	0.051	0.013	0.049	-0.069*	0.033	-0.004	0.029
2006	-0.446**	0.131	-0.008	0.019	0.005	0.052	0.111*	0.049	-0.025	0.034	-0.018	0.029
2007	-0.449**	0.131	-0.008	0.019	0.013	0.052	0.103*	0.050	0.033	0.034	-0.024	0.029
2008	-0.506**	0.132	-0.001	0.019	-0.033	0.053	0.184**	0.051	0.106**	0.034	-0.043	0.029
2009	-0.469**	0.132	-0.011	0.019	-0.106+	0.054	0.218**	0.052	0.095**	0.035	-0.017	0.029
2010	-0.514**	0.132	-0.012	0.019	-0.105+	0.054	0.184**	0.053	0.124**	0.035	-0.015	0.029
2011	-0.508**	0.132	0.004	0.020	-0.039	0.055	0.151**	0.054	0.111**	0.036	0.050+	0.029
2012	-0.493**	0.133	0.008	0.020	-0.023	0.055	0.121*	0.055	0.192**	0.037	0.039	0.030
2013	-0.489**	0.133	0.005	0.020	-0.028	0.056	0.194**	0.056	0.253**	0.038	-0.035	0.030

Table 1. Variance Components and Coefficients from HAPC Models Predicting Living Arrangements of Young Adults
(continued)

| | Living with Married Partner | | | | Living Alone | | | | Living in Parents' Household | | | |
| | Female | | Male | | Female | | Male | | Female | | Male | |
	Estimate	Adj. SE	Estimate	Adj. SE	Estimate	Adj. SE	Estimate	Adj. SE	Estimate	Adj. SE	Estimate	Adj. SE
Cohort												
1930-1934	-0.397**	0.140	0.041	0.089	0.107	0.077	-0.615**	0.199	-0.227	0.148	0.377*	0.169
1935-1939	-0.279*	0.127	0.188**	0.054	0.011	0.051	-0.591**	0.148	-0.329**	0.108	0.265*	0.114
1940-1944	-0.148	0.124	0.164**	0.047	-0.029	0.044	-0.339*	0.141	-0.395**	0.102	0.305**	0.105
1945-1949	-0.002	0.122	0.115*	0.045	-0.047	0.039	-0.027	0.138	-0.256**	0.099	0.176+	0.102
1950-1954	0.128	0.121	0.035	0.045	-0.013	0.036	0.193	0.136	-0.111	0.098	0.111	0.101
1955-1959	0.246*	0.121	-0.030	0.044	-0.021	0.034	0.295*	0.136	0.063	0.098	0.045	0.101
1960-1964	0.325**	0.121	-0.083+	0.045	-0.087**	0.034	0.339*	0.135	0.193+	0.098	0.017	0.101
1965-1969	0.329**	0.121	-0.072	0.045	-0.075*	0.034	0.280*	0.136	0.238*	0.098	-0.100	0.101
1970-1974	0.307*	0.121	-0.084	0.447	-0.045	0.035	0.218	0.136	0.210*	0.098	-0.118	0.101
1975-1979	0.211	0.122	-0.077	0.447	0.045	0.037	0.110	0.137	0.198*	0.099	-0.183+	0.101
1980-1984	0.028*	0.124	-0.094*	0.045	0.094**	0.040	0.109	0.138	0.219*	0.100	-0.250*	0.101
1985-1989	-0.219	0.126	-0.067	0.048	0.112**	0.045	0.052	0.141	0.146**	0.101	-0.275**	0.102
1990-1994	-0.528	0.131	-0.035	0.069	-0.052	0.055	-0.024	0.152	0.052**	0.104	-0.368**	0.106

** $p < 0.01$; * $p < 0.05$; + $p < 0.10$

Table 1. Variance Components and Coefficients from HAPC Models Predicting Living Arrangements of Young Adults
(continued)

	Living with Relatives				Living with Non-relatives			
	Female		Male		Female		Male	
	Estimate	Adj. SE	Estimate	Adj. SE	Estimate	Adj. SE	Estimate	Adj. SE
Random Effects								
Year								
1967	-0.434**	0.110	-0.061	0.064	-0.837**	0.130	-0.161*	0.072
1968	-0.495**	0.110	0.006	0.063	-0.728**	0.128	-0.218**	0.069
1969	-0.517**	0.109	-0.025	0.064	-0.780**	0.127	-0.032	0.067
1970	-0.556**	0.108	0.014	0.063	-0.817**	0.125	-0.057	0.066
1971	-0.420**	0.106	0.017	0.060	-0.736**	0.124	0.023	0.062
1972	-0.479**	0.106	-0.087	0.061	-0.783**	0.123	0.119+	0.061
1973	-0.424**	0.105	0.017	0.058	-0.819**	0.122	0.082	0.060
1974	-0.538**	0.105	0.080	0.060	-0.733**	0.121	0.120*	0.057
1975	-0.539**	0.104	0.002	0.059	-0.792**	0.119	0.189**	0.056
1976	-0.499**	0.103	-0.031	0.058	-0.620**	0.118	0.065	0.053
1977	-0.543**	0.103	-0.056	0.058	-0.555**	0.117	0.075	0.051
1978	-0.409**	0.102	-0.026	0.056	-0.432**	0.116	0.016	0.049
1979	-0.495**	0.102	0.018	0.056	-0.292*	0.115	0.019	0.046
1980	-0.432**	0.101	0.009	0.054	-0.285*	0.115	0.059	0.045
1981	-0.371**	0.100	-0.055	0.053	-0.240*	0.114	0.041	0.044
1982	-0.290**	0.099	-0.006	0.051	-0.207+	0.114	-0.018	0.043
1983	-0.242*	0.098	0.005	0.050	-0.179	0.113	-0.011	0.043
1984	-0.179+	0.098	-0.064	0.050	-0.174	0.113	0.055	0.042
1985	-0.186+	0.098	0.001	0.050	-0.144	0.113	0.080+	0.041
1986	-0.213*	0.098	0.088+	0.049	-0.058	0.112	0.034	0.040
1987	-0.118	0.097	-0.043	0.049	-0.016	0.112	0.016	0.040
1988	-0.062	0.097	-0.029	0.048	-0.001	0.112	0.039	0.040
1989	-0.015	0.097	0.026	0.048	0.078	0.112	-0.005	0.041
1990	0.016	0.097	0.056	0.047	0.110	0.112	0.027	0.039
1991	0.060	0.097	0.025	0.047	0.123	0.112	0.011	0.039
1992	0.061	0.097	0.005	0.047	0.216+	0.112	0.032	0.038
1993	0.066*	0.027	0.033	0.046	0.269**	0.027	-0.062	0.038
1994	0.144	0.096	-0.011	0.046	0.270*	0.112	0.008	0.038
1995	0.162+	0.096	-0.029	0.046	0.317**	0.112	-0.032	0.038
1996	0.202*	0.097	-0.023	0.046	0.389**	0.112	-0.072+	0.037
1997	0.166+	0.097	0.115*	0.046	0.395**	0.112	-0.045	0.037
1998	0.214*	0.097	0.038	0.045	0.414**	0.112	-0.118**	0.038
1999	0.228*	0.097	0.011	0.046	0.369**	0.113	0.039	0.038
2000	0.292**	0.097	0.069	0.045	0.432**	0.113	-0.012	0.037
2001	0.359**	0.097	0.020	0.044	0.464**	0.113	0.021	0.037
2002	0.363**	0.097	0.058	0.044	0.476**	0.113	-0.028	0.037
2003	0.388**	0.098	0.103*	0.043	0.480**	0.114	-0.042	0.037
2004	0.406**	0.098	0.030	0.044	0.479**	0.114	-0.035	0.037
2005	0.469**	0.098	0.037	0.043	0.463**	0.115	0.015	0.037
2006	0.492**	0.098	0.043	0.043	0.464**	0.115	-0.017	0.038
2007	0.511**	0.099	0.018	0.043	0.427**	0.115	0.024	0.038
2008	0.555**	0.099	-0.033	0.043	0.496**	0.116	-0.008	0.038
2009	0.628**	0.099	-0.038	0.042	0.524**	0.116	-0.042	0.038
2010	0.672**	0.100	-0.039	0.042	0.607**	0.117	-0.045	0.038
2011	0.681**	0.100	-0.130**	0.042	0.652**	0.117	-0.069+	0.038
2012	0.666**	0.101	-0.109*	0.043	0.640**	0.118	-0.057	0.039
2013	0.651**	0.101	-0.049	0.043	0.675**	0.118	-0.025	0.039

Table 1. Variance Components and Coefficients from HAPC Models Predicting Living Arrangements of Young Adults
(continued)

| | Living with Relatives | | | | Living with Non-relatives | | | |
| | Female | | Male | | Female | | Male | |
	Estimate	Adj. SE	Estimate	Adj. SE	Estimate	Adj. SE	Estimate	Adj. SE
Cohort								
1930-1934	0.054	0.096	0.003	0.066	-0.272	0.167	-0.016	0.072
1935-1939	-0.189**	0.070	-0.046	0.055	-0.471	0.119	0.017	0.060
1940-1944	-0.164**	0.059	0.072	0.045	-0.358	0.108	0.029	0.046
1945-1949	-0.002	0.051	-0.016	0.038	-0.103	0.102	-0.014	0.037
1950-1954	0.068	0.047	0.012	0.035	0.083	0.100	-0.002	0.033
1955-1959	0.084+	0.044	0.010	0.033	0.135	0.098	0.028	0.031
1960-1964	0.060	0.043	-0.009	0.032	0.136	0.097	-0.010	0.030
1965-1969	0.022	0.043	0.027	0.032	0.142	0.098	0.014	0.029
1970-1974	0.043	0.044	-0.049	0.031	0.106	0.099	0.053	0.029
1975-1979	0.018	0.047	0.027	0.030	0.134	0.100	0.037	0.029
1980-1984	-0.020	0.051	0.057**	0.018	0.195	0.103	0.022	0.030
1985-1989	0.007	0.056	-0.026	0.035	0.244	0.107	-0.038	0.034
1990-1994	0.019	0.064	-0.059	0.045	0.028	0.112	-0.118	0.044

** $p < 0.01$; * $p < 0.05$; + $p < 0.10$

Source: Current Population Survey Annual Social and Economic Supplement, 1967-2013

APPENDIX

FIGURES and TABLES

Figure A-1. Living Arrangements of Young Adults By Age Category, 1967-2013

Figure A-1(a): Living with Married Partner
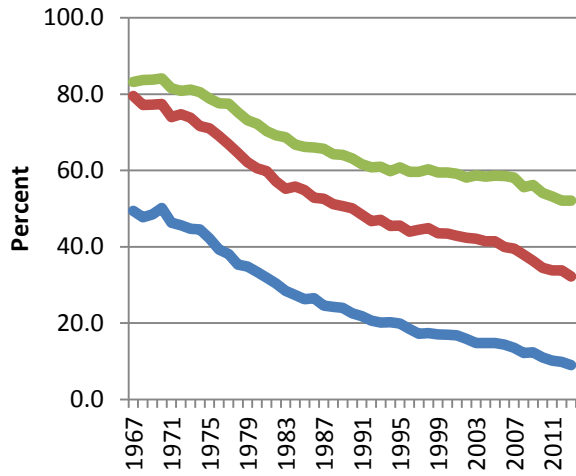
Figure A-1(b): Living Alone
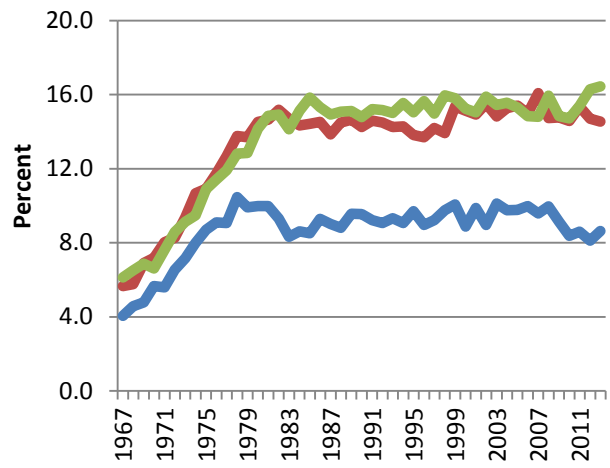
Figure A-1(c): Living in Parent(s)' Household
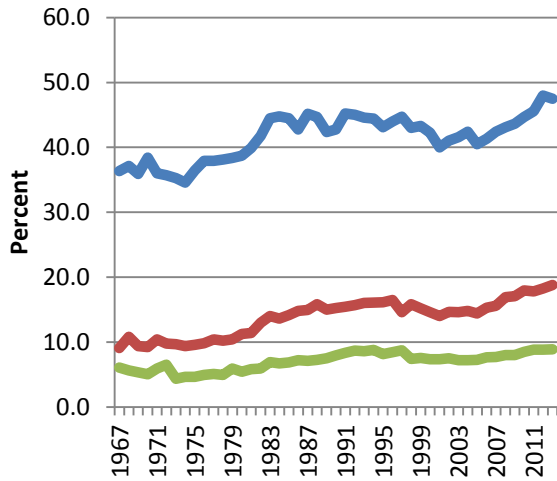
Figure A-1(d): Living with Relatives
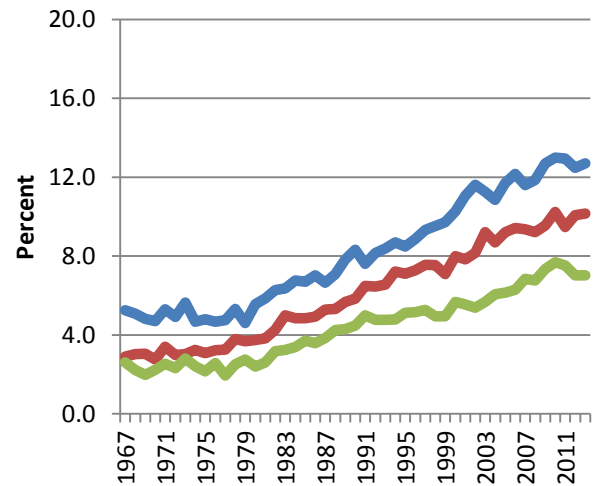
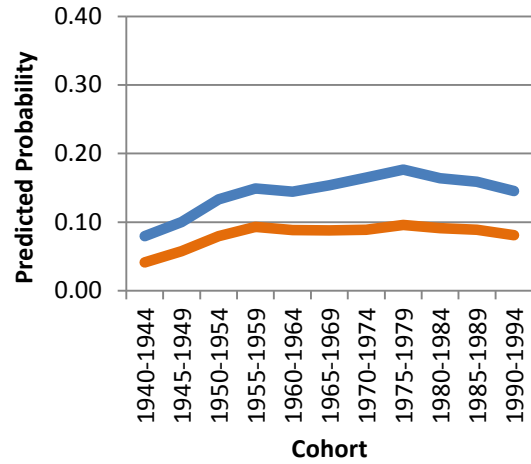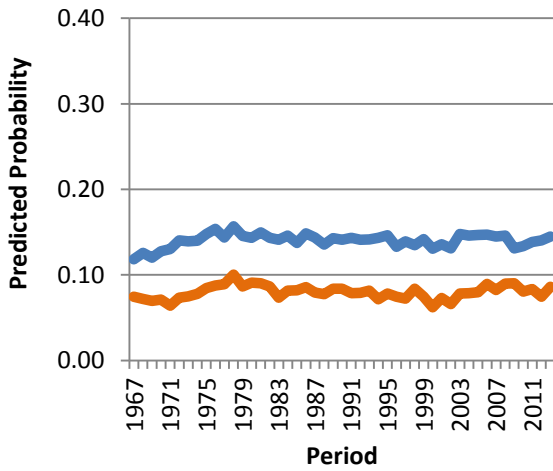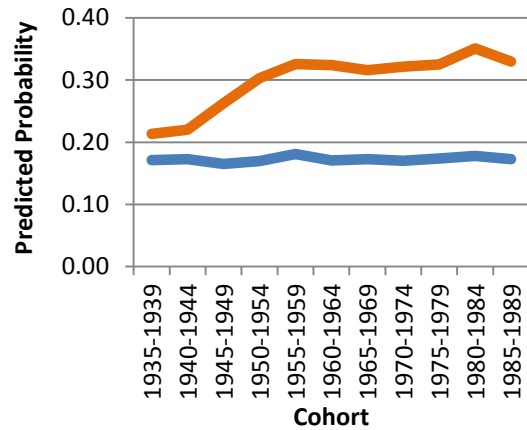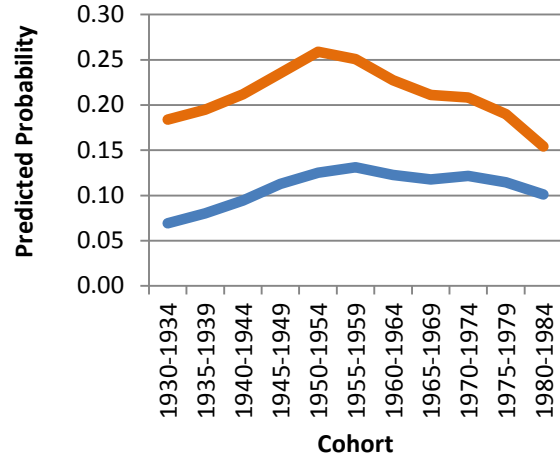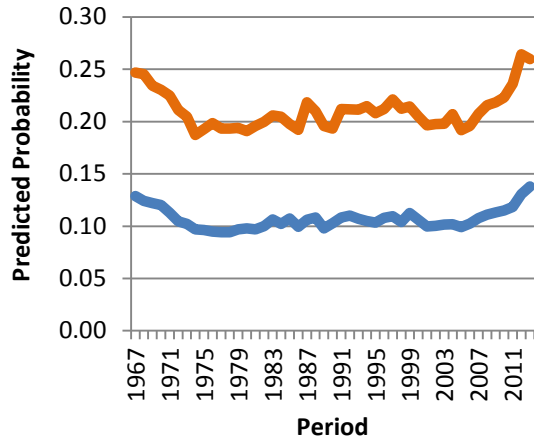**Figure A-1(e) Living with Non-relatives**
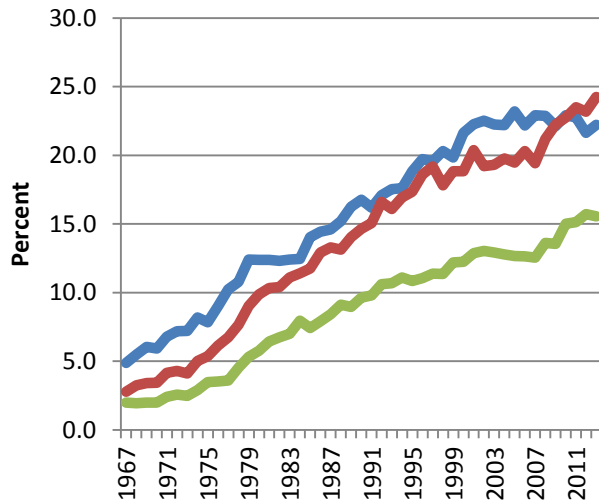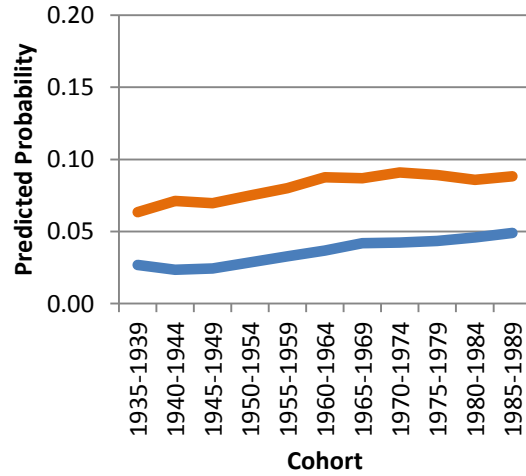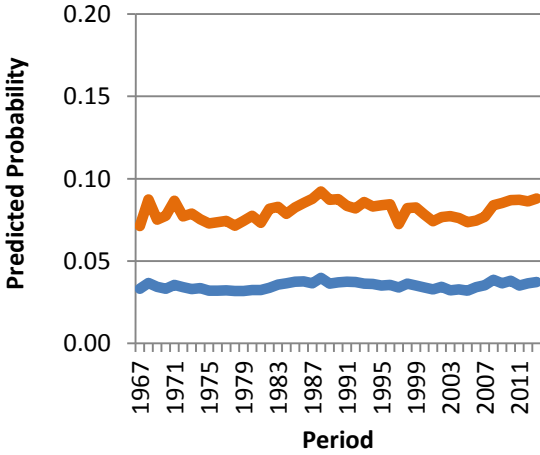
20 to 24 years

25 to 29 years

30 to 34 years

Source: Current Population Survey Annual
Social and Economic Supplement, 1967-2013

Figure A-2(a). Estimated Period and Cohort Effects for Living with Married Partner by Age Category

(1) 20-24 years
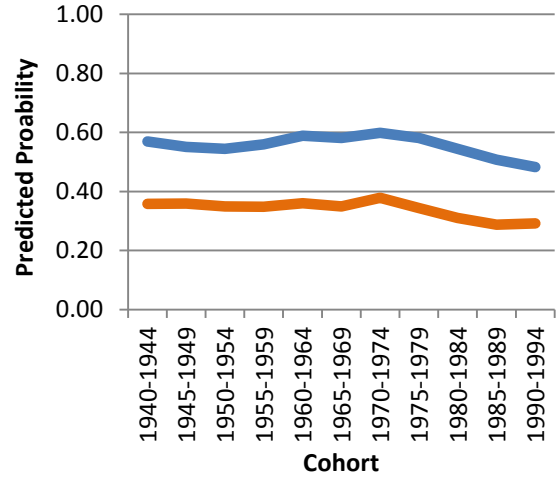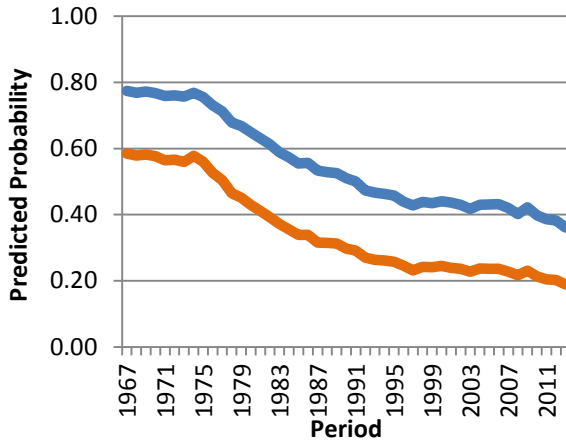
(2) 25 to 29 years
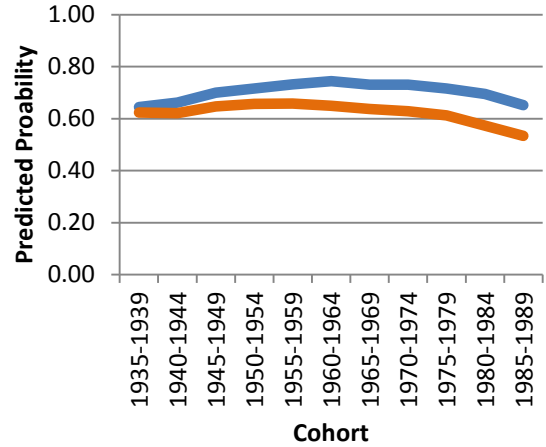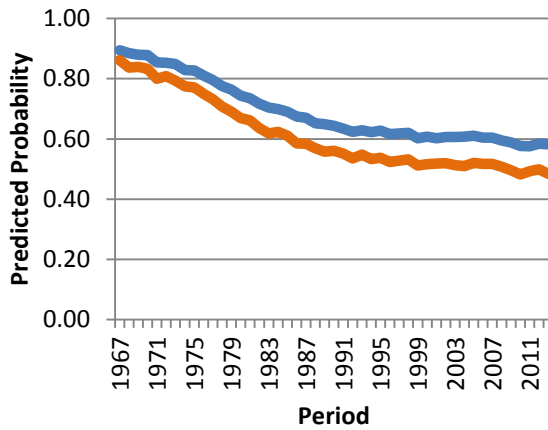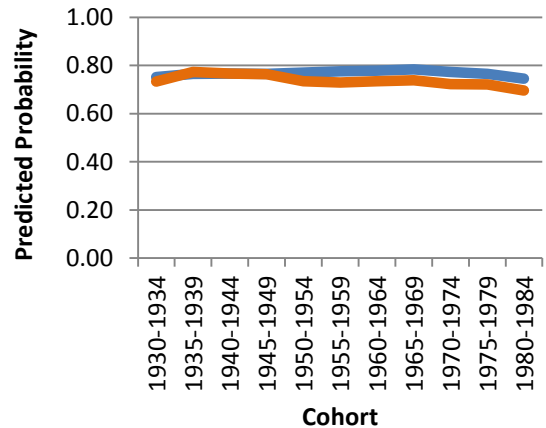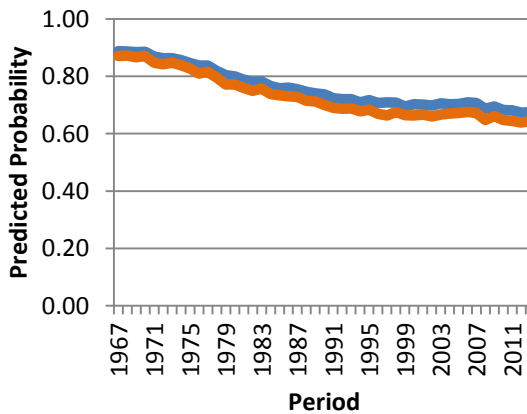
(3) 30 to 34 years

Source: Current Population Survey Annual Social and Economic Supplement, 1967-2013

Figure A-2(b). Estimated Period and Cohort Effects for Living Alone by Age Category
  (1) 20 to 24 Years
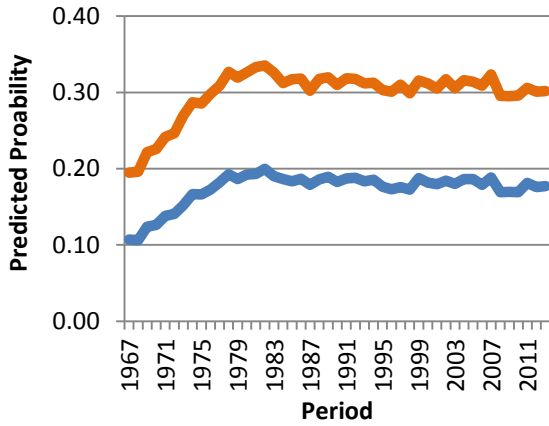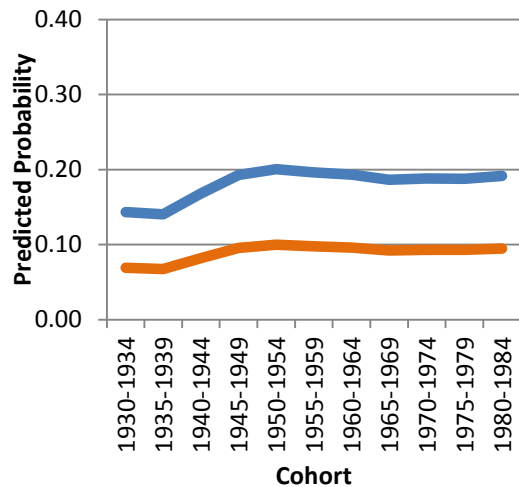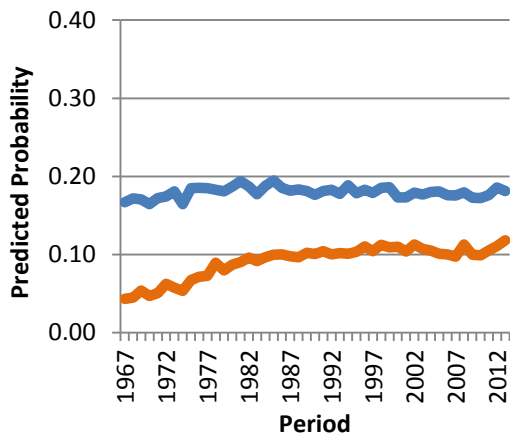
  (2) 25 to 29 Years

  (3) 30 to 34 Years

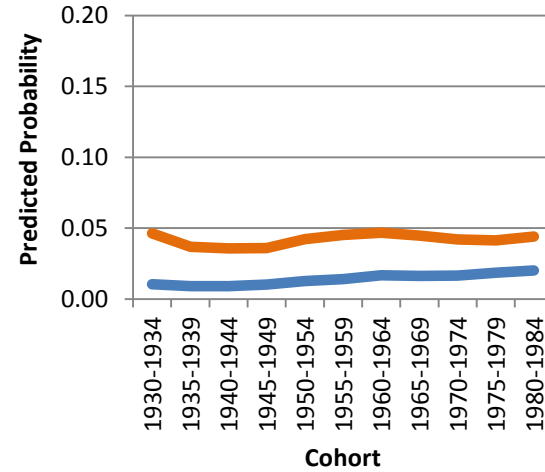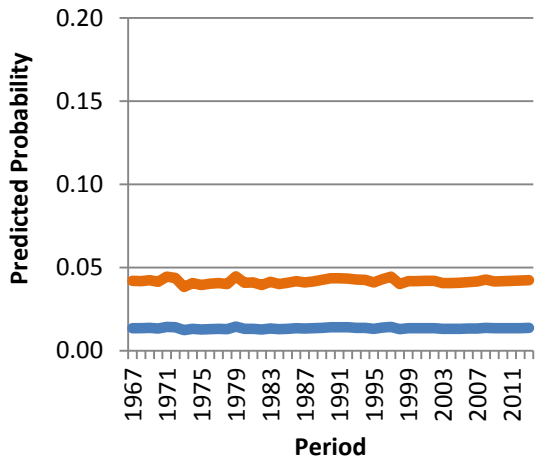Source: Current Population Survey Annual Social and Economic Supplement, 1967-2013

Figure A-2(c). Estimated Period and Cohort Effects for Living in Parent(s)' Household by Age Category

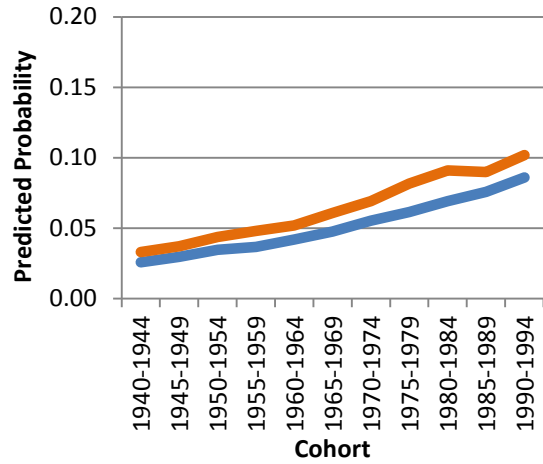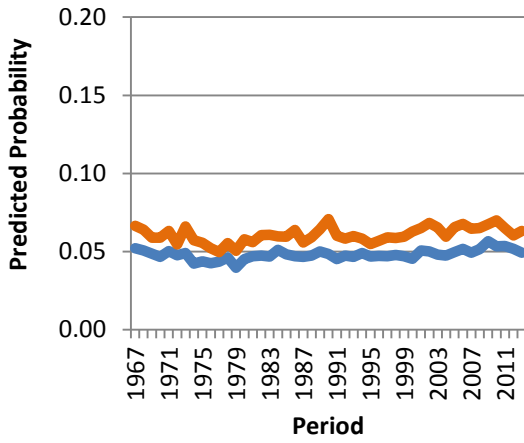**(1) 20 to 24 Years**

(2) 25 to 29 Years

(3) 30 to 34 Years

Source: Current Population Survey Annual Social and Economic Supplement, 1967-2013

Figure A-2(d). Estimated Period and Cohort Effects for Living with Relatives by Age Category
  (1) 20 to 24 Years

  (2) 25 to 29 Years
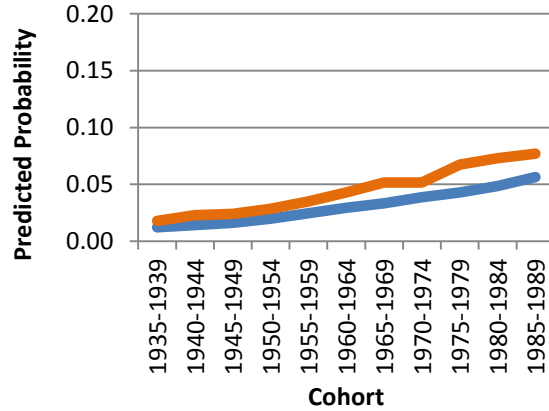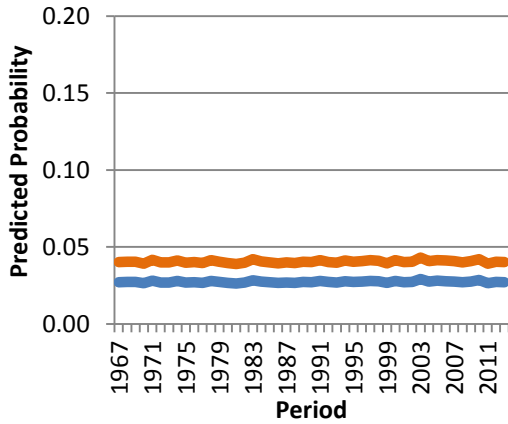

  (3) 30 to 34 Years

Source: Current Population Survey Annual Social and Economic Supplement, 1967-2013

Figure A-2(d). Estimated Period and Cohort Effects for Living with Relatives by Age Category
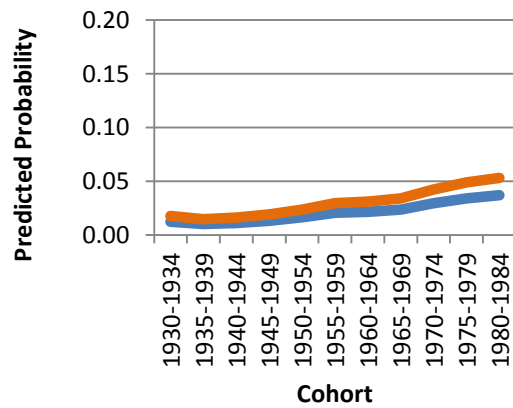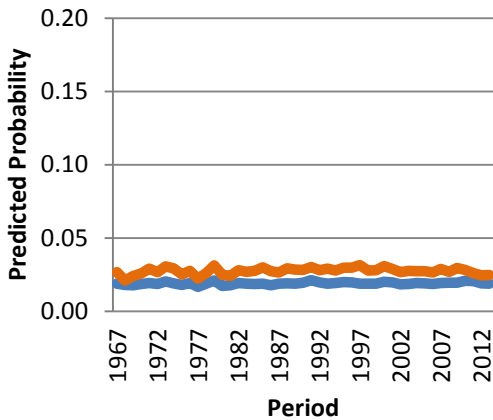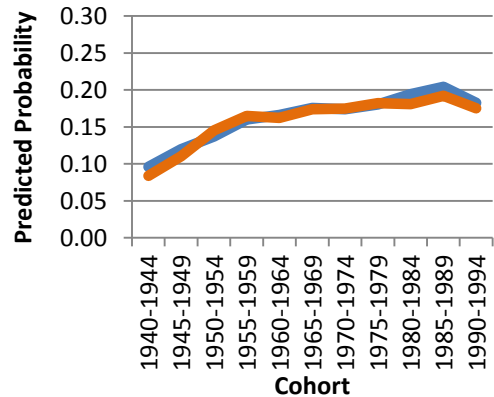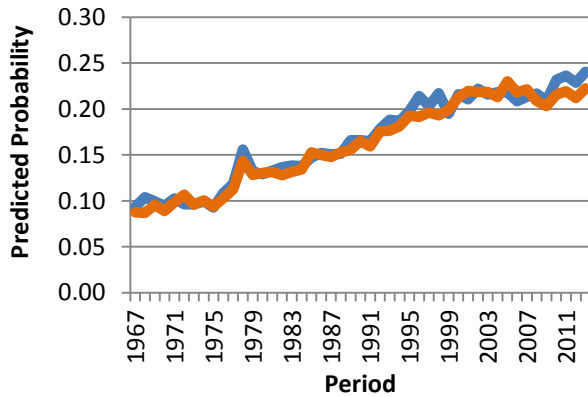 **(1) 20 to 24 Years**

  (2) 25 to 29 Years

  (3) 30 to 34 Years

Source: Current Population Survey Annual Social and Economic Supplement, 1967-2013

Table A-1. Unweighted and Weighted Sample of Young Adults Ages 20 to 34 Years, 1967-2013

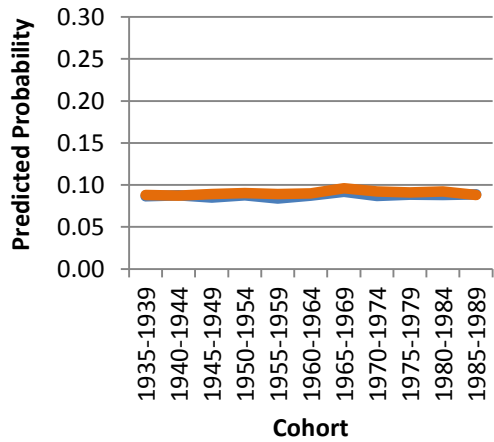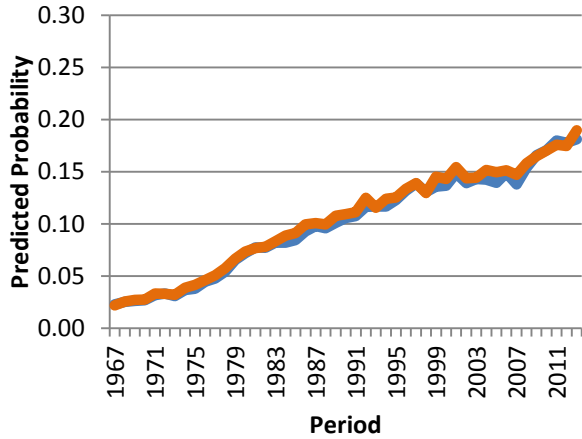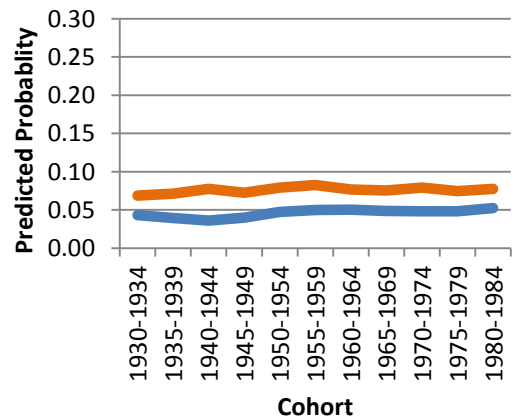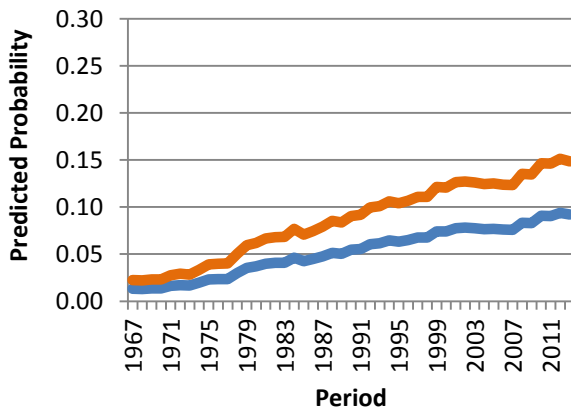| Year	Unweighted N	Weighted N (in thousands)
1967	26,522	35,565
1968	27,669	37,201
1969	28,806	38,465
1970	27,843	40,049
1971	28,994	41,703
1972	28,658	43,753
1973	28,971	45,414
1974	30,226	46,641
1975	30,453	48,463
1976	31,009	49,949
1977	38,335	51,515
1978	37,566	52,682
1979	38,020	53,901
1980	45,695	57,306
1981	46,563	58,814
1982	41,267	59,782
1983	41,361	60,403
1984	41,249	60,921
1985	40,865	61,324
1986	39,845	62,001
1987	38,947	61,994
1988	38,109	61,783
1989	34,902	61,513
1990	37,677	61,229
1991	37,332	60,891
1992	36,370	60,345
1993	35,329	61,214
1994	33,537	60,505
1995	32,579	59,530
1996	27,416	58,572
1997	27,427	57,745
1998	26,847	56,968
1999	26,543	56,532
2000	26,869	57,352
2001	41,721	57,442
2002	41,101	58,073
2003	40,708	59,127
2004	39,732	59,540
2005	39,274	59,718
2006	38,613	59,874
2007	37,930	60,400
2008	38,020	60,675
2009	38,466	61,152
2010	39,716	62,239
2011	38,937	62,199
2012	37,955	63,097
2013	37,978	63,950

Source: Current Population Survey Annual Social and Economic Supplement, 1967-2013

TABLE A-2. Living Arrangements of Young Adults Ages 20 to 34 Years, 1967-2013

Year	Total		Married		Lived Alone		Lived in Parents' Household		Lived with Relatives		Lived with Non-relatives	
	N	SE	%	SE	%	SE	%	SE	%	SE	%	SE
1967	35,565	417	69.3	0.5	5.2	0.3	18.5	0.5	3.7	0.2	3.3	0.2
1968	37,201	427	67.9*	0.5	5.5	0.3	19.3	0.5	3.6	0.2	3.7	0.2
1969	38,465	434	68.2	0.5	6.1	0.3	18.3	0.4	3.4	0.2	4.0	0.2
1970	40,049	443	67.8	0.5	6.3	0.3	18.5	0.4	3.4	0.2	4.0	0.2
1971	41,703	452	65.2*	0.5	7.0*	0.3	19.2	0.4	3.9*	0.2	4.7*	0.2
1972	43,753	463	65.0	0.5	7.7*	0.3	18.9	0.4	3.6	0.2	5.0	0.2
1973	45,414	472	64.6	0.5	8.5*	0.3	18.1	0.4	4.0	0.2	4.9	0.2
1974	46,641	478	63.9	0.5	9.3*	0.3	17.6	0.4	3.6	0.2	5.6*	0.2
1975	48,463	487	62.3*	0.5	10.1*	0.3	18.4	0.4	3.5	0.2	5.8	0.2
1976	49,949	495	60.2*	0.5	10.7	0.3	19.0	0.4	3.6	0.2	6.5*	0.2
1977	51,515	502	59.2	0.5	11.1	0.3	19.2	0.4	3.4	0.2	7.1*	0.3
1978	52,682	508	56.8*	0.5	12.3*	0.3	19.0	0.4	4.0*	0.2	7.9*	0.3
1979	53,901	514	55.7*	0.5	12.1	0.3	19.3	0.4	3.8	0.2	9.2*	0.3
1980	57,306	530	54.3*	0.5	12.8*	0.3	19.4	0.4	4.0	0.2	9.5	0.3
1981	58,814	568	53.1*	0.5	13.1	0.3	19.9	0.4	4.2	0.2	9.9	0.3
1982	59,782	572	51.4*	0.5	13.0	0.3	21.0*	0.4	4.6*	0.2	9.9	0.3
1983	60,403	575	50.0*	0.5	12.3	0.3	22.4*	0.4	4.9	0.2	10.3	0.3
1984	60,921	578	49.6	0.5	12.6	0.3	22.1	0.4	5.0	0.2	10.7	0.3
1985	61,324	580	48.9	0.5	12.9	0.3	21.9	0.4	5.1	0.2	11.1	0.3
1986	62,001	583	48.7	0.5	13.1	0.3	21.3	0.4	5.2	0.2	11.8	0.3
1987	61,994	583	48.3	0.5	12.7	0.3	21.7	0.4	5.2	0.2	12.1	0.3
1988	61,783	634	47.5	0.5	13.0	0.3	21.7	0.4	5.5	0.2	12.4	0.3
1989	61,513	601	47.5	0.5	13.3	0.3	20.5*	0.4	5.8	0.2	12.9	0.3
1990	61,229	599	46.7	0.5	13.1	0.3	20.7	0.4	6.1	0.2	13.5	0.3
1991	60,891	598	45.3*	0.5	13.2	0.3	21.7*	0.4	6.3	0.2	13.5	0.3
1992	60,345	595	44.2	0.5	13.1	0.3	21.8	0.4	6.3	0.2	14.5*	0.3
1993	61,214	599	43.9	0.5	13.0	0.3	22.1	0.4	6.5	0.2	14.6	0.3
1994	60,505	596	43.0	0.5	13.2	0.3	22.1	0.4	6.8	0.2	15.0	0.4
1995	59,530	615	43.4	0.5	13.0	0.3	21.4	0.4	6.8	0.3	15.4	0.4
1996	58,572	610	42.0*	0.5	13.0	0.3	21.8	0.4	7.0	0.3	16.2	0.4
1997	57,745	605	41.7	0.5	13.0	0.4	21.6	0.4	7.3	0.3	16.5	0.4
1998	56,968	601	41.9	0.5	13.4	0.4	21.2	0.4	7.2	0.3	16.3	0.4
1999	56,532	599	40.7*	0.5	13.8	0.4	21.5	0.4	7.2	0.3	16.8	0.4
2000	57,352	603	40.6	0.5	13.2	0.4	20.9	0.4	7.9*	0.3	17.4	0.4
2001	57,442	430	40.1	0.4	13.3	0.3	20.2*	0.3	8.1	0.2	18.4*	0.3
2002	58,073	433	39.1*	0.4	13.5	0.3	21.0*	0.3	8.3	0.2	18.2	0.3
2003	59,127	436	38.7	0.4	13.5	0.3	21.1	0.3	8.7	0.2	18.1	0.3
2004	59,540	438	38.1	0.4	13.5	0.3	21.7	0.3	8.5	0.2	18.2	0.3
2005	59,718	439	38.0	0.4	13.5	0.3	21.0*	0.3	9.1*	0.2	18.5	0.3
2006	59,874	439	37.3	0.4	13.2	0.2	21.7*	0.3	9.3	0.2	18.5	0.3
2007	60,400	441	36.6	0.4	13.5	0.2	22.2	0.3	9.3	0.2	18.4	0.3
2008	60,675	442	34.8*	0.3	13.5	0.2	23.0*	0.3	9.3	0.2	19.4*	0.3
2009	61,152	444	34.5	0.3	12.9*	0.2	23.2	0.3	9.9*	0.2	19.5	0.3
2010	62,239	448	32.7*	0.3	12.5	0.2	24.1*	0.3	10.4	0.2	20.4*	0.3
2011	62,199	448	31.9*	0.3	13.0	0.2	24.5	0.3	10.0	0.2	20.6	0.3
2012	63,097	451	31.4	0.3	12.9	0.2	25.5*	0.3	9.9	0.2	20.2	0.3
2013	63,950	454	30.6*	0.3	13.1	0.2	25.5	0.3	10.0	0.2	20.7	0.3

Note: * $p < 0.05$; Grey shaded rows represent recessionary periods.
Source: Current Population Survey Annual Social and Economic Supplement , 1967-2013