## The Shrinking Middle: Changes in the Composition of the Middle Class in the United States, 1974-2013

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## Abstract

In this paper, I use the Current Population Survey Annual Social and Economic Supplement (CPS ASEC) from 1974 through 2013 to examine trends in the composition of the middle class in the United States over the past 40 years. I find a decline in middle class membership since the mid-1970s. About two-third of this decline was offset by an increase in the percent of "low-income" adults. Multivariate results suggest that the early 1980s represented a turning point for the middle class, accounting for about one-third of the total decline. Further, this decline was largely attributable to changes in the likelihood of being middle class given a specific characteristic, rather than to changes in population characteristics over the period. Changes in returns to education, occupation, and family structure contributed to middle class decline.

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#### Abstract

In this paper, I use the Current Population Survey Annual Social and Economic Supplement (CPS ASEC) from 1974 through 2013 to examine trends in the composition of the middle class in the United States over the past 40 years. I find a decline in middle class membership since the mid-1970s. About two-third of this decline was offset by an increase in the percent of "low-income" adults. Multivariate results suggest that the early 1980s represented a turning point for the middle class, accounting for about one-third of the total decline. Further, this decline was largely attributable to changes in the likelihood of being middle class given a specific characteristic, rather than to changes in population characteristics over the period. Changes in returns to education, occupation, and family structure contributed to middle class decline.

A recent Pew report concludes that the 2000s were a "lost decade" for the middle class, citing declines in median income and net worth (Pew Research Center 2012). Given changes in the economy over the past decades – including the loss of jobs for less-skilled workers, increasing returns to skill, the erosion of the safety net and the recent economic downturn, a longer time frame may be necessary to understand middle class decline in order to formulate policy that addresses the needs of middle class families.

Indeed, concerns about the decline of U.S. middle class arose in the media and subsequently spawned a spate of research in the mid-to-late 1980s (Kuttner, 1983; Thurow 1984, Rosenthal 1985, Kosters and Ross 1988, Horrigan and Haugen 1988; Levy 1987). Many researchers argued that the middle class was shrinking, and attributed this decline to structural

<sup>&</sup>lt;sup>1</sup> This paper is released to inform interested parties of ongoing research and to encourage discussion of marriage and cohabitation. The views expressed on statistical and methodological issues are those of the authors and not necessarily those of the US Census Bureau.

changes in the economy. The downturns in the early 1980s marked the permanent loss of middle-class jobs in manufacturing and other sectors employing the least-skilled workers, and with them the decline of unionization. Moreover, changing technologies and globalization polarized the labor market into a low-wage, low-skill sector and a high-wage, high skill sector of the labor m arket (Thurow 1984; see also Goldin and Katz 2007). Other researchers maintained that the shrinking middle class in the 1980s resulted from demographic shifts, including an increase in educational attainment and women's labor force participation as well as changes in the age structure of the population and in family structure. Analysts pointing to the age structure maintained that the entry of baby boomers into the labor market contributed to the shrinking middle class, as workers at early stages in their careers had relatively low earnings (Lawrence 1984). Thus, middle class decline would be temporary and young workers would join the ranks of the middle class as their life-cycle earnings increased. Those pointing to changes in educational attainment and women's labor force participation argued that the decline of the middle class came at the expense of the growth of the higher income category (Rosenthal 1985; Horrigan and Haugen 1988). Despite this earlier literature, there was less attention to the status of the middle class until the late 2000s, when researchers noted and sought to explain increasing income polarization in the U.S.(Piketty and Saez, 2007; Burkhauser and Larrimore.2013; Pew Research Center 2012).

In this paper, I revisit this earlier debate to examine trends in the composition of the middle class in the United States over the past 40 years.<sup>2</sup> In doing so, I document changes in

<sup>&</sup>lt;sup>2</sup> 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 95-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.

middle class membership and in the composition of the middle class since 1974. I also assess the extent to which structural factors (as measured by the occupational distribution) and demographic characteristics are associated with middle class membership. This paper further contributes to the literature by using decomposition techniques to analyze the extent to which shifts in structural factors and demographic factors have contributed to historical changes in middle class membership. Further, I replicate the analysis analyzing changes in middle class membership across discrete time intervals in order to better understand the timing of middle class decline.

## Data and methods

In this paper, I use the Current Population Survey Annual Social and Economic Supplement (CPS ASEC) from 1974 through 2013 to examine trends in the composition of the middle class in the United States over the past 40 years.<sup>3</sup> The CPS ASEC is well suited to examine trends in class membership because it is collected annually and is the source of the official income statistics for the U.S. In this analysis I define middle class status as having family income between 67 percent and 200 percent of median family income in a given year.<sup>4</sup> The

<sup>&</sup>lt;sup>3</sup> In this analysis, income is defined as pre-tax cash money income. Income data refer to the previous calendar year. For example, the 2013 CPS ASEC reports family income for the 2012 calendar year. At the time of the analysis, 2013 was the most recent year for which data was available.

<sup>&</sup>lt;sup>4</sup> Median family income is adjusted for family size and for inflation. I adjust total family income for family size by dividing total family income by the square root of family size, i.e.

Adjusted Family Income – Total Family Income/(Family Size)<sup>1/2</sup>

I adjust for inflation using the CPI-U (rather than the CPI-U-RS) for 2012. The distribution of adults across income strata is not affected by the choice of a price index (Pew Research Center 2012)

Other researchers have consistently documented a decline in the middle class over time using different measures, including a measure defined as 75 to 125 percent of median income commonly used in the literature (see, for example, Pew Research Center 2008; Burkhauser, et al.1999; Krueger 2012; Pressman 2007). Using this latter measure, I found a 5.4 percentage point reduction in the proportion of adults in the middle-income category between 1974 and 2013; similarly, there was a 7.6 percentage point reduction in middle class membership using a measure based on 75 to 150 percent of median family income. Many analysts use measures based on household rather than family income. However, my results using family income are consistent with those using measure of middle class status based on household income. In future analyses, I will conduct sensitivity tests for my results using other definitions of middle-class status.

share of adults in the middle income strata was consistent with the share of adults identifying as middle class in the Pew survey (Pew Research Center 2012). Using this definition, middle class individuals had family income between \$41,701 and \$124,482 in 2013.

In this analysis, I first document the decline in the U.S. middle class over the past 40 years. In doing so, I examine the percent of individuals by family income category in 1974 to 2013. Just as the relative composition of the middle class may change over time, so might their well-being relative to lower and higher income groups. Thus, I describe changes in median family income for each class category between 1974 and 2013. Next, I explore whether the characteristics of the middle class have changed over time, in terms of their distribution by sex, age, race/ethnicity, educational attainment, and occupational attainment.

For the multivariate analysis, I use pooled CPS ASEC data for 1974 to 2013 to estimate multinomial logit regression models predicting class membership among adults ages 18 and older. Focusing the analysis on adults enables me to control for adults' own characteristics rather than those of the family head. The models control for individual characteristics including age, sex, race/ethnicity, educational attainment, employment status, marital status, occupation, presence of related children under 18, and metropolitan residence. In addition, I include state fixed effects in order to capture any variation in state economic conditions or policies that might affect class membership. I estimate the models for the period 1974-2013 and then for each of the following time periods: 1974-1979, 1979-1989, 1989-1999, 1999-2009, and 2009-2013.

Since it is likely that the composition of the population has changed since 1974, I used nonlinear decomposition methods to examine the extent to which observed changes in middle class membership from 1974 to 2013 could be explained by changes in the characteristics of the

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middle class or by changes in the effect of those characteristics in predicting middle class status.<sup>5</sup> For example, if individuals holding a bachelor degree are more likely to be in the middle class, and the proportion of adults with a bachelor's degree increase, then we might expect a rise in the proportion of the population in the middle class. This increase would be attributable to a change in the characteristics, or the composition, of the population. However, a change in covariates or coefficients would occur if, over time, having a bachelor's degree exercised a larger (or smaller) effect on the log odds of being in the middle class, independent of changes in the size of the population with some college experience. *Coefficient* changes therefore reflect the difference in the predicted probability of middle class membership for young adults in 1974 and 2013, if the covariates had had the same effect on the population in 2013 as they did in 1974. *Compositional* changes reflect the difference in the predicted probability of middle class in 2013 shared identical characteristics with individuals in the middle class in 1974. In this analysis, I use 2013 is the comparison group and 1974 as the reference.

Although this paper analyzes changes in class membership among all adults, I run separate regression models and decompositions for young adults ages 25 to 34. There has been some evidence that it has become more difficult for younger cohorts to establish economic independence and a foothold in the middle class status over time (Bell et al. 2007). The extent to which young adults in later cohorts are delayed from entering the middle class has important implications for their ability to accumulate wealth and for their later economic security.

## Results

<sup>&</sup>lt;sup>5</sup> Note that the decomposition analyses are based on logit regression models in which the dependent variable is a dichotomous measure of middle class membership (coded as 1 if family income is 67-200% of median family income and 0 otherwise).

#### Trends in middle class membership over time

Figure 1a illustrates the proportion of adults ages 18 years and older defined as lower, middle and upper income from 1974 to 2013. Again, middle income status is defined as having family income between 67 and 200 percent of median family income in a given year and family income is adjusted for family size.

## [Figure 1a here]

As shown in Figure 1a, the proportion of individuals in the middle class declined about 10.7 percentage points between 1974 and 2013 to less than half (48.6 percent) of the population. Although a portion of this decline was offset by a 3.4 percentage point increase in the proportion of upper-income individuals (those with family income greater than 200% of median family income), the proportion of lower-income individuals also increased 7.3 percentage points to about 33.5 percent.

The pattern of decline in middle class membership since the mid-1970s is even starker for young adults ages 25 to 34 years.

## [Figure 1b here]

As shown in Figure 1b, in 1974, about two-thirds (67.7 percent) of young adults had family incomes between 67 and 200 percent of the median; by 2013, just about one-half (50.6 percent) of young adults were middle class. Most of this 17.0 percentage point decline was offset by a 15.1 percentage point increase in lower-income young adults. By 2013, more than one-third of young adults (35.2 percent) had family incomes below 67 percent of the median.

Figure 2a reveals changes in median family income for adults ages 18 years and older by family income category from 1974 to 2013 (as reported in the CPS ASEC for 1974 to 2013).<sup>6</sup> As

<sup>&</sup>lt;sup>6</sup> Again, median family income is adjusted for family size and inflation using the CPI-U. While the CPI-U typically reflects higher inflation than the CPI-U-RS over the period, and thus would overstate income growth relative to the

seen in in this figure, not only did proportion of the population with middle class incomes decline (as seen in Figure 1), but the relative position of the middle class has also declined relative to upper-income individuals, particularly after median family income for those in the upper-income category diverged from median family income for those in the middle-income category after the mid-1980s (See Figure 2a).

## [Figure 2a here]

While real median family income for the middle class in 2013 increased by about 9.3 percent since 1974, the adjusted median family income for upper income individuals increased by 25.6 percent between 1974 and 2013. Real median family incomes for lower income individuals did not change significantly between 1974 and 2013.<sup>7</sup>

As seen in Figure 2b, median family income for the middle class grew during periods of expansion, i.e. between 1976 and 1979, 1984 and 1989, and again between 1993 and 1999, peaking at \$77,640 in 2000.

## [Figure 2b here]

The so-called "lost decade" of the middle class – the 2000s – saw relative stagnation in middle class incomes before the recessionary decline began in 2007.

Characteristics of Adults with Middle Class Family Income

CPI-U-RS. Despite this, the trends by income category would be consistent using either measure, reflecting a divergence in median family income between the upper-income category and the middle and lower- income categories. I plan to replicate this analysis using the CPI-U-RS to adjust for income growth.

<sup>&</sup>lt;sup>7</sup> Median family income for middle income adults was \$65,855 (SE=217) in 1974 and \$71,988 (SE=263) in 2013; median family income for higher income adults was \$139,324 (SE=292) in 1974 and \$175,019 (SE=494) in 2013; median family income for lower income adults was 23,439 (SE=149) in 1974 and \$24,248 (SE=113) in 2013.

Table 1 presents characteristics of the middle class adult population ages 18 years and older, in 1974 and 2013.<sup>8</sup> As shown in Table 1, the composition of the middle class changed significantly

between 1974 and 2013, with few exceptions.<sup>9</sup>

## [Table 1 here]

In terms of age, those in the middle-income category were older in 2013 than in 1974. For example, while 30.5 percent of the middle class was aged 50 years and older in 1974, by 2013 the proportion of those over 50 years in the middle class had increased to 43.9 percent.

By 2013, non-white and Hispanic adults comprised 29.9 percent of the middle class, up from just 12.6 percent in 1974. In part, these changes are consistent with changes in the racial composition of the adult population as a whole. Between 1974 and 2013, the percent of non-white, non-Hispanics grew from 15.4 to 33.2 percent of the adult population. Still, adults from minority race/ethnic groups remain underrepresented in both the middle and upper income categories in 2013.<sup>10</sup>

In terms of educational attainment, the middle class has become more educated over time. The percentage of adults in the middle-income category with some college experience increased from 17.7 percent to 32.3 percent between 1974 and 2013. Similarly, by 2013, the proportion of those in the middle class holding a bachelor degree increased to nearly 30 percent

<sup>&</sup>lt;sup>8</sup> Characteristics of the population are reported in the CPS ASEC in the spring of 1974 and 2013. Income categories are based on income in the prior calendar year, i.e. 1974 and 2013.

<sup>&</sup>lt;sup>9</sup> There was no significant change in the percent of 35 to 49 year olds or in the proportion of males with middle class family income between 1974 and 2013.

<sup>&</sup>lt;sup>10</sup> Adults from minority race/ethnic groups account for 49 percent of adults in the lower income category, 29.9 percent of those in the middle income category, and just 20.8 percent of adults in the highest income category.

from 12.6 percent in 1974. Again, these changes echo changes in the educational attainment of the adult population as a whole.<sup>11</sup>

There have also been significant changes in the occupational distribution of the middle class since 1974. For example, a higher proportion of the adult middle class in 2013 was employed in managerial and professional occupations than in 1974.<sup>12</sup> At the same time, there has been a decline in the proportion of the middle class employed in administrative support and construction, transportation and extraction trades. To some extent, this finding echoes the decline in administrative support and construction, transport and construction, transportation and extraction and ext

## Predicting middle class membership

Table 2 presents coefficients from multinomial logit models predicting class membership for adults 18 years and older. Since I am primarily interested in predictors of middle class status in this analysis, I present coefficients for models predicting middle class membership relative to lower and upper class membership.

## [Table 2 here]

As shown in table 2, adults' individual characteristics were significantly associated with class membership. Compared to the adults aged 35 to 49 years (the reference category), young adults ages 25 to 34 years had lower log odds of being middle class relative to being low-income, yet had higher log odds of being in the middle class relative to being high-income. This is not surprising – young adults may be just starting their careers, so their income is likely to be lower than older adults. Higher life-cycle earnings for adults ages 50 to 64 years may explain their higher log odds of being middle class relative to being in the lower income category and their

<sup>&</sup>lt;sup>11</sup> In 1974, 16.4 percent of the adult population had some college experience and 13.4 percent held a bachelor degree; by 2013, 29.0 percent had some college experience and 28.9 percent held a bachelor degree.

<sup>&</sup>lt;sup>12</sup> I break professional occupations into Professional-STEM (Science, Technology, Engineering and Mathematics), and Professional – Education and Arts.

lower log odds of being in the middle class relative to being high-income, compared to their 35 to 49 year old counterparts. Older adults ages 65 years and above with fixed incomes had higher odds of being in the middle class relative to the upper class.

In terms of race/ethnicity, compared to whites, non-whites and Hispanics were less likely to be middle class relative to having lower incomes but were more likely to be middle class relative to being in the highest income category. Similarly, those who were not married had lower log odds of middle class membership relative to lower class membership but higher odds of being in the middle class relative to upper class membership when compared to their married counterparts.

Educational attainment was associated with class membership as well. Compared to those holding only a high school diploma, adults having any college experience were more likely to be middle class relative to having lower family income. Moreover, having any college experience reduced the log odds of middle class membership relative to upper-class membership, a finding consistent with increasing returns to education over time.

Although unemployed adults and those not in the labor force both had lower log odds of being in the middle class relative to having lower incomes than their employed counterparts, unemployed adults were more likely to be in the middle class than in the upper class. Compared to those employed in managerial jobs, Professional-STEM workers were more likely to be in the middle class relative to being lower income, but adults in other occupations had lower log odds of being in the middle class compared to those in managerial positions. However, compared to those in managerial occupations, adults in other occupations were more likely to be in the middle class than in the upper-income category.

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In this analysis, I was particularly interested in whether and how the likelihood of middle class membership has changed over time. Compared to the 1980s, adults in the 1970s were more likely to be in the middle class than in the lower income category.<sup>13</sup> However, after 1989, adults had lower odds of being in the middle class relative to the low-income category but higher odds of being in the middle class than in the upper income category. This suggests a decline in middle class membership over time, but also a decline in well-being, as adults moved from the middle to lower income category. By 2009, however, adults had *reduced* odds of middle class membership relative to being in either the lower or upper income categories, compared to their 1980s counterparts. This latter finding further reflects the shrinking middle and increased polarization of the income distribution.

To better understand the changes in middle class membership over time, I also estimated models by decade (See Table A-1).

## [Table A-1 here]

Although sex was not a significant determinant of middle class membership relative to lower class membership between 1974 and 1979, being male was positively associated with middle class membership relative to being low income from the 1980s on. Males also had higher log odds of middle class membership compared to upper class membership through 1989. Since 1989, however, there has been no significant difference between men and women in the log odds of middle class membership compared to being in the highest income category.

There were changes in the odds of middle class membership with respect to other characteristics as well. Compared to adults ages 35 to 49 years, the youngest adults – those 18 to 24 years old – had lower odds of being in the middle class relative to the lower income category

<sup>&</sup>lt;sup>13</sup> After controlling for sociodemographic characteristics, there was no significant difference in the log odds of being in the middle income category relative to the upper income category.

through 1999. However, by 2009, the odds of being in the middle class for this age group had *increased* relative to being in the low-income category. Young adults under 25 had higher log odds of being in the middle class relative to the upper class prior to 1989. After 1989, however, young adults were *more* likely to be in the upper class than in the middle class. These findings, which suggest an increase in well-being among the youngest adults, may reflect the increase in young adults pursuing higher education and thus remaining in or returning to their parents' home. Young adults aged 25 to 34 years were significantly less likely to be in the middle class, than in the lower income category across all time periods. Further, while those aged 65 and older had lower odds than their younger counterparts of being in the middle class than the lower class between 1990 and 1999 and after 2009. This result might reflect changes in public spending and the ability of policies benefiting the elderly to absorb economic shocks (Pati, et al. 2004; Preston 1984).

In terms of educational attainment, compared to those holding a high school degree, adults with a bachelor's degree had higher odds of being in the middle class than in the lowerincome category across all decades, compared to their high school educated counterparts. Further, the sharp increase after 1989 in the log odds of middle class membership for those with a college degree likely reflects an increase in the returns to higher educational attainment since the 1990s.

## Decomposing the decline in middle class membership

Table 3 presents results from the non-linear decomposition of the change in middle class membership among adults aged 18 and older between 1974 and 2013.<sup>14</sup> As shown in Table 3,

<sup>&</sup>lt;sup>14</sup> The decomposition is based on logit regression models predicting middle class membership. The dependent variable in these models is coded as 1 if the individual was in the middle class, and 0 otherwise.

middle class membership declined by 10.7 percentage points between 1974 and 2013. About two-thirds of this decline (68.2 percent) was attributable to a change in the effects of the covariates, that is attributable to changes over the period in the likelihood of being in the middle class for a given characteristic.

## [Table 3 here]

I further examined change in middle class membership over time by decomposing the total change between 1974 and 2013 into change by five-year intervals. As seen in Table 3, middle class membership declined across most intervals after 1979.<sup>15</sup> Nearly one-third (32.0 percent) of the total decline occurred between 1979 and 1984, when the proportion of adults in the middle class fell by 3.4 percentage points. This period was marked by two recessions -- the 1980 and 1981-1982 recessions.<sup>16</sup> Moreover, a greater proportion of the 3.4 percentage point decline between 1979 and 1984 can be attributed to a change in the effects of the covariates rather than to a change in population characteristics (69.5 percent v. 30.5 percent).

One can also decompose changes in middle class membership to examine the extent to which specific characteristics contributed to the overall decline in middle class membership over the period (See Table 4).

## [Table 4 here]

As shown in Table 4, changes in the proportion of adults with no high school diploma would have reduced the difference in middle class membership by 23.4 percent. However, increases in college graduation rates explained 9.1 percent of the total decline in middle class

<sup>&</sup>lt;sup>15</sup> There was no significant change in middle class membership between 1984 and 1989, 1994 and 1999, or 2004 and 2009.

<sup>&</sup>lt;sup>16</sup> The 1980 recession lasted 7 months from January 1980 through July 1980; the 1981-1982 recession lasted 16 months from July 1981 through November 1982.

membership between 1974 and 2013.<sup>17</sup> Changes in marital status, notably a decline in the proportion of married adults, also contributed to the decline in middle class membership.<sup>18</sup> Changes in the occupational distribution, which reflect the polarization of the labor market, explained about 17.8 percent of the decline in middle class membership over the period examined.

Of course the decline in middle class membership over time can also be explained by changes in the *likelihood* of being in the middle class (i.e. changes in the effects of coefficients), given specific characteristics (See Table 4). For example, changes in the odds of being in the middle class among those aged 65 and older would have reduced the decline in middle class membership. Similarly, changes in the effect of having any college experience would also have reduced the decline in middle class membership, while changes in the effect of having less than a high school education accounted for 12.0 percent of this decline. These latter results reflect the importance of increasing returns to education over the period, particularly since the mid-1980s. Further, 13.6 percent of the decline in middle class membership can be attributed to changes in the *returns* to occupation. Again, these findings likely reflect the polarization of the labor market documented elsewhere into high-wage and low-wage jobs. But changes in the effects of having related children under 18 in the family also accounted for more than one-third of the decline in middle class membership. Thus, the likelihood of middle class membership among families with children declined. This result may reflect the erosion of the safety net over time, and changes in policies affecting the well-being of families with children.

<sup>&</sup>lt;sup>17</sup> In the regression models, compared to their high school educated counterparts, college educated adults had lower odds of middle class membership relative to being in the upper-income category. Thus, an increase in the college educated population would increase upper-income category membership.

<sup>&</sup>lt;sup>18</sup> In the regression models, compared to their married counterparts, those who were not married had lower odds of middle class membership relative to being in the lower-income category.

## Predicting middle class membership among young adults

Some researchers have argued that it has become increasingly more difficult for younger cohorts to achieve economic independence and establish a foothold in the middle class (Bell et al. 2007). In order to determine whether this is the case, I ran separate regression models and decompositions for young adults ages 25 to 34. Indeed, the extent to which young adults in later cohorts are delayed from entering the middle class may have long-term implications in terms of their ability to acquire wealth and assets.

Table A-2 shows multinomial logit regression results for middle class membership among young adults ages 25 to 34 relative to being in the lower class or the upper class.

## [Table A-2 here]

As shown in Table A-2, compared to the 1980s, young adults were more likely to have middle class incomes relative to lower class incomes in the mid- to late-1970s. However, as with results for all adults, since the 1980s young adults were less likely to be in the middle class compared to having incomes below the middle class. While the likelihood of being in the middle class did not differ significantly from the likelihood of being in the upper income category for young adults across any time period, young adults were more likely to be in the lower-income category relative to the upper-income category after 1989 [Results not shown]. This finding suggests that it has become harder for young adults to enter the middle class during young adulthood particularly since the 1980s.

Again, we can decompose the change in middle class membership among young adults over time As shown in Table A-3, the proportion of young adults in the middle class declined by 17.0 percentage points between 1974 and 2013. Consistent with results for all adults, most of this change (72.7 percent) can be attributed to a change in the effects of covariates although changes in the composition of young adults also accounted for substantial change (27.3 percent). Further,

as with results for all adults, more than one-third (36.5 percent) of the decline in middle class membership among young adults occurred between 1979 and 1984, a period encompassing two recessions. Another 15.3 percent of the decline in middle class status among young adults occurred during and immediately after the most recent recession, in which young adults were hit especially hard.<sup>19</sup>

## [Table A-3 here]

For almost all time periods, changes in the returns to characteristics (i.e. coefficients) explained more of the decline in middle class membership among young adults than changes in their characteristics. However, between 1994 and 2004, changes in characteristics contributed more to changes in middle class membership among young adults. The 1990s and 2000s constituted a period of increased college attendance and educational attainment among young adults and continued delay in the age at first marriage. Indeed, 17.8 percent of the total decline in middle class membership among young adults can be attributed to changes in marital status of young adults since 1974 [Results not shown].

In terms of changes in the effects of young adult characteristics (changes in coefficients), changes in the returns to having any college experience would have increased middle class membership. However, the decline in middle class membership among young adults since 1974 can be attributed to changes in returns to occupation such as the decline of jobs paying middle-class wages for high school graduates. Changes in returns to family structure also contributed to the decline in middle class membership among young adults.

<sup>&</sup>lt;sup>19</sup> For example, by 2010, just after the recession, the unemployment rate for 25 to 34 year olds it was 10.1 percent. The unemployment rate in 2010 for adults aged 35 to 44 years, 45 to 54 years and 55 to 64 years was 8.1 percent, 7.7 percent and 7.1 percent respectively (<u>http://stats.bls.gov/cps/aa2010/cps/aa3.pdf</u>.)

## Conclusion

In this analysis, I examined changes in of the middle class over the past 40 years. My results confirm that the middle class is shrinking -- that is the proportion of adults having family income between 67 and 200 percent of median family income has decreased since 1974. Consistent with previous research, I find a decline in middle class membership since the mid-1970s for adults ages 18 years and older Although some of this reduction was offset by an increase in the proportion of adults with family incomes exceeding 200% of the median, 68 percent of the reduction was absorbed by an increase the proportion of adults in lower-income category (7.3/10.7=68.2 percent).

My results reveal some cyclicality in middle class membership, with sharper declines in the early 1980s and during and after the most recent recession (See Figure 1). This is not surprising as my measure of middle class membership is based on family income which itself tends to increase in periods of recovery and fall during downturns. However, the regression results and the decomposition results presented in this analysis consistently suggest that the early 1980s represented a turning point for the middle class. About 32.0 percent of the total decline in middle class membership since 1974 occurred during the period 1979 to 1984, a period coinciding with two economic downturns and stark changes in industrial structure. Moreover, middle class membership has not increased significantly over any period since then. My results are consistent with studies which report declining shares of aggregate income among the middle class (DeNavas-Walt 2013)), increased income inequality (Gottschalk and Danziger 2005; Piketty and Saez 2003; Jones and Weinberg 2000) and a polarization of the wage distribution since the early-1980s (Goldin and Katz 2007).

Results from the decomposition analysis suggest the extent to which a number of factors influenced changes in middle class membership over time. Among these, changes in educational

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attainment and occupational structure contributed to the decline in middle class membership since 1974. However, changes in the *likelihood* of middle class membership by educational attainment and occupation reflect the documented polarization of the labor market into high wage and low wage jobs. On the other hand, changes in the likelihood of middle class membership by age and the presence of children under 18 may reflect changes in government policies and benefit programs targeted to different groups.

The analysis of middle class membership among young adults provides evidence that it has become more difficult for young adults to make it into the middle class. Nearly 89 percent of the decline in middle class membership among young adults was absorbed by an increase in young adults in the lower-income category (15.1/17.0=88.8 percent). On the one hand, this result might reflect a longer transition to adulthood and a greater diversity of living arrangements as many young adults delay marriage and may live outside of the parental home. Still, while we might expect many young adults to move into the middle class as they age, the decline in middle class membership among all adults suggests that the problem is not the result of the life course. Young adults – even college-educated young adults -- have been particularly challenged by the current labor market (Pew Research Center 2014).

This study has several limitations. I define middle class membership based on being within 67 and 200 percent of pretax money income. Although these cutoffs are arbitrary, prior research suggests that the trends found here are consistent with those found using other cutoffs (e.g 75-125 percent of median income, middle three quintiles, etc.) In future analyses, I will test the robustness of my results by examining alternative definitions of middle class membership and variation by source of income. I also hope to explore how taxes and other transfers might affect middle class membership.

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Moreover, sociologists argue that class is a multidimensional concept. Income is just one component. In my models, I do control for SES, using indicators for educational attainment and occupation. In future analyses, I will consider the role of assets and wealth.

Further, the CPS ASEC is collected annually but is cross-sectional. Therefore, my results merely reflect associations. Further, I cannot study transitions to and from the middle class, or determine whether the position of the middle class has become more or less vulnerable to shocks over time. In future work, I will use the Survey of Income and Program Participation to examine transitions in middle class status across time.

Despite these limitations, this paper documents middle class decline over the past 40 years and highlights the role of structural factors, rather than population change, in contributing to this decline.

In future research, I will explore how these factors contributed to middle class decline.

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Figure 1a: Percent of adults ages 18 years and older, by family income class category 1974-2013

Figure 1b. Percent of adults ages 25 to 34 years, by family income category 1974-2013



Source: Current Population Survey Annual Social and Economic Supplement, 1974-2013



Figure 2a. Median family income by family income category, 1974-2013<sup>A</sup>

Figure 2b. Median Family Income for Middle-Class, 1974-2013<sup>A</sup>



<sup>A</sup> Income adjusted for family size and by 2012 CPI-U.

Source: Current Population Survey Annual Social and Economic Supplement 1974-2013

	1974	258)	2013		n < 0.05
	<u>(IV - 05, 1</u> 0/2	<u>SE</u>	$\frac{(IV - IIJ)}{0/2}$	,222) SE	p < 0.03
Male -	49.1	0.4	49.9	0.3	
Age	.,,,,	011		010	
18 to 24 years	19.0	03	11.6	0.2	*
25  to  34  years	23.5	0.3	18.4	0.2	*
35  to  49  years	27.0	0.3	27.2	0.2	$\sim$
50 to 64 years	21.2	0.3	25.7	0.2	*
65+ years	9.3	0.2	17.2	0.2	*
Race/Ethnicity		•			
White non-Hispanic	87.4	0.3	70.2	0.2	*
Black non-Hispanic	7.6	0.2	10.5	0.2	*
Hispanic	3.7	0.1	13.0	0.2	*
Other	1.3	0.1	6.4	0.1	*
Educational attainment		0.11		011	
Less than high school	28.0	0.3	8.1	0.1	*
High school graduate	41.8	0.4	30.0	0.2	*
Some college	17.7	0.3	32.3	0.2	*
Bachelor's degree or higher	12.6	0.3	29.5	0.2	*
Employment status					
Employed	65.4	0.4	66.9	0.2	*
Unemployed	2.7	0.1	4.0	0.1	*
Not in labor force	31.9	0.4	29.1	0.2	*
Occupation (among those in labor force)					
Managerial occupations	8.3	0.2	9.4	0.2	*
Professional: STEM	5.7	0.2	15.5	0.2	*
Professional: Education/Arts	6.1	0.2	10.2	0.2	*
Services	14.6	0.3	17.0	0.2	*
Sales	6.8	0.2	10.4	0.2	*
Administrative support	18.5	0.3	14.5	0.2	*
Construction, Transportation and Extraction	31.1	0.4	10.0	0.2	*
Installation, Repair and Production	8.9	0.2	13.0	0.2	*
Presence of related children under 18 years in family	54.2	0.4	34.6	0.3	*
Marital status					
Married	73.43	0.3	58.0	0.3	*
Separated/Divorced or Widowed	10.22	0.2	16.6	0.2	*
Never married	16.35	0.3	25.4	0.2	*
Metropolitan residence	69.58	0.4	84.3	0.2	*

Table 1: Characteristics of the Adults Ages 18 and older, by Family Income Class Category,1974 and 2013

Source: Current Population Survey Annual Social and Economic Supplement, 1974 and 2013

	Compare	d to Adults in	Compared to Adults in			
	Lower-Inc	come Category	Upper-Income Categor			
	р	A directed SE	р	A dimeted SE		
Mala	<b>D</b>	Aujusteu SE	<b>D</b>			
$\frac{1}{2} \frac{1}{2} \frac{1}$	0.081	0.032	0.029	0.024		
Age (55 10 49 years)	0.116	0 169	0.020	0.052		
18 to 24 years	-0.110	0.108	0.020	0.032		
25 to 34 years	-0.238****	0.029	$0.4/3^{****}$	0.017		
50 to 64 years	0.145***	0.047	-0.189***	0.001		
by years or older	-0.018	0.085	0.315****	0.015		
Race/ethnicity ( <i>white Non-Hispanic</i> )	0 ((2)***	0.070	0 502***	0.022		
Black non-Hispanic	-0.663***	0.072	0.583***	0.032		
Hispanic	-0.650***	0.055	0.52/***	0.031		
Other	-0.350***	0.037	0.134***	0.024		
Educational attainment ( <i>High school graduate</i> )		0.010		0.00 <i>5</i>		
Less than high school	-0.659***	0.010	0.434***	0.005		
Some college	0.279***	0.027	-0.395***	0.009		
Bachelor degree or higher	0.580***	0.048	-1.043***	0.016		
Employment status ( <i>Employed</i> )						
Not in universe	-0.316**	0.124	0.417***	0.015		
Unemployed	-0.463***	0.007	0.046***	0.010		
Not in labor force	-0.497***	0.022	-0.051**	0.018		
Occupation (Managerial)						
Not in universe	-1.253***	0.083	1.090***	0.135		
Professional: STEM	0.357***	0.024	0.179***	0.049		
Professional: Education/Arts	-0.325***	0.059	0.723***	0.075		
Services	-0.882***	0.075	1.011***	0.134		
Sales	-0.539***	0.046	0.482***	0.135		
Administrative support	-0.147**	0.055	0.792***	0.105		
Construction, Transportation and Extraction	-0.461***	0.017	0.886***	0.065		
Installation, Repair and Production	-0.357	0.429	0.192	0.393		
Presence of related children under 18 years	-0.225+	0.122	0.743***	0.026		
Marital status (Married)						
Separated, divorced or widowed	-0.897***	0.069	0.584***	0.046		
Never married	-0.534***	0.026	0.322***	0.053		
Metropolitan residence	0.385***	0.013	-0.534***	0.088		
Decade (1980-1989)						
1974-1979	0.193***	0.009	-0.002	0.002		
1990-1999	-0.197***	0.012	0.058***	0.005		
2000-2009	-0.328***	0.020	0.101***	0.005		
2010-2013	-0.347***	0.018	- 0.009**	0.003		
Constant	2.049***	0.030	0.540***	0.017		
State Fixed Effects	Yes	0.020	Yes	0.017		

Table 2: Coefficients from Multinomial Logit Regression Models Predicting Middle ClassMembership Among Adults Aged 18 Years and Older, 1974-2013

+ p < 0.10; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001

Source: Current Population Survey Annual Social and Economic Supplement, 1974 to 2013

			% of change in middle class membership	Total % of
	Estimate	Adjusted SE	explained in each time period	change in middle class membership
1974-2013		~		
Difference	-0.107***	0.008		
Due to Characteristics	-0.034***	0.007	31.8	31.8
Due to Coefficients	-0.073***	0.009	68.2	68.2
1974-1979				
Difference	-0.008	0.005		7.0
Due to Characteristics	-0.006***	0.002	76.2	5.4
Due to Coefficients	-0.002	0.005	23.8	1.7
1979-1984				
Difference	-0.034***	0.005		32.0
Due to Characteristics	-0.010***	0.002	30.5	9.8
Due to Coefficients	-0.024***	0.005	69.5	22.2
1984-1989				
Difference	-0.007	0.006		7.0
Due to Characteristics	0.008***	0.002	-110.8	-7.8
Due to Coefficients	-0.016**	0.006	210.8	14.8
1989-1994				
Difference	-0.021*	0.009		20.0
Due to Characteristics	-0.003	0.006	12.0	2.4
Due to Coefficients	-0.019**	0.006	88.0	17.6
1994-1999				
Difference	0.003	0.006		-2.6
Due to Characteristics	0.002	0.002	56.4	-1.5
Due to Coefficients	0.001	0.006	43.6	-1.1
1999-2004				
Difference	-0.022***	0.006		20.3
Due to Characteristics	-0.006***	0.001	21.6	5.5
Due to Coefficients	-0.016***	0.006	58.4	14.8
2004-2009				
Difference	0.002	0.005		-2.4
Due to Characteristics	-0.005**	0.002	-186.8	4.5
Due to Coefficients	0.007	0.005	286.8	-6.9
2009-2013				
Difference	-0.020***	0.005		18.7
Due to Characteristics	-0.006***	0.001	29.1	5.4
Due to Coefficients	-0.014**	0.005	70.9	13.2

 Table 3: Results from Non-linear Decomposition of Change in Middle Class Membership Among

 Adults Aged 18 Years and Older, 1974-2013

+ p < 0.10; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001

Source: Current Population Survey, Annual Social and Economic Supplement 1974 and 2013

	Estimate	Adjusted SE	% of Total Change in Middle Class Membership
Total difference	-0.107***	0.008	
Differences in characteristics	-0.034***	0.007	31.8
Sex	0.000	0.000	0.0
Age			
18-34	-0.001	0.001	0.5
50-64	-0.001***	0.000	0.7
65 and older	0.000	0.000	0.0
Race	-0.010***	0.002	9.1
Education			
Less than high school	0.025***	0.002	-23.4
Some college	0.002**	0.001	-2.0
College graduate	-0.010***	0.001	9.1
Employment status	-0.003+	0.002	2.8
Occupation	-0.019***	0.001	17.8
Presence of children <18 years	-0.004***	0.001	4.0
Marital status	-0.012***	0.001	11.7
Metropolitan residence	0.003 +	0.001	-2.7
State	-0.004	0.003	3.7
Differences in coefficients	-0.073***	0.009	68.2
Sex	0.007*	0.004	-6.5
Age			
18-34	-0.002	0.004	2.0
50-64	0.000	0.003	-0.1
65 and older	0.019***	0.002	-17.5
Race	0.016***	0.003	-15.2
Education			
Less than high school	-0.013***	0.003	12.0
Some college	0.012***	0.002	-11.2
College graduate	0.014***	0.002	-13.4
Employment status	0.009 +	0.004	-8.2
Occupation	-0.015***	0.001	13.6
Presence of children <18 years	-0.038***	0.005	35.9
Marital status	0.011**	0.004	-10.1
Metropolitan residence	-0.016	0.011	15.2
State	-0.028	0.040	26.2
Constant	-0.048	0.045	45.3

# Table 4: Detailed Results from Non-Linear Decomposition of Change in Middle Class Membership Among Adults Aged 18 Years and Older, 1974-2013

+ p < 0.10; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001

Source: Current Population Survey, Annual Social and Economic Supplement 1974 and 2013

	Compared to Adults in Lower-Income Category						7			
	<b>1974</b> -1	1979	1980-1	1989	1990-1	2000-2009			2009-2013	
	В	SE	В	SE	В	SE	В	SE	В	SE
Male	-0.014	0.02	0.025*	0.01	0.133**	0.01	0.128**	0.01	0.127**	0.01
Age (35 to 49 years)										
18 to 24 years	-0.445**	0.04	-0.313**	0.03	-0.152**	0.03	0.027	0.03	0.196**	0.03
25 to 34 years	-0.282**	0.02	-0.317**	0.02	-0.293**	0.02	-0.241**	0.02	-0.152**	0.03
50 to 64 years	-0.002	0.03	0.157**	0.02	0.176**	0.02	0.146**	0.02	0.177**	0.02
65 years or older	-0.499**	0.04	-0.052	0.03	0.052 +	0.03	-0.008	0.03	0.276**	0.03
Race/ethnicity (White non-Hispanic)										
Black non-Hispanic	-0.865**	0.04	-0.779**	0.04	-0.642**	0.03	-0.555**	0.03	-0.510**	0.03
Hispanic	-0.714**	0.07	-0.662**	0.06	-0.698**	0.04	-0.620**	0.03	-0.561**	0.04
Other	-0.536**	0.12	-0.451**	0.08	-0.318**	0.05	-0.288**	0.05	-0.222**	0.05
Educational attainment (High school graduate)										
Less than high school	-0.730**	0.02	-0.744**	0.02	-0.674**	0.02	-0.562**	0.02	-0.545**	0.03
Some college	0.233**	0.02	0.289**	0.02	0.294**	0.02	0.307**	0.01	0.290**	0.02
Bachelor degree or higher	0.337**	0.04	0.453**	0.03	0.610**	0.03	0.685**	0.03	0.674**	0.03
Employment status (Employed)										
Unemployed	-0.429**	0.02	-0.468**	0.02	-0.629**	0.02	-0.582**	0.02	-0.577**	0.03
Not in labor force	-0.528**	0.03	-0.507**	0.02	-0.436**	0.02	-0.404**	0.02	-0.386**	0.02
Occupation (Managerial)										
Not in universe	-0.862**	0.04	-1.069**	0.04	-1.378**	0.03	-1.495**	0.04	-1.527**	0.04
Professional: STEM	0.458**	0.06	0.436**	0.04	0.356**	0.04	0.256**	0.03	0.291**	0.05
Professional: Education/Arts	-0.129**	0.06	-0.251**	0.04	-0.379**	0.04	-0.391**	0.03	-0.390**	0.05
Services	-0.566**	0.04	-0.766**	0.03	-0.940**	0.03	-0.975**	0.03	-0.993**	0.04
Sales	-0.185**	0.05	-0.429**	0.03	-0.571**	0.03	-0.639**	0.03	-0.709**	0.05
Administrative support	0.124**	0.04	0.010	0.03	-0.157**	0.03	-0.276**	0.03	-0.308**	0.04
Construction/Transportation/Extraction	-0.176**	0.04	-0.340**	0.03	-0.524**	0.03	-0.522**	0.04	-0.550**	0.05
Installation, Repair and Production	-0.310**	0.05	-0.346**	0.03	-0.363**	0.03	-0.344**	0.03	-0.361**	0.04
More than one related child under 18	-0.063*	0.03	-0.221**	0.02	-0.292**	0.02	-0.245**	0.03	-0.246**	0.03
Marital status (Married)										
Separated, divorced or widowed	-0.974**	0.02	-0.942**	0.02	-0.897**	0.02	-0.840**	0.03	-0.865**	0.02
Never married	-0.409**	0.03	-0.410**	0.03	-0.519**	0.02	-0.583**	0.03	-0.644**	0.03
Metropolitan residence	0.435**	0.04	0.420**	0.04	0.416**	0.03	0.341**	0.03	0.239**	0.03
Constant	2.022**	0.09	0.518**	0.10	1.865**	0.17	1.804**	0.07	1.817**	0.11
State Fixed Effects	Yes		Yes		Yes		Yes		Yes	

Table A-1: Coefficients from Multinomial Logistic Regressions Predicting Middle Class Membership, by Decade, 1974 to 2013

 $\frac{1}{100} \frac{1}{100} \frac{1}$ 

	Compared to Adults in Higher-Income Category									
	1974-2	1979	1980-	1989	<b>1990-</b> 1	1999	2000-2009		2009-2	2013
	В	SE	В	SE	В	SE	В	SE	В	SE
Male	0.082**	0.02	0.036**	0.01	0.006	0.01	0.008	0.01	-0.024+	0.01
Age (35 to 49 years)										
18 to 24 years	0.515**	0.04	0.295**	0.03	-0.056+	0.03	-0.218**	0.04	-0.359**	0.05
25 to 34 years	0.649**	0.04	0.572**	0.03	0.467**	0.02	0.376**	0.03	0.341**	0.03
50 to 64 years	-0.121**	0.03	-0.101**	0.02	-0.189**	0.02	-0.232**	0.02	-0.268**	0.03
65 years or older	0.507**	0.05	0.414**	0.04	0.397**	0.03	0.242**	0.03	0.142**	0.04
Race/ethnicity (White non-Hispanic)										
Black non-Hispanic	0.649**	0.07	0.717**	0.05	0.551**	0.04	0.516**	0.04	0.542**	0.05
Hispanic	0.630**	0.08	0.570**	0.07	0.538**	0.05	0.531**	0.04	0.554**	0.05
Other	0.353**	0.13	0.161*	0.06	0.219**	0.05	0.117*	0.06	0.119*	0.06
Educational attainment (High school graduate)										
Less than high school	0.650**	0.03	0.643**	0.03	0.395**	0.03	0.221**	0.03	0.087 +	0.05
Some college	-0.458**	0.03	-0.449**	0.02	-0.427**	0.02	-0.369**	0.02	-0.350**	0.05
Bachelor degree or higher	-0.918**	0.03	-0.979**	0.02	-1.100**	0.02	-1.085**	0.02	-1.063**	0.06
Employment status (Employed)										
Unemployed	0.016	0.03	-0.027	0.03	0.233**	0.04	0.178**	0.03	0.313**	0.05
Not in labor force	-0.080*	0.04	-0.034	0.03	-0.121**	0.03	-0.100**	0.02	-0.060	0.04
Occupation (Managerial)										
Not in universe	0.883**	0.04	0.970**	0.04	1.153**	0.03	1.216**	0.03	1.257**	0.04
Professional: STEM	0.112**	0.04	0.146**	0.03	0.200**	0.02	0.219**	0.02	0.179**	0.03
Professional: Education/Arts	0.509**	0.04	0.656**	0.04	0.678**	0.03	0.832**	0.03	0.820**	0.04
Services	0.966**	0.04	1.000**	0.03	0.978**	0.03	1.052**	0.03	1.036**	0.03
Sales	0.437**	0.04	0.418**	0.03	0.460**	0.02	0.512**	0.02	0.637**	0.03
Administrative support	0.602**	0.03	0.637**	0.02	0.812**	0.02	0.919**	0.02	0.934**	0.04
Construction, Transportation and Extraction	0.683**	0.03	0.712**	0.03	0.911**	0.03	1.007**	0.02	1.017**	0.03
Installation, Repair and Production	0.081	0.07	0.228**	0.04	0.200**	0.03	0.204**	0.04	0.148**	0.04
More than one related child under 18	0.936**	0.03	0.895**	0.03	0.808**	0.02	0.614**	0.02	0.519**	0.03
Marital status (Married)										
Separated, divorced or widowed	0.411**	0.03	0.464**	0.03	0.616**	0.02	0.657**	0.02	0.659**	0.03
Never married	-0.010	0.04	0.178**	0.03	0.402**	0.03	0.443**	0.02	0.472**	0.03
Metropolitan residence	-0.454**	0.05	-0.520**	0.05	-0.614**	0.03	-0.551**	0.04	-0.483**	0.05
Constant	2.473**	0.09	-0.587**	0.12	2.129**	0.19	1.985**	0.09	2.592**	0.12
State Fixed Effects	Yes		Yes		Yes		Yes		Yes	

 Table A-1: Coefficients from Multinomial Logistic Regressions Predicting Middle Class Membership, by Decade, 1974 to 2013 (continued)

+ p < 0.10; \* p < 0.05; \*\* p < 0.01; Source: Current Population Survey, Annual Social and Economic Supplement 1974 to 2013

	Compared	to Adults in	Compared to Adults in		
	Lower-Incor	ne Category	Upper-Incor	ne Category	
	В	Adjusted SE	В	Adjusted SE	
Male	0.047	0.058	0.027	0.059	
Race/ethnicity (White Non-Hispanic)					
Black non-Hispanic	-0.633***	0.095	0.423***	0.064	
Hispanic	-0.654***	0.034	0.434***	0.016	
Other	-0.435***	0.084	0.051	0.033	
Educational attainment (High school graduate)					
Less than high school	-0.799***	0.026	0.488***	0.091	
Some college	0.283***	0.088	-0.283***	0.076	
Bachelor degree or higher	0.653***	0.037	-0.915***	0.022	
Employment status (Employed)					
Unemployed	-0.445***	0.022	0.131***	0.023	
Not in labor force	-0.697***	0.063	0.012	0.018	
Occupation (Managerial occupations)					
Not in universe	-1.186***	0.148	0.755***	0.033	
Professional: STEM	0.333***	0.029	0.056***	0.013	
Professional: Education/Arts	-0.427***	0.048	0.741***	0.053	
Services	-0.997***	0.129	0.846***	0.030	
Sales	-0.522***	0.056	0.233***	0.057	
Adminsitrative support	-0.195**	0.074	0.679***	0.026	
Construction, Transportation and Extraction	-0.656***	0.043	0.618***	0.020	
Installation, Repair and Production	-0.427***	0.061	0.642***	0.031	
More than one related child under 18	-0.799***	0.193	1.060***	0.038	
Marital status (Married)					
Separated, divorved or widowed	-1.251***	0.035	0.387*	0.185	
Never married	-0.895***	0.158	0.577*	0.252	
Metropolitan residence	0.396***	0.016	-0.535***	0.024	
Decade (1980-1989)					
1974-1979	0.439***	0.017	0.013	0.013	
1990-1999	-0.252*	0.101	0.044	0.030	
2000-2009	-0.359***	0.077	0.032	0.040	
2010-2013	-0.433***	0.069	-0.063	0.043	
Constant	2.358***	0.117	0.902***	0.046	
State Fixed Effects	Yes		Yes		

 Table A-2: Coefficients from Multinomial Logit Models Predicting Middle Class Membership of

 Young Adults Aged 25 to 34 Years, 1974-2013

+ p < 0.10; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001

Source: Current Population Survey, Annual Social and Economic Supplement 1974 to 2013

			% of change in middle class membership	Total % of change in
		Adjusted	explained in each	middle class
	Estimate	ŠE	time period	membership
1974-2013				
Difference	-0.170***	0.011		
Due to Characteristics	-0.047***	0.011	27.3	27.3
Due to Coefficients	-0.124***	0.013	72.7	72.7
1974-1979				
Difference	-0.023**	0.009		13.7
Due to Characteristics	-0.008*	0.003	32.7	4.5
Due to Coefficients 1979-1984	-0.018+	0.009	67.3	9.2
Difference	-0.062***	0.009		36.5
Due to Characteristics	-0.008**	0.003	13.2	4.8
Due to Coefficients	-0.054***	0.009	86.8	31.7
1984-1989				
Difference	-0.012	0.009		6.9
Due to Characteristics	0.004	0.004	-35.8	-2.5
Due to Coefficients	-0.016+	0.009	135.8	9.3
1989-1994				
Difference	-0.029*	0.013		16.8
Due to Characteristics	0.007	0.008	25.3	4.3
Due to Coefficients	-0.021*	0.010	74.7	12.6
1994-1999				
Difference	0.000	0.011		-0.3
Due to Characteristics	0.005	0.004	1039.5	-2.9
Due to Coefficients	-0.004	0.011	-939.5	2.6
1999-2004				
Difference	-0.024*	0.011		13.8
Due to Characteristics	-0.015***	0.004	62.3	8.6
Due to Coefficients	-0.009	0.010	37.7	5.2
2004-2009				
Difference	0.005	0.010		-2.8
Due to Characteristics	-0.001	0.004	-30.3	0.8
Due to Coefficients	0.006	0.009	130.3	-3.6
2009-2013				
Difference	-0.026**	0.009		15.3
Due to Characteristics	-0.004	0.003	13.7	2.1
Due to Coefficients	-0.022*	0.009	86.3	13.2

Table A-3: Results from Non-linear Decomposition of Change in Middle Class Membership ofYoung Adults Aged 25 to 34 Years, 1974-2013

+ p < 0.10; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001

Source: Current Population Survey, Annual Social and Economic Supplement 1974 to 2013