HOUSEHOLDS, FAMILIES, AND ECONOMIC VULNERABILITY: 
THE FORMATION, STRUCTURE, AND FINANCIAL ORGANIZATION OF 
MULTIFAMILY HOUSEHOLDS, 2008-2013

A Dissertation in
Sociology and Demography

by
Adriana Marie Reyes

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The dissertation of Adriana Marie Reyes was reviewed and approved* by the following:

Melissa Hardy
Distinguished Professor of Sociology and Demography
Chair of Graduate Program in Sociology
Dissertation Advisor
Chair of Committee

Molly Martin
Associate Professor of Sociology & Demography

Jennifer Van Hook
Director of Population Research Institute
Professor of Sociology and Demography

Patricia Miranda
Assistant Professor of Health Policy and Administration and Demography

*Signatures are on file in the Graduate School
ABSTRACT

In this dissertation I assess race/ethnic differences in the formation of multifamily households and their economic benefits and financial organization. This research advances our understanding of how the internal structure of these households differs across race and ethnic groups and highlights why those differences have significant social consequences. In recognition of race/ethnic differences in family history and family values, I also investigated whether and how these structures varied across race and ethnic groups. Leveraging longitudinal data from the Survey of Income and Program Participation (SIPP), I analyzed race/ethnic differences in the creation of multi-family households during a significant economic downturn. I found significant race/ethnic differences during the recession in what prompts the formation of multifamily households. Further analysis of multifamily households assessed the consequences of reorganizing families within households for poverty rates. While most households had net reductions in poverty, the extent of this reduction varied by race/ethnicity and household structure. Finally, to better understand household processes, I examined the household organization of economic contributions and income receipt within households. Results suggest that having economic resources did not translate into contributing those resources to essential household expenditures, with some race/ethnic differences in these patterns. Demonstrating how household survival strategies are shaped by race/ethnicity, socioeconomic status, and economic crisis provides policy makers with a better picture of how persistent poverty versus economic crisis are reflected in this emerging demographic pattern.
TABLE OF CONTENTS

LIST OF FIGURES ......................................................................................................................................... VII

LIST OF TABLES ........................................................................................................................................ VIII

ACKNOWLEDGEMENTS .......................................................................................................................... IX

CHAPTER 1 INTRODUCTION ................................................................................................................ 1

Background .................................................................................................................................................. 4
  Trends in Living Arrangements .................................................................................................................. 4
  Structures of Intergenerational Support .................................................................................................... 6
  Families and households during an economic crisis .................................................................................. 6

Key Findings ............................................................................................................................................... 7

CHAPTER 2 DIVERSE FAMILY RESPONSES TO ECONOMIC STRESS: CHANGING HOUSEHOLD COMPOSITION DURING THE GREAT RECESSION ............................... 12

Introduction ............................................................................................................................................... 12

Background ............................................................................................................................................... 14
  The Great Recession ................................................................................................................................. 17
  Responses to Economic Shocks ................................................................................................................ 18

Current Study ............................................................................................................................................. 21

Data and Methods ................................................................................................................................... 24
  Dependent Variable ................................................................................................................................. 25
  Independent Variables ............................................................................................................................... 27
  Analysis Strategy .................................................................................................................................... 28

Results ....................................................................................................................................................... 31
  Low-Income Households .......................................................................................................................... 37

DISCUSSION .............................................................................................................................................. 39
CHAPTER 3 ARE MULTIFAMILY HOUSEHOLDS A POVERTY MITIGATION STRATEGY? CHANGES IN POVERTY STATUS BY RACE AND HOUSEHOLD STRUCTURE ................................................................. 44

Introduction .............................................................................................................. 44

Background .............................................................................................................. 46
  Doubling Up as an Economic Strategy ................................................................. 46
  Racial Differences in Household Composition ................................................... 48

Current Study .......................................................................................................... 51

Data and Methods .................................................................................................. 54
  Data ...................................................................................................................... 54
  Measures ............................................................................................................ 55
  Analysis Strategy ............................................................................................... 59

Results ...................................................................................................................... 61

Discussion ............................................................................................................... 69

CHAPTER 4 RACE/ETHNIC DIFFERENCES IN ECONOMIC ORGANIZATION OF EXTENDED FAMILY HOUSEHOLDS ................................................................. 75

Introduction .......................................................................................................... 75

Background ............................................................................................................ 76
  Shared Living Arrangements .............................................................................. 76
  Race/ Ethnic Differences .................................................................................... 78
  Shared Living Arrangements as Familial Support ............................................. 79
  Within-Household Inequality ........................................................................... 80
  Conceptual Framework ....................................................................................... 82

Data and Methods .................................................................................................. 85
  Data ...................................................................................................................... 85
  Dependent Variables ......................................................................................... 86
  Independent variables ....................................................................................... 88
  Analytic Strategy ............................................................................................... 89

Results ...................................................................................................................... 90
  Do households serve as a safety-net for relatives in need? (Household-level characteristics) .................................................................................................................. 90
  Sample Description ........................................................................................... 92
  Among auxiliary household members, who contributes to the household? .......... 94
LIST OF FIGURES

Figure 2-1: Net Effects of Leaving the Labor Force on Odds of Poverty by Race/Ethnicity ..37
Figure 3-1: Net Change in MFH Effects on Poverty ...............................................65
Figure 3-2: Net Change in Poverty by Race and Household Economic Organization ..........67
Figure 3-2: Net Change in Poverty by Race and Household Family Structure .................68
LIST OF TABLES

Table 2-1: Sample Descriptive Statistics at First Observation by Race and Ethnicity, SIPP 2008 .................................................................................................................................32

Table 2-2: Changes in Proportions of Multifamily Households By Race/Ethnicity ..........33

Table 2-3: Fixed Effects Logistic Regression Coefficients Predicting Moving Into Multifamily Households: SIPP ........................................................................................................36

Table 3-1: Descriptive Statistics by Race/Ethnicity .........................................................................................62

Table 3-2: Fixed Effects Logistic Regression of Poverty by Multifamily Household Formation .................................................................................................................................64

Table 3-3: Fixed Effects Logistic Regression of Poverty by Economic and Family Organization in Multifamily Households ..................................................................................66

Table 4-1: Household Income and Expenditures Inequality, SIPP Wave 4 .................................92

Table 4-2: Distribution of covariates by Race/ethnicity: Adults 25 and Older .........................93

Table 4-2: Logistic Regression of Any Contribution to Household Expenditures Among Auxiliary Household Members ..................................................................................................95
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Chapter 1

INTRODUCTION

The demography of families is changing, as are household finances. With more children born outside of marriage and higher divorce rates, households are being reorganized. With increasing financial vulnerability, household economies require different strategies. Changes in family structure and family roles have led some to argue that the family is in decline and children are suffering the negative consequences of this decline (Popenoe 1993). Census reports have shown a consistent decrease in the proportion of nuclear families as well as a decline in the proportion of households comprised of a single nuclear family (Vespa, Lewis, and Kreider 2013). However, a counterargument focuses on what we mean by ‘family.’ The shift away from nuclear families living independently suggests that families have changed, but not that families have necessarily declined in importance (Swartz 2009). Instead, the increasing relevance of roles played by extended family members could easily indicate the growing importance of family. As Bengston stated, “because the increases in marital instability and divorce have weakened so many nuclear families, these multigenerational bonds will not only enhance but in some cases replace some of the nuclear family functions” (2001:12).

The increase in multigenerational families—in some cases to 4 or even 5 generations—has expanded the vertical structure of family, allowing family responsibilities to be distributed across multiple generations (Weimers and Bianchi 2015). For example, the growing number of single parent and two-earner households creates a need for childcare (Laughlin 2013). This need can be met in a variety of ways. Those with sufficient financial resources can purchase childcare; multiple generations who live in close proximity and can afford to live independently may rely on grandparents for childcare. Combining households may provide a broader family strategy.
Combining households across generations can be beneficial to all family members (Deleire and Kalil 2002). The increasing complexity and diversity in household structure also may reflect a more diverse population and the cultural variations of family structure that are part of that diversity. These complex households also offer various budget strategies for meeting household expenses or short-term solutions to health or income disruptions. Therefore, the decision to pool resources may be an economic survival strategy.

As an organizational unit, households operate in different ways. Household budgets are one focus of difference. Researchers have examined in detail the differences in spousal employment and earnings and how those differences relate to traditional versus more egalitarian gender attitudes, household decision-making, and number of children. Studies that examined race/ethnic differences in these nuclear family characteristics find black women often have more control over household finances and are more critical of gender inequality compared to other race/ethnic groups (Kane 2000; Kenney 2006). But these findings are contingent on marital (or partner) status within households.

Rates of marriage and norms of childbearing also differ by race/ethnicity, as blacks and Hispanics are more likely than whites to live in non-nuclear households. During the last quarter of the 20th century, parental family structure was the focus of race/ethnic differences. Whites with children were more likely to live in two-parent households, whereas blacks were more likely to live in single-parent (often mother-only) households. Antipoverty programs developed at the time were designed to alleviate poverty for the elderly and for children in these single-parent households. By the end of the century, growing dissatisfaction with social assistance programs produced legislature that dramatically changed social assistance programs. At about the same time, the proportion of complex households began to rise disproportionately among lower income and nonwhite race/ethnic groups.
In this dissertation I assess race/ethnic differences in the formation of multifamily households and their economic benefits and financial organization. This research advances our understanding of how the internal structure of these households differs across race and ethnic groups and highlights why those differences have significant social consequences. In recognition of race/ethnic differences in family history and family values, I also investigated whether and how these structures varied across race and ethnic groups. Leveraging longitudinal data from the Survey of Income and Program Participation (SIPP), I analyzed race/ethnic differences in the creation of multi-family households during a significant economic downturn. I found significant race/ethnic differences during the recession in what prompts the formation of multifamily households. Further analysis of multifamily households assessed the consequences of reorganizing families within households for poverty rates. While most households had net reductions in poverty, the extent of this reduction varied by race/ethnicity and household structure. Finally, to better understand household processes, I examined the household organization of economic contributions and income receipt within households. Results suggest that having economic resources did not translate into contributing those resources to essential household expenditures, with some race/ethnic differences in these patterns. Demonstrating how household survival strategies are shaped by race/ethnicity, socioeconomic status, and economic crisis provides policy makers with a better picture of how persistent poverty versus economic crisis are reflected in this emerging demographic pattern.
Background

Trends in Living Arrangements

Shared living arrangements were once the norm, however from 1940 to 1980, the proportion of people living in multigenerational households declined from about 25 percent to 12 percent (Ruggles 2007). This decrease has been attributed to economic expansion. With the improved health and finances of the elderly, they could live independently (McGarry and Schoeni 2000). One feature of this overall decline was a crossover in the racial propensity to live in complex family households. From 1900 to 1970, unmarried white adults were more likely to live in complex family households than unmarried black adults. However, this trend was reversed after 1970, primarily due to decreases in complex living arrangements for older whites (Goldscheider and Bures 2003). Since the 1970s, blacks Hispanics, and Asians have lived in shared housing arrangements at higher rates than whites. The 1980s saw a gradual return to multigenerational living arrangements, which rose to about 18 percent in 2012 and reflected significant variation by race/ethnicity (Fry and Passel 2014).

The growth of multigenerational living arrangements has been driven in large part by a trend of young adults living with their parents. Larger numbers of young adults either remain in the parental home or return to the parental home after a spell of independent housing (Payne and Copp 2013; Ward and Spitze 2007; South and Lei 2015). At the same time, multigenerational living arrangements have increased for all age groups. Among those aged 18-24, more than half live with their parents. Similar proportions of young adults aged 18-24 and across race/ethnic groups live with parents (52-54 percent) (Payne 2011). Social scientists have reclassified this stage of life as an elongated transition to adulthood; therefore, most studies do not consider young adults 18-24 as living in multigenerational households (Settersten and Ray 2010). Within the next
age group, those aged 25-34, the proportion living in parental households has increased from 11 percent in 1980 to 24 percent in 2012 (Fry and Passel 2014). These changing patterns reflect delays in marriage and childbearing as well as an economy in which independent living is increasingly difficult for young adults, especially those without a college degree.

Although different normative household structures for race/ethnic and nativity subgroups have been reported, the organization of household economies captures another layer of household structure (Bennett 2013). Increased diversity and longevity in the U.S. population has coincided with more racially and ethnically diverse families with an expanded vertical family structure as more generations are alive and in good health at the same time (Frey 2014). Beyond known racial differences in patterns of living arrangements, I focus on race/ethnic differences in the processes and social consequences of different household constructions. In doing so, I highlight how societal institutions differentially affect race/ethnic groups, thereby expanding unequal experiences that may be ignored by national statistics.

On the one hand, race is not a very useful biological or genetic categorization. Rather, race operates as a socially constructed concept useful in classifying populations and as an easily read indicator of ‘difference.’ Yet sociologists find race to be highly predictive of inequality in a variety of outcomes including health, education, income, and wealth (Kao and Thompson 2003; O’Brien 2012; Pfeffer, Danziger, and Schoeni 2013). More than a question of measurement, race has been used historically as a central organizing factor in designing social programs. Although anti-discrimination laws targeted differential treatment by race, examples of differential impact by race remain (Alexander 2010). Political majorities set policies that often disadvantage minority groups. On the surface these policies appear race-neutral, but in practice these policies may reproduce existing inequalities (Darling-Hammon 2007).
**Structures of Intergenerational Support**

Some aspects of intergenerational support have become institutionalized through federal programs; however, these programs are not equally effective across all groups. One feature of federal programs such as Social Security and Supplemental Security Income is that they reorganize within-family intergenerational exchanges into monetary transfers across birth cohorts (Kohli 1999). Current studies demonstrate that within-family monetary transfers predominantly flow from the older to younger generations; however, the provisions of personal care for adults primarily flows in the opposite direction (Swartz 2009). By substituting a reliable replacement of benefits for earnings, federal retirement programs have enabled older adults to remain both financially and residentially independent. For relatively healthy older people with sufficient income, maintaining independent households--relying on earnings, wealth, and retirement benefits--is often preferred (Treas and Bengtson 1987). However, others who are less healthy or have lower incomes must rely on family support, as families often are the first source of help in times of hardship and need (Choi 2003).

**Families and households during an economic crisis**

Recessionary periods are times when larger households might be necessary. However, the trend towards multigenerational households was well underway before the recession began, and it has continued since the recession officially ended (Mykyta and Macartney 2012). The increase in multigenerational households also corresponds to a period of increasing income inequality (Piketty and Saez 2014). How families are organized has direct relevance to the calculation of poverty and income inequality, since income inadequacy and inequality are typically measured at the household level. Family formation patterns are important for understanding race/ethnic
inequality, which is a function of both labor market outcomes and pooled resources in families and households. All the forces that have expanded income inequality have also pushed multiple families into the same households; therefore, inequality may be masked for the groups that utilize shared living arrangements at greater rates.

If we assume that the complexity of households and the proportion of complex households is increasing as a resource-based strategy, and then observing how household formation and dissolution occurs as we move into and out of a period of economic crisis provides insight into the dynamics of this phenomenon. If the recession requires short-term adjustments rather than longer-term arrangements, the proportion of complex households before and after the recession should lie on the trend line characterizing previous growth. However, if the proportion or composition of households post-recession significantly differs from this expectation, then we have evidence of complex household formation and persistence as a longer-term arrangement.

Current research has not explored the race and ethnic differences in household economies. Most prior studies look only at racial differences in living arrangements, but do not unpack the roles and contributions of members or units of the household. Understanding the dynamics of household economies provided insight into how households function and how membership is structured.

**Key Findings**

SIPP is a longitudinal dataset that follows all individuals in the household (even if they move into a new household) for up to five years, with interviews every four months. The frequency of observation coupled with the detail on work, income, living arrangements, and family allowed me to examine how the strategies of household formation and employment unfold overtime. The data for chapters 2 and 3 span 2008 to 2013, thereby capturing the period of the
Great Recession and the first stages of recovery. The data for chapter 4 came from one month in 2009 and use supplemental questions only asked in that month to examine contributions to household expenditures. I constructed measures that capture the dynamics of individual income contributions to the total household income of multi-family households. These measures allowed me to assess how the complexity of households reflects both cultural and economic strategies in the organization of household resources and family contributions. By addressing these distributional issues at the individual, family, and household level across race/ethnic groups, I analyzed how the size and complexity of households reflect both cultural and economic strategies in the organization of household resources and family contributions. Multi-family households provide economies of scale while allowing, but not requiring, a within-household pooling of resources. Therefore, multifamily households can be organized around the principle of egalitarian contribution or around a principle of financial dependency.

In the second chapter, I examined factors that may lead to the creation of multifamily households and variations across race/ethnicity. Previous research indicates that race/ethnic minorities are more likely to live in multifamily households, but the extent to which race/ethnic minorities form multifamily household in response to economic shocks is unknown. Responses to economic shocks could be similar. However, the rate of experiencing an economic shock is not uniform across race/ethnic groups, who may cope with economic shocks in different ways. Using fixed effects logistic regression with lagged independent variables, I calculated the odds of moving into multifamily households after a job loss or marital dissolution. I found that whites are more likely to move into a multifamily household following a job loss. Job loss in itself can lead to a temporary income disruption; however, in a recession, the likelihood of getting a new job—particularly one at the same level of earnings—is significantly reduced. For whites, the combination of job loss with the higher levels of unemployment led to these multifamily living arrangements despite their non-normative nature. In other words, this household formation occurs
for whites in times of extreme need and unusually low prospects. Job loss as a precipitating event was less important to the formation of multifamily households among blacks and Hispanics, whose financial resources and prospects are consistently more limited than those of whites. Furthermore, whites who move into multifamily households after a job loss tend to be young adults moving back in with their parents. This type of return to a parental safety net is not equally available to all groups. The ability of young adults to rely on parents for financial assistance in the transition to adulthood has been cited as one of the growing inequalities among young adults (Settersten 2010).

In chapter 3, I assess how the formation of a multifamily household is associated with a change in the odds of poverty and how this varies by race/ethnicity and household organization. Official poverty thresholds are adjusted for economies of scale and calculated based on a household’s number of people. Therefore when households combine, they can move out of poverty due to the newly introduced economies of scale or by joining non-poor households. Using longitudinal data over the span of 4 years, I estimated fixed effects logistic regression models to assess how changes in living arrangements are related to changes in poverty. I also estimate how this relationship is moderated by race and household organization. I found that moving into a multifamily household reduces the odds of poverty, but that this poverty reduction is not the same for all groups. Whites and Asians see the greatest poverty reduction, whereas Hispanics see significantly lower reductions in the odds of poverty, and at times, no benefit depending on the economic organization of the household. Overall these results indicated that the gains from moving into multifamily households varied by race/ethnicity and economic organization, with whites and those in egalitarian households realizing the greatest poverty reductions from these moves.

Chapter 4 of this dissertation delves into the economic organization of multifamily households by examining not only income differences across members, but how much money
they contribute to household expenditures. This research thereby moves one step beyond current research that has looked at race/ethnic differences in household structure because it focused on the household economy and racial differences in how household economies function. For whites, I asked whether these changes in living arrangements signal a shift back to earlier family dynamics when children were dependent upon parents, or whether in moving back, adult children adopted a more active role in making contributions to the household. To assess economic contributions to household expenditures, I estimated binary probit selection models to evaluate contributions while addressing the contingency of contribution on having a source of income. The analysis revealed stark differences in the distribution of income and contributions. I found that having income does not equate to making contributions to household expenditures. Asians and Hispanics are most likely to contribute money towards household expenditures, even when accounting for household organization and socio-demographic traits. Households organized horizontally are also more likely to contribute financially to the household, net of other controls.

This dissertation provides important insights into the structure and budgetary contributions of complex households. Race/ethnic differences were found across three domains of household structure: the formation of multifamily households during the recession, how the formation of these households served as a buffer against poverty, and the economic organization of households. Whites are more sensitive to job loss, with a greater likelihood of a job loss spurring a move into a multifamily household compared to blacks and Hispanics. Yet, blacks and Hispanics were more likely to move into a multifamily household, suggesting the reasons for moves are more than just a response to an economic shock. Among those that do move into multifamily households the economic benefits varied greatly, whites and Asians had the largest reductions in poverty. The core family in multifamily households provides a lion’s share of the contributions and often all the contributions for household expenditures with few contributions from other household members, though Asian and Hispanic auxiliary family members are more
likely to contribute to household expenditures. Together these results suggest that not only is the prevalence of multifamily households different by race/ethnicity but they appear to be serving different functions and have different economic organization that provide varying levels of benefit to their members.
Chapter 2

DIVERSE FAMILY RESPONSES TO ECONOMIC STRESS: CHANGING HOUSEHOLD COMPOSITION DURING THE GREAT RECESSION

Introduction

The proportion of multigenerational households has been on the rise since the 1980s, increasing from 12 percent to 18 percent in 2012 (Fry and Passel 2014). This reorganization of multiple family units within the same household is likely a strategy that families have adopted to cope with changing economic and social contexts. The widespread effects of the Great Recession are the most recent and universally felt economic challenge to which families have had to respond. Almost 40 percent of households saw some effect from the recession, a figure which suggests that the recession may have changed living arrangements not just for the most economically precarious but across a broad array of the population (Hurd and Rohwedder 2010).

These effects took various forms, including loss of jobs and loss of housing (and of housing value), all while the social safety net has been eroded. Unemployment rates increased dramatically, peaking at about 10 percent (Bureau of Labor Statistics 2012). Housing values fell as foreclosures spiked, requiring families to shift to new living arrangements (Mykyta 2015). However, neither unemployment nor foreclosures were equally distributed across race and ethnic groups (Nichols and Simms 2012). While average unemployment rates were at 10 percent overall in the peak of the recession, they reached 16 percent among blacks and 13 percent among Hispanics. Blacks and Hispanics saw greater equity loss and a higher rate of foreclosures than whites, and foreclosure rates were twice as high for borrowers of color than for whites (Nichols and Simms 2012).
Families have also had to adapt to changing social welfare policies, in addition to these new economic realities. Social welfare policies have been criticized for creating a "culture of dependency" (Weaver 2000). The “culture of dependency” concept purports that receiving public assistance disincentivizes work force participation and therefore discourages individuals from leaving the welfare rolls and finding employment. This critique was particularly strong in the ’80s and ’90s. One outcome of this opposition to social welfare programs was the passage of the 1996 Personal Responsibility and Work Opportunity Reconciliation Act, more commonly referred to as “welfare reform,” which drastically limited social welfare by putting time limits and funding caps on social welfare (Weaver 2000).

Lastly families have had to adapt to increasing economic uncertainty and job instability, in large part due to the shift from a manufacturing to a service economy (Kalleberg 2013; Thiess 2012). Individuals without a college degree have had more limited economic opportunities since this shift. Manufacturing jobs have almost halved, and one in five jobs does not provide enough income to move someone above the poverty line (Edin and Shaefer 2015). In response to these challenges, families may provide their own internal insurance for members by pooling risk across kin networks; one such form of assistance may occur through the formation of multifamily households (Gerstel 2011). The Great Recession and subsequent recovery provide an opportunity to study how families changed in response to economic shocks.

The consequences of the Great Recession were not only limited to economic factors but also caused noticeable changes in family patterns, including fertility, marriage, family roles, and living arrangements. Noticeable delays in childbearing have been observed, as have delays in marriage formation and dissolution (Cherlin et al. 2013; Schneider 2015; Schneider and Hastings 2015). As families renegotiated who would participate in the labor market, home roles were redefined, with unemployed fathers providing increasing amounts of care to their children during the recession (Knop and Brewster 2015). Living arrangements also changed during the recession,
with an increase in grandparent-caregiving families (Livingston and Parker 2010) and declines in independent living for young adults (Mykyta and Macartney 2012). Economic independence for young adults has become more difficult since the 1970s, in part due to structural changes in the economy (Sironi and Furstenburg 2012). In fact, the increase in young adults living with their parents began in the 1980s but has accelerated since the start of the Great Recession and continues to increase during the recovery (Fry and Passel 2014; Payne and Copp 2012). Thus, we know that the economic consequences of the Great Recession have carried over to family life course trends, especially living arrangements (Cherlin et al. 2013; Fry and Passel 2014).

We also know that the economic disadvantages of the recession were strongest for race/ethnic minorities. Patterns of adaptation, however, may differ across groups. These patterns may be largely shaped by economic status, with the poor and near-poor responding similarly, regardless of race/ethnicity. Alternatively, differences within SES categories may follow race/ethnic lines, with poor whites following different patterns than poor Hispanics or poor blacks. Questions of racial differences in how individuals respond to economic shocks remain unanswered. This paper contributes to an understanding of family co-residence by examining changes in living arrangements during a period of widespread economic hardship. I investigate race/ethnic differences in the factors associated with moves into multifamily households.

**Background**

In the past century, the prevailing trend in living arrangements has been towards nuclear families, with older parents and young adults living independently (Klinenberg 2013). The modal living arrangement in the U.S. is the married couple or nuclear family and is also the focus of most family research, yet we know that this “normative” view of families does not adequately represent minority family formation (Gersetl 2011). The proportion of households with multiple
generations overall has been increasing since the 1980s, with about 16 percent of households in 2008 containing multiple generations (Fry and Passel 2014). However, this overall trend masks the considerably higher rate of multiple-generation households for blacks, Asians, and Hispanics, with rates ranging from 22–25 percent in 2012. The foreign-born are also more likely than native-born to live in multigenerational or complex households (Van Hook and Glick 2007; Wilmoth 2001). Deviations from nuclear families have been attributed to economic reasons, health reasons, and cultural preferences (Angel and Tienda 1982; Burr and Mutchler 1999; Choi 1991; Morgan et al. 1993; Prickett and Angel 2015).

Economic prosperity in the United States allowed families to purchase privacy and move toward increases in independent living (Ruggles 2007). Yet within the overall trend, those without the means to live independently have had to live with family. Older parents and, especially, widows are more likely to move in with adult children because of financial insecurity and poverty (Burr and Mitchel 1992; Choi 1991). Young adults are most likely to co-reside with parents in order to save money, and about half who leave and return do so because they were unable to support themselves (Payne and Copp 2013); economic independence for young adults leads to greater residential independence (Furstenberg, Rumbaut, and Setterson 2005). Those with poor employment prospects are more likely to move back with parents, even after having lived independently (Kaplan 2012).

Aside from economic concerns, poor health and difficulty with independent living also spur moves into multifamily households, typically by older parents. Moves in with family are often precipitated by health declines that compromise the ability of individuals to care for themselves (Kelly-Moore et al. 2006); this has been found for both physical and cognitive decline (Prickett and Angel 2015), and health reasons for co-residence are strongest at the end of life (Choi 2003; Wilmoth 2000). Furthermore, some racial and ethnic groups are more likely to rely on family for care than on institutionalized settings (Espino et al. 2013; Thomeer, Mudrazija, and
Angel 2015). These ethnic differences in response to health declines are often used to help explain (some portion of) the higher rate of intergenerational households among Hispanics and Asians than among other ethnic groups (Burr and Mutchler 1999).

Differences in culture and values have been invoked to help explain reasons for some race/ethnic differences in living arrangements. Views about children helping parents certainly have been found to vary across groups (Swartz 2009). Middle-class minorities may have different outlooks and expectations than whites do. For example, one study found that among middle-class Mexican Americans who grew up poor, nearly all reported an expectation to give back to parents and reported values that emphasize putting family needs ahead of individual needs (Vallejo and Lee 2009). Another study found that Asian and Latino youth report a stronger sense family obligation and family values than do whites (Fuligni, Tseng, and Lam 1999).

On the other hand, views regarding the acceptability of young adults’ living with parents have changed for all groups. The transition to adulthood has become elongated in U.S. society overall, with young adults staying in school longer and delaying family formation. “Emerging adulthood” is increasingly accepted as a normal stage of the life course (Arnett 2000). As one common feature of this emerging adulthood is that an increasing number of young adults live with their parents, accordingly, the norms associated with co-residence with parents are shifting (Da Vanzo and Goldscheider 1990; Settersten and Ray 2010). However, it is important to note that the societal acceptance of co-resident adult children may depend on their reasons for co-residence; for instance, advancing one’s education is a reason more often accepted than simple not working or “freeloading” (Newman 2012).
The Great Recession

The Great Recession was a devastating financial crisis characterized by simultaneous shocks in the stock market, housing market, and labor market, beginning in December 2007 and officially ending in June 2009. From lost housing value to unemployment, almost 40 percent of households experienced some consequence from the Great Recession (Hurd and Rohwedder 2010). During the recession, unemployment rates reached a peak of 10 percent, though substantial regional variation in rates and uneven exposure by industry and occupation existed (Hurd and Rowedder 2010). Poverty increased from 12.5 percent in 2007 to 15 percent in 2011, with larger increases for young adults aged 18-24 and racial minorities (Danziger, Chavez, and Cumberworth 2012).

The Great Recession’s effects were not felt equally across all demographic groups, and the households of low-income, less educated, minority, and young adults felt the most devastating consequences, across multiple domains. Young adults aged 16-24 suffered disproportionally more job loss during the recession (Bell and Blanchflower 2011). Furthermore, low-income and minority households lost more wealth than the average white household (Pfeffer, Danziger, and Schoeni 2013), with blacks and Hispanics seeing greater equity loss and a higher rate of foreclosures (Ellen and Dastrup 2012). Even in the aftermath of the recession, recovery has not been benefited all groups equally, and since the recession, racial wealth inequality has widened (Kochhar and Fry 2014).
Responses to Economic Shocks

In response to economic shocks, formal safety net programs, largely federal, become particularly important for people without a financial cushion. Additional assistance, such as programs run by private charities, and informal safety net assistance, which includes assistance from family or friends, attempt to fill in the gaps (Gottlieb, Pilkauskas, and Garfinkel 2014; Mistry et al 2008). We know that participation in several federal programs, including the Supplemental Nutrition Assistance Program (SNAP), Temporary Aid to Needy Families (TANF), and Unemployment Insurance all increased during the recession (Bitler and Hoynes 2015; Moffitt 2013). Food insecurity, in particular, would have doubled without this increase in SNAP participation (Pilkauskas, Currie, and Garfinkel 2012).

During the Great Recession, poverty increased across all race and ethnic groups and would have increased even more if federal unemployment benefits had not been expanded (Iceland 2013). Often, individuals must combine resources from a variety of government programs with private assistance to survive during times of need (Allard, Wathen, and Danziger 2015). Some research indicates safety nets do not reach, or simply are not enough to substantially improve the lives of, the most disadvantaged groups (Bitler and Hoynes 2015). In these circumstances, those who can do so often turn to informal safety nets in the form of assistance from friends and family. Among low-income families with the Great Recession, the in-flow of private transfers (from friends or family) increased as unemployment increased (Gottlieb et al. 2014).

The advancement of social welfare programs in industrialized countries was designed to compensate for disadvantage in the labor market and for the shortfall of family support (Esping-Anderson 1999). Their goal was to increase both efficiency and solidarity by offsetting market-based inequalities through collective resources, though this is more effective if market failures are
not seen as a personal deficit (O’Rand and Henretta 1999). Some argue, though, that strong welfare states have led to a shift away from family obligations because the state assumes dependent care that once was the responsibility of families (Esping-Anderson 1999; Watkins, Menken, and Bongaarts 1987). In countries with limited state welfare programs, for instance, a greater reliance on multigenerational households has been found to minimize poverty, especially among vulnerable groups (Tai and Treas 2009). While the U.S. has always relied heavily on the role of family to provide informal service, unpaid labor, and financial assistance, episodes like the Great Recession challenge the notion of personal responsibility since the repercussions are so widespread (Sherman 2013). Still, the actual cost of the downturn is disproportionately felt by race and ethnic minorities, whom social welfare programs do not always adequately reach or support (Edin and Shaefer 2015; Ellen and Dastrup 2012). Hence, without a stronger formal safety net, shared living arrangements must compensate as an alternative to homelessness.

In times of economic hardship and uncertainty, family stress theory would predict that individuals activate familial support systems to help bridge economic losses (Burr 1973; Patterson 2002). During the Great Recession, family members may have delayed moving out of multifamily households or moved in to these living arrangements as an expression of short-term economic caution. Even in non-recession periods, living arrangements change in response to shocks, such as death or job loss. While being unemployed increases the odds of moving into shared living arrangements, responses to shocks do vary by educational attainment (Wiemers 2014). Young adults who experienced job loss and foreclosures during the recession relied on family assistance, not just in living arrangements but also in financial transfers (Kaplan 2012). Meanwhile, for older adults, increases in the size and complexity of the household during the recession decreased economic well-being, compared to those whose households did not change (Kim and Waite 2013).
Moves into multifamily households may not exclusively occur directly in response to an acute economic shock, but rather in response to prolonged economic uncertainty as well, such as that which plagues many part-time and minimum-wage workers (Kalleberg 2013; Patterson 2002). Individuals from these groups may move in to a multifamily household in order to pool risk. During the Recession, involuntary part-time work increased, as did unemployment, and the former has yet to recover to its pre-recession levels (Valletta and Van der List 2015). It is important to note that, for many families, working part-time at minimum wage is not enough to stay above the poverty line (Burkhauser and Sabia 2007). Hence, as work becomes less reliable, pooling resources across families could become necessary for those affected to stay out of poverty. Such a situation may be particularly likely for low-income and minority groups.

However, qualitative work has suggested that turning to family is a limited resource, and that family support can be exhausted or fragmented once ties are no longer reciprocal (Menjívar 2000). In the end, an accumulation of economic demands can deplete family resources, and strain can result when there are no longer enough to meet the needs of family members (McCubbin and Patterson 1983).

Reliance on family safety nets in times of need is contingent on kin availability, as well as on kin’s resources. However, kin support is not equally available to all groups and may depend both on geographic dispersion and on the resources of family (Cravey and Mitra 2011; Lundholm and Malmber 2010; Margolis and Wright 2016). For young adults, the option to live with parents can buffer risk and allow the younger generation to pursue jobs with potential for higher income; by contrast, those without the option to return to the parental home have a lower savings rate (Kaplan 2012). However, within-family variability of economic status makes the choice of moving in with parents unavailable to some, and, where available, more helpful to some than to others (South and Lei 2015). For instance, if everyone you know and are related to is poor or near-poor, your living arrangement options are limited, and you may still be expected to make
burdensome household contributions, should you co-reside. On the other hand, if your kin network is doing well economically, your relatives are better able to absorb the costs of an additional person in the household. Given the benefits normally accrued by young adults living with parents, the inability to rely on family has become a stratifying factor, so much so that some have marked this condition as a point of diverging pathways for young adults: those with family support and those without family support (Kerckhoff 1993; Newman 2012).

Current Study

Prior work has examined general demographic trends in living arrangements overtime, documenting the increase in multifamily households (Fry and Passel 2014; Ruggles 2007). Other work has focused on young adults moving back in with their parents during the recession, finding both economic and family closeness matters (Payne and Copp 2013; Qian 2012; Sironi and Furstenberg 2012; South and Lei 2015). Among research that has focused on adults of all ages, research has found that multifamily households are more likely to form in response to a job loss (Weimers 2014). My research takes earlier analyses a step further by examining not only unemployment but also other reasons for leaving the labor force, as well as factors of family change with moving into a multifamily household for adults.

Previous research also demonstrates significant race/ethnic differences in family organization (Angel and Tienda 1982; Sarkisian and Gerstel 2004), family stability (Brown, Stykes, and Manning 2016; Fomby, Mollborn, and Sennott 2010; Raley and Wildsmith 2004), and family structure (Kamo 2000; Manning, Brown, Stykes 2014), as well as differential rates of home ownership (Goodman et al. 2015). With that background, the precipitants leading to the formation of multifamily households may build on and extend these differences. Race and ethnic differences in family structure and socioeconomic status may interact throughout the life course.
to shape decisions about living arrangements. The birth of a child, the dissolution of a marriage, and a newly widowed parent are all events that jeopardize the financial security of the family. Given the documented family differences across race/ethnic groups, responses to these events may also differ. Chronically low wages can also make it difficult for one- or two-person families to maintain separate households. In contrast, single-adult households rely on a steady stream of income that, if interrupted by a job loss, translates into immediate financial vulnerability. The last of these events increased dramatically during the recession and disproportionately impacted blacks and Hispanics (Nichols and Simms 2012). Therefore, I test for race/ethnic differences in the response to these factors on the formation of multifamily households. These results will contribute to a more nuanced understanding of the factors that lead to the formation of multifamily households as well as how the factors that lead to multifamily households may differ across race/ethnicity.

Using longitudinal data spanning the recent recession, I examine changes in living arrangements and the factors that precipitate a move into a multifamily household. I focus on race/ethnic differences in the factors precipitating these moves among all households, with a particular focus on low-income households. The extensive consequences of the recession have increased the formation of multifamily households. Furthermore, many who formed multifamily households may not have formed them had the economy not been in crisis. To evaluate the extent and form of these changes, I start by documenting the change in multifamily household prevalence from the beginning of the recession in 2008 through the recovery in 2012. Then I assess how changes in employment and marital status are associated with changes in living arrangements.

Family stress theory would predict that families would be more likely to take additional members in, in response to these economic shocks. Families balance the demands or stressors of members with the capabilities of the family to respond (Patterson 2002). Shared living
arrangements are one of the most common economic transfers and one of the most cost-effective strategies for providing assistance (Haider and Megarry 2005; Pilkauskas, Garfinkel, and McLanahan 2014). So while familial assistance can take the form of monetary transfers as well as shared living arrangements, shared living arrangements are more likely to be within the capabilities of family’s ability to provide assistance.

While all groups may rely on extended kinship as a survival strategy, research has found that minority families are more likely to provide assistance in the form of shared living arrangements to weather tough economic times (Berry 2006). Given previous research on racial differences in types of assistance, I hypothesize that, during the Great Recession — a time of extreme economic difficulties — minority families (black, Hispanic, and Asian) would be more likely to activate family resources through shared living arrangements compared to non-Hispanic white families. I hypothesize that this activation of kin resources will be evident in minorities’ being more likely to move into multifamily households than non-Hispanic whites, especially in response to economic shocks.

Given the differing access to human capital and family resources at varying socioeconomic levels, it is rational to expect differences in the mechanisms that precipitate changes in living arrangements. The compensation of workers, assets, and the risk of job loss all might predict how a family would operate during a recession, and low-income families may operate differently, due to increased economic disadvantage and/or insecurity. In order to assess these differences among low-income workers, I estimate the effects of economic and family shocks on change in living arrangements for low-income respondents separately.
Data and Methods

I use the Survey of Income and Program Participation (SIPP), a nationally representative panel survey conducted by the U.S. Census, to gain monthly individual-level information on individuals by interviewing respondents triennially for up to four years. Information is collected on all members of the household. The survey follows all original sample members--even those who move out of the household-- for the duration of the survey or until lost to follow up. This design allows family and household composition to change overtime; therefore, I use the individual as the unit of analysis.

I analyze data from the 2008 panel, which spanned from May 2008 to March 2013. Using these data, I analyze longitudinal information on household structure and individual characteristics to capture changes in household structure and formation. I construct longitudinal files to track changes in income, employment, and household structure over a 4–5 year period for all individuals. The data are organized into person-month records with one record for each wave in which the respondent was interviewed; person-month records are pooled across time.

The sample was restricted to respondents aged 25 and older. At baseline, 66,882 individuals are included in the sample; by the last wave of the sample, 74 percent remain. In addition, 14,545 respondents joined the sample for at least 2 waves. Individuals must be present for at least two waves to be included in my analytic sample. Before releasing the data, the U.S. Census Bureau imputes most missing data, including data on income, using a hot-deck procedure; however, other variables have missing responses, though this accounts for less than 3 percent of the sample. The final analytic sample is 80,347 respondents, aged 25-85.
Dependent Variable

The dependent variable in the analysis is a measure of the current household structure in which individuals reside. Individuals are thereby classified as either moving into multifamily households versus living in single-family households or living in the absorbing family of the multifamily household. Using the household roster and the reported relationship of all members to the household head, minimal household units (MHUs) are defined. An MHU is the smallest decision-making unit within the household, and accounting for these units not only captures familial relationships, but also allows for differentiating between units that may make decisions independent of each other (within the same household). This measure is directly comparable to those used in previous studies of household structure (Ermisch and Overton 1984; Leach 2014; Van Hook and Glick 2007). An MHU includes only the most immediate family members that cannot be thought of as belonging to their own, separate family. To be more specific, married or cohabitating partners are members of one same sub-family of their own. Children under the age of 25 are considered members of their parents’ (or parent’s) MHU if they are, themselves, childless and unmarried. If no parent lives in the household, minors are instead assigned to the household head. For example, a household with a mother, her children aged 18 and 25, and her cohabiting partner would be considered to have two MHUs: the mother, her younger child, and the mother’s cohabiting partner would be one MHU, while the older child would constitute his/her own MHU under the same roof. Note that MHUs can be single individuals.

The MHU method of defining sub-families within households differs from the strategy employed by Census, which defines families as those being related by blood, marriage, or adoption. Two key differences between the MHU definition and Census’s are that (1) cohabiting

1 Using the age cut off of 25 for non-dependent children follows previous literature on living arrangements (Kahn et al 2013; Van Hook and Glick 2007; and Wiemers 2014); however sensitivity analysis indicated that moving the age cut off for dependents down to age 22 or up to age 29 made no significant differences in multivariate analysis results.
partners are excluded from the latter, and (2) no distinction between extended family members is made in the Census definition.

In the discussion that follows, I use the terms “MHU” and “family” interchangeably. A multifamily household is defined as a household composed of two or more families, while a single-family household by definition has only one family. However, those in multifamily households include the family (MHU) that provides the residence (i.e., the “household head” family) and those who join this household. In this paper, I am interested in those families who move into multifamily households actively, such as in response to an economic shock; I am less interested in the characteristics of the family who takes co-residents in. Therefore in the analysis, I distinguish between family units that join a household, and family units that have a family (or families) join their established household. I make this distinction by identifying families as being part of the household head’s family or being in an auxiliary family. All members of the family that joins the now-multifamily household are coded “1” (as identified by not being in the same family as the household head), while those who passively absorb a family unit, as well as those in single-family households, are coded “0”. This coding attempts to isolate the movers. Although it is possible that someone joins the household to help the household head, this analysis assumes that it is the individual joining the household who has a need to relocate, thereby joining the household. Supplemental analysis indicated that the results were robust to coding individuals in household head families as being in a multifamily household as well.

Finally, while non-related household members can co-reside (as in the case of roommates, for example), households with only non-related adults are excluded from this

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2 It is possible for individuals to age into a multifamily household, as children living with their parents who turn 25 during the survey are coded as living in a multifamily household, though they do not actually move to a new household. This occurs for 796 respondents.

3 SIPP defines the household reference person as the “owner or renter of note.” If multiple people are listed, the first person listed is considered the reference person. However, during the scope of the survey, the reference person within the same household can change. The probability of a change in household reference person is less than 1 percent.
analysis, including households with only one resident. Households composed of related and unrelated adults exclude the unrelated adults from the analysis. In total about 11,680 single adult households are excluded and 2,000 households composed of non-related or cohabitating adults are excluded, as well. This is because the dynamics and expectations of living with roommates versus living with family members are likely very different. My interest is in how families may provide a safety net.

Independent Variables

This analysis includes lagged measures of changes in employment status, marital status, and number of children in the previous month. These measures are lagged by 4 months to allow for the time ordering of events to be such that changes in employment or marital status would precede a move into a multifamily household. In order to test if high rates of unemployment during the recession were associated with moves into multifamily households, it is important to tease out labor force exits attributable to unemployment rather than to other reasons. To produce a measure of employment status for those not currently working, then, employment status is combined with the respondent’s reason for being out of the labor force. This approach has led to the creation of an employment variable that sorts respondents into six groups: (1) currently working; (2) unemployed (out of the labor force but looking for employment); (3) out of the labor force because of a health reason such as illness, injury, or chronic condition; (4) out of the labor force for pregnancy or care responsibilities; (5) out of the labor force for school; and (6) retired.

To capture changes in family life, changes in marital status and the number of children are also included. Marital status is measured with a dummy variable (indicators: married,
divorced or widowed, and never-married). Number of children is a continuous measure of the number of children younger than 18 in the household.

The remaining two variables address the temporal dimensions of the data. Time is measured in this analysis using a linear variable: month of survey. Alternate specifications of time were tested. First, I included an indicator of recession months compared to non-recession months, which allowed me to examine whether the effects of job loss on moving into a multifamily household might vary across a given time period since. Second, given the high rates of job loss during the recession, the effects may have been more profound during the recession as compared to during the recovery; however no significant recession effects were found. Third, I tested non-linear polynomial functional forms of time. Allowing the effect of time itself to vary however, did not substantially improve model fit. Fourth, an indicator of interview month is used to distinguish survey “seams.” This strategy has been found to reduce seam bias (Ham, Li, and Shore-Sheppard 2007).

Analysis Strategy

I first present summary details of household structure by race/ethnicity in 2008, 2010, and 2012 to illustrate changes in household structure that occurred during and in the aftermath of the Great Recession. These descriptive results demonstrate differences by race/ethnicity in the patterns of multifamily formation that were present at the beginning of the Great Recession through the start of the recovery, as well as how the type of household extension changed during and after the recession.

\footnote{Divorced and widowed are combined because when the sample is subdivided into racial/ethnic groups, the marital status transitions in the new subsamples constitute too few cases to analyze separately.}
Next, using a pooled panel dataset, I estimate a series of fixed-effects logistic regression models to assess changes in household structure. Specifically, I estimate how a change in household structure is precipitated by changes in employment and marital status. Fixed-effects models are appropriate for estimating the effects of events (such as a job loss) on changes in the outcome (here, living arrangements), but not on the effects of stable characteristics (Allison 1994; Johnson 2005). Fixed-effects models account for within-individual change by using individuals as their own controls, which allows for estimates of the average effects of events, rather than evaluating between-individual variation, the latter of which is likely confounded by unobserved characteristics. As a result, all observed and unobserved characteristics that are time-invariant, such as gender and race, drop out of the model because they are constant within individuals (Allison 2009).

The strength of employing fixed-effects models to evaluate how events precipitate a move into a multifamily household, as is a particular focus of this study, is that such models are able to control for unmeasured, stable characteristics, such as, for example, unchanging individual preferences that might influence decisions regarding one’s living arrangements and any changes thereof. However, using fixed-effects models requires making assumptions as well; these analyses do not remove the biasing effects of unmeasured variables that do or might change over time, so the analyses must assume that no time-varying variables have been omitted. Additionally, the fixed-effects model assumes that stable characteristics, such as race, are time-invariant in their effects on the dependent variables. Despite these limitations, the strengths of fixed-effects models here, taken together, outweigh any limitations and provide the best

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5 Random-effects models allowing for between-individual variation were compared with fixed-effects models using the Hausman Test. The results indicated that the bias from the random-effects models was larger than the efficiency gain and suggested that fixed-effects estimates were preferable (Hausman 1978; Allison 2009).

6 Supplemental analyses tested for interactions with time, but no relationship was found.
estimation of how changes in employment status and marital status relate to changes in living arrangements.

The current study’s models are run in two steps. First, work status, marital status, and all time-varying covariates are used to predict changes in household structure to set baseline effects and confirm that families are responding to their relatives’ economic shocks, as predicted by the family stress theory. Given arguments of stronger extended kin networks among minorities and that minorities are more likely to provide co-residential assistance than whites, the second model tests these hypotheses. This model includes race/ethnicity interactions with employment status and with marital status to test whether the effect of employment status or marital status varies across race and ethnic groups (that is, whether there are racial differences in responses to these economic and familial shocks). Unfortunately, directly testing race differences in changes in living arrangements with fixed effects is not possible because the terms would drop out of the model, since race does not change. However, it is possible to test whether the association between any of the time-varying independent variables and changes in living arrangements operate differently by race. The race–employment status and race–marital status interaction terms can be interpreted similarly as one would interpret interactions in a linear model.

These two models provide information on the average effects of economic and family shocks on moving into a multifamily household and moderations by race/ethnicity. In order to test whether these average effects are the same for low-income families, I repeat the analysis using a subset of the sample from the bottom 40 percent of the income distribution. Analysis of this subset allows me to isolate how these processes operate for low-income families, in particular. All results are weighted, and standard errors have been adjusted to account for the clustering of data within individuals and households.
Results

Table 2-1 presents means and proportions of key variables, describing the household structure and sociodemographic composition for the sample at first observation by race/ethnicity. At baseline, 19 percent of the sample is living in multifamily households. Multifamily households can be organized vertically, through multiple generations, or horizontally, through siblings and other relations. Most multifamily households are organized vertically to include either an adult child or an older parent, although Hispanics are more likely to extend horizontally. In this study, black, Hispanic, and Asian respondents are all at least twice as likely to report living in a multifamily household compared to whites. Furthermore, during the survey, 12 percent of the sample experiences a change from a single-family household to a multifamily household. These moves are most common for Asians (36 percent) and Hispanics (48 percent).

Unemployment rates are lowest for whites. Blacks, Hispanics, and Asians have unemployment rates at least 2 percentage points higher than whites. In addition to differing rates of unemployment, reasons for being out of the labor market differ across groups. Blacks are more likely to report being out of the labor force due to poor health. Latinos are more likely to report being out of the labor force due to care responsibilities. Asians are most likely to report being out of the labor market for school.

Blacks exhibit the lowest levels of marriage, with higher rates of both divorced/widowed and of never-married. Whites and Asians are the most educated in the sample. Hispanics reside in the largest households, with about 1 additional person per household compared to the average household size. Blacks and Hispanics are the groups most likely to live in a household below the official poverty threshold for a given household size.
The continued growth of multifamily households (MFHs) across the survey is evident in Table 2-1. Across the time period observed, the proportion of respondents in multifamily households increased for all race/ethnic groups. The increase appears to be concentrated in vertical households for all race/ethnic groups; by 2012, the proportion of multifamily households that are vertical increases by 2 percent overall. This increase in multifamily households is largest for Asians, at around 3 percent every two years. Blacks and whites both increase about 2 percent.

The continued growth of multifamily households (MFHs) across the survey is evident in Table 2-2. Across the time period observed, the proportion of respondents in multifamily households increased for all race/ethnic groups. The increase appears to be concentrated in vertical households for all race/ethnic groups; by 2012, the proportion of multifamily households that are vertical increases by 2 percent overall. This increase in multifamily households is largest for Asians, at around 3 percent every two years. Blacks and whites both increase about 2 percent.
every two years, with blacks having a slightly larger total increase during the course of the survey. Hispanics experience a large initial increase from 2008 to 2010, but smaller from 2010 to 2012. Though the increase in MFH formation was small for Hispanics from 2010 to 2012, the shift in the composition of those households was large, with 8 percent more of the households becoming vertical in 2012. This finding implies that horizontal households were dissolving, while new multifamily households more often extended vertically.

On that note, it appears that, during the recession, the composition of multifamily households changed slightly, with larger increases for Asians and Hispanics in MFH formation and an increase in the prevalence of vertically extended households. These averages reflect total increases in the population, and mask individual-level changes that were more frequent, with more respondents moving into these types of living arrangements than moving out. The distribution of multifamily households appears to be increasingly concentrated in minority households, and the types of households being formed among all groups are more likely vertical, which may reflect the large number of young adults that move back with their parents.

Table 2-2: Changes in Proportions of Multifamily Households By Race/Ethnicity

<table>
<thead>
<tr>
<th>Year</th>
<th>2008</th>
<th>2010</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical</td>
<td>64.9</td>
<td>64.9</td>
<td>67.5</td>
</tr>
<tr>
<td>Horizontal</td>
<td>35.1</td>
<td>35.1</td>
<td>32.5</td>
</tr>
<tr>
<td>White MFH</td>
<td>14</td>
<td>16.4</td>
<td>17.9</td>
</tr>
<tr>
<td>Vertical</td>
<td>71.3</td>
<td>71</td>
<td>71.9</td>
</tr>
<tr>
<td>Horizontal</td>
<td>28.7</td>
<td>29</td>
<td>28.1</td>
</tr>
<tr>
<td>Black MFH</td>
<td>28.3</td>
<td>30.5</td>
<td>32.6</td>
</tr>
<tr>
<td>Vertical</td>
<td>67.3</td>
<td>64.5</td>
<td>66.1</td>
</tr>
<tr>
<td>Horizontal</td>
<td>32.7</td>
<td>35.5</td>
<td>33.9</td>
</tr>
<tr>
<td>Asian MFH</td>
<td>28.8</td>
<td>32.1</td>
<td>35.5</td>
</tr>
<tr>
<td>Vertical</td>
<td>54.6</td>
<td>58.3</td>
<td>63.1</td>
</tr>
<tr>
<td>Horizontal</td>
<td>45.4</td>
<td>41.7</td>
<td>36.9</td>
</tr>
<tr>
<td>Hispanic MFH</td>
<td>31.9</td>
<td>35.6</td>
<td>37.3</td>
</tr>
<tr>
<td>Vertical</td>
<td>46.3</td>
<td>47.8</td>
<td>55.8</td>
</tr>
<tr>
<td>Horizontal</td>
<td>53.7</td>
<td>52.2</td>
<td>44.2</td>
</tr>
<tr>
<td>Unemployment</td>
<td>4.4</td>
<td>5.6</td>
<td>4.5</td>
</tr>
</tbody>
</table>
Table 2-3 presents results of analyses predicting the association of leaving the labor force and marital status with a subsequent change into living in a multifamily household. These analyses are designed to assess what precipitates a move into a multifamily household, with all independent variables lagged one wave before the observed change into a multifamily household. Model 1 tests the family stress hypothesis, which would suggest that, in response to economic shocks, respondents would be more likely to move into multifamily households. As seen in Model 1, exiting the labor force for any reason is associated with an increase in the odds of moving into a multifamily household, and unemployment, in particular, is significantly associated with such an increase. Not working due to a health reason, along with retirement, is associated with an even larger increase in the odds of moving into a multifamily household. These latter two events may represent health shocks that greatly reduced the capacity of these individuals for independent living; remember that retirement tends to happen at ages where health may be (or soon be) in decline. Marriage and divorce/widowhood reduce the odds of moving into a multifamily household, compared to the experiences of the never-married group. It may be easier for households to absorb a never-married family member than to take in married family members in need. All in all, as expected, families do appear to be forming multifamily households in response to economic, health, and family stressors.

Of particular interest to this study are racial differences in the factors precipitating a move into a multifamily household. Model 2 tests hypotheses that these processes operate differently by race/ethnicity, specifically by examining how race/ethnicity moderates the effects of change in employment or marital status on one’s likelihood of moving into a multifamily
household. Significant racial differences in these associations are evident by employment status and marital status interactions.\(^7\)

The net effects of racial differences by employment status are illustrated in Figure 2-1 (calculated as the sum of the main effects for employment status, plus the interaction with race). Blacks and Hispanics are less likely to move into a multifamily household following a job loss than are whites. In fact, for blacks, there is no relationship between unemployment and moving into a multifamily household. Compared to whites, blacks are also less likely to move into an MFH when health prevents them from working or when they retire. Asians are largely similar to whites, except that Asians are less likely to move into a multifamily household following retirement and more likely to move into a multifamily household for school. Hispanics are more likely to move into a multifamily household on account of caretaking responsibilities’ demanding their exit from the labor force, as well as for school.

Family changes may also prompt moves into multifamily households. Marriage reduces the odds of moving into a multifamily household for all racial and ethnic groups. Married whites are least likely to move into a multifamily household. Similarly, divorced or widowed whites are least likely to move into a multifamily household of all respondents. However, the effect of divorce or widowhood operates in the opposite direction for Hispanics, who are more likely to move into a multifamily household following a marital dissolution, though the magnitude of the effect is small. Having a child is another family change associated with lower odds of moving into a multifamily household for all groups, except Asians.

\(^7\) Some race and work status transition combinations are less common, so unless the effect is large, it may not be statistically significant. A table of transition percentages is available in Appendix A.


Table 2-3: Fixed Effects Logistic Regression Coefficients Predicting Moving Into Multifamily Households: SIPP

<table>
<thead>
<tr>
<th>Employment Status (Ref=Employed)</th>
<th>Full Sample</th>
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<th>Low-Income</th>
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<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
<td>Model 3</td>
<td>Model 4</td>
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<td>b (SE)</td>
<td>b (SE)</td>
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<td>0.58***b</td>
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<td>-0.48***b</td>
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<tr>
<td>Children</td>
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<td>-1.32***</td>
<td>-0.62***b</td>
<td>-1.04***</td>
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<td></td>
<td>(0.03)</td>
<td>(0.04)</td>
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<tr>
<td>Employment Status by Race Interactions</td>
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<td></td>
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<td></td>
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<tr>
<td>Unemployed * Black</td>
<td>-0.53***</td>
<td>0.11</td>
<td></td>
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<tr>
<td></td>
<td>(0.09)</td>
<td>(0.13)</td>
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<tr>
<td>Unemployed * Asian</td>
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<td></td>
<td>(0.15)</td>
<td>(0.34)</td>
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</tr>
<tr>
<td>Unemployed * Hispanic</td>
<td>-0.19</td>
<td>-0.01</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>(0.09)</td>
<td>(0.14)</td>
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<td>No Work Health * Black</td>
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<td>0.45**b</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>(0.11)</td>
<td>(0.16)</td>
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<tr>
<td>No Work Health * Asian</td>
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<tr>
<td></td>
<td>(0.24)</td>
<td>(0.60)</td>
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<td>No Work Health * Hispanic</td>
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<td>-0.20</td>
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<td></td>
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<tr>
<td></td>
<td>(0.13)</td>
<td>(0.23)</td>
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<td>(0.13)</td>
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</tr>
<tr>
<td>No Work Care * Asian</td>
<td>-0.02</td>
<td>-0.83</td>
<td></td>
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<tr>
<td></td>
<td>(0.19)</td>
<td>(0.37)</td>
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<tr>
<td>No Work Care * Hispanic</td>
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<td>0.66**</td>
<td></td>
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<tr>
<td></td>
<td>(0.12)</td>
<td>(0.19)</td>
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</tr>
<tr>
<td>In School * Black</td>
<td>1.01***</td>
<td>2.25***b</td>
<td></td>
<td></td>
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<td></td>
<td>(0.19)</td>
<td>(0.30)</td>
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<tr>
<td>In School * Asian</td>
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<td></td>
<td>(0.28)</td>
<td>(0.49)</td>
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<td>In School * Hispanic</td>
<td>1.28***</td>
<td>2.51***b</td>
<td></td>
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<tr>
<td></td>
<td>(0.22)</td>
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<tr>
<td>Retired * black</td>
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<td>(0.21)</td>
<td>(0.72)</td>
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</tr>
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<td>Retired * Hispanic</td>
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</tr>
<tr>
<td></td>
<td>(0.16)</td>
<td>(0.41)</td>
<td></td>
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</tr>
</tbody>
</table>

Marital Status by Race Interactions

Married * Black                               | 0.32**      | 0.34                  |            |                     |
|                                             | (0.12)      | (0.21)               |            |                     |

Notes: "Logistic fixed effects models drop individuals that experience no change on the dependent variable, total number of respondents who fit sample criteria are included in parentheses. "Indicates coefficients that are significantly different between low income respondents and middle-high income respondents (those not in the bottom 40% of the income distribution).

* p<0.05 **p<0.01 ***p<0.001
Low-Income Households

Building on the findings of race/ethnic differences in the previous models, the next set of models assesses whether these processes work similarly for low-income respondents. While previous models present average effects, I suspect that these processes do work differently for low-income individuals. Shared households are more common among low-income families, and reasons for moving may differ according to socioeconomic position. Additionally, isolating low-income respondents and testing for race/ethnic differences among these households will allow this

Notes: Net employment effects on multifamily household formation are calculated from Table 3, Model 2 as the sum of the coefficients for employment status and the interaction terms with race/ethnicity.

Figure 2-1: Net Effects of Leaving the Labor Force on Odds of Poverty by Race/Ethnicity
analysis to reveal the extent to which race/ethnic distinctions simply reflect structural differences across groups. Hence, in the next set of analyses, I limit the sample to low-income respondents.  

Model 3 assesses whether low-income families also respond to job loss and marital dissolution by increasing formation of multifamily households; if the coefficients are similar to those of previous analyses, such a finding would suggest that these processes work the same for both groups. Among the low-income group, the odds of moving into a multifamily household following a job loss are slightly larger than the average effects in than full sample. Still, although the magnitude of the associations is larger, they all operate in the same direction. These small differences suggest that, in general, the process works the same, but that low-income respondents may be slightly more likely to move in response to a job loss than others, likely due to lower low-income respondents having lower levels of savings to weather economic challenges. Changes in marital status operate similarly for the low-income group as they do for anyone else, on average. However, having additional children appears to effect a smaller reduction in the odds of moving into a multifamily household for low-income individuals than it does for others.

Again, the primary point of interest for this study is how these associations might differ by race/ethnicity. If, in the end, differences by race/ethnicity are absent among the bottom 40 percent, this might suggest that the race differences in the full model are largely a product of socioeconomic differences. Model 4 presents results with race/ethnicity interactions for low-income respondents, and no racial differences in the odds of moving into a multifamily household following unemployment are found. Unemployment among low-income workers leads to similar

---

8 Low-income households are defined as having a household income in the bottom 40 percent of the income distribution across the entire sample. The bottom 40 percent of the income distribution has an average household income of $1,023 and a maximum income of $1,911 per month. Low-income households have a 66 percent rate of poverty, while 99 percent are within 200 percent of the poverty line. Less than half own homes, and 61 percent receive non-cash welfare benefits. Supplemental analysis finds that the relationship between job loss and change in living arrangements does differ between low-income and all other households (see Table 2-3).
odds of moving into a multifamily household across all race/ethnic groups. This suggests that racial differences in the average effects are driven by differences in the middle and upper income groups. However, a few notable differences emerge among the low-income sub-sample: namely, low-income blacks are most likely to move into a multifamily household due to poor health, and low-income Hispanics are most likely to move into a multifamily household following retirement. Family-motivated moves among low-income respondents present patterns similar to the average effects, although married, low-income Hispanics are even less likely to move into a multifamily household compared to low-income whites.

**DISCUSSION**

This study examines race and ethnic differences in how economic shocks motivate moves into multifamily households. During the Great Recession, 8.7 million jobs were lost, and in the face of prolonged economic insecurity, many individuals moved into multifamily households. The results of this study illuminate how families adapted during this period of economic hardship and identify race/ethnic differences in people’s responses to these hardships. Descriptive results suggest that all race/ethnic groups saw an increased proportion of multifamily households; hence, essentially, we see that the recession pulled all groups into more of these living arrangements than lived in them previously. (Though there were slightly higher increases for Asians and Hispanics.) The types of multifamily households being formed did shift slightly as well; over time, vertically extended households became more prevalent than horizontally extended ones. This finding suggests that during an economic crisis, individuals are more likely to turn to parents or children as opposed to other kin.

Unemployment is associated with increased odds of moving into MFH for all groups, with even larger increases for whites and Asians. This race/ethnic difference, however, did not
hold for low-income populations. The lack of racial differences among low-income households suggests that the formation of multifamily households is a shock-response strategy common to low-income families of all race/ethnic groups.

While these results highlight how individuals respond during a severe economic recession, due to the relative short time window of the survey, the data are less capable of capturing reactions to longer-term experiences of hardship. Indeed, economic hardship may be less of an acute factor and more of a long-term experience for certain race/ethnic minority groups. Questions of how various groups respond to long-term economic hardship merit further analysis.

Living in a multifamily household is least common among whites, so perhaps moving into a multifamily household operates as a last resort for them and only in response to economic shock. Blacks and Hispanics may move into multifamily households for reasons more nuanced than what can be captured in the data. For example, black and Hispanic low-wage workers with variable work schedules may decide to move into a multifamily household because of unstable wages, the need for flexible childcare, or because the accumulation of uncertainty pushes them towards a living arrangement that allows them to pool risk with other earners. Blacks and Hispanics, in this data, are also more likely to experience a foreclosure, which may account for some of the changes in living arrangements that are unobserved, but as the data do not include systematic information on foreclosures, the relationship between the housing crisis and living arrangements cannot be directly measured.

The lack of racial differences in responses to unemployment among the low-income sample suggests that whites’ otherwise-increased likelihood of moving into a multifamily household following a job loss is driven primarily by whites of the middle class. For middle-class whites, the formation of these households likely represents a return to the parental home, in which their middle-class parents are able to support them. During the recession, racial differences in the response to unemployment may reflect that whites immediately turn to parents for assistance,
whereas blacks and Hispanics may not have the same family support to turn to in times of need. It should be further noted that unemployed whites who move into multifamily households are younger, on average, compared to non-whites who do the same (results not shown). This supports the idea that multifamily households for whites may represent an emerging adulthood phenomenon in which adult (white) children move back in with parents to weather economic challenges.

Families across all race/ethnic groups appear to be providing assistance to relatives in response to both economic and family shocks, as predicted by family stress theory. However, minorities do not appear to use this strategy more than whites, as originally hypothesized. Though direction of family support varies by race/ethnicity, family support among whites largely flows from parents to adult children. Minority parents do offer assistance to children as well, and black families even see vertical assistance flows extending to grandchildren, but one feature that sets minority groups apart from whites is that minority groups also extend their assistance horizontally to other kin relations. Finally, evaluation of race/ethnic differences in this study may be limited if the reasons for moves among minorities have stemmed from factors that were not assessed in the data.

These results confirm past research that individuals are more likely to double up in response to a job loss, but provide evidence that race/ethnicity influences who will be more likely to double up in response to a job loss (Wiemers 2014). Whites are more likely to move into a multifamily household after a job loss than blacks and Hispanics, though among low-income groups, no racial differences persist. Further, these results highlight how, though the proportion of multifamily households increased across the survey time period for all race/ethnic groups, the formation of multifamily households was not precipitated by the same factors for all race/ethnic groups. This finding suggests that multifamily households may, in fact, serve different functions across groups. Additionally, these results highlight the factors that prompt individuals to move
into multifamily households during a recessionary period overall: employment seems to be a key factor, and change in marital status is significant as well.

While the SIPP data are well suited to test the proposed research questions, they are not without limitations. I am only able to capture changes that occur during the 4–5-year sample time frame of this study’s scope. However, this time frame captures a majority of the Great Recession and recovery period, allowing me to study changes in living arrangements during this economic crisis. Among older adults, and especially among whites, health declines that limit independent living often result in moves into institutionalized settings (Mutchler and Burr 1991). I am unable to capture moves into institutionalized settings in the SIPP data, a fact which may account for racial differences across respondents who exited the labor force for health reasons. Another transition that I do not capture in the data that may be particularly salient among certain groups is the dissolution of cohabitation relationships, which may precipitate moves back into the parental home. Blacks and low-SES groups tend to have lower rates of marriage to begin with; thus, by only capturing formal union dissolutions, these data may miss important union dissolutions among blacks and among low-SES groups. Such an oversight could underestimate the odds of moving into multifamily households following a union dissolution, compared to the results we might find if able to include cohabitation dissolution (Carlson, McLanahan, and England 2004; Goldstein and Kenney 2001). In addition, other research has found substantial regional variation in the effects of the Great Recession, especially in foreclosures; unfortunately, I am not able to account for regional variation using these data.

Despite these limitations, this study demonstrates significant race/ethnic differences in the process of multifamily formation, or “doubling up,” in response to economic shocks. This study also suggests future avenues of research. One potential avenue would be to investigate the persistence of multifamily living arrangements that have originally occurred in response to a job loss: that is, are these short-term moves? Once employment is regained, do these individuals
move out? Given the increasing prevalence of multifamily households, even as employment rates have rebounded, it appears that not all who regain employment are moving out of multifamily living arrangements. Further, we could learn much by asking how long-term multifamily living arrangements differ from short-term, crisis-oriented moves. Data spanning a longer period of time might be better suited to studying the duration of these moves, as well as to identifying factors that account for differences in moving out after a multifamily household has been formed.
Chapter 3

ARE MULTIFAMILY HOUSEHOLDS A POVERTY MITIGATION STRATEGY? CHANGES IN POVERTY STATUS BY RACE AND HOUSEHOLD STRUCTURE

Introduction

When times are tough, families are often the first line of defense. The widespread economic consequences of the Great Recession, which officially began in 2007 and ended in 2009, strained many families. Poverty and unemployment increased substantially. The poverty rate increased from 11 percent in 2000 to 15.1 percent after the Great Recession in 2010. The poverty rate has not recovered and remains high at 14.8 percent (DeNavas-Walt and Proctor 2015). Unemployment also increased during the recession; however, since hitting a high point in 2010 — almost 10 percent — it has rebounded considerably and, by 2014, was almost at pre-recession levels, although rates continue to differ substantially across race/ethnic, gender, and age groups (Bureau of Labor Statistics 2012). Amid rising unemployment and poverty rates, housing was also hard-hit, with an increase in foreclosures and a 6 percent increase in rents, while the real income of the average renter in the United States fell 13 percent (Eggers and Moumen 2010). These incongruities caused one in five of all renting families in America to devote more than half their income to rent (Eggers and Moumen 2010), as do a majority of renting families living in poverty (Desmond 2015). Though the effects of the recession were widespread, blacks and Hispanics, who were the most disadvantaged before the recession, disproportionately experienced more negative consequences during that period. Between 2007 and 2010, the poverty rate increased from 19.6 to 23.3 for blacks and from 17.9 to 22.4 for Hispanics, while whites’ poverty rate only went from 7.7 to 9.9 percent (Danziger, Chavez, and Cumberworth 2012). Blacks had
the highest unemployment rate and steepest increase in unemployment during the recession, yet only 23.8 percent received unemployment insurance benefits, compared to whites’ 33.2 percent (Nichols and Simms 2012).

As families became overburdened with housing costs and increased economic uncertainty, few options to relieve this burden existed. However, merging households provided one avenue of assistance. From the beginning of the Great Recession in 2007 until 2010, the proportion of adults sharing a household increased by 11 percent, meaning 1.3 million additional adults were living in shared households (Mykyta and Macarcey 2012). Not only were more families doubling up into one household, but when compared to pre-recession behavior, young adults were less likely to leave the parental home to form their own households during the recession, even when differences in employment were taken into account (Lee and Painter 2013; Payne and Copp 2013). While the increase in shared households occurred across all race/ethnic groups, race/ethnic minorities have a longer tradition of multigenerational living arrangements and are more likely to share households to this day (Fry and Passel 2014). Shared living arrangements among race/ethnic minorities may reflect long-term strategies that have been used to cope with the disadvantage and adversity these groups have historically encountered (Roschelle 1997).

While the trend of doubling up is well documented, little is known about whether and how moving into a multifamily household might redefine poverty thresholds and reassign poverty status. Moving into a multifamily household can increase the resources available to an individual because he or she can now pull from the collective resources of a larger household. However, moving into a multifamily household can also strain the limited resources of the household at large, as each individual is an additional consumer of resources. Though it is clear that individuals would be unlikely to move unless doing so provided some perceived or anticipated improvement in their situations, it is important to ask, what are the net benefits for all members of
multifamily households?

Since official poverty thresholds are adjusted for economies of scale, and calculations are based on the number of people in a family, two poor families that combine can no longer be classified as poor if their size-adjusted joint incomes push them over the poverty threshold. However, while they may have less rent to pay and may gain some economies of scale in terms of food and utilities, in the end, they have the same number of mouths to feed and may sacrifice privacy and space. Partly in response to the Great Recession and its aftermath, the number of multi-generation households has been increasing in the United States — but to what extent are poor families truly moving out of poverty through the formation of these larger households or through joining non-poor households?

In this article I leverage longitudinal data to first explore how changes in living arrangements are related to changes in poverty status. Further, given differing economic status and rates of multifamily household formation by race, I test for differences in changes in poverty status by race and ethnicity. Lastly I examine how this relationship may be moderated by the structure of the multifamily household, both in terms of household economics and family organization.

**Background**

**Doubling Up as an Economic Strategy**

When living on their own becomes too onerous, low-income families and individuals turn to family for housing support. Combining households can be a cost-effective strategy; co-residence is a mechanism of resource transfer to young, old, unemployed, and sick family members (Bianchi et al. 2008). Housing is expensive and typically accounts for between 30 and
50 percent of total income among low-income families in the United States (Schwartz and Wilson 2008). Reducing this rent burden by doubling up is a common strategy among low-income families (Edin and Lein 1997). Half of the families in Fragile Families report at least one instance of doubling up, with an average annual rental savings of more than $4,000 (an economic value greater than the average amount of financial support that an individual otherwise receives through cash transfers from public assistance or food stamps), not to mention savings from shared utility and food costs (Pilkauskas, Garfinkel, and McLanahan 2014). In a qualitative study of low-income mothers with children, the decision to live in a multifamily household was largely determined by necessity rather than choice, but co-residence provided up to about one-third of total resources available to these mothers (Magnunson and Smeeding 2005). Nationally representative data indicate that co-residence is the primary mechanism of resource transfer in low-income families, and its prevalence has increased over time (Haider and McGarry 2005).

As the service economy expands in the United States, an increasing number of people work in jobs that have such low incomes that one income alone is not enough to keep them out of poverty (Burkhauser and Sabia 2007). Two potential strategies that allow low-income earners to avoid poverty are (1) working multiple jobs and (2) pooling wages in the household. Among low income earners in the UK, only about 8 percent are able to stay out of poverty by working more than 50 hours per week. Income pooling is a more effective strategy for avoiding poverty there, with 32 percent avoiding poverty with a partner’s income and another 30 percent avoiding poverty with other family members’ income (Gardiner and Millar 2006). While the benefits of dual-earner couples has long been known, this income pooling strategy is similar to that of low-income earners forming non-traditional households with multiple earners to stay out of poverty (Cattan 1998; White and Rogers 2000). Such alternate forms of living arrangements may be especially beneficial in communities where finding an economically stable partner is difficult. In many low-income African-American communities, black men without a HS diploma have a
lifetime imprisonment risk of more than 60 percent, which may make finding a stable partner more difficult in these communities (Pettit and Western 2004).

Family structure has been linked to racial disparities in poverty rates; however, the importance of family structure in predicting poverty has diminished as female employment has increased (Edin and Kissane 2010; Iceland 2003; Lichter, Qian, and Crowley 2005). Female-headed households have the highest rates of household poverty; however, those with income from other family members are less likely to be in poverty (Snyder, McLaughlin, and Findeis 2006). Some of the relationship between family structure and poverty is mediated by labor force participation (Lichter et al. 2005). Family structure and labor force participation are also related; as Newman found among her “burger-flipper,” respondents “mobility through the labor market is largely contingent on household and family configuration” (Newman 2006:152). For young adults, the obligation to start contributing to the household may outweigh investment in human capital needed to advance in the labor market.

Social security is an especially important resource as well for many low-income households, as it represents a stable income source for the households that receive it (Crystal, Shea, and Reyes 2016). Furthermore, in multigenerational households with young children, social security income enables grandparents to bring income into the household while remaining in the home to provide childcare (Mutchler and Baker 2009).

**Racial Differences in Household Composition**

Historical and contemporary racial differences in household composition have been attributed to both structural and cultural explanations. In practice, it is likely that structural conditions, preferences, expectations, and values are interrelated in their relationship with living arrangements (Landale and Oropesa 2007). In 2012, Asian-Americans (in this paper, hereafter
referred to as “Asians”) were most likely to live with multiple generations of kin, followed closely by blacks and Hispanics, while whites were least likely (Fry and Passel 2014). Among the elderly, living in extended households is more common among Hispanics and Asians (Burr and Mutchler 1992; Burr, Mutchler, and Gerst-Emerson 2013). Yet, Asians typically have higher incomes and more education than whites.

The primary structural explanation for racial difference in living arrangements is that race and ethnic minorities have lower socioeconomic status, which is reflected in their higher rates of poverty and lower levels of education (Keene and Reid 2010). Structural explanations are most often invoked to account for blacks’ and Hispanics’ disadvantages, as these groups have the highest rates of poverty and lowest levels of education in the U.S. population (DeNavas-Walt and Proctor 2015). Indeed, many studies of racial differences in living arrangements have found that structural factors such as socioeconomic status explain a large portion of racial differences but are unable to account for these fully (Burr and Mutchler 1999). In one 1982 study, non-nuclear members of minority households were found to contribute significantly to household income, whereas non-nuclear members did not contribute to household income in white households (Angel and Tienda 1982). Among minorities, the formation of co-resident households is more often motivated by economic needs; hence, minorities’ and whites’ expectations regarding their own extended-family households may vary.

Racial differences in household composition have also been linked to cultural differences in family cohesion and the importance placed on extended family ties. In studies of norms of filial responsibility, older blacks and Hispanics are more likely than non-Hispanic whites to believe that each generation should provide co-residential assistance when needed (Burr and Mutchler 1999). Racial differences in household structure for African-American families (who are more likely than whites to live in extended households) have been hypothesized to stem from norms adopted from the historical legacy of slavery and reconstruction (Roschelle 1997; Ruggles 2007).
Regarding Asian and Latino immigrant households, scholars have posited that household structure is closely linked to norms and values imported from their home countries. For instance, Asians have a greater sense of filial piety than whites, a value which historically derives from Confucian influences in their home countries (Burr and Mutchler 1999). Among those from Latin America, the term familism has emerged to describe Hispanics’ commitment to extended kinship ties, which differs in important ways from that of whites and which some have traced back to Aztec ancestry for Hispanics of Mexican origin (Roschelle 1997; Vega 1995). Others have argued that strong kin networks are an adaptive response of ethnic minorities, in general, through which they are circumstantially forced to compensate for limited economic resources (Baca, Zinn, and Pok 2002; Baca, Zinn, and Wells 2000). Such cultural differences have been found to endure in future generations even beyond migration (Kamo 2000). Cultural differences in the normativity of multigenerational and joint-household living arrangements may mean that moves into extended households happen more frequently, and not as a last resort, for race and ethnic minorities.

Moving beyond just individual or even household economic constraints, there are racial disparities with respect to financial well-being of larger kin networks, which may also influence living arrangements and the potential benefits an individual can reap from an extended-household structure. The minority middle class for blacks and Hispanics, for instance, is much smaller than it is for whites and Asians (Goodman et al. 2015; Wheary 2006). On homeownership and college education, two of the traditional markers of middle-class status, whites and Asians have much higher rates compared to blacks and Latinos (Goodman et al. 2015). The minority “culture of mobility” paradigm suggests that even those minority-group individuals that become middle-class must negotiate relations with poorer kin leading to more limited upward mobility (Chiteji and Hamilton 2002; Neckerman, Carter, and Lee 1999). Furthermore, despite their achievement of middle-class status, they are more likely to have poor kin and to live closer to poor kin (Heflin and Pattillo 2006; Pattillo 2013). Blacks and Hispanics have also been found to take more
responsibility for the welfare of their kin, expressed in the idea of ‘linked fate’ (Dawson 1994). Upwardly mobile middle-class Mexicans in the United States often take on the responsibility of supporting family members who are less well-off, and express that they see this support as an obligation (Vallejo 2012). Impoverished networks have also been suggested as an explanation for racial wealth gaps; instead of saving and investing, it has been found that these minority groups are supporting their kin (O’Brien 2012). All of these findings suggest that the structural barriers for minority groups involve not only an individual’s own socioeconomic status, but also the socioeconomic circumstances of his or her larger kin network. Put simply, if those around you have limited resources, your ability to rely on family in times of economic need is tenuous. Simultaneously, this research also suggests that minorities often feel a greater sense of obligation to help relatives in economic need. That is, racial minorities will be more likely to take family in, but, given their statistical likelihood of having poorer kin networks, the prospects for a minority individual to move herself or her kin out of poverty through sharing (already-limited) resources may be less likely.

**Current Study**

This study expands upon previous research that examines racial differences in poverty and living arrangements by addressing three dynamics. Whether and how forming multifamily households raises families out of poverty; the types of families that benefit from these arrangements; and how changes in poverty status may diverge across different types of economic organization and/or by the family structure of multifamily households. First, I take a longitudinal approach to examine changes in poverty status rather than simply compare poverty status cross-sectionally among those in different living arrangements. Specifically, using nationally representative monthly longitudinal data from 2008-2013, I examine how changes in living
arrangements are associated with changes in poverty status. While previous research has focused on teasing out economic or cultural explanations for race/ethnic differences in living arrangements, the goal of the present study is to evaluate the economic gains achieved from forming a multifamily household. I hypothesize that moving into a multifamily household will reduce the subsequent odds of poverty for the household.

Second, because moving into a multifamily household (MFH) can raise families out of poverty only when sufficient resources are involved, not all families will experience that benefit. In particular, poor households, which are disproportionately composed of blacks and Hispanics, are more at risk of staying in poverty with the addition of new families. The kin-networks of blacks and Hispanics are also much more limited, so moving in with relatives may provide less economic gain compared to when whites move in with relatives. I test how race moderates the relationship between multifamily household formation and poverty status. I expect this stage of the investigation will expose how the formation of MFH may not provide the same level of benefit to all race/ethnic groups. I hypothesize that blacks and Hispanics will be shown to experience a smaller economic benefit from moving into MFH because these groups have kin networks with less resources on average to start with; furthermore, I am presuming that, because MFH are non-normative for whites, whites are only likely to form MFH if such a move provides substantial economic benefits for at least one of the families. While Asians may be more likely than whites to move into MFH, I hypothesize that they, too, will see large reductions in poverty from such moves because Asian kin networks have more resources on average.

Lastly, I use information on the structure of the MFH to assess how the economic benefit of moving into MFH may depend on how the household is organized. I do this by examining both family organization and economic organization. Households that extend the boundaries of the nuclear family can be extended vertically or horizontally. How these households operate and the benefits they provide to families may vary, so I test whether the family organization of the MFH
into which one moves moderates any potential correlation between MFH and poverty transition. I hypothesize that moves into vertically-extended households will provide a larger reduction in the odds of poverty compared to moves into horizontally-extended households, since these households are often more stable and have lower poverty rates (Kamo 2000). I also assess how the distribution of household resources (or “household economic organization”) across family units might moderate the benefits of moving into an MFH.

Household economic organization, for its part, can be categorized as either altruistic or egalitarian. Members of an altruistic household will support other members, even if this support is economically lopsided. This is because an altruistic household is in theory motivated only by a perception of what is best for all members of the family, and expecting significant financial contributions from all members may not always be the best arrangement. Another way of thinking about this is that a within-household dependency exists when one family earns all the money, but provides support to another, strictly because the latter needs it — for no other reason, and with no hard expectations of compensation. By contrast, in egalitarian households, all families are expected to contribute income to household expenses. With respect to economic organization, I hypothesize that egalitarian MFH households will be more likely than altruistic households to reduce the odds of poverty among those that move into MFH households, given the greater total resources in the household and the ability of previously poor single-family households to gain economies of scale. I also hypothesize that the difference in poverty reduction by household economic organization will vary across race/ethnic groups. Moving into altruistic households will likely reduce poverty more for whites and Asians than for others because whites and Asians are more likely to have economically advantaged kin networks, who are able to sustain poorer kin.
Data and Methods

Data

I use the 2008 panel of the Survey of Income and Program Participation (SIPP), a nationally representative longitudinal survey of the civilian noninstitutionalized population of the United States. Respondents are interviewed every 4 months for 56 months. SIPP interviews all individuals in a household and follows all original sample members for the length of the survey, allowing for the study of changes in living arrangements over time. New members are included in the survey if they join the household of an original sample member. The fixed-effects model requires that the data be organized as person-month observations. The fixed-effects method allows for unbalanced panels, so respondents only need to be present for two waves to be included in the sample. I restrict my sample to adults aged 25 and older in any wave, since respondents aged 18–24 may have transitory living arrangements for a variety of reasons, such as moving into a college dorm and back. By limiting my sample to those present in at least 2 waves and to individuals older than 25 in at least 2 waves, I have a final sample size of 75,629 individuals, each contributing, on average, 42 months of observations.

Some evidence of seam bias has been found in SIPP. Seam bias occurs because individuals are more likely to report changes that occur in the months of interview, so transitions are lumped at 4-month intervals. However, in the more recent panels of SIPP, though seam bias still exists, it is lower than in earlier panels, due to probes about the specific month in which events occurred over the past four months (Moore 2008). To account for this bias, I include a dummy variable for interview month; in longitudinal simulations this method performed similarly well to other methods (Ham, Li, and Sheppard 2007). Attrition is moderate, with about 70 percent
of households from the first wave remaining at Wave 14. That said, because individuals do not need to be present for all waves to be included in the sample, attrition bias is minimized.

Measures

*Multifamily Household Structure*

In the United States, nuclear-family households are most common, but a growing proportion of households contain individuals or families that expand household boundaries beyond traditional nuclear families. I define household structure based on the number of minimal household units (MHU). The MHU refers to the smallest economic decision-making unit in the household (Ermisch and Overton 1985). Married or cohabitating couples and their unmarried, childless children younger than 25 are defined as belonging to the same MHU. Co-residential children under the age of 25 who are currently married or have their own child (who is also living in the household) represent their own family unit (or MHU) as well. Therefore, two cohabitating parents and their children up to age 25 would be considered a single-family unit, whereas the addition of one of their parents would be considered a second family unit. Relationships are defined by each member’s relationship to the household head. While this definition differs from the U.S. Census’s definition, primarily by including cohabitating couples and their children in one family unit using the MHU definition, this is similar to approaches used by others (Glick and Van Hook 2011; Leach 2012; Van Hook and Glick 2007). From here forward, in this paper, I will use the terms “MHU” and “family” interchangeably. An individual is coded as living in an MFH if the household contains more than one family unit. Individuals living in households made up of only “families” of unrelated members are excluded from this analysis, as the dynamics of
roommates are very different from those of related individuals. This excludes 1,027 households, which is less than 5 percent of the sample.

**Household Structure of Multifamily Households**

Multifamily households can have different family structures. Related families within the household may comprise a vertical extension, that is, members that are children, grandchildren, or parents of the primary householder. Alternatively, related families may be extended horizontally, to include siblings, cousins, aunts, uncles, or other non-ancestor or non-descendant family members. Individuals are coded as living in either a vertically or horizontally organized household based on the relationships of family units to the householder. As in previous research, households that have both a vertical and a horizontal extension are classified in this study as “horizontal”, representing about 11 percent of multifamily households in this sample (Glick 1999).

**Economic Organization**

Few prior studies have attempted to quantify the within-household distribution of income across families; most research, to date, considers either the whole household as one undifferentiated resource, or it looks only at the primary family within the household. In order to get a more complete understanding of the distribution of income resources within multifamily households, I created a new measure of economic organization for MFHs that is based on the equity of household income. While other important economic contributions can be made to the household, for instance housekeeping or caregiving, measures of this type of unpaid labor or not
available in the data. Additionally, income is easily quantifiable and represents a necessary
economic good for household function.

Researchers have often assumes families and households operate under an income
pooling strategy (Becker 1981). While I am unable to measure income pooling strategies, because
income is reported for each individual 15 years and older within the household, I can assess how
even or unevenly income is distributed across family units within the MFH. I classify income
equity as being “altruistic” if the respective incomes of household MHUs are very unequal and
“egalitarian” if these are near-equal, a distinction I make with a dissimilarity index.

I calculate an income dissimilarity index to measure the equity of income resources in the
household across family units; this index uses income contributions from each family unit,
relative to total household income, standardized by the size of each family unit. To calculate the
dissimilarity of income resources across family units, I first measure the total reported income for
each family unit, which consists of the total earned and unearned income for each member.
Income is reported as the total income from numerous individual sources broadly capturing
earned income, asset income, government transfer program income, and social security or
pension income. Then, I calculate which proportion of income each family should contribute to
the household, given respective MHU size and the number of families in the household. The
income dissimilarity can be understood as the proportion of a family’s income that would need to
be redistributed for all families in the household to be contributing an equal amount; proportions
range from 0 to 1.

The first step in calculating the income dissimilarity index for households is to
standardize family income by family size. Total family income is divided by the square-root of
the number of people in the family to calculate a size-adjusted family income. Then using the
size-adjusted family income the dissimilarity index is calculated for each household using the
following formula:
\[
Income\ Dissimilarity = \frac{1}{2} \sum_{i=1}^{n} \left| \frac{Family\ Income_i}{Total\ Household\ Income} - \frac{1}{Number\ of\ Families} \right|
\]

This calculates dissimilarity between the observed proportions of family income for each family compared to the perfectly equal distribution of family incomes across families in each household. Total household income here is calculated as the sum of the size-adjusted family incomes for all families within the household.

To classify households as egalitarian or altruistic I dichotomize the income dissimilarity index as follows: households are egalitarian if less than 1/3 of a family’s income would need to be redistributed for all contributions to be equivalent. In contrast, a household is altruistic if more than 1/3 of a family’s income needs to be redistributed\(^9\). The level of household income dissimilarity is assigned to all members of the household.

**Poverty**

Poverty is a measure of economic deprivation and is often used to determine eligibility for social programs such as Head Start and SNAP. The “poverty” variable is calculated at the household level at each wave and assessed using official poverty thresholds, which account for household size and age distribution in the household. Individuals in households with income below the official poverty threshold are coded 1 (in poverty). I use this binary measure of poverty as a blunt way of measuring economic benefits from MFH, though results are similar across various measures of poverty\(^10\). Furthermore, national statistics use poverty rates as one measure

\(^9\) Sensitivity tests classifying households as egalitarian if less than 1/4 of a family’s income needs to be redistributed found the results to be robust to this choice of cutoff.

\(^10\) Results are similar when a measure of near-poverty (200% of the FPL) is used as well as when the continuous measure of income-poverty ratio is used.
of economic well-being for the population, so by using the official threshold this indicates changes that would be reflected in official statistics.

**Control Variables**

In the multivariate analysis, I include controls for time-varying factors that may also be associated with changes in poverty. These controls include employment, marital status, and number of children. Employment is a measure of “employed” versus “not working.” “Marital status” is a categorical variable: married, single, divorced, or widowed. “Number of children” is a continuous measure of the number of children aged 18 and younger in the household. Race and ethnicity are included as interaction terms in the models, with the following categories: non-Hispanic white, non-Hispanic black, Hispanic, and Asian.

**Analysis Strategy**

I use fixed effects logistic regression models to estimate the effects of changes in living arrangements on poverty for individuals. Individuals are nested within families, which are then nested within households, but membership in both a family unit and a household can change during the survey. Because family and household composition change over time, analysis is conducted at the individual level to capture how changes in the type of household (through the move of the individual into a new household or the addition of another individual into the household\textsuperscript{11}) are related to changes in poverty status.

\textsuperscript{11} Households can become multifamily household without a move when an adult child aged 24 in the household turns 25 they are classified as their own family unit. This occurs for 796 respondents.
Those who move into multifamily households likely differ in both measured and unmeasured ways from those who remain in single-family households. Fixed effects models attempt to remove as much selection bias as possible by using respondents as their own controls. In other words, the fixed effects method focuses on change within individuals rather than between them, effectively controlling for all observed and unobserved time-invariant characteristics such as gender, ideology, and personality traits (Allison 1994). This method is useful for this research question, as one’s household organization is often attributed to an underlying cultural preference, a theoretical variable for which no measures are available in the data. Assuming that one’s cultural inclination towards one living arrangement over another is a stable characteristic, the fixed-effects method controls for it. The general model specification is as follows:

$$\log \left( \frac{P_{it}}{1 - P_{it}} \right) = \mu_t + \beta x_{it} + \gamma z_i + \alpha_t$$

where $P_{it}$ is subject $i$’s probability that the response variable will be equal to 1 in month $t$ (in these analyses the probability of household poverty); $\mu_t$ represents purely random variation at each point in time; and $X_t$ is a vector of time-varying covariates. The terms $z_t$ and $\alpha_t$ represent time-invariant predictors, that is, both observed and unobserved individual traits. These models use change in the independent variables to predict change in the dependent variable. Traits that do not change from one time to the next “drop” from the model. Fixed effects models are useful at limiting bias from characteristics of individuals that are stable over time; however, these models do not remove the biasing effects of unmeasured variables that change over time.

Three models are estimated to assess the role of forming multifamily households on poverty. The first model estimates the odds of poverty following the formation of a multifamily household, accounting only for survey time to assess the baseline relationship. The second model introduces the time-varying covariates, employment and marital status. Although stable characteristics are not directly included in the model, I am interested in whether a relationship
between a time-varying covariate (household composition) and poverty status differs over time for stable groups, in the third model I introduce interaction terms between race and MFH formation to assess how race moderates the relationship.

Next, to determine how the relationship between multifamily households and poverty may vary by the household economic organization, four additional models are estimated. The first model distinguishes between single-family, egalitarian multifamily, and altruistic multifamily households, while also controlling for time-varying covariates. The second model includes an interaction between race and household economic organization. The subsequent two models follow a similar progression, except that they treat the family organization of the household (i.e., vertical or horizontal). All models are weighted and standard errors are used adjusted to account for clustered data. Because fixed effects focus on changes, the models work best when a significant amount of change occurs. An examination of the data shows that such variation does exist; during the sample period, about 17 percent of the sample will experience a change in household structure from a single family household to a multifamily household.

Results

Table 3-1 presents descriptive statistics for key variables used in the analysis across pooled data for the sample as a whole as well as by race/ethnic groups. For all groups, single-family households are the most common household structure, though the prevalence varies significantly. Whites are the least likely to be in multifamily households (19.9 percent), with much higher proportions of blacks, Asians, and Hispanics living in multifamily households (33.9, 36.2, and 39.1 percent respectively). Among multifamily households, almost two-thirds have an egalitarian household income organization, and distributions of altruistic and egalitarian households are similar across race/ethnic groups. Horizontally extended households are most
common among Hispanics, then Asians. Poverty rates across race/ethnic groups differ as expected, with whites reporting the lowest levels of poverty at 10 percent, followed closely by Asians at 12 percent, and blacks and Hispanics having poverty rates close to double that of Asians. Nearly three-quarters of working age adults are employed, with slightly lower employment rates for blacks and Hispanics.

Table 3-1: Descriptive Statistics by Race/Ethnicity

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>White</th>
<th>Black</th>
<th>Asian</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent MFH</td>
<td>24.2</td>
<td>19.9</td>
<td>33.9</td>
<td>36.2</td>
<td>39.1</td>
</tr>
<tr>
<td>Altruistic</td>
<td>36.5</td>
<td>35.8</td>
<td>38.6</td>
<td>39</td>
<td>36.4</td>
</tr>
<tr>
<td>Egalitarian</td>
<td>63.5</td>
<td>64.2</td>
<td>61.4</td>
<td>61</td>
<td>63.6</td>
</tr>
<tr>
<td>Vertical</td>
<td>63.1</td>
<td>69.2</td>
<td>65.6</td>
<td>54.3</td>
<td>48.3</td>
</tr>
<tr>
<td>Horizontal</td>
<td>36.9</td>
<td>30.8</td>
<td>34.4</td>
<td>45.7</td>
<td>51.7</td>
</tr>
<tr>
<td>Poverty</td>
<td>14.6</td>
<td>10.4</td>
<td>25.6</td>
<td>12.2</td>
<td>27.1</td>
</tr>
<tr>
<td>Income-Poverty Ratio</td>
<td>368.8</td>
<td>418.2</td>
<td>257</td>
<td>450.8</td>
<td>223.8</td>
</tr>
<tr>
<td>% Employed</td>
<td>73.3</td>
<td>75.3</td>
<td>65.5</td>
<td>74.4</td>
<td>67.7</td>
</tr>
<tr>
<td>% move into MFH</td>
<td>17.2</td>
<td>15.3</td>
<td>21.2</td>
<td>17.5</td>
<td>25.4</td>
</tr>
<tr>
<td>% change poverty</td>
<td>33.9</td>
<td>29.1</td>
<td>42.9</td>
<td>32.6</td>
<td>50.5</td>
</tr>
</tbody>
</table>

| Number of Observations | 65,802 | 48,521 | 7,607 | 2,931 | 6,743 |
| Notes: Descriptive statistics were weighted and accounted for complex survey design. |

As previous research has found, transitions into and out of poverty are not uncommon. During the nearly five years of the survey, 34 percent of respondents experience a change in poverty status. Whites are least likely to experience a transition at 29 percent, while over half of Hispanics experience a change in poverty status. As noted above, 17 percent of the sample move into multifamily households during the survey. Race/ethnic differences in transition rates mostly mirror race/ethnic differences in proportion in MFHs with one exception. Despite high rate of living in MFHs for Asians, their transition rate into MFHs is similar to the average (17 percent), implying that multifamily households are perhaps more stable among Asians. Hispanics experience the highest transition rate into a multifamily household, while whites are least likely to make such a transition.
To test the hypothesis that moving into a multifamily household might reduce the odds of poverty, I estimate two fixed-effects logistic regression models predicting changes in poverty status by changes in multifamily household structure. Table 3-2 contains these models. Model 1 in this table shows that moving into a multifamily household is associated with a 61 percent reduction in the odds of reporting poverty; conversely, moving out of a multifamily household is associated with an increase in the odds of poverty. Model 2 indicates that this effect is robust to other changes experienced by a respondent. Net of all other covariates, a change in multifamily household status is associated with a 65 percent reduction in the odds of poverty. Change in employment status to being employed is associated with the largest reductions in the odds of poverty, an 89 percent reduction. Meanwhile, increasing the number of children increases the odds of poverty, likely by increasing the household size over which income is spread and poverty is calculated. For families on the margin, having a child is unlikely to be associated with an increase in resource; therefore, since the poverty line is based on adjusted per person income, having a child may increase odds of poverty for some families. A change in marital status to married reduces the odds of poverty by 57 percent, while changing to divorced or becoming a widow both increase the odds of poverty.

Having established that moving into a multifamily household reduces the odds of poverty, I test the hypothesis that this association is smaller for blacks and Hispanics. Model 3 adds an interaction between a change in multifamily household status and race to test whether the poverty reduction resulting from a change in multifamily household status is consistent across race/ethnic groups. All interaction terms are significant, which supports the hypothesis that the benefits of moving into a multifamily household vary by race/ethnicity. These differences are clearly visible in Figure 3-1, which shows the net effects of multifamily household status on poverty for each race/ethnic group. This effect is calculated as the sum of the main effect for multifamily household plus the multifamily household by race/ethnic group interaction term. All
Race and ethnic groups experience a significant reduction in poverty following a move into a multifamily household, though the size of this effect varies significantly. Asians see the largest reduction in the odds of poverty subsequent to a move into a multifamily household, followed by non-Hispanic whites and, then non-Hispanic blacks. Hispanics experience the lowest odds of poverty reduction through moving into a multifamily household.

Table 3-2: Fixed Effects Logistic Regression of Poverty by Multifamily Household Formation

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
<th>Model 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b (SE)</td>
<td>b (SE)</td>
<td>b (SE)</td>
<td>b (SE)</td>
<td>b (SE)</td>
<td>b (SE)</td>
</tr>
<tr>
<td>Survey month</td>
<td>0.01***</td>
<td>(0.00)</td>
<td>0.00***</td>
<td>(0.00)</td>
<td>0.00***</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Interview month</td>
<td>0.03***</td>
<td>(0.01)</td>
<td>0.04***</td>
<td>(0.01)</td>
<td>0.04***</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Multifamily Household</td>
<td>-0.94***</td>
<td>(0.01)</td>
<td>-1.05***</td>
<td>(0.01)</td>
<td>-1.15***</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Employed</td>
<td></td>
<td></td>
<td>-2.21***</td>
<td>(0.01)</td>
<td>-2.21***</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Number of Children</td>
<td>0.28***</td>
<td>(0.01)</td>
<td>0.29***</td>
<td>(0.01)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital Status (Ref=Never Married)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td></td>
<td></td>
<td>-0.83***</td>
<td>(0.02)</td>
<td>-0.82***</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Divorced</td>
<td></td>
<td></td>
<td>0.20***</td>
<td>(0.02)</td>
<td>0.20***</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Widowed</td>
<td>0.46***</td>
<td>(0.04)</td>
<td>0.46***</td>
<td>(0.04)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MFH*Black</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.13***</td>
<td>(0.04)</td>
</tr>
<tr>
<td>MFH*Asian</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-0.26***</td>
<td>(0.07)</td>
</tr>
<tr>
<td>MFH*Hispanic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.38***</td>
<td>(0.03)</td>
</tr>
</tbody>
</table>

N of person-months: 1,037,982
N of persons: 80,657

Notes: Models use survey weights and adjust standard errors for clustering.
***p<0.001. 55,822 respondents experience no change and do not contribute to the model. Also this includes new members that join the sample.
Now that the results have demonstrated that moving into a multifamily household reduces the odds of poverty for all race/ethnic groups (to varying degrees), I test how this poverty reduction may depend on both the economic and the family organization of a household. Table 3 contains the results of these models. The upper panel of Table 3 presents fixed-effects models estimating the odds of poverty by household economic organization (i.e., altruistic v. egalitarian), thus assessing whether the benefits of moving into a multifamily household depend on the household’s resource distribution. Results indicate that a change in household economic organization to an egalitarian household corresponds with a larger reduction in the odds of poverty (85 percent). Moving into an altruistic household, on the other hand, reduces the odds of poverty by 31 percent. This implies that, on average, moves into egalitarian multifamily households will be more likely to reduce the odds of poverty. Still, each economic organization strategy does reduce the odds of poverty, when compared to change in poverty rates for those who remain in a single-family household.

Note: Net multifamily household formation effects on poverty are calculated from Table 2, Model 3 as the sum of the coefficients for multifamily household formation and race interactions.

Figure 3-1: Net Change in MFH Effects on Poverty
Model 2 tests for race and ethnic differences in the association of changes in multifamily household type and poverty. These results indicate that poverty reduction differs across race and by household economic organization. These results are best illustrated in Figure 3-2. For all racial and ethnic groups, moving into an egalitarian multifamily household reduces poverty, and it has a larger association with poverty reduction compared to moving into altruistic households. Asians see the greatest reduction in poverty with moving into an egalitarian one. Non-Hispanic whites and blacks both experience a similar reduction in their odds of poverty by moving into an egalitarian multifamily household; Hispanics experience the smallest reduction. Moving into an
altruistic multifamily household, on the other hand, has more uneven effects on the odds of poverty by race and ethnicity. Asians experience the largest reduction in the odds of poverty by moving into altruistic multifamily households, followed by whites, and then blacks; meanwhile, for Hispanics, moving into an altruistic multifamily household has no effect.

![Graph of Logged Odds of Poverty by Race and Household Economic Organization](image)

Note: Net multifamily household formation effects on poverty are calculated from Table 3, Model 2 as the sum of the coefficients for economic organization of multifamily household formation and race interactions.

Figure 3-2: Net Change in Poverty by Race and Household Economic Organization

The bottom panel of Table 3 presents fixed-effects models testing how poverty mitigation may depend on the familial relationships within the household. This level of the model compares vertical and horizontal family organization. Results indicate noticeable differences in the odds of moving out of poverty, dependent upon the household’s family organization. Specifically, a change in household structure to a horizontally extended household reduces the odds of poverty by 70 percent overall, while a change to a vertically extended household only reduces poverty by 56 percent. Horizontal households buffer individuals from poverty more than vertical households do. Racial differences in effect across the two types of family organization are well documented and reproduced in the data; Model 4 adds interactions of household family organization with race,
and interactions indicate that family organization operates differently across most race/ethnic groups. This pattern is clearly visible in Figure 3-3, which shows the net poverty effects of family organization type across race/ethnic groups, relative to those in single-family households. The differences by family organization for whites, blacks, and Hispanics are similar as, for the whole sample, households that become horizontally extended provide greater odds of reducing poverty than those that change to a vertically extended household structure. However for blacks and Hispanics, the disparity between horizontally and vertically extended households is much greater, with vertical households’ odds of reducing poverty about halved compared to the odds for horizontally extended households. Asians, on the other hand, experience no difference in the poverty reduction by type of family organization, with a similar reduction for horizontal households compared to non-Hispanic whites.

Note: Net multifamily household formation effects on poverty are calculated from Table 3, Model 4 as the sum of the coefficients for family organization of multifamily household formation and race interactions.

Figure 3-2: Net Change in Poverty by Race and Household Family Structure
Discussion

Overall, forming multifamily households does appear to be a strategy that helps individuals move out of poverty. For all racial/ethnic groups and for almost any organization of a multifamily household, a move into such a household reduces the odds of poverty, supporting the hypothesis that moving into a multifamily household is an economic strategy and can help alleviate poverty. This might suggest that the increase in multifamily households that has been occurring since the 1980s is a reflection of how families are coping with increased economic uncertainty. In an era of reduced welfare support, familial support networks may become more important than ever to the survival of low-income families.

However, the benefits of multifamily households are not the same for all race/ethnic groups. Despite having a high prevalence of multifamily households, blacks and, even more so, Hispanics, as hypothesized, appear to reap the fewest benefits from these households. This finding supports the idea that disadvantage for minority groups may extend beyond individual characteristics to include (and be further hampered by) the larger disadvantage of extended kin networks. Illustratively, certain groups — for example, whites — may only move into a multifamily household when it is expected to improve their economic situation. Despite the fact that blacks and Hispanics are more likely to live in multifamily households, overall, individuals forming these multifamily household experience a lower odds of reducing poverty.

The benefits of forming multifamily households are conditioned not only by race but also by organization — both economic and family— of multifamily households. As hypothesized, moves into egalitarian households provide a greater poverty-reduction effect than moves into altruistic households, though movement into either household type reduces the odds of poverty. Egalitarian households appear to have more resources, if all involved families have income that contributes to the broader household poverty calculation. Further, egalitarian households are more
likely to provide mutual benefits to all involved families, as all involved gain by economies of scale; hence, more than one family in an egalitarian household may move out of poverty.

Contrary to my hypothesis, horizontally extended households are more likely to reduce the odds of subsequent poverty than are vertically extended households. One potential explanation for this finding is that the formation of vertically extended households stems from a stronger sense of familial obligation, such that families already in poverty may be inclined to take in parents, grandparents, children, or grandchildren regardless, whereas those same families may feel less obligation towards more distant relatives. Additionally, horizontal households may be more likely to form out of mutual need and lift both families out of poverty through the formation of a larger household (Though horizontal households are only slightly more likely to be egalitarian than vertical.). So the formation of a horizontal household, such as siblings, may operate with the expectation of mutual contribution whereas vertical households have an expectation of dependence, where the householder is the main provider.

Examining the type of multifamily household across race/ethnic differences reveals a different ordering of which race/ethnic group benefits more from multifamily households. Egalitarian households provide the same poverty reduction to blacks and whites. Altruistic households provide no benefit to Hispanics. In vertically extended households, Asians realize the greatest poverty reduction and Hispanics the least. However, forming horizontally extended households provides the largest reduction in the odds of poverty for blacks compared to all other racial groups. These results imply that, for blacks, the benefit of multifamily households comes largely from forming egalitarian and horizontally extended households, likely households that gain economically by having more workers in the labor force.

Hispanics across the board see the smallest reductions in poverty from the combination of households, and they experience no benefit from moving into an altruistic household. While multifamily households are very common among Hispanic households, living in an altruistic
MFH appears to be the least effective for Hispanics. On average, Hispanic families are unlikely to have enough resources to be altruistic; they are, therefore, less likely than families of other backgrounds to be able to afford the addition of household members who are unable to contribute, since attempting to support such relatives could potentially pull the whole household into poverty. The current results support previous research, especially qualitative work that has described moves into multifamily households as an economic strategy (Newman 2012; Stack 1974). Hispanic families, furthermore, may be more likely to take in family members even if the household is already in poverty or if it is a detriment to the household overall, perhaps because of strong cultural obligations and expectations. However, my findings demonstrate the aggregate economic benefit at the population level through the formation of multifamily households.

Further, the current work reveals that these benefits vary by race/ethnicity and by the organization of combined households.

It is important to emphasize that the “benefits” that this study identifies of moving into a multifamily household are only represented as measurable changes in total household income; in reality, there may be other attendant complications to multifamily living that erode or enhance quality of life, and even the distribution of economic resources across members may not always be equal. Thus, one must recognize that, while moving into a multifamily household may provide economic benefits in the aggregate — theoretically reducing household poverty for many — this does not mean that such a move is a happy experience for all. Simply because a household is not in poverty does not mean that all members benefit explicitly from the higher, combined income. Furthermore, multifamily households may be physically and psychologically taxing, including risks for sexual, physical, or verbal abuse (Edin and Shaefer 2015). In one study by Edin and Lein (1997), single mothers that reported “doubling up” with family or friends had significantly lower satisfaction with living arrangements compared to those living on their own (though they were more satisfied than those living in inner-city project housing). Families’ ability to buffer
individuals from the harshest elements of economic deprivation by sharing households does not extend to an ability to shelter them from all hardships, either outside or inside the home.

Reductions in household poverty may mask the economic privations of individual household members. Poor families, and individuals within larger families, may face limited eligibility for resources that would otherwise improve their economic station. As Angel and Tienda (1982:1361) note, “To the extent that multiple earners are more prevalent among minority households, observed reductions in family income inequality may largely represent changes in the income-generation strategies of domestic units rather than improvements in the earnings opportunities of primary or secondary workers.” The poverty of some—especially minority—families may be vastly underestimated. Thinking about the role of family in the reproduction of inequality, while multifamily households may provide a net benefit, they may also limit the accumulation of wealth and upward mobility for some family members.

Though this paper highlights the positive economic benefits of forming multifamily households, of course, these figures reflect averages, and long-term consequences for members of such households are not fully understood. Furthermore, because the official poverty threshold may mask the true poverty rate, especially for multifamily households, the need for poverty-reducing social programs may be underestimated. When poverty guidelines are used as eligibility criteria and all household members’ income is factored into these calculations, impoverished individuals’ eligibility for social programs like SNAP and others may be jeopardized. In these cases, moving into a multifamily household may demand a tradeoff between family assistance and government assistance. Some scholars argue that an individual measure of poverty is needed to expose hidden poverty and to redirect the policy conversation away from marriage promotion and towards employment and wage improvement policies instead (Meulders and Dorchai 2013).

Although these data were collected during the Great Recession, a time when poverty rates increased, the trend of moving into multifamily households does not appear to be subsiding post-
recession. Additionally, sensitivity analysis found no difference in effects during the recession as opposed to after it had officially ended.

One of the limitations of this study is that I am only able to capture economic resources or contributions to the household, excluding a wide array of potentially valuable unpaid work that occurs within households, and perhaps especially in some multifamily households. However, money is a real contribution to households’ expenses that can be quantified while unpaid work is (1) not available in these or most survey data and (2) would be difficult to quantify. In one wave of the data, information on informal childcare suggests only about 4 percent of households with children report unpaid childcare from a non-parental household member. A second limitation is that household income is measured in each month; whereas reciprocity within the household may play out of a longer time frame than is captured in the data. However, even if reciprocity occurs at a later point in time, an initial inequity does rely on generosity of others within the household. Relatedly, these results do not account for how long individuals remain in multifamily households, previous research has found extended family households to be less stable, however I am unable to assess whether this represents a short-term reprieve from poverty or a long-term strategy for poverty reduction.

Despite these limitations this paper has important implications for policy. Changing the definition of family means changes in the poverty estimates and eligibility for public programs. To the extent that families within these larger households are treated as their own unit, poverty may be underestimated. Given that poverty thresholds are used to determine eligibility for several federal programs including Head Start, SNAP (food stamps), and children’s health insurance (CHIP), the need and access to these services may be limited.

One key reason individuals and families “double up” is due to the lack of affordable housing. Overcrowded housing has been linked to poor health (Cutts et al. 2011). The number of cost-burdened households is at a record high, with about half of all renters paying more than 30
percent of their income for rent. In even the most affordable state an individual would need to work full time at $12/hour to afford to rent a modest 2-bedroom apartment, far above the minimum wage (Joint Center for Housing Studies 2013). One solution is housing vouchers, which have helped many to maintain affordable housing, but the funding of this program does not come close to meeting the needs, with long waiting lists in most major cities. A new change in federally backed housing loans from Fannie Mae now allows income contributions from other adults in the household, which may expand the eligibility of minority families and improve access to affordable housing. Lastly, spending on energy and utilities is also extremely high for low-income renters, whose apartments are less energy efficient and have less efficient appliances. Subsidizing investments in efficiency for landlords to mandate efficiency improvements would help both the environment and low-income residents.

Future research should explore the role of gender, specifically female-headed households, and how gender dynamics factor into the race and family organization of multifamily households. Additionally, future research should investigate how this process unfolds over a longer period of time for individuals and families.
Chapter 4

RACE/ETHNIC DIFFERENCES IN ECONOMIC ORGANIZATION OF EXTENDED FAMILY HOUSEHOLDS

Introduction

Minority and impoverished groups have used extended family living arrangements as a way of “making ends meet,” even when these types of living arrangements were less common amongst the general population. Recently, multigenerational households have been increasing among the entire population from 12 percent in 1980 to 18 percent in 2012 (Fry and Passel 2014). As the number and proportion of these households has increased, the heterogeneity in the factors that precipitate their formation as well as the differences in expectations that accompany their formation have undoubtedly increased as well. For example, while the increase in multigenerational households, per se, is well documented, the extent to which these households are formed in response to chronic versus episodic vulnerability among low-income families as a means of making living arrangements more affordable or providing assistance to family members in need is unclear. Although society has seen an increase in the incidence of residential phenomena such as cohabitation, blended families, and extended family living arrangements, the economic organization of these households in which complex familial relationships evolve is not well understood (Cherlin 2010). Nor is it clear the extent to which organizational difference may reflect differences in socioeconomic status, race/ethnic differences in family structure, or cultural differences in expectations.

Prior research on within-household income inequalities has tended to focus on gendered inequalities of economic decision-making within couples alone; however, the greater complexity
of household forms in contemporary society requires an amplification in the scope of our thinking about household economic processes (Himmelweit et al. 2013). Some qualitative work suggests that, for some, extended family households provide a launching pad for middle-class young adults, while on the other hand, if the household members are low-income, the extended family household might limit economic mobility instead (Newman 2012).

“Doubling up,” or co-residential living, has typically been framed as an informal safety net, with one family unit in need and one family unit providing support to the former (Pilkauskas et al. 2014). However, this perspective may obscure potential mutual benefits from such an arrangement. We know that an economic shock, such as a job loss, makes individuals more likely to double up (Wiemers 2014), but we don’t know what the specific expectations are for financial support in these complex households. Do individuals who move in get a “free ride,” or is there an expectation of economic contribution?

Income dynamics within co-residential households have remained unexplored; thus, in this research, I begin to unfold the patterns of these within-household economic dynamics. The primary goal of this study is to extend our understanding of the workings of household financial support across intergenerational dynamics. Secondly, I will evaluate how extended family economics might differ across racial/ethnic lines to deepen our understanding of how co-residential households may serve different functions for different groups.

Background

Shared Living Arrangements

Household living arrangements have changed to reflect altered economic circumstances and social norms. Multigenerational living arrangements were once commonplace in the United
States, but declined dramatically from the early 1900s until about the 1980s (Kochhar and Cohn 2011; Ruggles 2007). Reductions in multigenerational living arrangements were driven by two trends: the elderly began living with adult children less often, and young adults began moving out at earlier ages. However, since the 1980s, this trend has reversed, and the proportion of multigenerational households has, accordingly, increased (Ruggles 2007). The ages of those living in multigenerational households has also changed. Today young adults between the ages of 25 and 35 are now just as likely to live in multigenerational households as adults 85 and older (Fry and Passel 2014).

Historically, older adults moved in with adult children for one of two reasons: low economic status — especially among widows — or health declines (Choi 1991; Choi 2003; McGarry and Schoeni 2000). Some estimates found that poverty rates would have increased without the benefit of shared living arrangements with family, especially for women (Elman and Uhlenberg 1995; Holden 1987; Rendall and Speare 1995). With the expansion of Social Security, elderly poverty declined dramatically. Along with their increased economic security, independent living among widows increased from 18 to 62 percent between 1940 and 1990 (McGarry and Schoeni 2000). The health of older adults has also improved since the early 1900s, which is another factor that allows adults to live independently until older ages (Krivo and Mutchler 1989). Both of these trends have been reflected in the attitudes and expectations of older adults today, who show strong preferences for independent living (Goldscheider and Goldscheider 1987; Klinenberg 2012). Older adults who do co-reside with adult children often do so at very old ages and because of health reasons moreso than economic ones.

As economic models have changed in the United States, so too have the patterns of young adults living with their parents. When a large share of U.S. workers were in agriculture, young adults continued living with parents and helping on the farm until eventually inheriting it (Ruggles 1994). As the U.S. transitioned to a manufacturing economy, however, young adults
began leaving the parental home for jobs. Today, young adults are staying in school until later ages and delaying marriage and children, a trend now being referred to as “emerging adulthood” (Arnett 2000). Relatedly, as the labor market for young adults has shifted, it has become increasingly difficult for them to earn enough money to support themselves (Levy 1999; Settersten and Ray 2010), let alone dependents of their own.

When surveyed, young adults cite finances as their main reason for living with parents (Payne and Copp 2013; Sassler, Ciambrone, and Benway 2008). Not surprisingly, unemployed young adults are more likely than employed young adults to live with adult parents today (Fry and Passel, 2014). For many, returning to the parental home has become almost expected, but this phenomenon has also challenged society to reassess definitions of “adulthood,” as, when young adults return to their family home, they typically do so as dependents (Sassler et al. 2008).

**Race/ Ethnic Differences**

Overall trends in living arrangements mask the nuances across groups. Racial and ethnic minority families have historically been, and are currently, living in multigenerational households at much greater rates than whites (Kamo 2000; Keene and Batson 2010). Differences across groups have been attributed to both economic reasons and cultural preferences. For example, some argue the ‘emerging adulthood’ phenomenon largely applies to the white middle-class and references the extended period during which the transition to adulthood takes place (Hendry and Kloep, 2007). However, direct examinations of race/ethnic differences in emerging adulthood are sparse, and part of this is the result of sample selection that ignores those who do not attend college (Syed and Mitchell 2013). Research on living arrangements of young adults finds that while similar proportions of young adults live with their parents, whites are more likely to have left and come back, while blacks and Hispanics are more likely to have never left (Payne 2011).
A key question then involves whether different household structures and organization primarily reflect socio-economic status, race/ethnic differences in how families are expected to function, or some combination of the two.

Racial and ethnic differences are evident in the trends toward particular types of household extensions. For example, Hispanic families, and especially immigrant households, are more likely to extend horizontally (Glick et al. 1997; Glick 1999), while grandparent-headed households — wherein grandparents raise grandkids without parents present (also known as “skipped generation households”) — are most common among blacks (Dunifon, Ziol-Guest, and Kopko 2014). In addition, much earlier research on extended family households found that in black and Hispanic households, non-nuclear members had a larger share of household income than in white households, which suggests that at that time, these living arrangements represented an economic strategy for blacks and Hispanics (Angel and Tienda 1982).

**Shared Living Arrangements as Familial Support**

The creation of shared living arrangements is also a means of extending material support to relatives in need. In fact, it is one of the most cost-effective forms of support that the family can provide (Haider and Mcgarry 2005). Shared living arrangements once were utilized primarily by adult parents who needed the assistance of their children; however, this arrangement has become less common. Just as income transfers outside the household tend to flow from parents to children, the benefits of shared living arrangements now more often flow in that direction as well (Choi 2003, Speare and Avery 1993). Over the past century, there has been a shift in the generational beneficiaries from shared living arrangements. An increasing number of co-residential households wherein parents support adult children (instead of vice versa) have been documented (Kahn, Goldscheider, and García-Manglano 2013; Ruggles 2007).
That said, although support mostly flows from parents to children, this is not always the case, and deviations from that pattern are particularly common for certain groups. For example, assistance has been found to flow from children to parents in low-income and immigrant families (Fuligni 2007; Napolitano 2015; Sanchez et al. 2010). Also, while shared living arrangements often represent a springboard to advance social capital and economic prospects for young adults in middle-class families, shared living arrangements often represent the only option for survival for working-class families (Newman 2012). In fact, past research has found that low-income parents would try to keep adult children from moving out so as not to lose the children’s income contributions to the household (Stack 1975). In some households, financial contributions from all individuals are necessary for the household to survive.

Economic constraints are one of the main reasons young adults provide assistance to family, as is a sense of obligation. Young adults from low-income families often delay moving out and advancing their educations, as they find themselves needing to make personal sacrifices on behalf of their co-residential relatives (Sánchez et al. 2010). As one participant stated in a recent study, “Couldn’t pay $500 for a class when I got all the bills here [referring to bills in the household he shares with his mother]” (Napolitano 2015). The spectrum of extended household dynamics varies widely, and not all contributions are monetary; some individuals contribute by providing unpaid labor or sharing their public benefits, such as SNAP benefits (Edin and Shaefer 2015).

**Within-Household Inequality**

Economic models were first applied to families and households by Becker (Becker 1981). Since then, research on within-household inequalities has almost exclusively assessed couple-level differences in financial contributions and decision-making (Bennett 2013). Furthermore,
existing research on couple-level household inequalities is most often concerned with access to money and income-pooling strategies, since it is often the case that men earn more than women (Cantillion, Maître, and Watson 2015). Previous research has found that as women’s earnings increase, household labor decreases (Rizavi and Sofer 2010).

These studies of couple-level household inequalities draw from economic theories of household decision-making, broadly categorized as unitary, bargaining, and collective models (Himmelweit et al. 2013). Despite all the research on how couples negotiate economic and decision-making power, however, few studies have examined how people in extended family households negotiate the same issues. Although we might try to extend theories derived from couple-level studies to multigenerational households, the degree to which these theories can be generalized beyond couples to multiple families is questionable. Income-pooling and cooperation across units within an extended family household suggests shared priorities, an agreed upon definition of fairness, and sufficient flexibility to renegotiate arrangements when circumstances change. The more people involved and the greater the uncertainty about the future, the more difficult this becomes. Measures designed for couple-level studies, to evaluate one person’s power over how his/her partner’s money is spent, operate under a different understanding of household dynamics than likely exist in extended family households (Bennett 2013).

Another dimension of resource-pooling that has been studied is how the equality of resources influences the stability of living arrangements. A measure of resource equality was used in a study of extended households, and this study found that biological relatedness matters. Where co-residential families are related, the families are more stable if income distribution is unequal than if it is equal. However the opposite is true in households where co-residential families are not related (Glick and Van Hook 2011). These findings are similar to research on divorce. When there is economic equality, women are in a better position to divorce (if they want to), while women in highly (economically) unequal unions who wish to divorce find it difficult to leave for
lack of alternatives (Becker, Landes, and Michael 1977; Teachman 2010). Hence, similar to research on divorce, research has found a relationship between the stability of living arrangements among related household members and resource equality.

Other research on household economic inequality has concentrated on income in co-residential parent–child dyads, noting the shift over time towards parents having a greater share of the combined income (Kahn et al. 2013). Qualitative work has found that, in middle-class families, most young adults who return to parental homes do not contribute financially to the household, regardless of income, and that those that do contribute, do so only begrudgingly (Sassler et al. 2008). On the other hand, for adult children in low-income families, contributing financially is much more common (Napolitano 2015). While qualitative work has provided a picture of how multigenerational households operate in distinct ways for certain subgroups, we know far less at the population level about group differences or how these households function economically.

**Conceptual Framework**

Households can be formed with either of two basic economic understandings: informal social assistance or mutual benefit. Families may provide help altruistically, based on need, which has been found in help from parents to children (Fingerman et al. 2009; Ward and Spitze 2007). This one-sided type of help would be an example of informal social assistance. Intergenerational solidarity theory provides a framework for understanding private welfare support, as the theory provides the base for contemporary research on intergenerational relationships. This theory identifies several factors on which support depends, including need, closeness, and norm of obligation (Bengston et al. 2002). Embedded within intergenerational solidarity norms are the roles assigned to social relationships. Intergenerational support, both “up” to parents and “down”
to children, is thought to be motivated by altruism, reciprocity, and feelings of family obligations (Seltzer and Bianchi 2013). Although most research using intergenerational solidarity applies to parent–child relations, the flexibility of the model for application to other family relationships has been documented (Giarrusso et al. 2001). Racial and ethnic norms of obligation may define responsibilities to family and potentially expand one’s sense of obligation to a wider array of extended kin.

Extended family living arrangements, though typically conceptualized as a form of private welfare, may, in fact, operate with an understanding of mutual benefit. Sharing one house might be more economical for both families involved in a multifamily living arrangement; individuals are able to save on rent and may gain economies of scale in utility and food expenditures (Angel and Tienda 1982; Blank and Torrecilha 1998). The commonly presumed dichotomy of one generation supporting the other does not reflect the complexities of multigenerational households, some of which may not be able to survive without multiple earners. The 1960s saw a large influx of wives into the labor market due to economic shifts which required couples to put both members into the workforce in order for their households to maintain their economic position (Oppenheimer 1973). Hence, it may be that when marriages remain intact and both spouses work, the household unit can remain as a nuclear family, whereas individuals who do not marry or who divorce (delayed marriages and divorces being more common today than in the 1960s) must seek alternatives to the dual-earner couple model by joining or forming extended households.

Are co-residential households, then, the new normal, at least for low-wage workers? That is, do extended family households represent an economic reality that is now needed for surviving low-wage and involuntary part-time employment? Or are they a response to individual hardships and formed primarily for weathering economic rough patches? One way to gain leverage on the function of these households is to assess their economic organization. If these households
represent a “new normal,” then one would expect all families in each household to be contributing financially. On the other hand, if these households form in response to exceptional circumstances, one would expect one family to provide resources for its co-residential family in need.

In this paper, I draw from theories of intergenerational support to study familial support in shared living arrangements. I focus on individual family units’ contributions to essential household expenditures within extended family households. In addition, I assess how each family’s contributions match their actual income receipt. I assess three related questions:

1) How equally distributed are income receipt and economic contributions to household expenditures across family units in extended family households? That is, to what extent are these living arrangements providing a private welfare function versus combining somewhat equivalent contributions? Intergenerational solidarity theory would predict that extended family living arrangements are a response to familial need and therefore have unequal distributions of resources. Additionally, because intergenerational solidarity theory posits that support is related to the closeness of kin and that vertical kin relationships represent stronger bonds and a stronger sense of obligation, I expect less assistance in horizontally extended households. Hence, I hypothesize that horizontally extended households will be more egalitarian, as their members would likely have stronger expectations for contributions to household economy.

2) Among individuals in extended family households, who is providing resources and who is not? Specifically, are auxiliary household members contributing money towards the household expenses, and does their contribution depend on their own financial situation? Historically, working-age children have been expected to contribute to the family-of-origin economy (Goldin 1981); however, the social roles of children have changed. Given today’s norms for the parent–child dynamic, I hypothesize that in all extended family
households, regardless of income, younger generations will be less likely to contribute to the household.

3) Furthermore, do these negotiations of household resource contribution vary by race and ethnicity? Previous research finds that race/ethnic minorities often have stronger normative obligations of providing assistance; this might suggest race/ethnic minorities will be more likely to not contribute and family formation may act as a form of private welfare (Fuligni 2007). On the other hand, blacks and Hispanic families often have fewer resources and may be more likely to live in households in which all members must contribute in order for the household to survive. I hypothesize that contributions will be most equal in black and Hispanic households given the structural determinants of disparities for these groups.

Data and Methods

Data

The data for this study come from the fourth wave of the Survey of Income and Program Participation, which provides a nationally representative sample of households in the U.S., along with information on all members living within the household. Wave 4 of SIPP collects detailed information on living arrangements, income, employment, monetary contributions to household expenses, and health in 2009. The sample comprises a total of 11,768 respondents between the ages of 25 and 85 who live in 4,400 extended family households. Across these households, 5,206 respondents are considered auxiliary household members.

For the purposes of this analysis, “extended family households” will be defined as households in which at least one member outside of the nuclear family resides in the household,
including adult children over the age of 25. This study’s definition of “family,” furthermore, will include unmarried cohabiting partners. Hence, an extended family household can be vertically extended, such as to include adult children or parents of adults, or horizontally extended, such as to include siblings and other relatives. Of all households in SIPP, 19 percent are considered extended family households. Among those, 66 percent are vertically extended only, and the remaining 34 percent are horizontally extended. Households that are both horizontally and vertically extended are about 11% of extended family households and classified as horizontally extended. Although households can also include non-related extended units, such as roommates, the dynamics of these relationships are likely very different; therefore, non-related household units are excluded from this study. This analysis will focus on extended family households; as in, the co-residents share kinship ties. Extended family households that are composed of multiple kin families in addition to non-kin families are included, but non-kin families units, such as a boarder in the household, are excluded.

“Auxiliary household members,” in this study, are defined as family members who are not part of the household’s core nuclear family (the core nuclear family as identified by the survey’s household reference person). So, for example, in a household extended vertically by one adult child, the adult child (and each of his/her own family unit’s immediate relatives — i.e., partner and/or offspring — if any) would be considered an auxiliary household member.

**Dependent Variables**

Economic contributions to the household are measured both directly, in terms of the amount of money contributed towards key household expenditures, and by income, the latter of

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12 Auxiliary household members are usually one-person units within the household, 92% of co-resident adult children are single and 72% of co-residential adult parents are single.
which is a less direct measure, as income does not always translate evenly into money contributed. Contributions to household expenditures are measured at the person level. From these reports of economic contributions, an indicator of whether anyone in the family contributed to household expenditures is created. Household expenditures for the purpose of this study include only monetary contributions for rent, mortgage, or utilities for the household that month. While unpaid labor is an economic contribution individuals can make to the household, these types of contributions are not measured in the data.

Two indicators are used to assess the equality of income and economic contributions at the household level. First, an indicator is created to signal where more than one family in a given household reports contributing economically to expenditures. The second indicator focuses on income share. Income receipt across each family is measured to assess whether one family in the household earns (and presumably controls) most of the household’s income. This indicator is calculated using the income dissimilarity index, which identifies which proportion of one family’s income would need to be redistributed in order for all families under the same roof to have equal income. I consider one family in the household to have “most” of the income if more than one-third of the total household income would have to be redistributed for income parity to be achieved.

In multivariate analysis, contributions to household expenditures and income receipt are measured at the family level for each respondent. A dichotomous variable indicating any contribution to household expenditures is calculated. Family income is calculated as the total income from all sources including: earnings, capital gains, Social Security, and means-tested programs.
Independent variables

The primary independent variable is the race/ethnicity of respondents. Devoting attention to this variable allows the regression to assess how extended family households may be organized differently across groups. This study codes race and ethnicity into a single categorical variable, with respondents classified as non-Hispanic white, non-Hispanic black, Asian, or Hispanic.\(^{13}\)

Other demographic controls in the analysis include gender, age, and marital status. Gender is coded with “male” as the reference category. Age is a continuous variable denoting age at last birthday. Current marital status is coded as “married,” “widowed,” “divorced,” or “never married.” An indicator of the presence of any young children aged 0–4 in the household is also included as a proxy for the need for intensive childcare, which may influence both living arrangements and parents’ ability to contribute to household expenditures.

The nature of a kinship tie may influence economic expectations on its own; hence, in order to assess whether race/ethnic differences influence the household dynamic over and above these kinship ties (as reflected in a household’s structure), I also control for the type of household extension. This control variable has four categories, all derived from the type of relationship the auxiliary members have with the household reference person: “vertical with adult child in the household,” “vertical with parent (of adult child) in the household,” “horizontal,” and “skipped-generation” (i.e., grandparent[s] and grandchild[ren] with no parent generation present).\(^{14}\)

I also include a set of variables to capture the economic characteristics of respondents and households. Education is coded according to one’s highest level educational attainment: “less than high school,” “high school graduate,” “some post-secondary education,” and “college

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\(^{13}\) Those of “Other” race were excluded from the analysis due to the heterogeneity among this group. This “Other” category comprised 453 respondents, less than 4% of the sample.

\(^{14}\) Households that can be categorized in multiple household extension categories are first classified as horizontal if any horizontal extension and then as parent extended if any parental extension.
completion or more.” Income is measured as the household’s income-to-poverty ratio to account for differences in household size, a ratio which measures total household income against the appropriate federal poverty thresholds by household size (These thresholds are set by the U.S. Census Bureau.). An income-to-poverty ratio of less than 100 indicates that a household falls below the federal poverty threshold. Homeownership is measured at the household level also and indicates whether the living quarters are owned or being bought by someone in the household. Employment status is a dichotomous variable — “currently working” or “currently out of the labor force” — as is current health status. This latter was coded consistent with previous research: fair or poor health = 1; good, very good, or excellent health = 0.

**Analytic Strategy**

The analytic strategy proceeds in three steps. First, descriptive analysis examines the distribution and equality of income and contributions to household expenditures across socio-demographic characteristics at both individual and household level. Second, multivariate logistic regression is conducted to estimate what characteristics are associated with contributing to household expenditures for auxiliary household members. Then, the last step of the analysis quantifies the disjuncture between one’s family having income and one’s family contributing to household expenditures for auxiliary household members.

On this last point, it must be explained that, practically speaking, in order to contribute income towards rent, a family must have income to contribute in the first place. However, sample selection bias can arise if individuals without income are simply excluded from the analysis. In order to account for this possible source of bias, I estimate a series of binary probit selection models (Heckman 1979). In these models, two equations are estimated simultaneously: (a) a selection equation explaining whether respondents have a “minimum amount” of income to
contribute and (b) an outcome equation assessing whether a respondent contributes rent to the household while simultaneously accounting for the estimated error from the selection equation. This model assumes that the likelihood of contributing money to household expenses is a function not only of the independent variables, but also upon the likelihood that a family has income to contribute, specifically.

The criteria for the selection model of whether or not a respondent’s family unit within the household has a “minimum amount” of income is defined as follows. Family income is the sum of reported income from each member of the family unit. Because 92 percent of families report at least some income and because contributions to the household would be difficult at very low levels of income, I consider a family to have a “minimum amount” of income if they have a monthly income of at least $1,160. This amount corresponds to working full time at the federal minimum wage of $7.25\textsuperscript{15}. Among this sample, 54 percent meet the threshold.

Results

Do households serve as a safety-net for relatives in need? (Household-level characteristics)

The distributions of income and contributions to household expenditures across key groups are shown in Table 4-1 to present a snapshot of the equality of these distributions and how they differ across groups. These results test if the organization of extended family households follows the intergenerational solidarity theory by providing private welfare support or if these households are organized around mutual benefit through mutual contributions to major household

\textsuperscript{15} The Fair Labor Standards Act set minimum wage to $7.25, starting July 24, 2009. State and local variations in minimum wage laws do exist, but, for simplicity, the federal rate is used. An income threshold of half of this amount ($580) was tested and yielded similar results; results available upon request.
expenditures. Major household expenditures, for a large majority of households, are paid entirely by only one family within the household; this implies that extended family households are indeed providing an informal safety net in 79 percent of households. Despite the large share of households in which one family pays all the rent, however, the distribution of income among families is far less lopsided, with less than half of all households having one family with most of the income. This pattern remains relatively common when focusing only on households in the bottom quintiles of the income distribution. A greater proportion of low-income households have one family providing the majority of household income; however, the difference in one family contributing all household expenditures is lower. Among high-income households, many fewer households have unequal income receipt, yet not many more have multiple families contributing to household expenditures. This suggests that among low-income households the reason for not contributing may be more closely tied to the lack of actual resources among members.

While overall households appear to be providing a safety-net for family members in need, the extent to which this is the case varies across race/ethnic groups and household organization. Across racial and ethnic groups, Asian and Hispanic households behave in the most egalitarian fashion with respect to contributions to household expenditures. Similarly, immigrants are also more egalitarian in their contributions to household expenditures. Among different types of multifamily household relationships, adult children and grandchildren are the least likely to be contributing to household expenditures. Horizontally extended households are most likely to have multiple families contributing money to household expenditures. This latter finding suggests that vertical families are organized more on the basis of social relationships and caretaking obligation, whereas horizontal families appear to be organized more for mutual economic benefit. Although Asian, Hispanic, and horizontal households are more egalitarian compared to white and vertically extended households, a majority of these households still have one family that is contributing all the money for household expenditures.
Table 4-1: Household Income and Expenditures Inequality, SIPP Wave 4

<table>
<thead>
<tr>
<th></th>
<th>One Family Has Most Income</th>
<th>One Family Pays All Household Expenditures</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>All MFH Households</td>
<td>46%</td>
<td>79%</td>
<td>4,503</td>
</tr>
<tr>
<td>Bottom 40% Households</td>
<td>53%</td>
<td>81%</td>
<td>1,794</td>
</tr>
<tr>
<td>Top 40% Households</td>
<td>31%</td>
<td>77%</td>
<td>2,781</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>48%</td>
<td>81%</td>
<td>2,676</td>
</tr>
<tr>
<td>Black</td>
<td>48%</td>
<td>83%</td>
<td>815</td>
</tr>
<tr>
<td>Asian</td>
<td>47%</td>
<td>72%</td>
<td>245</td>
</tr>
<tr>
<td>Hispanic</td>
<td>43%</td>
<td>72%</td>
<td>767</td>
</tr>
<tr>
<td>Immigrant</td>
<td>45%</td>
<td>74%</td>
<td>1,009</td>
</tr>
<tr>
<td>Type of MFH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult Child</td>
<td>49%</td>
<td>83%</td>
<td>2,221</td>
</tr>
<tr>
<td>Parent</td>
<td>47%</td>
<td>79%</td>
<td>488</td>
</tr>
<tr>
<td>Horizontal</td>
<td>41%</td>
<td>73%</td>
<td>1,532</td>
</tr>
<tr>
<td>Skipped Gen</td>
<td>63%</td>
<td>87%</td>
<td>262</td>
</tr>
</tbody>
</table>

Notes: N indicates the number of households that fit each category

Sample Description

Next, I present select descriptive statistics by race/ethnicity in Table 4-2, in order to highlight race/ethnic differences both in the structure of extended family households and in family contributions to household expenditures. While the most common type of household extension for whites and blacks is vertical with adult children, Asians and Hispanics are more likely than whites and blacks to live in horizontally extended households. Blacks are most likely to live in households with skipped-generation organization, compared to other groups. Asians are most likely of all race/ethnic groups to be living in vertically extended households with their parents.

Other notable differences across groups are that blacks in extended households are more likely to be female, due to higher female headship in these households and the general absence of men in homes where women play such roles. The higher rate of female headship is also reflected in the much lower rate of marriage in black households.
Hispanics have the highest rate of employment, yet they have the lowest income-to-poverty ratio and home ownership rates. This implies that their economic return from the labor market is strikingly lower than that of other groups, which may be partially due to limited economic opportunities for immigrants; over half of the Hispanic population is foreign-born.
Among auxiliary household members, who contributes to the household?

Descriptive findings indicated that Asians and Hispanics have more equitable economic contributions; however, these groups are also more likely to form horizontally extended households. In order to test whether contributions to household expenditures merely reflect household organization or whether they represent consistent racial differences in family economic norms, multivariate logistic regression models on monetary contributions to households’ expenditures are presented in Table 4-3. In the first stage, only demographic controls are included; then, SES variables are included to test whether race/ethnic differences in contributions are explained by economic status. These results will also allow a test of the hypothesis that contributions are more likely to flow from older generation to younger generation.

Model 1 tests whether race differences persist with controls for household organization, excluding SES controls. In this regression, Asians and Hispanics emerge as significantly more likely than whites to contribute money to the household expenditures. Respondents in horizontally extended households are also more likely to contribute, in general; however, this trend does not mediate the race/ethnic associations. Being Asian is associated with a 49 percent increase in the odds of contributing and being Hispanic is associated with an 81 percent increase in the odds of contributing compared to whites.

Even when the SES controls for education, employment, income, and homeownership are added to the model, little changes. In fact, the higher odds of making any contribution increases slightly for Asians. However, divorced and never-married individuals emerge as less likely to contribute once economic characteristics are taken into account. All of this suggests that Asians and Hispanics are more likely to contribute than whites, regardless of their economic position. Employment is one of the strongest predictors of contributing to the household expenditures, which is expected given that employment is generally a prerequisite for having income to
contribute. However, high employment rates in multifamily households imply that one of the consequences of very low wages is that employment does not allow independence, but requires the combination of multiple workers for the household to survive.

Table 4-2: Logistic Regression of Any Contribution to Household Expenditures Among Auxiliary Household Members

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race (Ref=White)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>1.18</td>
<td>1.03</td>
<td>1.19*</td>
<td>1.08</td>
</tr>
<tr>
<td>Asian</td>
<td>1.49*</td>
<td>1.62**</td>
<td>1.38*</td>
<td>1.45**</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1.81***</td>
<td>1.64***</td>
<td>1.63***</td>
<td>1.50***</td>
</tr>
<tr>
<td>Female</td>
<td>1.09</td>
<td>1.13</td>
<td>1.09</td>
<td>1.10</td>
</tr>
<tr>
<td>Extension Type (Ref= Vertical with Children)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical with Parents</td>
<td>1.21</td>
<td>0.96</td>
<td>1.18</td>
<td>1.01</td>
</tr>
<tr>
<td>Horizontal</td>
<td>2.37***</td>
<td>1.99***</td>
<td>1.70***</td>
<td>1.54***</td>
</tr>
<tr>
<td>Skipped Gen</td>
<td>1.26</td>
<td>1.34</td>
<td>0.89</td>
<td>0.86</td>
</tr>
<tr>
<td>Age</td>
<td>1.00</td>
<td>1.02***</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Marital Status (Ref=Married)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>0.75+</td>
<td>0.72+</td>
<td>0.97</td>
<td>0.95</td>
</tr>
<tr>
<td>Divorced/Sep</td>
<td>0.83</td>
<td>0.72*</td>
<td>1.00</td>
<td>0.93</td>
</tr>
<tr>
<td>Never Married</td>
<td>0.82+</td>
<td>0.76*</td>
<td>0.92</td>
<td>0.88</td>
</tr>
<tr>
<td>Children 0-4</td>
<td>1.06</td>
<td>1.15</td>
<td>1.01</td>
<td>1.01</td>
</tr>
<tr>
<td>Foreign-born</td>
<td>1.04</td>
<td>0.85</td>
<td>1.01</td>
<td>0.89</td>
</tr>
<tr>
<td>Poor health</td>
<td>1.21+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education (Ref=Less HS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HS</td>
<td>0.99</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some College</td>
<td>1.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College</td>
<td>1.06</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household Income</td>
<td>1.00**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Homeowner</td>
<td>0.41***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>2.14***</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Observations 5,206

Notes: Using Heckman selection methods for probit models, estimates from models 3 and 4 account for selection into the sample based on having a family income of at least $1,160. The selection equation estimates can be found in the Appendix. All models account for SIPP survey design and are weighted. *p<0.05 **p<0.01 ***p<0.001
In the case of unequal contributions, one reason these may arise is that, simply, some families have no income at all — an economic reality which couches household relationships differently than when all families do have income but co-reside without jointly supporting their shared home. Hence, in the next set of analyses, I account for respondents’ having an income (of at least $1160 per month) using a binary probit with selection model. Before controls for SES are included in these models, I find that blacks, Asians, and Hispanics are all more likely to contribute income towards household expenditures than whites. Horizontally extended households have a 70 percent increase in the odds of contributing to household expenditures compared to vertical households with children. The odds of contributing to households’ expenditures are not significantly different between vertically extended households with children and vertically households with parents.

Although these models account for each family having income to contribute, model 4 introduces SES controls to test if differences in markers of socioeconomic status and household SES account for differences in the odds of contributing. Once these controls are included blacks are no longer significantly more likely to contribute compared to whites. However, in the selection model, blacks are least likely to have income; accounting for SES variables in the next analysis mediates this effect for blacks, which reveals that, once socio-economic circumstances are controlled in the model, blacks are no more likely to contribute than are whites. However, Asians and Hispanics continue to be more likely to contribute economically than whites, regardless of income situation and household economic status. Employment is no longer significantly related to contributing, likely because employment is largely captured in the selection of who has income to contribute.

Respondents who live in a household that is owned rather than a property that is rented by a co-resident are less likely to contribute money towards household expenses to the household’s owner. This may suggest that expenses are lower overall than they are in a rental unit
(where rent is due every month), a situation that, in turn, may lead to lower expectations of financial compensation. Alternatively, this pattern may indicate that someone who owns a home tends to have enough money to be able to support auxiliary members; hence, rent from auxiliary members is not expected.

Respondents in horizontally extended households, furthermore, continue to be more likely to contribute than adult children in vertical households after SES controls are added. However, when comparing vertical households directly — that is, those with adult children vs. those with parents (of adult children) — no significant difference in contributions exists between the two. Age of auxiliary household members is also not associated with the odds of contributing to household expenditures.

**Discussion**

The goal of this study was to assess variations in the economic organization of multifamily households. The findings make two contributions to the literature on family and living arrangements. First, these results show that extended family households are primarily supported by the respective core family, with few contributions from other household members. Asian and Hispanic auxiliary family members, however, are more likely to contribute to household expenditures than those from other racial/ethnic groups. Overall, these results imply that extended family households serve the function of providing a safety net, except in some Asian and Hispanic families. In these latter groups, it would seem that families operate on and organize around a different economic expectation; namely, that all families contribute.

Horizontally extended households, net of other characteristics, are also organized around a principal of mutual benefit, and their members are more likely to contribute. This discovery suggests that the economic organization of most extended family households aligns with
intergenerational solidarity theory; the core household family supports additional members, either to weather a rough patch, or to offer an extended period of assistance. This theory, however, does not explain extended family household formation or function for all Asian and Hispanic extended families. On the contrary, when Asians or Hispanics form extended family households, the decision appears to be motivated as an economic survival strategy that requires support from all members. By and large, in this study, horizontally extended households behaved as hypothesized. They were more likely to have all members contributing than other types of extended family households.

Furthermore, this study has demonstrated that economic contributions to the household do not exactly depend on members’ actual economic resources; across families within the same household, economic contributions are far more unequal than actual income. Additionally, even once adjusting for having income from earnings, benefits, and other sources, race/ethnic differences are found in household economic contributions: Hispanics and Asians are more likely to be living in households in which all members contribute financially, especially if they have income, regardless of source. And although blacks may be equally likely as whites to pay no rent, if blacks do have income, they are more likely to contribute than whites (though this differences is explained by individual SES characteristics). This finding provides mixed support for my hypothesis. Because of structural constraints, blacks and Hispanics in extended family households are somewhat more likely to have all members contribute. However, the race differences between blacks and whites are explained by compositional differences in socioeconomic characteristics of household members. In contrast, Hispanics do have more equality in household contributions, regardless of family income and household economic position.

This study’s results also suggest mixed support for the hypothesis that younger members of an extended family household are less likely to contribute. On the one hand, households are more likely to extend vertically with adult children present, and, in bivariate relationships,
vertical parent households are less likely to exhibit single-family contributions of income. (Also note that the household reference person’s family almost always contributes to the household expenses.). However, among auxiliary members in multivariate analysis, adult children are equally likely as parents to contribute to household expenditures.

This study is not without its limitations. First, contributions to the household expenses only include monetary contributions for rent, mortgage, or utilities. While these expenses represent the largest share of household expenditures, they do not account for other types of spending or unpaid labor that may be exchanged within households, which also would represent legitimate contributions to overall household function or members’ wellbeing. Research on families in extreme poverty has found that contributions to the household may not be through cash, but rather from the contribution of non-cash social welfare benefits. For example food stamps are sometimes traded in exchange for rent (Edin and Shaefer 2015). In terms of unpaid work, we do know whether respondents are out of the labor force because of caregiving, and the number of respondents who report they are not working because of care responsibilities is low. On a related note, qualitative work finds that adult children in extended families perform relatively few household chores (Sassler et al. 2008), but how this dynamic might differ by kin relationship and across racial/ethnic subgroups is unknown.

A second limitation is that this study only captures income from one point in time, while reciprocity may play out over an extended period of time. For instance, a family member may not contribute while looking for a job, but once employed, may start contributing. A third limitation may stem from the reporting protocol used in the SIPP. The coding of household organization is based on relationships to the household reference person, and the household reference person reports the contributions of all members. In SIPP, the household reference person is defined as

\[16\text{ According to Consumer Finances Survey on average housing and utilities account for almost half of the household budget.}\]
the “owner or renter of note” (SIPP User Guide). The household head, however, may not always correspond to the member who pays most of the household expenses. Instead, the reference person’s reports may be biased towards his/her own contributions.

Despite these limitations, this study offers new insights into the economic organization of extended family households. By analyzing not only the income of different household members, but also their economic contributions to key household expenditures, this study improves upon prior research. This is an important distinction, especially given the findings that having income in not synonymous with contributing income. A majority of our knowledge on the contributions of auxiliary household members has come from qualitative studies and has focused on the contributions of adult children returning to the parental home (Sassler et al. 2008; Newman 2012). Using nationally representative data, the current study allows a more accurate picture to emerge of how these households are organized at the national level and, further, can identify differences not only across race/ethnicity, but also across different types of extended family households. These findings also raise important questions about the role played by wage inequality and unemployment in fueling the increase in multifamily households, determining how age, race/ethnicity, nativity, and marital status sort families into single versus multifamily living arrangements, and providing the economic context in which cultural differences in household structure and understandings of familial obligations are expressed financially.
Chapter 5  
CONCLUSIONS

In this dissertation I addressed questions about how the formation of multifamily households occurs in response to an economic shock, whether entering a multifamily household provides a buffer against poverty, and whether households differ in their economic organization. The questions were assessed using nationally representative survey data to make population level estimates, with special interest in how these processes unfold differently across race and ethnic groups.

Key findings from this dissertation highlight race/ethnic differences in three domains of multifamily households: formation, poverty reduction, and economic organization. Whites are more sensitive to job loss, with a greater likelihood of a job loss spurring a move into a multifamily household compared to blacks and Hispanics. Yet, blacks and Hispanics were more likely to move into a multifamily household, suggesting that their reasons for moving into such households reflects something more than responses to a specific event. Among those who do move into multifamily households, the economic benefits varied greatly. Whites and Asians had the largest reductions in poverty. Economic organization was also associated with varying levels of poverty reduction, especially for Hispanics who saw no benefit from moving into altruistic households. In the last chapter the results demonstrated that economic contributions are far more unequal than actual income receipt within households. The core family in multifamily households provides a lion’s share of the contributions--often all the contributions for household expenditures--with few contributions from other household members. However, Asian and Hispanic auxiliary family members are more likely to contribute to household expenditures. Together these results suggest not only that the prevalence of multifamily households is different
by race/ethnicity, but also that these households appear to be serving different functions, reflected in different patterns of economic organization that provide varying levels of benefit to their members.

**Data Considerations**

The Survey of Income and Program Participation (SIPP) is widely used for studies of employment, program participation, and poverty. SIPP was designed to improve estimates of income and public program participation by having more detailed questions and a shorter recall period. As with any data SIPP has its strengths and weaknesses. I will address both the strengths and weaknesses of SIPP in its survey length, sample coverage, and content.

First, SIPP captures a time period of almost 5 years. On the plus side this time period captures the peak of the Great Recession and its recovery with frequent details allowing for more precise time ordering of events than is available in other longitudinal surveys. On the other hand, risk of shared living arrangements likely varies over the life course, and by capturing a small slice of time, may obscure some of the complexities of these changes in living arrangements. While datasets that cover longer time spans are able to answer questions about how these processes play out over a longer time span, often they do not capture the same fine grain detail that allows time ordering of events that may occur in close proximity. As with other longitudinal data attrition is always a concern. Although the fixed effects models used in this dissertation only require respondents to be present for two waves, respondents with precarious or tenuous living arrangements may be more likely to be lost to follow up than those in stable living arrangements.

SIPP is a nationally representative sample of the civilian, non-institutionalized population, and therefore may not capture the full range of important transitions in living arrangements. In particular, respondents who exit or enter criminal justice systems are not
included in the sampling frame. SIPP does not follow individuals who enter the criminal justice center, meaning that they are lost to follow up. Further, unless individuals exiting the criminal justice system enter the household of an original sample member, they are not included. Unfortunately, SIPP does not provide sufficient information to identify these transitions, even if they do occur. Having been previously incarcerated may limit options for living with family, perhaps making it impossible to live with family in public housing (Lutz et al. 2014). Similar issues exist for older adults transitioning into institutionalized settings (Thomeer et al. 2015).

SIPP provides no way to identify these types of transitions in living arrangements.

While one strength of the data is that it is nationally representative, the design also limits possibilities for studying smaller sub-populations that may have different living arrangements trajectories. For example, individuals with severe mental and physical limitations are more vulnerable and likely have vastly different patterns of household formation than their healthier counterparts. Low-income households are also more likely to have children who are vulnerable in a variety of ways, including those with developmental disabilities which alter the transition to adulthood (Osgood et al. 2005). However, these vulnerable groups are not easily identified in SIPP and given prevalence rates, their numbers would be too small to analyze with these data.

SIPP contains a wide range of demographic, economic, and program variables, as mentioned previously though SIPP does not cover every domain that is relevant to these studies. Reasons for extended family households are potentially more varied than can be captured in the data, for example unable to account for preferences, break up of cohabitating unions, inability to live independently, among others. Examining changes in poverty status do not necessarily correspond to improvements in quality of life (Nelson 2011). SIPP contains measures of material hardships such as food security and ability to pay bills, however these questions are not asked at each wave. These details may allow a more nuanced picture of well-being after moving into shared living arrangements. Contributions to the household may be non-monetary. Survival
strategies among individuals near poverty may include combining households and exchanging unpaid care work. I am unable to capture these dynamics with SIPP. Qualitative work that has looked at this dimension of contribution has considered only specific subgroups, such as older immigrants who move in with their children (Treas 2008) or young adults who move back in with their parents (Sassler et al. 2008). Therefore, the extent to which these kinds of exchanges occur in the broader population or whether they are more common in some subgroups than others remains unknown. While the American Time Use Survey, provides sufficient detail on how individuals spend their time to provide some insight on this matter, only one adult per household completes the survey, which makes any comparison within the household impossible while at the same time limiting the number of observations across households. Despite these constraints, this work expands our knowledge about the formation and organization of these more complex living arrangements by leveraging the strengths of SIPP’s longitudinal design. Having repeated observations of the same individuals at frequent intervals allows me to capture changes in living arrangements. Further, the prospective design allows me to link these changes to prior events that may be motivating relocations. Finally, the detailed financial information allows me to measure within household inequality as it is reflected in the inflow of resource through current income and the outflow of resource through housing-related expenditures. By taking this additional step, I was able to portray an important dimension of heterogeneity in multifamily households. In addition, I was able to demonstrate how differences in the economic organization of these households reflect the distinct functions that shared living arrangements play for members of different race/ethnic groups.
Policy Implications

The results of these studies also have policy relevance. Perhaps most important is that this research demonstrates how policies that assume nuclear family household composition are not sensitive to the cultural diversity reflected in the ways these households are formed. This research was not designed as a test of policy. Nevertheless, these findings are relevant to policies that target economically stressed families, affordable housing, and eligibility and expansion of public assistance. The locations and stability of people’s living arrangements directly affect their health and wellbeing. Overcrowded housing has been linked to poor health (Cutts et al. 2011). Family instability can have negative consequences, especially for children. Beyond the loss of economic resources that caused the instability, insecurity in living arrangements has been found to delay children’s educational development (Sandstrom and Huerta 2013). Lastly policy makers should care about living arrangements because of the care that family members provide for older relatives and the implications of these informal arrangements for federally financed long-term care (Thomeer et al. 2015). Below I outline targeted policies that can improve access to affordable housing, increase the stability of housing, and allow more flexible views of families and households.

Doubling up is not always a stable or viable solution, and those living in these households must find ways to accommodate each other. For example, low-income mothers in multifamily households report lower levels of satisfaction with living arrangements than those living in single family dwellings (Edin and Lein 1997). Also, assistance from friends and family is not available to all individuals or these arrangements may be subject to time limits. Policies that strengthen the public safety net can shore up family finances so families can stay in their homes, while increasing the capacity of other community based programs can provide assistance in emergency situations (Kalil and Ryan 2010). Although multifamily households may be culturally preferred
by some groups, they may also reflect limited options. Below I highlight policies that can both improve options for independent living and demonstrate greater recognition of different household living arrangements.

1. **Affordable Housing.** One of the driving forces of shared living arrangements is the lack of affordable housing. Structural mismatches occur between places that have jobs and affordable housing. The number of cost-burdened households is at a record high, with about half of all renters paying more than 30% of their income for rent (Schwartz 2010). Even in the most affordable state, an individual would need to work full time at far above the current minimum wage (about $12/hour) to afford a modest 2-bedroom apartment (Joint Center for Housing Studies 2013). Yet parents must provide separate bedrooms for daughters and sons or risk losing custody of their children. Despite the overwhelming need for more affordable housing, the budget for Housing and Development has shrunk in recent years. Until the 1980s the Department of Housing and Urban Development’s budget was second only to the Department of Defense’s (Schwartz 2010). However, in 2015, the budget had declined by nearly 50 percent from its 1980 level. Below I outline potential and promising policies for increasing access to affordable housing.

1.1. Increasing access to housing vouchers. Current programs such as Section 8 housing and subsidized rent programs have shown exceptional promise in helping individuals to maintain affordable housing. Housing vouchers have been found to increase housing quality and after an initial move, also increase long term stability (Carlson et al. 2012; Carlson et al. 2011). In supplemental analysis not shown, respondents receiving a housing subsidy were less likely to move in response to a job loss compared to those without the voucher. However, the funding for these programs does not come close to meeting the demands. Most major cities have waiting lists for both the voucher program and public housing. Among individuals who are income-eligible, only about a quarter
receive any kind of rental subsidy from the government (Edin and Shaefer 2015).

Housing assistance is not an entitlement program, so being eligible is only the first step.

1.2. Increase energy efficiency of low-income housing. Spending on energy and utilities is often much higher for low-income renters because their apartments are less energy efficient, and they have less efficient appliances (Bird and Hernández 2012). One approach to increasing the affordability of housing is to mandate efficiency improvements and/or subsidize investments in efficiency. This strategy would reduce costs for renters and at the same time assist in meeting national goals of reducing energy consumption (Langevin, Gurian, and Wen 2012). These subsidies for investment in energy efficiency would of course need to include provisions to prevent landlords from increasing rent and pushing the low-income renters out (Bird and Hernández 2012).

1.3. Expand Mortgage Qualification. Blacks and Hispanics have the lowest rates of homeownership in the U.S. Yet numerous studies have highlighted the economic and health benefits of homeownership (Evans, Wells, Moch 2003; Finnigan 2014; Ortiz and Zimmerman 2012). The government backed Fannie Mae now allows income contributions from adults in the household other than spouses to be included in calculating mortgage qualifications. This allowance may expand eligibility of minority families for mortgages, since minorities are more likely to have multiple earners in the household. Further given the larger household size of many minority families, a larger house may be needed to accommodate all members. By recognizing that the household organization is different for some groups, these policies can help increase access to better housing for different groups. Of course these types of policies rely on the stability of employment and household membership for all members, so they may not be appropriate for all households. However, these types of policies and practices that
recognize variation in household organization beyond the nuclear family are a step in the right direction.

2. Public Programs.

2.1. Unemployment Insurance. Although Unemployment Insurance benefits are individual based, expanding benefits has the potential to increase the stability of living arrangements, especially for families with children for whom instability may be most harmful. To increase stability especially for families, expansion of increased benefits for individuals with dependents could help families buffer job loss and maintain more stability in their living arrangements. Second UI benefits should be extended to those in part-time work. Currently only 8 states provide equal benefits for part-time workers (Nichols and Simms 2012). Working part time may or may not be a choice. Increasingly employers offer only part-time positions, so as the economy evolves policies too must recognize that loss of part-time work should be protected (Valletta and Van Der List 2015).

2.2. Calculation of Eligibility. Changing the definition of family means changes in the poverty estimates and eligibility for public programs. To the extent that sub-families within a larger family household are treated as a single unit, poverty may be overestimated or underestimated (Meulders and O’Dorchai 2013). Given that poverty thresholds are used to determine eligibility for several federal programs including the Supplemental Nutrition Program (SNAP), Head Start, and Children’s Health Insurance (CHIP) among others, the unit of measurement for poverty is very important in the outcomes of low-income individuals. Given racial differences in the prevalence of multifamily households, current policies that measure eligibility at the family level may disadvantage racial minorities.
2.3. Home Health Care Funding. As the population ages, concerns about healthy aging and sufficient resources to care for elderly health become major issues. One issue related to living arrangements is the use of home health care as opposed to institutionalized care. Medicaid regulations will pay only for non-family home health care, ignoring the valuable contributions that are often made by family members, especially Latinos who provide significantly more care to kin than whites (Mutchler and Angel 2000). Given racial and cultural differences in the propensity to live in multifamily households and provide care, these policies disproportionally disadvantage minority families and reproduce inequality (Sarkisian et al. 2006). Family policies should also be extended to include a broader view of families. Currently the Family Medical Leave Act only covers care for immediate family members and does not account for care that may occur in more complex family organizations (Gerstel and McGonagle 1999).

**Future Considerations**

The findings of my dissertation set the foundation for future work to expand our understanding of household organization and finances. Building on this research, future studies should explore the outcomes or consequences of living in multifamily households, taking into consideration the differing economic organization in these households. Specifically, future research should explore whether mental health and depression outcomes are associated with the economic organizations in these households. For example, unequal household contributions may increase relationship strain, which can in turn influence mental and physical health.

While research has found that instability is harmful for children’s development, research into how these different strategies of household organization impact children’s outcomes is important. On the one hand more adults may provide more supervision for children, or more
members in the household could instead distract attention away from children. Lastly, given a majority of households are supported by one family member, the economic consequences of supporting family may be accumulating overtime. Research examining how supporting family may impede individuals’ ability maintain financial security and savings is needed.

Another area of future research should leverage state policy differences in how benefit eligibility is calculated to test how these policy differences may be associated with different household configurations and how these rules alter eligibility in these households. Some states require the inclusion of all income from adults in the household while others only require spouses (Rowe and Russel 2004). Leveraging state differences in policies will allow estimations of how different policies may impact family decision-making processes.
Appendix A

Proportion of Respondents that Experience Work Status Transition during survey by Race/Ethnicity

<table>
<thead>
<tr>
<th>Transition to:</th>
<th>White</th>
<th>Black</th>
<th>Asian</th>
<th>Hispanic</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed</td>
<td>9.73</td>
<td>13.14</td>
<td>9.84</td>
<td>12.38</td>
<td>10.43</td>
</tr>
<tr>
<td>Unemployed</td>
<td>11.13</td>
<td>16.77</td>
<td>15.88</td>
<td>18.51</td>
<td>12.85</td>
</tr>
<tr>
<td>Not Working Health</td>
<td>5.98</td>
<td>10.36</td>
<td>4.88</td>
<td>7.22</td>
<td>6.62</td>
</tr>
<tr>
<td>Not Working Care</td>
<td>5.24</td>
<td>6.57</td>
<td>6.66</td>
<td>9.16</td>
<td>5.93</td>
</tr>
<tr>
<td>Not Working School</td>
<td>2.24</td>
<td>4.25</td>
<td>4.77</td>
<td>3.59</td>
<td>2.74</td>
</tr>
<tr>
<td>Retired</td>
<td>3.42</td>
<td>3.28</td>
<td>2.65</td>
<td>2.4</td>
<td>3.14</td>
</tr>
</tbody>
</table>

Notes: Any transition from each work status to any other work status between 2008-2013 among respondents 25 and older.


### Appendix B

#### Selection Equation for Having at least $1,160

<table>
<thead>
<tr>
<th>Category</th>
<th>OR</th>
<th>(SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.01***</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Education (Ref=Less HS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HS</td>
<td>1.22**</td>
<td>(0.08)</td>
</tr>
<tr>
<td>Some College</td>
<td>1.29***</td>
<td>(0.09)</td>
</tr>
<tr>
<td>College</td>
<td>1.60***</td>
<td>(0.12)</td>
</tr>
<tr>
<td>Female</td>
<td>0.99</td>
<td>(0.04)</td>
</tr>
<tr>
<td>Race (Ref=white)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>0.86**</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Asian</td>
<td>0.88</td>
<td>(0.07)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1.00</td>
<td>(0.06)</td>
</tr>
<tr>
<td>Employment Status (Ref=working)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>0.20***</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Not Working health</td>
<td>0.23***</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Not Working Care</td>
<td>0.29***</td>
<td>(0.03)</td>
</tr>
<tr>
<td>Not Working School</td>
<td>0.14***</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Retired</td>
<td>0.37***</td>
<td>(0.03)</td>
</tr>
<tr>
<td>Observations</td>
<td>5,206</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Estimates are weighted and standard errors are adjusted for survey design. *p<0.05 **p<0.01 ***p<0.001
BIBLIOGRAPHY


https://books.google.com/books?hl=en&lr=&id=cz6wrjxiEimAC&oi=fnd&pg=PT6&dq=going+sololo&ots=RWHthMw95i&sig=Ei1t-q6_o67714JHW1lgxkgHe1Q.


Napolitano, Laura. 2015. “‘I’m Not Going to Leave Her High and Dry’: Young Adult Support to Parents during the Transition to Adulthood.” *The Sociological Quarterly* 56 (2): 329–54. doi:10.1111/tsq.12088.


Qian, Zhenchao. 2012. “During the Great Recession, More Young Adults Lived with Parents.” Census

Rendall, Michael S., and Alden Speare. 1995. “Elderly Poverty Alleviation through Living with

Escape from Traditional Gender Roles?” Documents de travail du Centre d’Economie de la
Sorbonne 10009. Université Panthéon-Sorbonne (Paris 1), Centre d’Economie de la Sorbonne.

SAGE Publications.


During the Transition From High School: The Role of Family Obligation Attitudes and Economic
Context for Latino Emerging Adults.” Journal of Adolescent Research, September.

Sassler, Sharon, Desiree Ciambrone, and Gaelan Benway. 2008. “Are They Really Mama’s
Boys/Daddy’s Girls? The Negotiation of Adulthood upon Returning to the Parental Home.”


https://books.google.com/books?hl=en&lr=&id=KDCyujaoDYYC&oi=fnd&pg=PR8&dq=not+quite+adults+&ots=sEP255Of2V&sig=Fu4k3vDWWmLIXFUzT38eClCwCYo.


VITA
Adriana Marie Reyes

Penn State University
211 Oswald Tower
University Park, PA 16802
amr5763@psu.edu

EDUCATION

**Pennsylvania State University**, University Park, Pennsylvania
Ph.D., Sociology and Demography, August 2016

*Committee*: Melissa Hardy (chair), Jennifer Van Hook, Patricia Miranda, Molly Martin

Quantitative Methodology Certificate

M.A., Sociology and Demography, August 2012

**University of Arizona**, Tucson, Arizona
B.A., Magna Cum Laude, Sociology, May 2010

PUBLICATIONS

*Peer Reviewed Journal Articles*

Crystal, Stephen, Dennis Shea, and **Adriana M. Reyes**. “Cumulative Advantage, Cumulative Disadvantage and Evolving Patterns of Late-Life Inequality” *The Gerontologist* (Forthcoming)


**Reyes, Adriana M.**, and Melissa Hardy. ”Another health insurance gap: Gaining and losing coverage among natives and immigrants at older ages.” *Social Science Research* 43 (2014): 145-156.

Taylor, Marylee C., and **Adriana M. Reyes**. ”The impact of local black residents socioeconomic status on white residents racial views.” *Social Science Research* 43 (2014): 16-29.

FELLOWSHIPS AND AWARDS

2016 Alumni Association Dissertation Award, The Pennsylvania State University

2015 Dissertation Support, College of the Liberal Arts, Pennsylvania State ($5,000)

2012-2015 National Science Foundation Graduate Research Fellow ($98,000)

2014 Penn State Sociology Student Paper Award, 1st place in Published Paper Category.