

**Millennial Migration:
How has the Great Recession affected the migration of a cohort as it came of age?**

Megan J. Benetsky and Alison Fields

*Journey to Work and Migration Statistics Branch
Social, Economic, and Housing Statistics Division
U.S. Census Bureau*

SEHSD Working Paper Number 2015-1

This work is released to inform interested parties of ongoing research and to encourage discussion of work in progress. Any views or opinions expressed in the paper are the authors' own and do not necessarily reflect the views or opinions of the U.S. Census Bureau. Please direct correspondence to Megan J. Benetsky, U.S. Census Bureau, SEHSD, via e-mail at megan.jane.benetsky@census.gov.

Introduction

The most common reasons for moving in the United States are generally job, housing, or family related (Schachter 2004). Usually, when economic conditions are good, we see a stable rate of migration. However, with the Great Recession¹ spurred by a housing and credit crisis and associated rise in unemployment, migration in the United States slowed (Frey 2009). This dip is seen in the Current Population Survey's annual mover rate (Ihrke, Faber, and Koerber 2011).

Young adults aged 20-29 have the highest migration rate of any age group² and may also be hardest hit by the Great Recession. Given the austere job outlook, constrained college funds, and the housing market crisis, their migration numbers may have declined and demographic, socioeconomic, and geographic migration patterns may have changed. This paper will draw on life course theory to examine migration patterns of young adults that may be distinct with respect to normative adulthood transitions. This paper carries a report to be released in 2015 about young migration a step further to better understand the demographic, socioeconomic, and geographic forces behind potential new migration patterns and relationships brought on by the Great Recession.

We will address the following specific questions:

- 1) Did the migration rate for young adults change?
- 2) Was the change in migration rate greater for young adults than for others?
- 3) Was this change different across demographic groups?

¹ The Great Recession officially began in December of 2007 and ended in June of 2009 according to the National Bureau of Economic Research: <http://www.nber.org/cycles.html>

² Current Population Survey Annual Social and Economic Supplement, 2012 Table 1
<http://www.census.gov/hhes/migration/data/cps/cps2012.html>

- 4) Was this difference associated with changes in other reasons for migration (school, work, marriage, children)?
- 5) Was this change due to the Great Recession?

Background

The United States has a relatively stable rate of migration, fluctuating between 17 and 14 percent from 1981 to 2005.³ The most common reasons for moving are job or housing related. When these economic conditions deteriorate, the migration rate declines. The most recent and disastrous economic watershed moment, the Great Recession, was spurred by both a credit and housing crisis.⁴ As expected, the migration rate dipped (Ihrke, Faber, and Koerber 2011; Frey 2009) as unemployment increased and money became tight.

Young adults are the most mobile population in the United States. As Schachter (2004) notes, in 2003 the migration rate of 20 to 24 year olds was more than double that of the national average (30.1 percent versus 14.2 percent).

Millennials may be among the hardest hit by the Great Recession. An analysis by Benetsky and Koerber (2012) showed that over half (50.4%) of all county-to-county migrants were young, between the ages of 15 and 34. Those who are young may be especially vulnerable during the recession and may have changed their migration behavior as they are more likely to be on the job market or are prospective first-time homeowners.

Historically, the Census Bureau has previously reported on the migration of the young, single, and college-educated rather than just the young (see Franklin 2003, Goworowska and Gardner 2012). However, Franklin (2003) noted that marital status was not associated with a

³ www.census.gov/prod/2012pubs/p20-567.pdf

⁴ The Great Recession officially began in December of 2007 and ended in June of 2009 according to the National Bureau of Economic Research: <http://www.nber.org/cycles.html>

different migration rate than other young adults. The young are much more likely to move in general, regardless of education or marital status.

“Young” was defined in these previous reports as those aged 25 to 39. This decision was likely made to maximize the number of migrants who completed a bachelor’s degree in their sample. However, as our paper does not focus on movers with college degrees, we have set our minimum age at 18. We also decreased the maximum age to 34 because 39 seems to approximate middle age rather than young adulthood though many life course transitions are completed by age 39 as well. We believe our age range captures those who are approaching or have recently completed at least some life course transitions (graduating from high school, getting a job, going to college, graduating from college, getting married, or having children) rather than capturing those who have likely completed these milestones.

This paper analyzes demographic, economic, household, and geographic changes among young adults who moved, and where they moved from the years during the recession to the years after the recession. The Census Bureau is expected to release a report in 2015 that provides a detailed descriptive framework of the migration patterns of young adults across these years.⁵ This paper continues this work, and uses logistic regressions to better understand which Millennials were more likely to move during or after the recession and where, and also what effects the recession had on this highly mobile population.

Data and methodology

The American Community Survey (ACS) is a nationally representative, ongoing survey that produces annual estimates of socioeconomic, demographic, and housing characteristics at the national and subnational level. The ACS 3-Year Estimates are a multiyear dataset, collected

⁵ Benetsky, Burd, and Rapino, U.S. Census Bureau (forthcoming)

over a 36-month period, that allow for more detailed analysis of smaller populations across smaller levels of geography. Multiyear ACS datasets are an aggregate of years of data, which represent an average across these years. To measure migration, respondents are asked where they lived one year ago.

This analysis will use two different sets of ACS 3-Year Estimates. The 2007-2009 3-Year ACS is used to approximate the years of the Great Recession. The second, 2010-2012 3-Year ACS, is used to analyze the most recent data in the years after the recession. The Census Bureau recommends the comparison of multiyear estimates only when the data years are not overlapping, as the 2007-2009 and 2010-2012 datasets are not.⁶

As discussed earlier, the most common reasons for moving for young adults are job or education related. This analysis also considers educational attainment, presence of children, income, employment status, marital status, living arrangements, and tenure status of Millennials, i.e., whether they are a homeowner, renter, or living somewhere without paying rent (likely with their parents).⁷ Tenure status is an important indicator for the transition to adulthood, and also reflects the current housing market. For these reasons, the metro housing vacancy rate is a control in the models as well as the unemployment rate.

To answer our first and second research questions about the change in migration rate for young adults compared to others, descriptive data are used to show migration rate time trends for the total U.S. population using 2007-2009 and 2010-2012 ACS data. The change across demographics from recession to the post-recession era is presented in descriptive statistics and measured using logistic regressions, addressing the third question. To address question four, additional logistic models were used to measure migration with other common reasons for

⁶ http://www.census.gov/acs/www/guidance_for_data_users/comparing_data/

⁷ Income in the 2007-2009 ACS was adjusted to reflect 2012 U.S. dollars.

moving in addition to demographic controls such as educational attainment, school enrollment status, income, employment status, marital status, and presence of children, as well as living arrangements and metro characteristics.⁸ Again, the models were run for both the 2007-2009 and 2010-2012 datasets to compare the predictors during and after the recession. Finally, a pooled model of the recession and post-recession time periods are presented using all of the variables described above including a variable for time period. This will help to measure whether the Great Recession was associated with a change in Millennial migration, after the controls.

Descriptive results

Figure 1 shows the migration rate across age for the Recession and Post-recession periods. The decline in migration is especially apparent for the 18 to 34 age groups. Table 1 shows these rates by age and whether the difference between time periods is a significant change.⁹ Significance occurs at various ages including young adults, but the magnitude of change is most apparent across Millennial age groups.

Figures 2 through 9 show the percentage point change in migration rates by selected characteristics from the years during the recession to the years following the recession. Figure 2 shows that while migration rates for both males and females declined between time periods, males had larger declines in their migration rates than females for all young adults and for the 25 to 29 year old age group.¹⁰ Millennials aged 18 to 24 experienced the largest decline compared

⁸ We acknowledge that listing the independent variables this way appears to be an order of life transitions. ACS data are not longitudinal, and we are not implying that we have researched an order or causality to these life events. Rather, we are looking at these life events concurrently.

⁹ Figure 1 and Table 1 does not include Puerto Rico in order to match estimates on American FactFinder. The remaining figures and tables do include Puerto Rico in the universe.

¹⁰ Females aged 30-34 did not experience significant decline at the 90% confidence level across periods.

to their 25 to 29 and 30 to 34 year old peers (Appendix Tables A1, A2). Those ages 30 to 34 had a small but significant decline in migration relative to their peers.

Figure 3 illustrates the percentage point change in migration rates by race. Every race experienced declines in migration among all young adults, except Native Hawaiian and Other Pacific Islander and Asians. Whites, Some Other Race, and Two or More Races experienced larger declines than Asians, while African Americans alone saw significantly different declines compared to Whites, Asians, and Some Other Race.

Figure 4 shows the decline in non-Hispanic and Hispanic migration rates. There was no significant difference in migration rate decline between Hispanics and non-Hispanics, though there were differences between age groups among Hispanics. Figure 5 shows the largest decline in migration for native-born Millennials. The foreign-born, specifically foreign-born citizens aged 30 to 34, were the only group to have increased migration from the recession to the post-recession period.

Educational attainment, normally measured after age 25, includes 18 to 24 year olds in Figure 6.¹¹ Generally, the more education one has, the less migration decline they experienced. Perhaps Millennials with a college degree are the most likely to continue moving for jobs and careers despite the economic slowdown. Figure 7 shows that school enrollment is associated with fewer declines in migration.

Figure 8 shows that those who were employed had among the smallest migration declines. However, employed, at work Millennials' migration rate declines were only statistically different from Millennials who were unemployed or not in the labor force. Figure 9 also shows a

¹¹ "Even when data are collected from all household members regardless of age, the U.S. Census Bureau generally publishes data only for adults. Most publications focus on adults age 25 years and over, when education has been completed for most people," U.S. Census Bureau, About Educational Attainment: <https://www.census.gov/hhes/socdemo/education/about/index.html>

basic trend as well: Millennials who are married experienced some of the smallest declines in migration while those who are not married had the largest declines in migration.¹² This may indicate that married couples may have the financial means or need to migrate, while singles may not. Figure 10 shows the change in migration rates by living arrangements. Much of the decline is within cohabiting households, married Millennials living with family, and Millennials who have roommates or live in group quarters. Finally, Figure 11 shows the change in migration rates for Millennials by the presence and age of children in the household. All Millennial groups across all ages of their children experienced declines in migration except 30 to 34 year olds with children under 6 and those with children under 6 and a child aged 6 to 17.

Multivariate Results

To analyze the predictors of the likelihood of a Millennial to move, six logistic regression models were used.^{13,14} The dependent variable was “mover” where the regression was modeled on movers (where mover=1 and non-mover=0). The first two models use demographic variables to predict who was more likely to move in the recession period (Model 1) and the post-recession period (Model 2). The demographic controls are the three age groups used in the descriptive statistics, sex, race, Hispanic origin, and nativity. Models 3 and 4 also show the recession and post-recession periods respectively, but include other variables like educational attainment, school enrollment, presence of children, income, employment status, marital status, tenure, and other metro-level controls.

¹² Not statistically different from widowed Millennials of any age group or divorced or never married Millennials ages 18-24.

¹³ The universe of the models is ages 18 to 34 only.

¹⁴ Logistic regressions control for ACS sampling error.

Model 1 shows that compared to 18 to 24 year olds, Millennials aged 25 to 29 and 30 to 34 were less likely to be movers, and older Millennials were less likely to move than 25 to 29 year olds (-0.575 vs. -0.134). Two patterns emerge for race, Blacks and Asians were less likely to move than Whites, while Some Other Race and Two or More Races were more likely to be movers than Whites. Hispanics were less likely to move than non-Hispanics (-0.329) and the foreign born were less likely to move than native-born Millennials (-0.065). In Model 2 there was no stark change from the recession to post-recession period.

In the full recession model (Model 3), some demographic changes emerge. With all of the controls in the model, women are now less likely to move than men, and Blacks, American Indian/Alaskan Natives, Asians, and Native Hawaiian or Pacific Islanders were less likely to move than Whites. Looking at the socioeconomic predictors, Millennials enrolled in school were less likely to move than those who were not, and any young adult that had at least a high school degree was more likely to move than a Millennial without a high school degree. The likelihood of moving appears to increase as education increases. Young adults with children of any age are less likely to move than their peers without children, with a greater likelihood of moving for Millennials with children both under 6 and school aged. Compared to the reference category of having an income less than \$10,000 a year, all other income groups \$25,000 or higher were less likely to move. This effect grew larger as income increased as well. Millennials who are employed in the Armed Forces, or unemployed were more likely to move than those employed, and this effect was strongest for those in the Armed Forces, as predicted (0.499). For marital status, Millennials who were never married were less likely to move than those who were married, while divorced or separated Millennials were more likely to move. Not surprisingly, renters and those who were occupying the residence without paying rent (what is referred to as

“House guest” in the models) were more likely to move than homeowners. This effect was particularly large for renters compared to house guests (1.217 vs. 0.531). Living arrangements also presented interesting findings. Living alone, cohabiting, being married but living with your parents, and having roommates is associated with a higher likelihood of moving compared to being married and living with just your spouse. Millennials who are living with their parents are less likely to move than married couples living together (-0.694), an interesting finding and may indicate some sort of a “parent trap” for Millennials’ living situations.

Finally, for the metro area controls, movers were more likely to be currently living in a metro area (0.047). If the unemployment rate for the metro area was low, more movers were likely to be living there currently (-0.022). And if the housing vacancy rate was high, more movers were likely to be living in those metros as well, perhaps because Millennials moved into areas with many options for available housing (0.009), though this effect was not large, relatively. Model 4, the full post-recession model, all multivariate patterns remain.

Figure 13 shows the absolute differences in coefficients between the recession and post-recession periods for Models 1, 2, 3, and 4 while keeping the direction of the coefficients. The positive or negative directions do not denote positive or negative change; rather, the positive or negative directions show a positive or negative likelihood of moving. This figure shows that after controlling for demographics, houseguests, those who are cohabiting, and married couples living with their family had some of the greatest positive changes in effect size. Essentially, these covariates were among those with the largest change across periods in predicting the likelihood of moving. Millennials who were living with their parents, enrolled in school, or not in the labor force were among the strongest negative changes in effect size, or these were the predictors most likely to be associated with not moving.

Models 5 and 6 pool the recession and post-recession periods and include a control for time in the models. Model 5 does not include metro-level controls while Model 6 does. Model 5 shows that Millennials were less likely to move in the post-recession period than in the recession period (-0.110). All previous patterns for demographic, socioeconomic, and living arrangement controls remain. In Model 6, like in Model 4, Millennials are more likely to have moved if the metro unemployment rates were low. However, unlike Model 4, now with time period as a control in Model 6, the direction for housing vacancy changes. Model 6 shows that controlling for time period, Millennials were more likely to have moved if the housing vacancy rate in the metro area they live currently was low (-2.067).

Discussion and Conclusion

This aim of this paper was to further research on the United States's most mobile population, young adults aged 18 to 34. It also sought to understand how the greatest economic recession since the Great Depression affected the migration patterns of this relatively transient group. Descriptive statistics and logistic regressions were used to help answer our primary research questions.

The descriptive results showed that 1) the migration rate for young adults significantly declined from the recession period to the post-recession period and 2) that the migration rate for Millennials changed more than for other age groups. Descriptive statistics also indicated that this decline in migration varied across demographic groups as women experienced smaller declines, along with Whites and Asians in general. Overall, more education and employment was associated with smaller declines in migration, though these varied across age groups.

Logistic regressions indicated that controlling for demographics, socioeconomic, and housing variables were strong predictors of moving, in both the recession and post-recession periods. The finding for Millennials who live with their parents is especially interesting, as they are less likely to have moved in the last year than any of their peers. This likely indicates that these are Millennials who have yet to leave the nest and probably less likely that they have moved out and returned home, though both are possible.

Metro-level controls were also important predictors in both periods, indicating that unemployment and housing vacancy rates are part of the calculus in the decision of where to move. This is especially true once time period is controlled for, where low vacancy rates of the metro area becomes associated with movers. Though a low vacancy rate may seem like a counterintuitive draw for movers to an area, it may be an indicator of economic stability in the metro area.

Future research should include an analysis of group quarters to disentangle young adults who are living in college dormitories or military barracks, as results from this paper have shown that the college and Armed Forces population are unique from their peers. The addition of change in unemployment rates and housing vacancy rates as controls would also be useful in assessing how well a metro recovered from the recession. How well a metro recovers from the recession may make the area either a magnet or a deterrent for potential movers.

Table 1. Migration rate by age and time period

Age	2007-2009	MOE	2010-2012	MOE	Difference
Total	15.2%	0.06	14.6%	0.06	-0.5% *
1 to 4	20.6%	0.17	20.4%	0.16	-0.2%
5 to 17	13.5%	0.10	13.3%	0.10	-0.2% *
18 to 19	29.2%	0.17	27.6%	0.16	-1.5% *
20 to 24	33.6%	0.13	31.2%	0.12	-2.5% *
25 to 29	29.3%	0.13	28.1%	0.12	-1.2% *
30 to 34	21.0%	0.13	20.8%	0.11	-0.2% *
35 to 39	15.8%	0.11	15.6%	0.11	-0.1%
40 to 44	12.4%	0.10	12.6%	0.09	0.1% *
45 to 49	10.1%	0.07	10.3%	0.08	0.2% *
50 to 54	8.6%	0.07	8.8%	0.07	0.2% *
55 to 59	7.4%	0.05	7.5%	0.06	0.1%
60 to 64	6.6%	0.07	6.5%	0.06	-0.1% *
65 to 69	5.5%	0.06	5.4%	0.06	-0.1% *
70 to 74	5.0%	0.08	4.9%	0.07	-0.1% *
75 years and over	6.9%	0.06	6.4%	0.06	-0.5% *

* Difference between 2007-2009 and 2010-2012 is significant at the 90% confidence level

Includes movers only in U.S., not U.S. and Puerto Rico

Source: U.S. Census Bureau, 2007-2009 and 2010-2012

American Community Survey 3-Year Estimates

For more information on the ACS, see <http://www.census.gov/acs/www>

Figure 1. Migration rate by age and time period

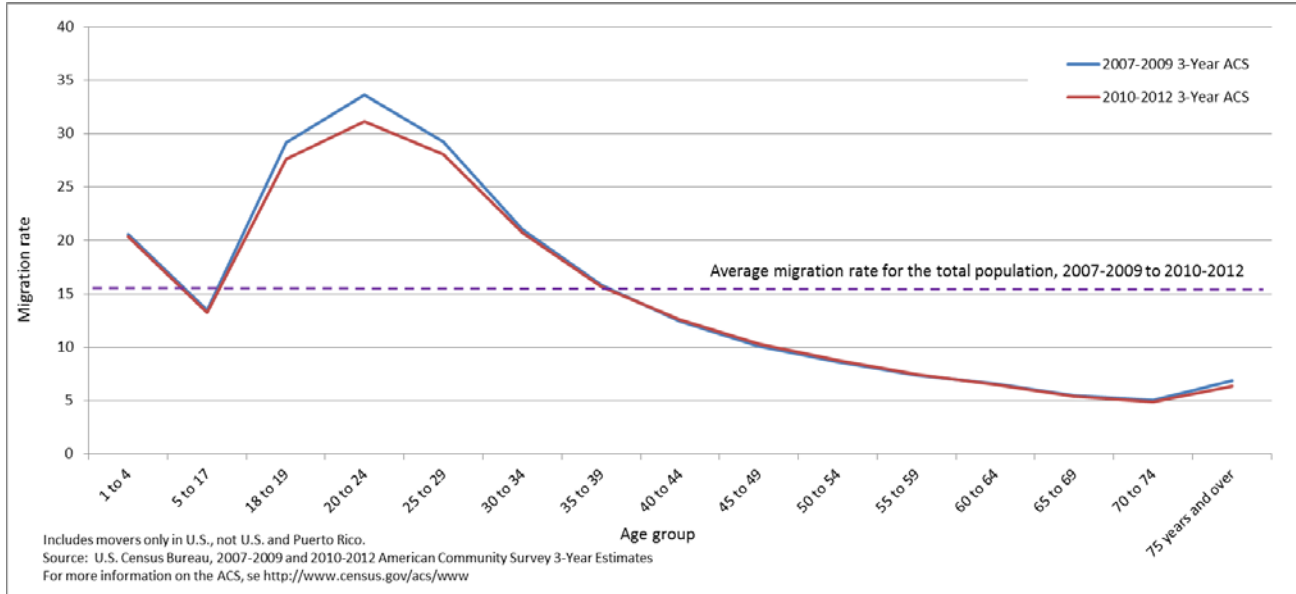


Figure 2. Percentage point difference in migration rates between recession and post-recession periods, by age groups and sex

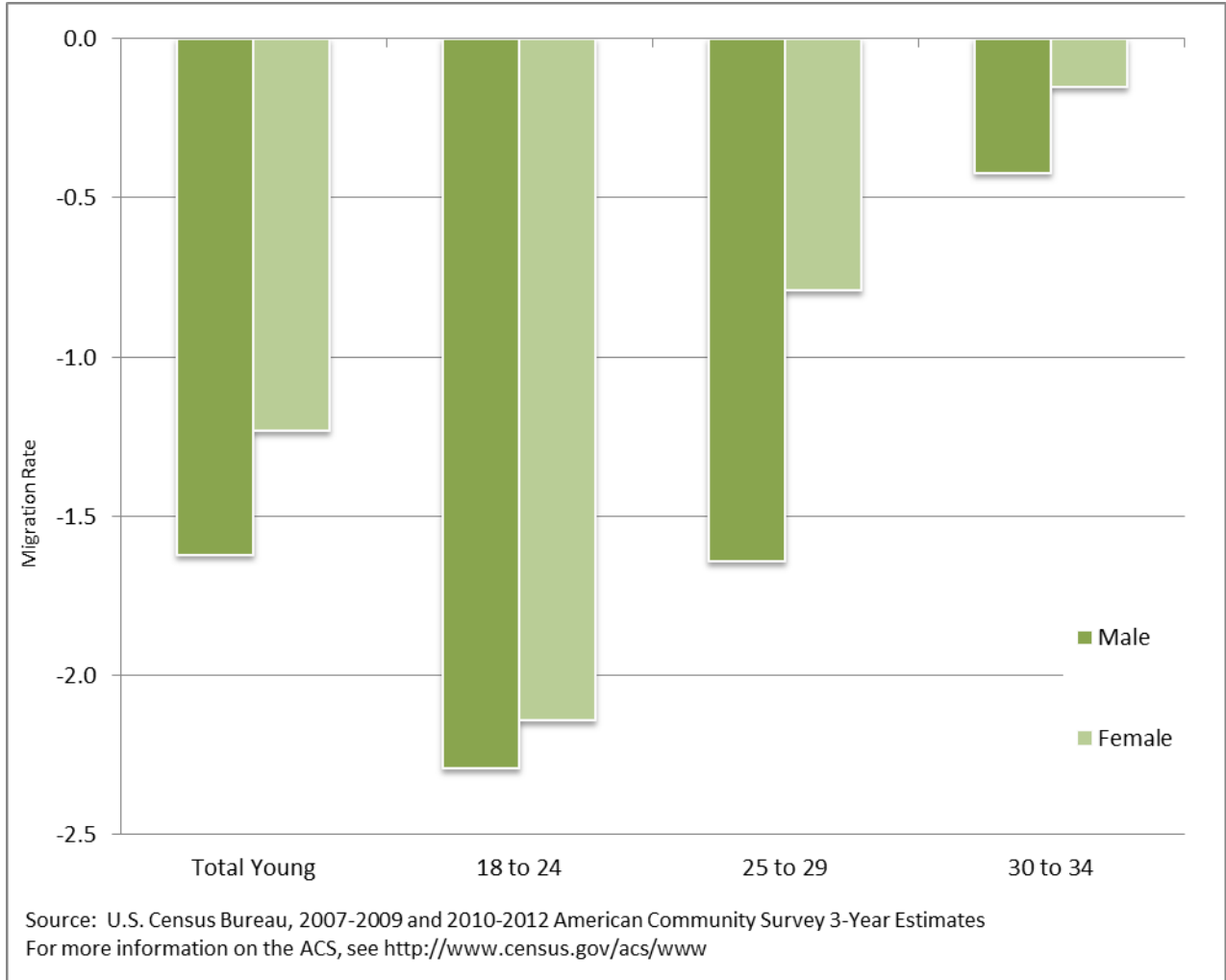


Figure 3. Percentage point difference in migration rates between recession and post-recession periods, by age groups and race

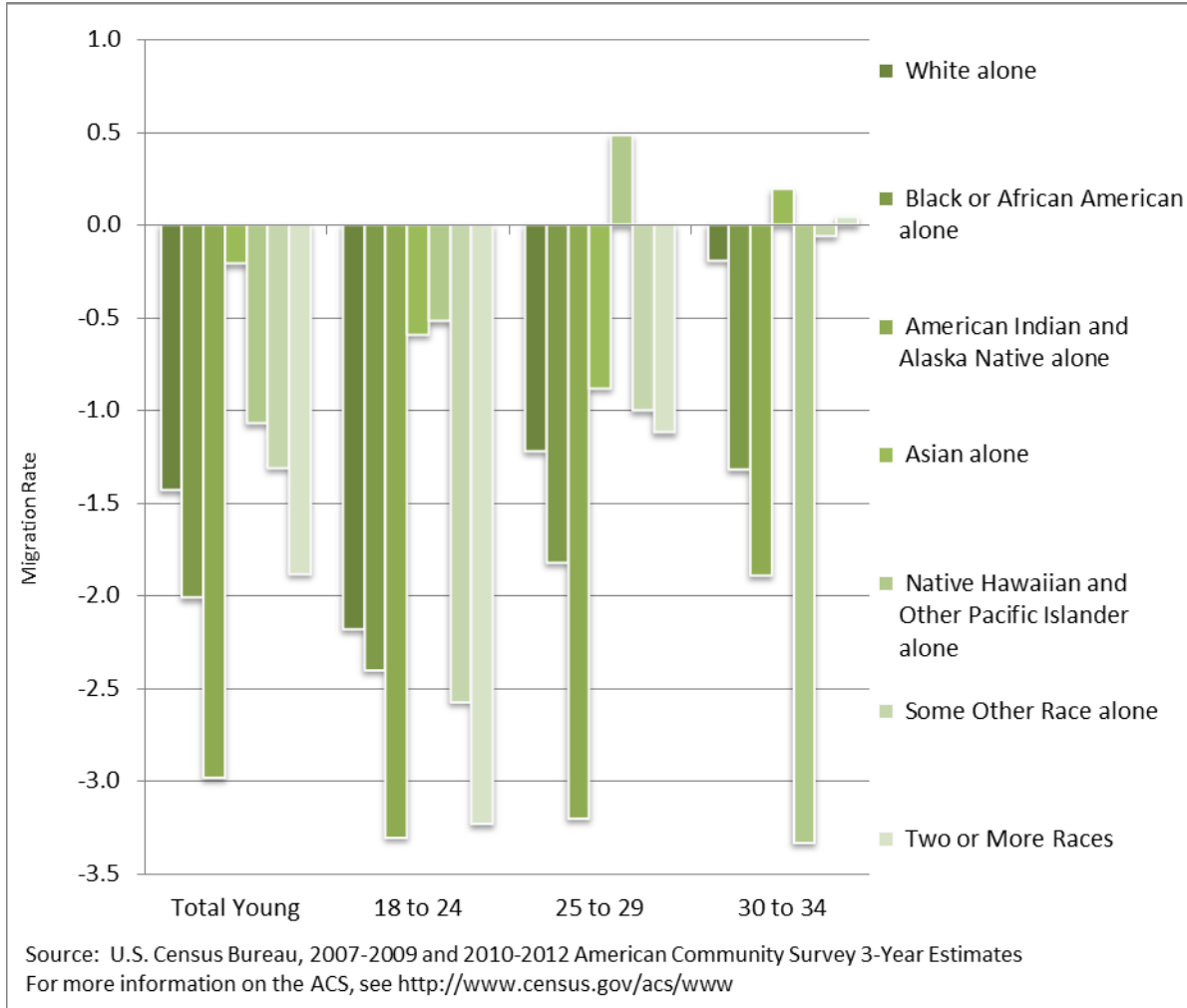


Figure 4. Percentage point difference in migration rates between recession and post-recession periods, by age groups and Hispanic origin

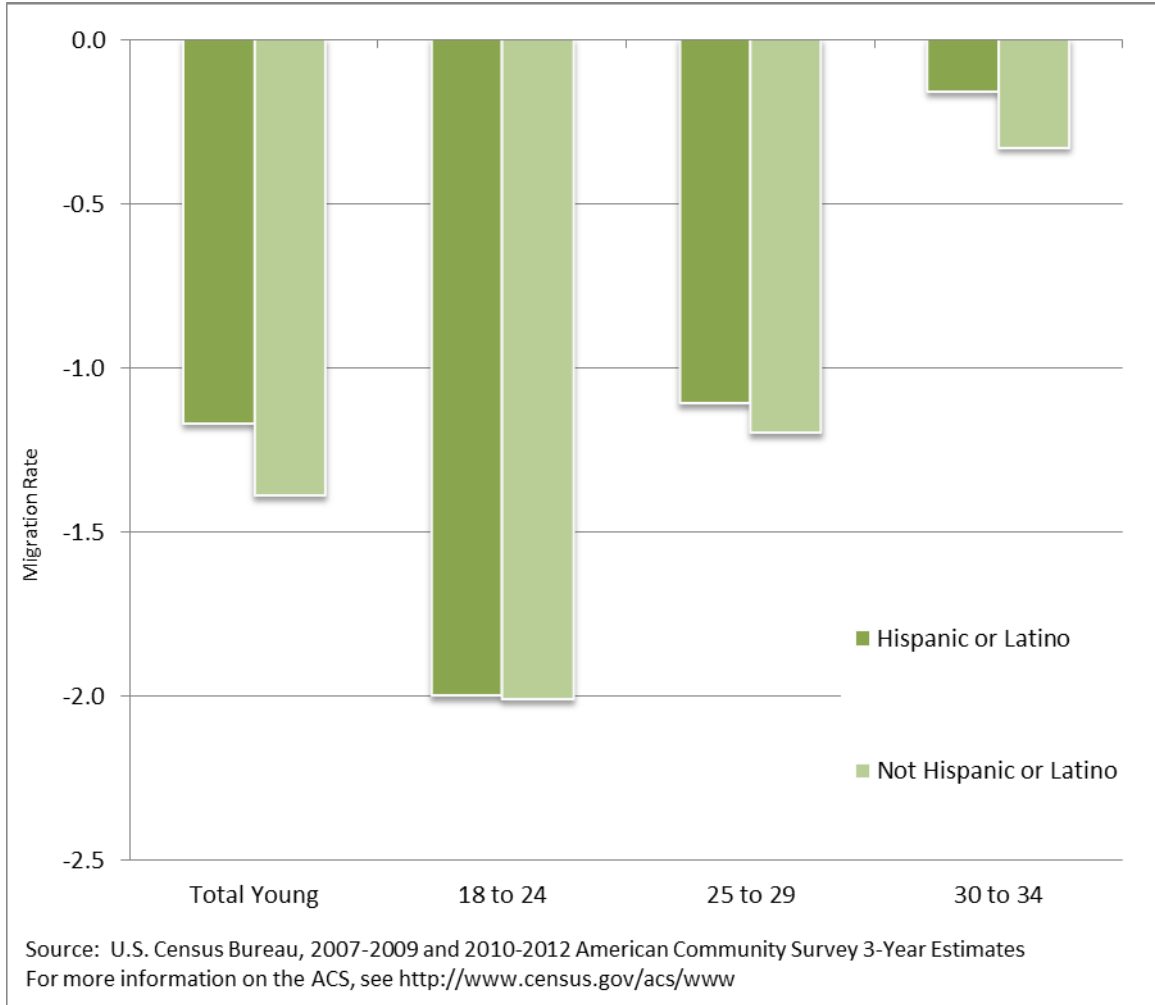


Figure 5. Percentage point difference in migration rates between recession and post-recession periods, by age groups and nativity and citizenship

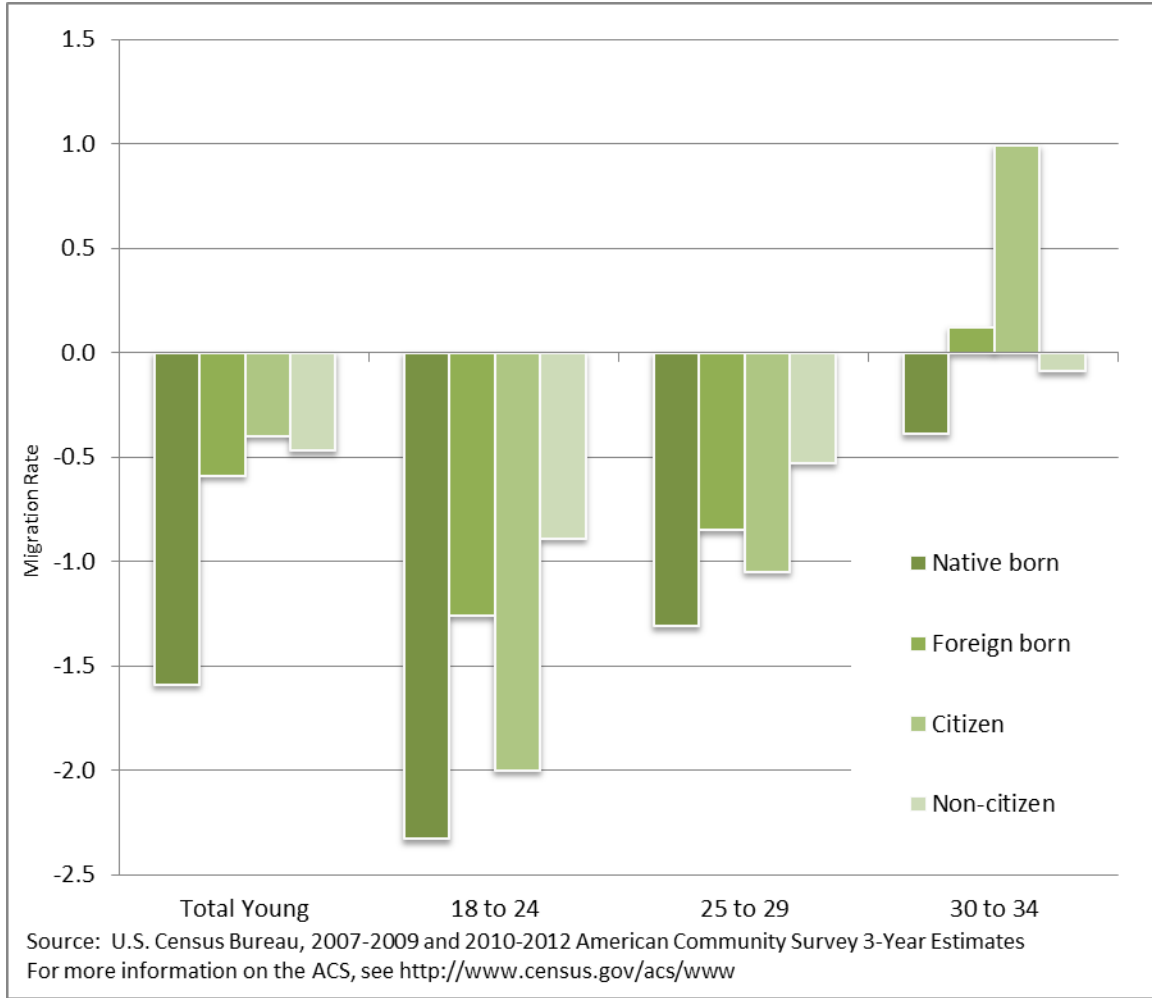


Figure 6. Percentage point difference in migration rates between recession and post-recession periods, by age groups and educational attainment

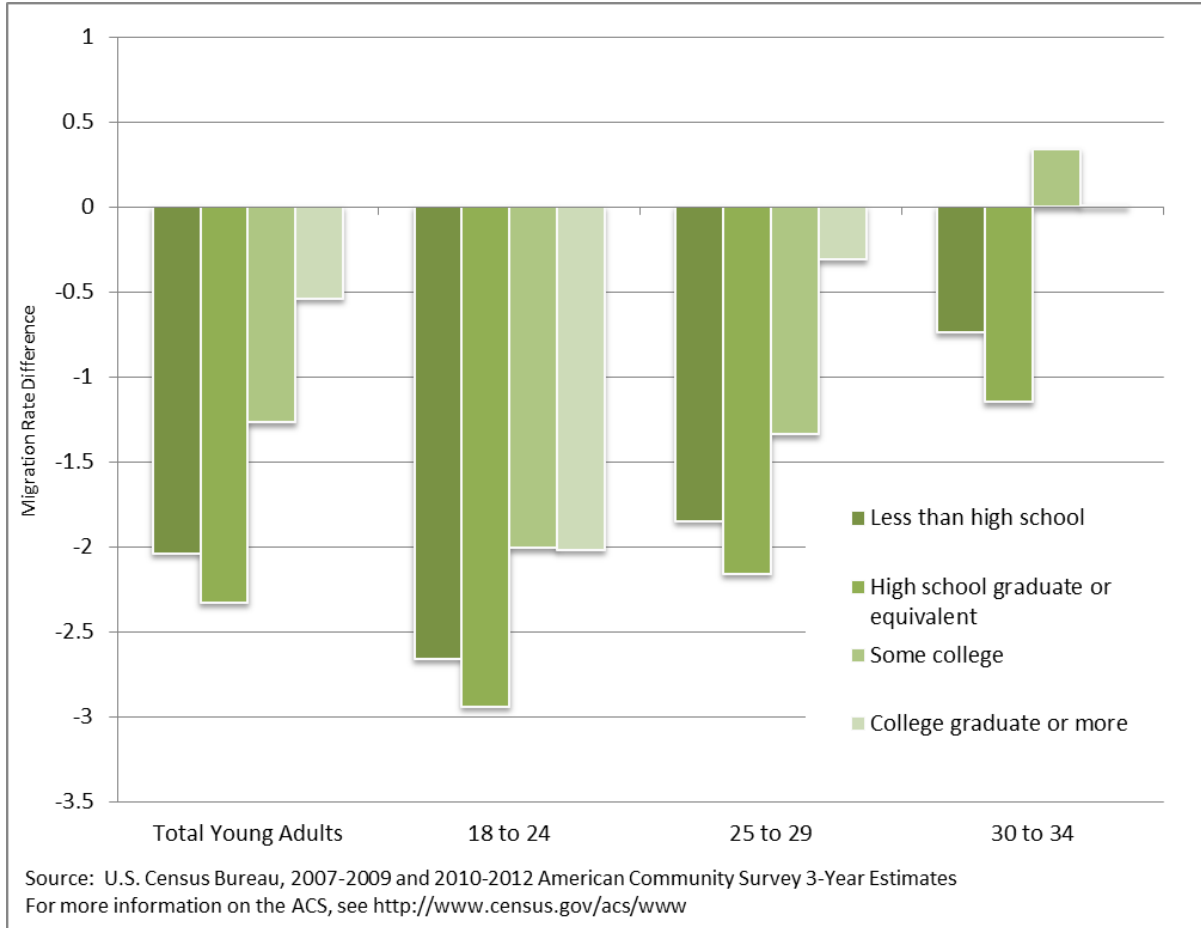


Figure 7. Percentage point difference in migration rates between recession and post-recession periods, by age groups and school enrollment status

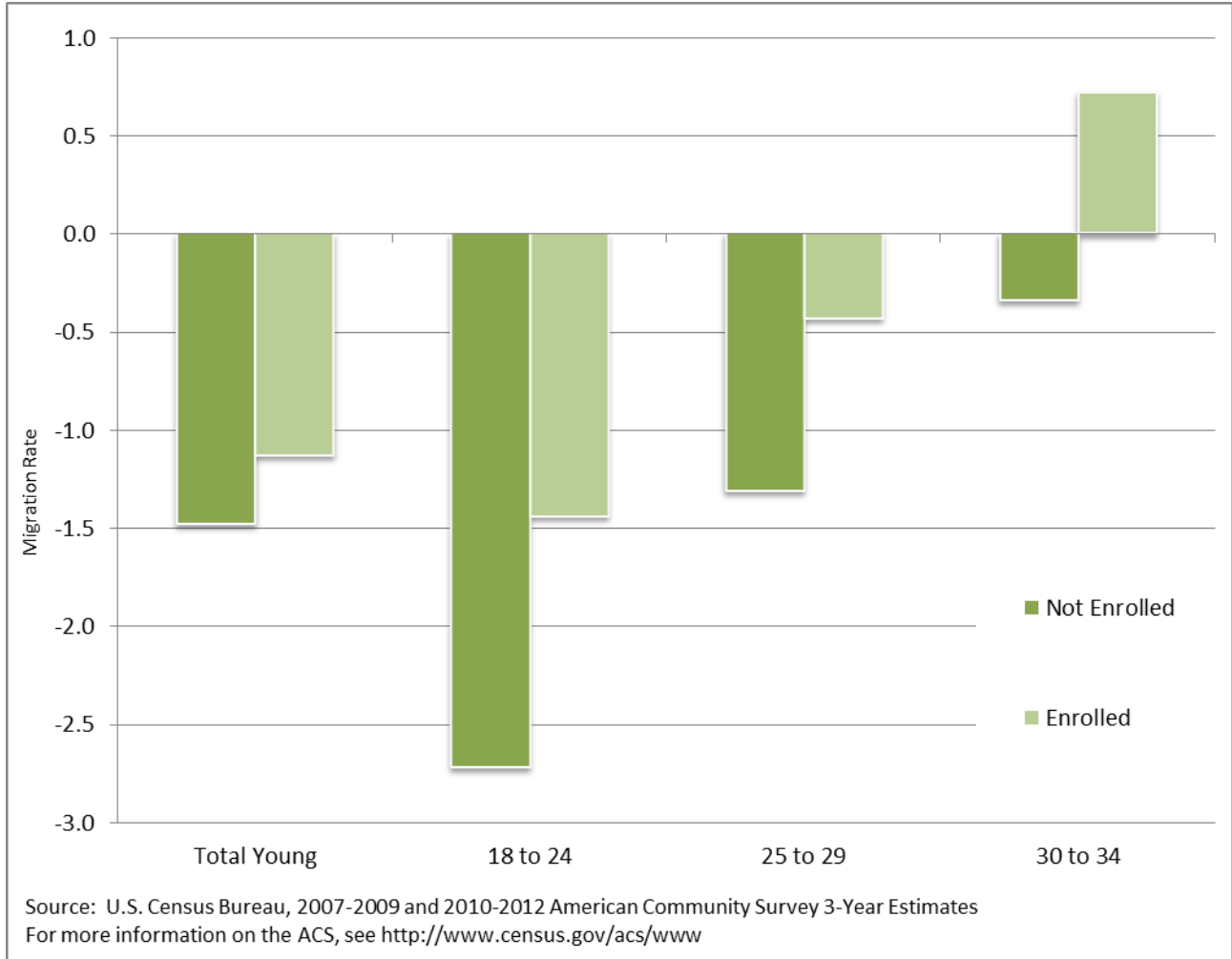


Figure 8. Percentage point difference in migration rates between recession and post-recession periods, by age groups and employment status

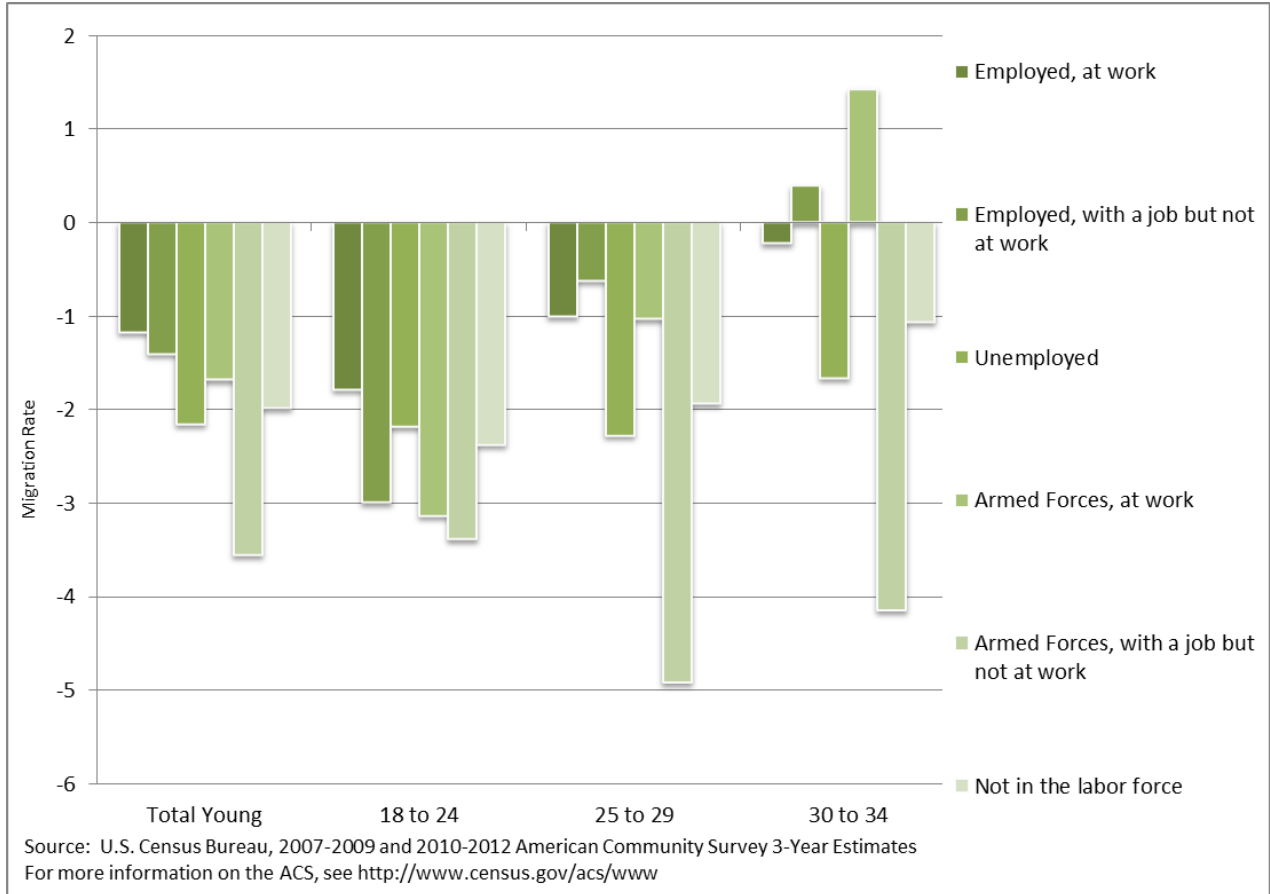


Figure 9. Percentage point difference in migration rates between recession and post-recession periods, by age groups and marital status

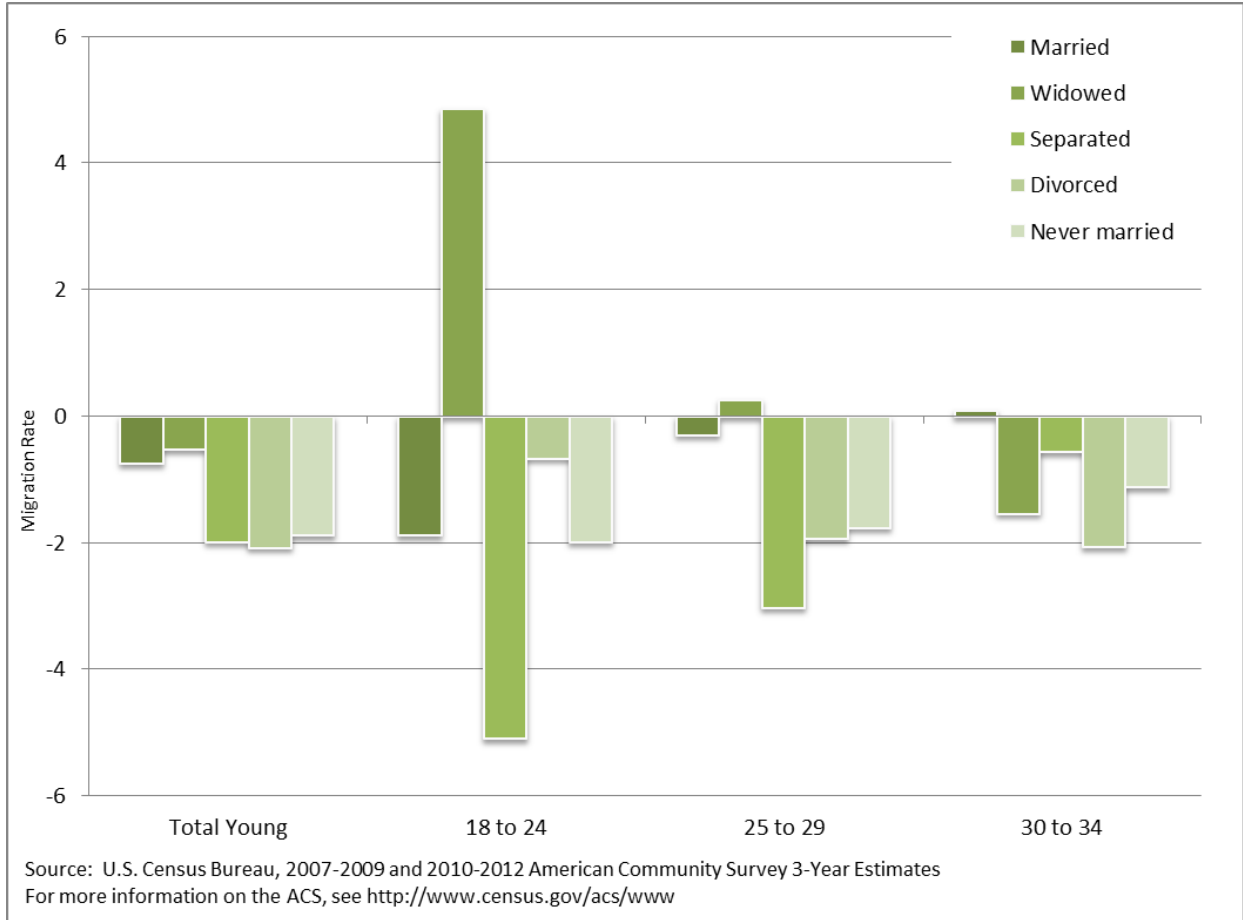


Figure 10. Percentage point difference in migration rates between recession and post-recession periods, by age groups and living arrangements

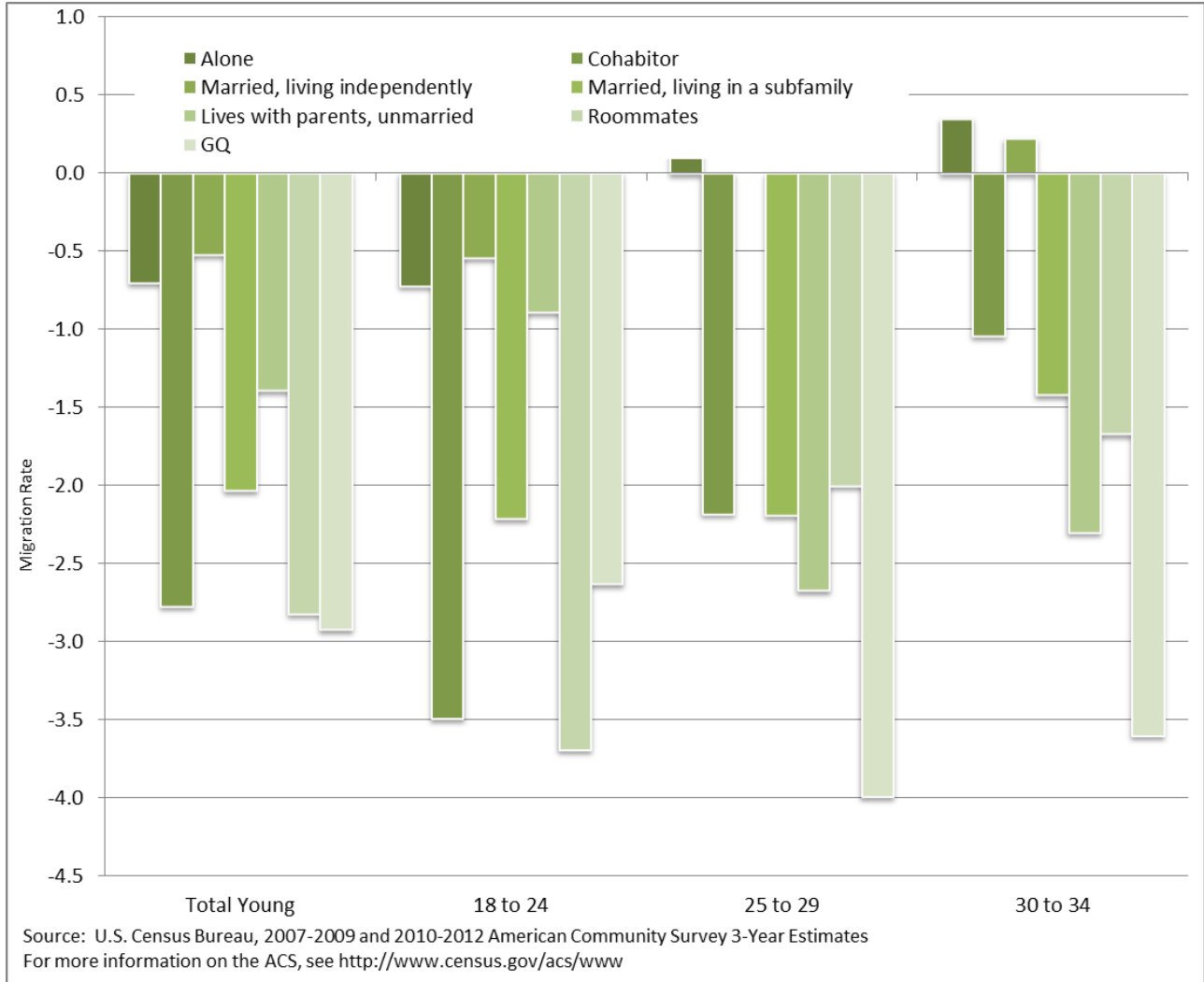


Figure 11. Percentage point difference in migration rates between recession and post-recession periods, by age groups and presence and age of children

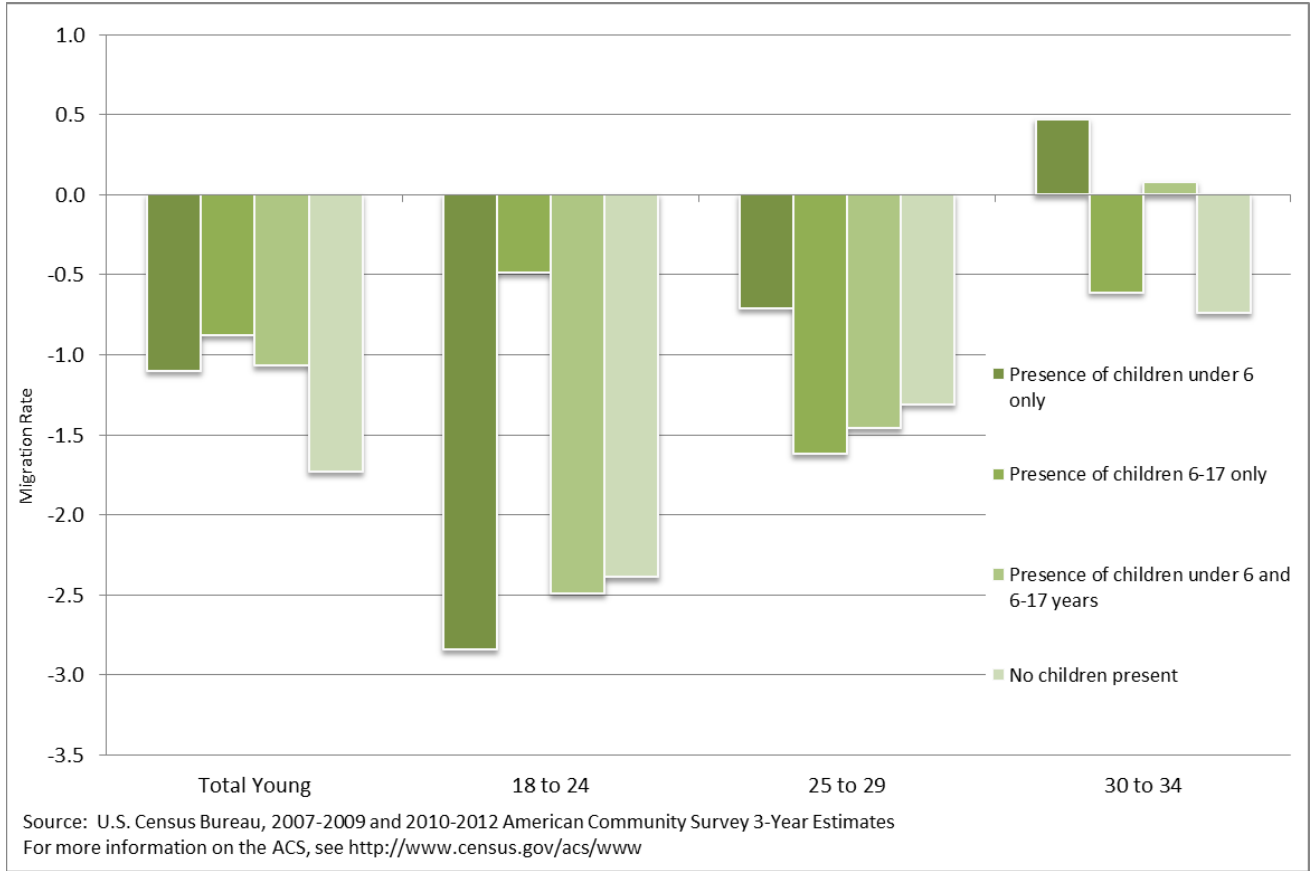


Figure 12. Percentage point difference in migration rates between recession and post-recession periods, by age groups and housing tenure

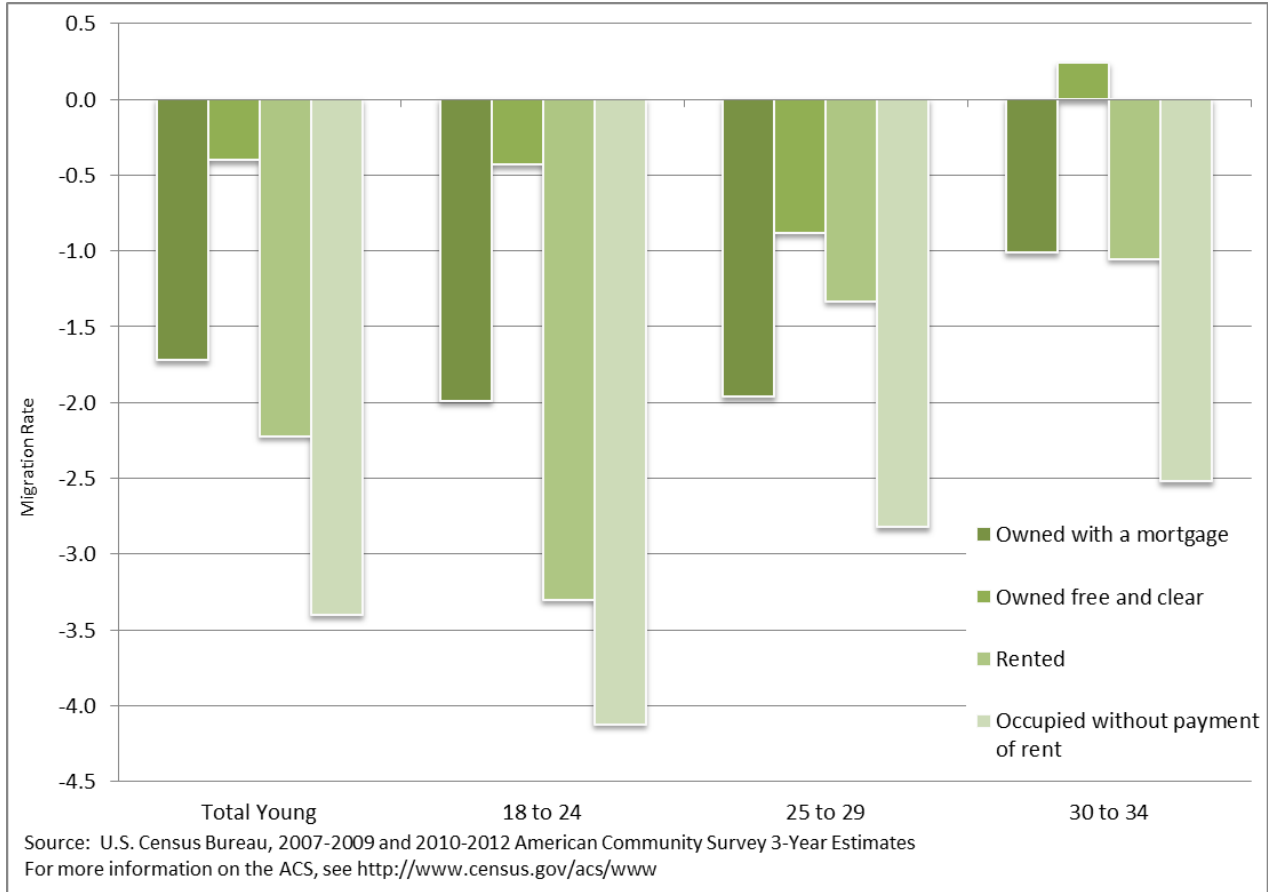


Figure 13. Differences in coefficients for Models 1, 2, 3, and 4

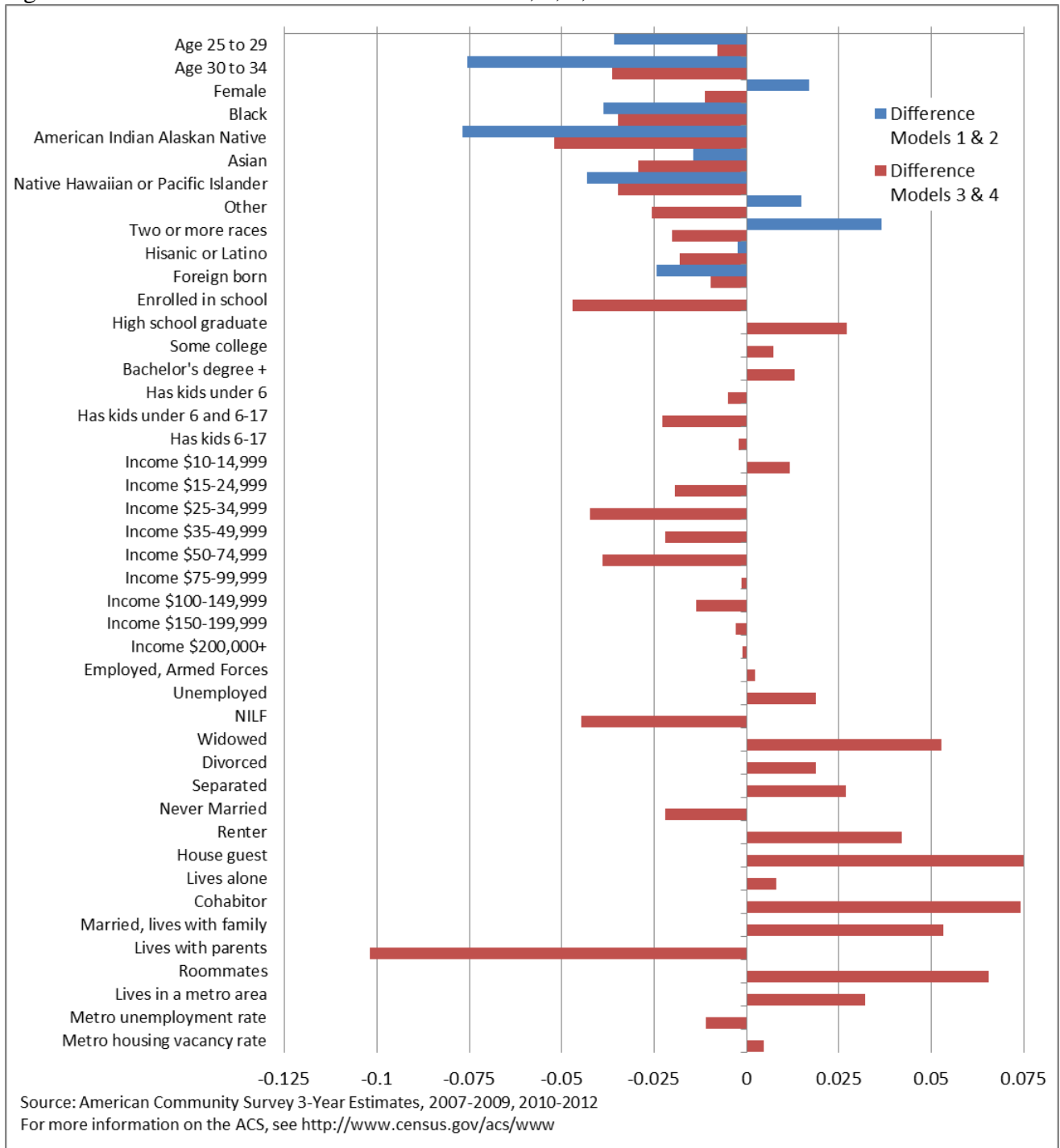


Table 2. Logistic regression results predicting recession and post-recession-era migration

	Model 1 Recession Mover	Model 2 Post-recession Mover
Intercept	-0.662 ***	-0.758 ***
Young 25-29	-0.134 ***	-0.098 ***
Young 30-34 ref. 18-24	-0.575 ***	-0.499 ***
Female	0.000	0.017 ***
Black	-0.047 ***	-0.086 ***
American Indian/Alaskan Native	-0.051	-0.127 ***
Asian	-0.121 ***	-0.106 ***
Native Hawaiian or Pacific Islander	-0.055	-0.012
Other	0.066 ***	0.051 ***
Two or more races ref. White	0.061 ***	0.024
Hispanic/Latino	-0.329 ***	-0.326 ***
Foreign born	-0.065 ***	-0.041 ***
Obs.	71,096,879	72,865,397
-2 Log Likelihood	83,785,496	84,159,014

*** p <0.0001; ** p<0.001; * p <0.01

Source: American Community Survey 3-Year Estimates, 2007-2009, 2010-2012

Table 3. Logistic regression results predicting recession and post-recession-era migration

	Model 3		Model 4	
	Recession		Post-recession	
	Mover		Mover	
Intercept	-1.051	***	-1.122	***
Young 25-29	-0.391	***	-0.383	***
Young 30-34	-0.759	***	-0.722	***
ref. 18-24				
Female	-0.023	***	-0.012	**
Black	-0.226	***	-0.261	***
American Indian/Alaskan Native	-0.090	*	-0.142	***
Asian	-0.035	**	-0.064	***
Native Hawaiian or Pacific Islander	-0.218	***	-0.183	**
Other	-0.017		-0.043	**
Two or more races	-0.012		-0.032	
ref. White				
Hispanic/Latino	-0.286	***	-0.268	***
Foreign born	-0.272	***	-0.262	***
Enrolled in school	-0.127	***	-0.080	***
HS grad	0.056	***	0.029	**
Some college	0.164	***	0.156	***
Bachelor's degree +	0.320	***	0.333	***
ref. < HS				
Has young kids	-0.129	***	-0.124	***
Has school-aged kids	-0.255	***	-0.278	***
Has young and school-aged kids	-0.352	***	-0.350	***
ref. No kids				
\$10,000 to \$14,999	0.037	***	0.025	*
\$15,000 to \$24,999	-0.002		-0.022	*
\$25,000 to \$34,999	-0.038	***	-0.080	***
\$35,000 to \$49,999	-0.118	***	-0.140	***
\$50,000 to \$74,999	-0.163	***	-0.202	***
\$75,000 to \$99,999	-0.191	***	-0.192	***
\$100,000 to \$149,999	-0.174	***	-0.187	***
\$150,000 to \$199,999	-0.203	***	-0.206	***
\$200,000 +	-0.202	***	-0.201	***
ref. <\$10,000				
Employed, Armed Forces	0.499	***	0.502	***
Unemployed	0.172	***	0.153	***
Not in labor force	-0.077	***	-0.121	***
ref. Employed				
Widowed	-0.032		0.021	

Divorced	0.134	***	0.153	***
Separated	0.411	***	0.438	***
Never married ref. Married	-0.258	***	-0.236	***
Renter	1.217	***	1.259	***
House guest ref. Owner	0.531	***	0.456	***
Lives alone	0.297	***	0.305	***
Cohabitor	0.577	***	0.503	***
Married living w/ family	0.223	***	0.170	***
Lives with parents	-0.694	***	-0.796	***
Roommates ref. Married couple living alone	0.446	***	0.381	***
Lives in metro area	0.047	***	0.015	
CBSA unemployment rate	-0.022	***	-0.011	***
Housing vacancy rate	0.009	***	0.005	***
Obs.	63,358,880		65,121,332	
-2 Log Likelihood	63,716,783		63,853,487	

*** p < 0.0001; ** p < 0.001; * p < 0.01

Source: American Community Survey 3-Year Estimates, 2007-2009, 2010-2012

Table 4. Logistic regression results predicting migration controlling for period

	Model 5		Model 6	
	Pooled		Pooled	
	Mover		Mover	
Intercept	-1.080	***	-1.026	***
Post-recession period	-0.110	***	-0.111	***
Young 25-29	-0.388	***	-0.388	***
Young 30-34	-0.739	***	-0.742	***
ref. 18-24				
Female	-0.017	***	-0.017	***
Black	-0.253	***	-0.246	***
American Indian/Alaskan Native	-0.151	***	-0.101	***
Asian	-0.062	***	-0.062	***
Native Hawaiian or Pacific Islander	-0.198	***	-0.194	***
Other	-0.036	***	-0.036	***
Two or more races	-0.025		-0.026	
ref. White				
Hispanic/Latino	-0.283	***	-0.284	***
Foreign born	-0.262	***	-0.263	***
Enrolled in school	-0.104	***	-0.103	***
HS grad	0.040	***	0.044	***
Some college	0.157	***	0.159	***
Bachelor's degree +	0.328	***	0.324	***
ref. < HS				
Has young kids	-0.127	***	-0.127	***
Has school-aged kids	-0.270	***	-0.268	***
Has young and school-aged kids	-0.350	***	-0.352	***
ref. No kids				
\$10,000 to \$14,999	0.031	***	0.032	***
\$15,000 to \$24,999	-0.012	*	-0.009	
\$25,000 to \$34,999	-0.059	***	-0.055	***
\$35,000 to \$49,999	-0.130	***	-0.127	***
\$50,000 to \$74,999	-0.180	***	-0.182	***
\$75,000 to \$99,999	-0.190	***	-0.192	***
\$100,000 to \$149,999	-0.175	***	-0.181	***
\$150,000 to \$199,999	-0.197	***	-0.204	***
\$200,000 +	-0.197	***	-0.202	***
ref. <\$10,000				
Employed, Armed Forces	0.513	***	0.505	***
Unemployed	0.161	***	0.158	***
Not in labor force	-0.101	***	-0.099	***
ref. Employed				

Widowed	-0.016		-0.003	
Divorced	0.144	***	0.145	***
Separated	0.433	***	0.426	***
Never married	-0.247	***	-0.248	***
ref. Married				
Renter	1.246	***	1.239	***
House guest	0.483	***	0.495	***
ref. Owner				
Lives alone	0.305	***	0.300	***
Cohabitor	0.549	***	0.540	***
Married living w/ family	0.220	***	0.196	***
Lives with parents	-0.733	***	-0.746	***
Roommates	0.421	***	0.413	***
ref. Married couple living alone				
Lives in metro area			-0.004	
CBSA unemployment rate change 2009-2012			-1.053	***
Housing vacancy rate change 2009-2012			-2.067	***

Obs.	135,680,000	128,480,000
------	-------------	-------------

-2 Log Likelihood	134,368,069	127,601,538
-------------------	-------------	-------------

*** p < 0.0001; ** p < 0.001; * p < 0.01

Source: American Community Survey 3-Year Estimates, 2007-2009, 2010-2012

Table A1: Migration rates by selected demographics for various ages, recession years 2007-2009 ACS 3-Year Estimates

Characteristic	Total population Age 1 and over			Total Young			Ages 18-24			Ages 25-29			Ages 30-34		
	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error
Total															
Sex															
Total	47,636,609	15.66	0.06	21,007,269	29.21	0.1	10,152,912	33.29	0.12	6,539,736	30.27	0.14	4,314,621	21.77	0.14
Male	24,194,510	16.15	0.07 *	10,773,437	29.29	0.12 *	5,037,795	32.07	0.16 *	3,433,471	31.12	0.17 *	2,302,171	22.94	0.16 *
Female	23,442,099	15.19	0.07 †	10,233,832	29.12	0.11 †	5,115,117	34.58	0.15 †	3,106,265	29.38	0.17 †	2,012,450	20.58	0.16 †
Race															
Total	47,636,609	15.66	0.06	21,007,269	29.21	0.1	10,152,912	33.29	0.12	6,539,736	30.27	0.14	4,314,621	21.77	0.14
White alone	32,896,634	14.48	0.06 *	14,957,166	29.44	0.11 *	7,429,632	34.39	0.13 *	4,623,797	30.3	0.16 *	2,903,737	20.83	0.16
Black or African American alone	7,464,336	19.97	0.11 †	2,909,498	29.44	0.2 *	1,362,142	30.68	0.31 †	904,171	31.06	0.36 †	643,185	25.41	0.32 †
American Indian and Alaska Native alone	453,704	18.78	0.4 †	184,900	28.55	0.71 †	90,547	30.48	1.08 †	55,834	29.53	1.11 *	38,519	23.86	1.26 †
Asian alone	2,285,053	17.13	0.16 †	1,075,407	30.01	0.3 †	418,862	33.42	0.44 †	361,197	32.28	0.54 †	295,348	24.39	0.44 †
Native Hawaiian and Other Pacific Islander alone	96,809	21.38	0.96 †	43,435	30.81	1.45	21,059	33.58	1.97	12,745	30.81	3.14	9,631	26.1	2.52 †
Some Other Race alone	3,004,947	18.47	0.18 †	1,309,318	25.51	0.28 †	550,645	27.51	0.36 †	432,016	26.98	0.46 †	326,657	21.36	0.39 †
Two or More Races	1,435,126	20.27	0.24 †	527,545	30.39	0.43 †	280,025	33.27	0.57 †	149,976	30.93	0.79 *	97,544	23.81	0.75 †
Hispanic Origin															
Total	47,636,609	15.66	0.06	21,007,269	29.21	0.1	10,152,912	33.29	0.12	6,539,736	30.27	0.14	4,314,621	21.77	0.14
Not Hispanic or Latino	39,070,519	15.36	0.06 †	17,482,269	30.38	0.1 †	8,639,154	34.94	0.12 †	5,388,719	31.3	0.14 †	3,454,396	22.15	0.15 †
Hispanic or Latino	8,566,090	17.22	0.1 *	3,525,000	24.51	0.16 *	1,513,758	26.22	0.23 *	1,151,017	26.21	0.26 *	860,225	20.39	0.24
Nativity and Citizenship															
Total	47,636,609	15.66	0.06	21,007,269	29.21	0.1	10,152,912	33.29	0.12	6,539,736	30.27	0.14	4,314,621	21.77	0.14
Native-born	41,082,609	15.45	0.07 *	17,907,289	29.55	0.1 *	9,089,590	33.48	0.13 *	5,453,669	30.46	0.15 *	3,364,030	21.64	0.14 *
Foreign-born	6,554,000	17.17	0.1 †	3,099,980	27.36	0.2 †	1,063,322	31.7	0.34 †	1,086,067	29.34	0.3 †	950,591	22.24	0.26 †
Citizen	1,638,505	10	0.08	571,148	20.5	0.27 *	185,969	24.66	0.48 *	197,840	23.05	0.53 *	187,339	15.96	0.39 *
Non-citizen	4,915,495	22.55	0.15 †	2,528,832	29.6	0.24 †	877,353	33.73	0.43 †	888,227	31.24	0.34 †	763,252	24.62	0.31 †

Footnotes:
 * Educational attainment for the total population restricts the universe to those 25 and older. For age groups <18, Total Young, and 18-24 the restriction is lifted.
 † Significant at the 90% confidence level within category, using first category as reference group
 * Significant at the 90% confidence level between the 2007-2009 ACS 3-year estimates to the 2010-2012 ACS 3-year estimates
 Universe includes Puerto Rico.

Source: U.S. Census Bureau, 2007-2009 American Community Survey 3-Year Estimates

Table A2: Migration rates by selected demographics for various ages, postrecession years 2010-2012 ACS 3-Year Estimates

Characteristic	Total population Age 1 and over			Total Young			Ages 18-24			Ages 25-29			Ages 30-34			
	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error	
Total																
Sex																
Total	47,086,720	15.1	0.06	20,463,254	27.8	0.09	9,785,234	31.1	0.11	6,224,492	29.0	0.13	4,453,528	21.5	0.11	
Male	23,654,016	15.5	0.06 *	10,329,019	27.7	0.11 *	4,795,498	29.8	0.15 *	3,189,352	29.5	0.17 *	2,340,169	22.5	0.14 *	
Female	23,432,704	14.8	0.06 †	10,134,235	27.9	0.10 †	4,985,736	32.4	0.12 †	3,035,140	28.6	0.16 †	2,113,359	20.4	0.14 †	
Race																
Total	47,086,720	15.1	0.06	20,463,254	27.8	0.09	9,785,234	31.1	0.11	6,224,492	29.0	0.13	4,453,528	21.5	0.11	
White alone	32,303,395	14.0	0.06 *	14,431,810	28.0	0.10 *	7,013,144	32.2	0.13 *	4,399,233	29.1	0.14 *	3,019,433	20.6	0.13	
Black or African American alone	7,272,992	18.7	0.11 †	2,807,695	27.4	0.17 †	1,331,803	28.3	0.24 †	822,188	29.2	0.36 *	653,704	24.1	0.26 †	
American Indian and Alaska Native alone	440,288	17.4	0.39 †	171,431	25.6	0.64 †	83,357	27.2	0.84 †	49,204	26.3	1 †	38,870	22.0	1.03 †	
Asian alone	2,539,245	16.9	0.15 †	1,222,377	29.8	0.30 †	509,624	32.8	0.44 †	396,650	31.4	0.49 †	316,103	24.6	0.41 †	
Native Hawaiian and Other Pacific Islander alone	111,311	21.5	0.95 †	47,945	29.7	1.33 †	22,930	33.1	1.98 †	15,076	31.3	2.34 †	9,939	22.8	2.29 †	
Some Other Race alone	2,663,871	17.9	0.19 †	1,133,460	24.2	0.28 †	485,565	24.9	0.38 †	360,940	26.0	0.46 †	286,955	21.3	0.41 †	
Two or More Races	1,755,618	19.7	0.2 †	648,536	28.5	0.31 †	338,811	30.0	0.45 †	181,201	29.8	0.67 †	128,524	23.9	0.6 †	
Hispanic Origin																
Total	47,086,720	15.1	0.06	20,463,254	27.8	0.09	9,785,234	31.1	0.11	6,224,492	29.0	0.13	4,453,528	21.5	0.11	
Not Hispanic or Latino	38,040,376	14.8	0.06 †	16,796,925	29.0	0.10 †	8,163,595	32.9	0.12 †	5,082,286	30.1	0.14 †	3,551,044	21.8	0.12 †	
Hispanic or Latino	9,046,344	16.6	0.1 *	3,666,329	23.3	0.16 *	1,621,639	24.2	0.2 *	1,142,206	25.1	0.23 *	902,484	20.2	0.21	
Nativity and Citizenship																
Total	47,086,720	15.1	0.06	20,463,254	27.8	0.09	9,785,234	31.1	0.11	6,224,492	29.0	0.13	4,453,528	21.5	0.11	
Native-born	40,448,986	14.9	0.06 *	17,453,964	28.0	0.09 *	8,760,338	31.2	0.11 *	5,182,400	29.2	0.14 *	3,511,226	21.3	0.12 *	
Foreign-born	6,637,734	16.4	0.09 †	3,009,290	26.8	0.19 †	1,024,896	30.4	0.31 †	1,042,092	28.5	0.27 †	942,302	22.4	0.25 †	
Citizen	1,817,152	10.0	0.08	589,799	20.1	0.27 *	179,936	22.7	0.51 *	205,253	22.0	0.46 *	204,610	17.0	0.39 *	
Non-citizen	4,820,582	21.5	0.14 †	2,419,491	29.1	0.23 †	844,960	32.8	0.38 †	836,839	30.7	0.34 †	737,692	24.5	0.31 †	

Footnotes:

* Educational attainment for the total population restricts the universe to those 25 and older. For age groups <18, Total Young, and 18-24 the restriction is lifted.

† Significant at the 90% confidence level within category, using first category as reference group

** Significant at the 90% confidence level between the 2007-2009 ACS 3-year estimates to the 2010-2012 ACS 3-year estimates

Universe includes Puerto Rico.

Source: U.S. Census Bureau, 2010-2012 American Community Survey 3-Year Estimates

Table A3: Migration rates by selected demographics for various ages, recession years 2007-2009 ACS 3-Year Estimates

Characteristic	Total population Age 1 and over			Total Young			Ages 18-24			Ages 25-29			Ages 30-34		
	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error
Total															
Educational Attainment[†]															
Total	26,372,456	13.03	0.05	21,007,269	29.21	0.1	10,152,912	33.29	0.12	6,539,736	30.27	0.14	4,314,621	21.77	0.14
Less than high school	4,465,675	14.42	0.09 *	2,881,669	27.07	0.2 *	1,389,895	27.16	0.21 *	851,872	29.92	0.41 *	639,902	23.86	0.31 *
High school graduate or equivalent	7,322,074	12.49	0.07 †	5,636,578	28.08	0.13 †	2,944,380	30.94	0.2 †	1,593,714	28.43	0.21 †	1,098,484	22.2	0.23 †
Some college	7,517,715	13.24	0.07 †	7,818,713	30.34	0.14 †	4,590,549	35.02	0.18 †	1,989,352	29.41	0.21 †	1,238,812	20.99	0.21 †
College graduate or more	7,066,992	12.61	0.06 †	4,670,309	30.27	0.15 †	1,228,088	44.52	0.3 †	2,104,798	32.95	0.22 †	1,337,423	21.28	0.18 †
Employment status															
Total	37,602,897	15.56	0.06	21,007,269	29.21	0.1	10,152,912	33.29	0.12	6,539,736	30.27	0.14	4,314,621	21.77	0.14
Employed, at work	21,759,904	15.5	0.06 *	13,278,475	27.93	0.1 *	5,651,781	33.02	0.14 *	4,628,768	29.49	0.15 *	2,997,926	20.35	0.14 *
Employed, with a job but not at work	620,385	16.61	0.23 †	372,784	29.7	0.5 †	167,138	37.39	0.84 †	120,964	29.99	0.88	84,682	20.92	0.65
Unemployed	2,796,824	23.55	0.16 †	1,735,684	30.49	0.25 †	945,668	30.6	0.33 †	483,293	32.18	0.39 †	306,723	27.87	0.45 †
Armed Forces, at work	572,208	48.48	0.58 †	481,755	56.02	0.71 †	291,302	65.86	1.11 †	125,440	50.04	0.97 †	65,013	38.94	1.28 †
Armed Forces, with a job but not at work	7,916	54.55	4.86 †	6,942	54.94	4.98 †	4,773	56.11	6.65 †	1,287	52.72	10.25 †	882	52.25	12.35 †
Not in the labor force	11,845,660	14.04	0.06 †	5,131,629	30.98	0.15 †	3,092,250	32.9	0.19 *	1,179,984	31.44	0.28 †	859,395	25.17	0.27 †
Mean annual adjusted personal income	\$ 20,631		63.91	\$ 21,074		61.48 *	\$ 12,185		51.91 *	\$ 27,117		116.5 *	\$ 32,832		186.29 *

Footnotes:

† Significant at the 90% confidence level within category, using first category as reference group

* Significant at the 90% confidence level between the 2007-2009 ACS 3-year estimates to the 2010-2012 ACS 3-year estimates

Universe includes Puerto Rico.

Source: U.S. Census Bureau, 2007-2009 American Community Survey 3-Year Estimates

Table A4: Migration rates by selected demographics for various ages, postrecession years 2010-2012 ACS 3-Year Estimates

Characteristic	Total population Age 1 and over			Total Young			Ages 18-24			Ages 25-29			Ages 30-34		
	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error
Total															
Educational Attainment¹															
Total	47,086,720	15.11	0.06	20,463,254	27.78	0.09	9,785,234	31.08	0.11	6,224,492	29.04	0.12	4,453,528	21.48	0.11
Less than high school	16,113,232	15.3	0.09 *	2,533,880	25.03	0.18 *	1,213,646	24.5	0.26 *	709,412	28.07	0.31 *	610,822	23.12	0.31 *
High school graduate or equivalent	9,614,174	14.02	0.06 †	5,010,665	25.75	0.13 †	2,584,113	28	0.17 †	1,375,207	26.27	0.23 †	1,051,345	21.05	0.22 †
Some college	12,712,217	16.95	0.07 †	8,094,904	29.07	0.11 †	4,748,085	33.01	0.15 *	1,982,031	28.07	0.18 *	1,364,788	21.33	0.18 †
College graduate or more	8,647,097	13.8	0.06 †	4,823,805	29.73	0.12 †	1,239,390	42.5	0.32 †	2,157,842	32.64	0.21 †	1,426,573	21.29	0.16 †
Employment status															
Total	37,247,047	14.95	0.05	20,463,254	27.78	0.09	9,785,234	31.08	0.11	6,224,492	29.04	0.13	4,453,528	21.48	0.11
Employed, at work	20,668,956	14.88	0.06 *	12,384,842	26.76	0.09 *	5,094,719	31.24	0.14 *	4,287,424	28.49	0.14 *	3,002,699	20.13	0.12 *
Employed, with a job but not at work	508,851	16.13	0.24 †	288,742	28.3	0.61 †	117,429	34.4	0.92 †	97,121	29.37	1.01	74,192	21.31	0.83
Unemployed	3,490,376	21.62	0.13 †	2,127,473	28.34	0.2 †	1,109,714	28.42	0.23 †	591,080	29.91	0.4 †	426,679	26.21	0.32 †
Armed Forces, at work	483,440	47.49	0.59 †	412,082	54.34	0.75 †	242,588	62.73	1 †	110,690	49.01	1.09 †	58,804	40.36	1.34 †
Armed Forces, with a job but not at work	5,068	49.19	5.42 †	4,830	51.39	5.56 †	3,587	52.73	5.85 †	886	47.81	11.29 †	357	48.11	21.09 †
Not in the labor force	12,090,356	13.44	0.05 †	5,245,285	29	0.12 †	3,217,197	30.53	0.16 †	1,137,291	29.51	0.23 †	890,797	24.11	0.22 †
Mean annual adjusted personal income	\$ 20,611		61.49	\$ 20,462		65.23 *	\$ 10,978		58.26 *	\$ 26,856		129.51 *	\$ 32,363		197.67 *

Footnotes:

† Significant at the 90% confidence level within category, using first category as reference group

* Significant at the 90% confidence level between the 2007-2009 ACS 3-year estimates to the 2010-2012 ACS 3-year estimates

Universe includes Puerto Rico.

Source: U.S. Census Bureau, 2010-2012 American Community Survey 3-Year Estimates

Table A5: Migration rates by selected demographics for various ages, recession years 2007-2009 ACS 3-Year Estimates

Characteristic	Total population Age 1 and over			Total Young			Ages 18-24			Ages 25-29			Ages 30-34		
	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error
Marital Status															
Total	47,636,609	15.66	0.06	21,007,269	29.21	0.1	10,152,912	33.29	0.12	6,539,736	30.27	0.14	4,314,621	21.77	0.14
Married	12,488,844	10.24	0.05 *	5,495,392	24.77	0.13 *	1,328,643	42.36	0.31 *	2,185,556	27.12	0.2 *	1,981,193	18.03	0.17
Widowed	1,423,797	9.31	0.07 †	37,979	29.31	1.2 †	8,142	32.47	2.87 †	13,133	32.07	2.89 †	16,704	26.29	1.85 †
Separated	4,553,031	17.5	0.09 †	968,515	34.9	0.29 †	109,572	46.94	1.15 †	369,654	39.24	0.51 †	489,289	30.59	0.38 †
Divorced	1,474,293	27.42	0.21 †	523,318	40.8	0.45 †	96,151	46.81	1.04 †	201,961	42.65	0.86 †	225,206	37.31	0.63 †
Never married	27,696,644	20.44	0.09 †	13,982,065	30.7	0.1 †	8,610,404	32.01	0.13 †	3,769,432	31.18	0.17 †	1,602,229	24.42	0.18 †
Own Children Under 18															
Total	43,510,360	14.71	0.07	18,470,055	27.25	0.1	8,199,645	29.98	0.12	6,200,669	29.47	0.14	4,069,741	21.00	0.14
Present	23,786,442	15.23	0.1	7,387,836	22.5	0.13	2,619,509	22.95	0.16	2,504,326	26.53	0.2 *	2,264,001	18.89	0.17
Not present	19,723,918	14.12	0.05	11,082,219	31.72	0.11	5,580,136	35.03	0.16	3,696,343	31.86	0.16 †	1,805,740	24.41	0.17 †
Own Children Under 18															
Total	43,510,360	14.71	0.07	18,470,055	27.25	0.1	8,199,645	29.98	0.12	6,200,669	29.47	0.14	4,069,741	21.00	0.14
Presence of children under 6 only	6,974,929	22.83	0.17 *	3,473,371	27.86	0.2 *	1,403,658	38.26	0.35 *	1,275,118	27.83	0.28 *	794,595	18.84	0.26 *
Presence of children 6-17 only	9,678,070	11.54	0.1 †	2,004,227	17.14	0.17 †	791,220	13.22	0.18 †	479,953	23.98	0.36 †	733,054	19.77	0.29 †
Presence of children under 6 and 6-17 yea	7,133,443	17.1	0.15 †	1,910,238	22.03	0.21 †	424,631	24.13	0.4 †	749,255	26.23	0.31 †	736,352	18.16	0.26 †
No children present	19,723,918	14.12	0.05 †	11,082,219	31.72	0.11 †	5,580,136	35.03	0.16 †	3,696,343	31.86	0.16 †	1,805,740	24.41	0.17 †

Footnotes:

† Significant at the 90% confidence level within category, using first category as reference group

* Significant at the 90% confidence level between the 2007-2009 ACS 3-year estimates to the 2010-2012 ACS 3-year estimates

Universe includes Puerto Rico.

Source: U.S. Census Bureau, 2007-2009 American Community Survey 3-Year Estimates

Table A6: Migration rates by selected demographics for various ages, postrecession years 2010-2012 ACS 3-Year Estimates

Characteristic	Total population Age 1 and over			Total Young			Ages 18-24			Ages 25-29			Ages 30-34		
	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error	Estimate	Percent	Margin of Error
Total															
Marital Status															
Total	47,086,720	15.11	0.06	20,463,254	27.78	0.09	9,785,234	31.08	0.11	6,224,492	29.04	0.13	4,453,528	21.48	0.11
Married	11,954,400	9.77	0.04 *	5,001,387	24.03	0.14 *	1,073,916	40.48	0.37 *	1,959,398	26.83	0.2 *	1,968,073	18.13	0.16
Widowed	1,359,579	8.93	0.07 †	33,205	28.79	1.52 †	6,178	37.33	4.38	10,930	32.34	2.51 †	16,097	24.76	2.1 †
Separated	4,612,581	16.54	0.08 †	887,336	32.92	0.31 †	87,007	41.85	1.02 †	311,340	36.22	0.54 †	488,989	30.03	0.39 †
Divorced	1,467,832	25.98	0.22 †	470,440	38.73	0.52 †	79,790	46.15	1.65 †	174,494	40.72	0.77 †	216,156	35.25	0.65 †
Never married	27,692,328	19.72	0.08 †	14,070,886	28.82	0.09 †	8,538,343	30.03	0.12 †	3,768,330	29.42	0.14 †	1,764,213	23.3	0.16 †
Own Children Under 18															
Total	43,189,377	14.23	0.06	17,939,643	25.88	0.1	7,822,037	27.76	0.12	5,912,923	28.33	0.13	4,204,683	20.76	0.11
Present	23,428,780	14.91	0.09 *	7,133,663	21.44	0.12	2,496,191	21.05	0.16	2,301,742	25.43	0.18 *	2,335,730	18.9	0.15
Not present	19,760,597	13.5	0.05 †	10,805,980	29.99	0.11	5,325,846	32.64	0.16	3,611,181	30.55	0.14 †	1,868,953	23.67	0.16 †
Own Children Under 18															
Total	43,189,377	14.23	0.06	17,939,643	25.88	0.1	7,822,037	27.76	0.12	5,912,923	28.33	0.13	4,204,683	20.76	0.11
Presence of children under 6 only	6,778,887	22.28	0.15 *	3,327,931	26.76	0.2 *	1,270,055	35.42	0.36 *	1,211,944	27.12	0.25 *	845,932	19.31	0.21 *
Presence of children 6-17 only	9,574,904	11.38	0.08 †	1,943,225	16.26	0.16 †	806,539	12.73	0.15 †	422,135	22.36	0.43 †	714,551	19.16	0.27 *
Presence of children under 6 and 6-17 years	7,074,989	16.64	0.16 †	1,862,507	20.96	0.2 †	419,597	21.64	0.38 †	667,663	24.77	0.29 †	775,247	18.24	0.23 †
No children present	19,760,597	13.5	0.05 †	10,805,980	29.99	0.11 †	5,325,846	32.64	0.16 †	3,611,181	30.55	0.14 †	1,868,953	23.67	0.16 †

Footnotes:

† Significant at the 90% confidence level within category, using first category as reference group

* Significant at the 90% confidence level between the 2007-2009 ACS 3-year estimates to the 2010-2012 ACS 3-year estimates

Universe includes Puerto Rico.

Source: U.S. Census Bureau, 2010-2012 American Community Survey 3-Year Estimates

Works Cited

- Benetsky, M. and W. Koerber. 2012. *How do the ACS five-year migration data compare to the 2000 Census migration data?* U.S. Census Bureau; Social, Economic and Housing Statistics Division Working Paper 2012-13.
- Franklin, R. S. 2003. *Migration of the Young, Single, and College Educated: 1995-2000*. U.S. Census Bureau: Census 2000 Special Reports, CENSR-12.
- Frey, W. 2009. *The Great American Migration Slowdown: Regional and Metropolitan Dimensions*. Metropolitan Policy Program at Brookings Institution.
- Goworowska, J. and T. K. Gardner. 2012. *Historical Migration of the Young, Single, and College Educated: 1965-2000*. U.S. Census Bureau: Population Division Working Paper, No. 94.
- Ihrke, D., Faber, C., and W. Koerber. 2011. *Geographic Mobility 2008 to 2009*. U.S. Census Bureau; Social, Economic, and Housing Statistics Division Report P20-565.