Rooted or Stuck?
The Causes and Consequences of American Mobility Decline

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Abstract

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Annual mobility rates in the US have declined by half since 1950, but it is not clear why. The emerging literature suggests that as-yet inexplicable immobility is indicative of an increasing cultural attachment to place – known as "rootedness" – that is both universal and voluntary. I assess this claim using data from the Current Population Survey and the Panel Study of Income Dynamics and address three central questions. First, to what extent do shifts in the composition of the U.S. population account for observed declines in mobility? Second, have expectations of mobility declined alongside actual mobility? Third, has the link between mobility expectations and actual mobility outcomes weakened over time? Results suggest that Americans are "stuck" – increasingly unlikely to move when they expect do so – rather than "rooted" in place. This pattern is consistent with the conclusion that social and economic shifts in the latter half of the 20th Century left Americans with fewer options for, and a marginalized ability to take advantage of, opportunity elsewhere. Moreover, because the weakening expectation-mobility link is particularly pronounced among African-Americans, mobility decline may exacerbate inequalities in residential mobility processes that are already deeply stratified by race.

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Chapter 1. INTRODUCTION

> "In the United States, a man will carefully construct a home in which to spend his old age and sell it before the roof is on; he will plant a garden and will rent it out just as he was about to enjoy its fruit; he will clear a field and leave others to reap the harvest. He will take up a profession and then give it up. He will settle in one place only to go off elsewhere shortly afterwards with a new set of desires."
>
> - Alexis de Tocqueville (1840), from "*Why Americans are so Restless in the Midst of their Prosperity*", Democracy in America: Part II

Nearly any discussion of migration or mobility in the U.S. over the long-term begins with this quote from de Tocqueville. The quote, like the nation and people it describes, is idyllic. Americans were restless. Even in the midst of social and economic mobility unheard-of in Europe, our 19th Century counterparts were hungry for more.

To a large extent, this hunger was satiable. The frontier was open, destiny was to be made manifest, and anyone willing to pack up and move was guaranteed 40 acres and a mule on the federal dime. Horace Greeley summed up this sentiment circa 1865 in his typically abbreviated quip advising Westward migration: "Washington is not a place to live in. The rents are high, the food is bad, the dust is disgusting, and the morals are deplorable. *Go West, young man, and grow up with the country* [emphasis mine]." One gets the impression from de Tocqueville that Americans achieved prosperity in spite of their restlessness, but an equally plausible interpretation of history is that Americans were prosperous because of it.

I, too, begin with the quote from Alexis de Tocqueville not because this is a study of American mobility – though it is that. I begin with the quote, first, because it strongly and

unapologetically describes a country in which socioeconomic and geographic mobility are intertwined. I begin with the quote, second, because it suggests that the intertwining of socioeconomic and geographic mobility presents itself uniquely and distinctly in the American case. I begin with the quote, third, because it seems that this uniquely American link is gone, dismantled, an artifact from a bygone era.

Americans are not restless anymore. As of 2015, the typical American is about half as likely to cross a state, county, or neighborhood boundary as her counterpart in the mid-20th Century. Despite the long-term downward trend in mobility since at least 1970, there is little consensus around why Americans are moving less or how declining mobility might impact individuals and their communities. This dissertation explores the causes and consequences of contemporary migration and mobility decline in the U.S.

1.1 Contemporary Mobility Decline in Historical Context

This is not the first time this has happened. The U.S. has seen periodic and temporary lulls in mobility and migration before. Prior to the 1940s, consistent yearly measures of mobility across political boundaries do not exist. However, a lifetime measure of migration is available in the form of the *percent of the population living outside their state of birth*. This measure allows some understanding of how mobile Americans are at each decennial Census since 1850.

As shown in Figure 1.1, the first major decline in lifetime interstate migration coincided with the closing of the Western frontier and the American Civil War. This decline confirmed theoretical perspectives suggesting that abnormally high rates of mobility in the U.S. were a function of the abundance of land (Long 1988). But the earnest onset of industrialization and the intensification of urbanization reversed this trend at the turn of the 20th Century. The next lull in mobility was a reaction to the Great Depression and two World Wars, but was dwarfed, to a

large extent, by the Great Migration. Between 1910 and 1980, millions of Black and White Americans left the South for urbanizing and industrializing metropolitan areas in the Northeast, Midwest, and West Coast, causing an historic peak in the percentage of Americans living outside their state of birth circa 1980 (Figure 1.1).

The recent peak in lifetime interstate migration is, to some extent, driven by rapidly increasing life expectancies over the course of the 20th Century. In other words, currently high rates of lifetime migration are the result of historic mass migrations sustained in this particular measure by elderly populations living outside their state of birth. In spite of this lagged effect, lifetime migration in the U.S. is trending downward for all Americans, and for Blacks, in particular. If current rates of annual interstate migration hold, we will likely witness another precipitous drop in lifetime migration in the next few decades (Figure 1.1).

1.2 The Causes of Contemporary Mobility Decline

Historical declines in migration and mobility coincided with dramatic social and economic shifts in U.S. history. Contemporary trends are no different. Since the start of declines (which differ between local mobility and long-distance migration) after 1950, we have witnessed: broad economic restructuring involving a shift from a manufacturing to an information economy; rapidly increasing inequality and stagnant wages for those in the middle and bottom of the income distribution; deunionization, deregulation, and the rise of neoliberal ideologies; and monumental advancements in communication and transportation technologies. Over the same time period, the composition of the U.S. population has shifted in favor of typically less-mobile groups: the population age structure is getting top-heavy; racial and ethnic diversity is increasing; and immigration from Latin America and Asia has offset delayed and declining

marriage and fertility rates among the native population. To date, scholars agree that most, if not all, of these factors have contributed to declining mobility and migration in the U.S.

Population aging, increasing racial and ethnic diversity, and immigration – sometimes referred to in concert as the Third Demographic Transition (Coleman 2006; Lichter 2013) – are the most commonly-cited drivers of mobility and migration declines. No studies have explicitly considered the role of increasing diversity and immigration in domestic mobility trends, but research to date suggest that population aging accounts for as much as half of all interstate migration (Karahan and Rhee 2014) and substantial portions of local mobility declines since 1980 (Molloy, Smith, and Wozniak 2011, 2014). Likewise, Cooke (2011) finds that roughly 10 percent of intercounty mobility declines between 1999 and 2009 are attributable to population aging, but these effects are likely overwhelmed by the effects of the Great Recession and foreclosure crisis on mobility.

Economic restructuring, labor market bifurcation, and deregulation also appear to contribute to immobility. Declining union membership has left the typical worker in a marginalized bargaining position vis-à-vis their employer (Rosenfeld 2014). According to Molloy and colleagues (2014), this sort of marginalization is a key driver of declines in employer and industry transitions since the 1980s: because workers are increasingly unable to negotiate an improved starting wage with new employers, job transitions and migration between labor markets have declined. Deunionization, coupled with the significant bifurcation of the labor market into high-skill, high-wage knowledge work and low-skill, low-wage service work (Harrison and Bluestone 1988), has resulted in stagnating or declining real wages for most Americans (Western and Rosenfeld 2011). It also is possible that this bifurcation in labor market structures has made labor markets in the U.S. more similar over time, reducing the incentive for

workers to migrate in search of new opportunities elsewhere (Kaplan and Schulhofer-Wohl 2012; Molloy et al. 2011:16). Economic shifts since 1970, therefore, place downward pressure on migration and mobility, as Americans increasingly lack the economic means and incentives to move.

More difficult to test are the effects of technological advancements in communication and transportation technologies. Typically, technological advancements such as cell phones, the Internet, international flights, and cheap ground transportation are argued to enhance the ability of Americans to connect with and travel to faraway places without the need for permanent relocation that would have precluded such connection in the past. We no longer have to move to a new place to experience it via the Internet or for a couple of weeks in person. These technologies have also facilitated the rise in telecommuting and in long-distance work commutes; workers can afford to live hours away from their workplace and not be inconvenienced by commutes to the extent that moving is necessary. But, these same technological advancements could just as easily *increase* mobility as decrease it. Communication technology has reduced drastically the information costs associated with mobility, and transportation advancements make it easier than ever before to make long-distance relocation decisions. As such, it remains unclear how technology is influencing the typical American's mobility and migration decisions.

Another strong, but less-commonly argued perspective on mobility and migration decline suggests that contemporary trends represent a return to equilibrium after a particularly tumultuous 20th Century. In other words, it is not the decline in mobility and migration that is aberrant and in need of explanation – it is the high mobility in the mid-1990s (and, presumably, before the closing of the frontier) that we need to understand. From this perspective, the Great

Migration and the large-scale suburbanization of major metropolitan areas drove historically-unprecedented levels of mobility through the 1970s, and the trailing off of these monumental phenomena has resulted in contemporary mobility and migration declines.

These arguments are compelling, but they fall short. First, though the Great Migration represents a tremendous era in U.S. history, the decline in migration associated with the end of the Great Migration is relatively small in terms of its impact on annual rates of any type of movement. Even if we allow for some local, second-order Great Migration effects in Northern cities (i.e., population shuffling in Northern destinations in response to Southern migrants), the end of the Great Migration likely accounts for only a small share of all migration and mobility decline since 1950 (Molloy et al. 2011). Second, though the pace of suburbanization has slowed, urban areas in some of the fastest growing regions continue to sprawl outward. New houses are constructed, and most Americans (even younger Millennials living in denser urban areas) still express preferences for free-standing, single-family homes (Nelson 2009). As such, it is unlikely that the slowing of suburbanization has greatly impacted local mobility. Third, shifting attention toward these historically-unprecedented phenomena shifts attention away from the demographic, social, and economic factors upon which they are contingent, which are outlined above. It deemphasizes the deliberate policy decisions that promoted large-scale migrations and upward socioeconomic mobility in the past, and, therefore, draws attention away from potential points of intervention today.

1.3 The Consequences of American Mobility Decline

Understanding which of the above explanations accounts for long-term declines in mobility and migration is important because of the potential consequences involved. On the one hand, a more immobile population may have quite positive long-term implications for individuals and society.

The excessive mobility of the American population is blamed for the weakening of social ties in neighborhoods, families, and extended kin networks (Wuthnow 1994), producing a general sense of metaphysical homelessness or rootlessness (Roof and McKinney 1987) and neighborhood anonymity (Popenoe 1985). Residential mobility is also a disruptive event associated with numerous detrimental outcomes for children – such as poor academic achievement (Scanlon and Devine 2001; Voight, Shinn, and Nation 2012), higher drop-out rates (Metzger et al. 2015), depression (Susukida et al. 2015), and the under-utilization of healthcare services (Jelleyman and Spencer 2008) – and adults – including higher rates of depression (Oishi 2010), particularly among women (Magdol 2002). Given the established links between mobility and these negative outcomes, declining mobility and migration may benefit society, improving neighborhood quality and social ties as well as individual well-being (Newman et al. 2010).

On the other hand, mobility is often a positive event facilitating improvements in housing and neighborhood quality, access to better school systems, and escape from regional economic stagnation and discrimination. Residential mobility patterns directly influence patterns of racial/ethnic and economic segregation (Lichter, Parisi, and Taquino 2015; Massey and Denton 1993), which in turn structure access to quality schools, neighborhoods, and labor markets (Sampson 2012), influence political outcomes (Bishop 2008; Frey 2015), and contribute to economic inequality over time (Lichter 2013; Sharkey 2013). If declines in mobility represent Americans' inability to relocate and take advantage of opportunities elsewhere, then mobility decline may be detrimental.

1.4 "ROOTED" OR "STUCK"?

Attempts at understanding why migration and mobility have declined, and what the broader consequences of that decline might be, have fallen short. Many, though not all, of these studies,

when faced with unexplained declines, argue that American culture has changed. Americans are simply more "rooted" in place now than they were in the past. As described by its proponents, this "rootedness" entails a fundamental shift in the relationship between people and the places they inhabit that is both universal and voluntary. In his early description of mobility decline, Fischer (2002: 193) notes that "the story of increasing rootedness generally applies across age, gender, race, housing tenure, and…class." Increasing immobility among all Americans is, according to Cooke (2011: 202), a voluntary phenomenon: "U.S. has long ago entered into a post-modern period of reduced mobility because of the increased value of leisure time [and] increased ability to remain rooted and yet travel for leisure and work…" Everyone, according to this hypothesis, is less mobile now than in the past because they choose not to move.

This conclusion is, to be sure, supported by some of the data on migration and mobility decline. Work to date on the long-term decline in American mobility generally confirms that nearly all Americans (with the exception of those most economically and socially marginalized) are less mobile now than in the mid-20th Century, indicating "deep and pervasive" shifts in the typical American's orientation toward mobility (Fisher 2002). Nevertheless, significant variations in the timing, rate, and magnitude of mobility declines across race, gender, age, and socioeconomic groups hint that other factors may be at work (Fischer 2002). In particular, declines among White men are quite precipitous, relative to White women and to all Black householders (Carll, Foster, and Crowder 2016). Moreover, while mobility declines for Black and White female householders are generally explained by changing individual, life-cycle, and family characteristics, declines among White male householders were not (ibid). Such findings leave room for "rootedness" among White males, but suggest that declines among other groups may be driven by socioeconomic and market shifts since the 1970s.

I forward a competing hypothesis in this dissertation and argue that increasing immobility among Americans is indicative of their increasing tendency to remain "stuck," not "rooted," in place. Americans have not fundamentally changed their relationship to the places they inhabit, and we have not lost that uniquely American link between socioeconomic and geographic mobility. Rather, I argue that social and economic shifts in the latter half of the 20th Century left Americans with fewer options for, and a weakened ability to take advantage of, opportunity elsewhere. In this way, contemporary migration and mobility decline is not unlike other historical lulls, and there is hope that geographic mobility, and the upward socioeconomic mobility that typically accompanies it, will increase again.

1.5 Outline of the Dissertation

In the next three chapters, I examine the causes and consider the potential consequences of contemporary American mobility decline. In Chapter Two, I use data from the Current Population Survey to decompose changes in annual migration and mobility rates between 1982 and 2015. I address two key questions, in particular. First, what is the contribution of substantial shifts in the composition of the US population to overall declines? Second, to what extent do the rates of migration and mobility decline differ by demographic and socioeconomic status?

In subsequent chapters, I question more directly a central tenet of the "rootedness" hypothesis – namely, the notion that contemporary declines in mobility are, in large part, voluntary. In Chapter Three, I describe trends in the expectation of mobility among non-Latino Black and White householders between 1970 and 2011 and assess the extent to which any observed declines in mobility expectations are attributable to "rootedness". In Chapter Four, I forward my competing hypothesis that contemporary mobility decline is indicative of the

increasing tendency for Americans to remain "stuck" in place – unable to move even when they expect to do so.

Each of these chapters, to varying extents, also examines the potential consequences of migration and mobility decline in terms of Black-White stratification in residential mobility processes. Chapter Two identifies substantial racial and ethnic differences in the rates of decline. Chapter Three finds evidence of a widening Black-White gap in mobility expectations over time, but shows that after controlling for all else, this gap is closing in promising ways. Chapter Four, however, shows that despite the rising probability of Black mobility expectations net of all else, Black and White householders, alike, are increasingly less likely to move when they expect to. As such, I argue that racial gaps in mobility and migration decline may exacerbate inequalities in residential mobility processes that are already starkly stratified by race and ethnicity.

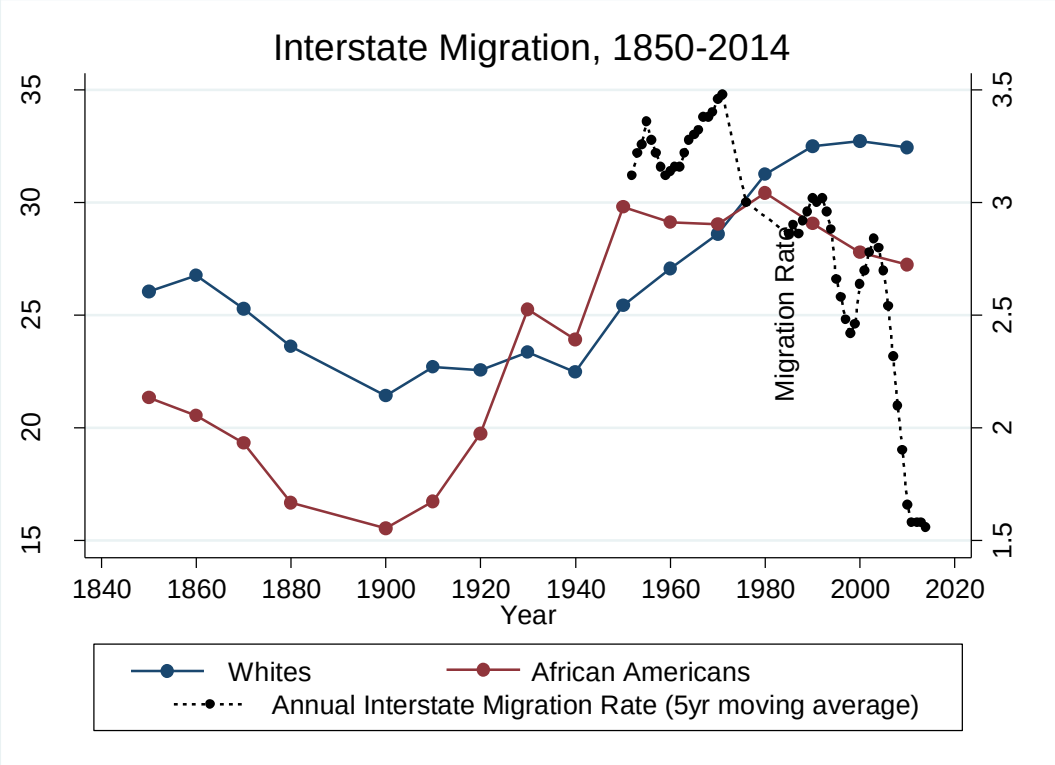

Figure 1.1. Interstate Migration Trends, 1850-2014.

Chapter 2. DECOMPOSING THREE DECADES OF AMERICAN MOBILITY DECLINE

The typical American is now half as likely to move in the coming year as her counterpart in 1950 (Cooke 2011; Fischer 2002; Molloy et al. 2011). This is true regardless of the distance involved: both long-distance interstate migration and local, intracounty mobility have declined by more than 40 percent in the last five decades. This is true regardless of the sociodemographic or socioeconomic characteristics of potential migrants: mobility declines cut across racial/ethnic, class, education, and life-course boundaries (Fischer 2002). This is true whether we consider the effects of the Great Recession or not: the economic downturn in the 2000s had a dramatic impact on migration and mobility in the US (Cooke 2011; Stoll 2013), but a sharp downward trend in mobility dates back to at least the late 1970s. But despite the universal and long-term nature of the slowdown in migration and mobility, it is not clear why Americans are moving less.

The proposed causes of mobility and migration decline are legion. For some, increasing immobility is a side effect of the end of the Great Migration, which moved millions of Southerners to cities in the Midwest, Northeast, and West between 1910 and 1970 (Tolnay 2003). Migration and mobility decline, then, reflect an array of positive shifts in racial tolerance, the erection of legal barriers to discrimination, and regional convergence in socioeconomic opportunities. For others, interstate migration decline is indicative of a significant convergence in the opportunity structures offered by American labor markets (Molloy et al. 2011). Lacking clear opportunities for socioeconomic advancement elsewhere, workers are increasingly staying put. For others still, declining migration and mobility reflects deep economic shifts that have left workers in marginalized bargaining positions vis-à-vis their employers (Molloy et al. 2014).

Unable to leverage their experience to make advantageous job transitions elsewhere, workers endure the grind where they are.

Most commonly, however, explanations of migration and mobility decline point to substantial changes in the composition of the American population since the mid-20th Century in favor of typically less mobile groups. Population aging, increasing racial/ethnic diversity, post-1965 era immigration, increasing homeownership rates, the switch from single-earner to dual-earner households, changing family structures, and the rise in long-distance and telecommuting are all included in this discussion. But the precise contribution of any of these shifts is difficult to pin down. Consider the role of population aging, which is arguably the most commonly-cited cause of migration and mobility decline. Estimates of the contribution of population aging to overall declines vary wildly, depending on the time periods examined and the type (i.e., long- vs. short-distance) of mobility considered. On the one hand, Molly and colleagues (2014: 1) find that while population aging and rising homeownership rates explain about half of all intracounty mobility decline, effectively none of the decline in interstate mobility is attributable to these factors. On the other hand, Karahan and Rhee (2014) argue convincingly that at least half of all the slowdown in interstate mobility is caused by population aging, particularly through the calming effect that middle-aged workers have on the job transition decisions of younger workers.

In this chapter, I use data from the Current Population Survey to clarify the role of compositional population shifts in observed mobility declines by decomposing changes in annual interstate, intercounty, and intracounty mobility rates between 1982 and 2015. I identify the proportion of overall migration and mobility declines attributable to shifts in the population age structure, wages, homeownership rates, dual-earner household shares, family structure, and racial/ethnic diversity. By examining the contribution of these shifts to different types of

migration and mobility, I acknowledge that compositional shifts could have different impacts on long- vs. short-distance mobility trends. In addition to gauging *compositional* effects, the decomposition method also identifies group-specific changes in the *rates* at which migration and mobility occur. Results show substantial variations in the rates of migration and mobility decline by race/ethnicity and age group that have not received due attention in the emerging literature, and which may help us understand the underlying causes and consequences of the decline.

2.1 Background and Theory

2.1.1 *The Determinants of Mobility*

Declining mobility and migration rates, in the aggregate, can be seen as a function of the decisions of individuals and families to either migrate or stay put. Lee's (1966) "push-pull" model situates the individual decision-making process in a framework which weighs the factors "pushing" potential migrants from the origin against factors "pulling" migrants to any number of potential destinations, and considers the social, psychological, and economic "intervening" factors that facilitate and/or hinder movement.

Any discussion of "intervening" factors in the "push-pull" model is typically dominated by the significant social, psychological, and economic costs associated with migration and mobility. Movement is costly even when it improves one's socioeconomic position. As such, individualistic approaches to migration and mobility tend to focus on the additional costs associated with one's family or work status, one's stage in the life-course and the time available for recouping costs, and the availability of social and economic resources which can be leveraged to overcome or reduce the costs associated with mobility (Greenwood 1985, 1997; Ritchey 1976). The likelihood of mobility and migration is typically positively associated with socioeconomic status because those with more economic resources, higher levels of education,

and higher levels of human capital are better situated to overcome the costs associated with movement. The costs of mobility are typically higher for families than for individuals and, therefore, single individuals are typically more mobile. Households with two earners have to find two new jobs at the destination instead of just one; households with children must make difficult decisions about school districts and funding; and as family size increases, economic and social costs of mobility increase. Finally, mobility and migration rates tend to be higher among the young and decline with age, because the young have a longer period of time over which the costs associated with mobility can be recouped (Long 1988).

2.1.2 *Population Composition and Aggregate Mobility and Migration*

Any aggregate shift in the composition of the US population, then, also produces an associated shift in the cost calculus for potential movers (Long 1988). Population aging, for example, means that the typical mover has less time to recoup costs. Rising homeownership and dual-earner shares means that the typical move is more costly and difficult than before. Stagnating wages and the hollowing-out of the middle class means that the typical mover has fewer resources to leverage against the costs of migration and mobility. And so on.

The aggregate population shifts witnessed in the past five decades should place upward pressure on the costs associated with mobility for the typical American, while at the same time reducing the pool of resources for mitigating, and time available for recouping, any losses. Many of these compositional shifts are associated with what some scholars call the Third Demographic Transition (Coleman 2006), which describes a set of linked changes – population aging, increasing racial and ethnic diversity, and increased immigration – common to post-industrial nations in Western Europe and North America. As the native populations in these nations age, net population loss is averted by immigration from less developed nations, resulting in a more

racially and ethnically diverse populace. The US is no exception to this trend. The median age in the US increased from 30.2 to 37.2 between 1950 and 2010, due in large part to aging baby boomers and declining fertility in subsequent generations (Hobbs and Stoops 2002). The American population continues to grow, however, due to continued post-1965 era immigration from Latin America and Southeast Asia (Frey 2015). Because younger and native, non-Latino white populations tend to be more mobile, population aging among natives whites, immigration, and increasing racial and ethnic diversity should contribute to aggregate migration and mobility decline.

Nevertheless, estimates of the contribution of shifts related to the Third Demographic Transition range widely from one study to the next, and depending on the type of movement considered. Cooke (2011) decomposed changes in intercounty mobility rates from 1999 to 2009 and found that changes in the population age structure account for 11 percent of declines. In their study of the labor market impacts of migration decline, Molloy, Smith, and Wozniak (2014) note that, while population aging accounts for nearly half of all declines in intracounty mobility since 1980, it accounts for effectively none of the slowdown in interstate migration over the same time period. Contrary to this report, however, Karahan and Rhee (2014) demonstrate that population aging plays a much larger, but more subtle role in interstate migration decline than Molloy and colleagues allow. They find that the aging of the labor force and the growing share of middle-aged workers exerts a calming, equilibrium effect on the migration decisions of younger workers. In total, they find that about 50 percent of the observed decline in interstate migration since the mid-1980s can be attributed to population aging and its “spillover” effects on younger workers (Karahan and Rhee 2014). Because findings are sensitive to the periods examined, the

type of movement in question, and the methods used, it remains unclear precisely how the Third Demographic Transition has influenced mobility and migration decline in the US.

A broad set of economic shifts since the 1970s may contribute to migration and mobility decline by reducing the economic resources available to potential movers and by diminishing the expected returns to mobility. The transition from an industrial to an information economy involves a broad set of contingent changes in the average worker's relationship with the labor market. Declining union membership has left the typical worker in a marginalized bargaining position vis a vis their employer (Rosenfeld 2014). According to Molloy and colleagues (2014), this sort of marginalization is a key driver of declines in employer and industry transitions since the 1980s: because workers are increasingly unable to negotiate an improved starting wage with new employers, job transitions and migration between labor markets have declined. Deunionization, coupled with the significant bifurcation of the labor market into high-skill, high-wage knowledge work and low-skill, low-wage service work (Harrison and Bluestone 1988), has resulted in stagnating or declining real wages for most Americans (Western and Rosenfeld 2011). It also is possible that this bifurcation in labor market structures has made labor markets in the US more similar over time, reducing the incentive for workers to migrate in search of new opportunities elsewhere (Kaplan and Schulhofer-Wohl 2012; Molloy et al. 2011:16). Economic shifts since 1970, therefore, place downward pressure on migration and mobility, as Americans lack the economic means and incentives to move over long distances.

Individual mobility and migration decisions often reflect a cost calculus that includes impacts on partners and children (Long 1988). As such, changes in the structure of the typical family since the mid-20th Century likely impact aggregate movement rates, but it is not clear that these shifts would encourage declining mobility and migration. The past five decades have seen

rising divorce rates, as well as delayed and reduced rates of marriage and fertility (Lesthaeghe and Neidert 2006). Key life-cycle transitions such as marriage, divorce, and childrearing often necessitate mobility for at least some individuals in the family unit. Increasing divorce rates may place upward pressure on mobility and migration, but declining and delayed marriage and fertility may contribute to mobility slowdowns. Transitions aside, recent decades have also seen rising rates of homeownership and the increasing prevalence of dual-earner households (Molloy et al. 2011). Because of the complexities associated with selling and buying a home, and because it is more difficult to find work in a new labor market for two earners than for one, increasing homeownership and dual-earner shares should place downward pressure on movement.

2.1.3 *A Note on the Predictors of Short- and Long-Distance Movement*

Individual decisions to migrate over long distances are usually based on a different set of pushes and pulls than decisions surrounding local mobility (Greenwood 1975, 1985; Long 1988; White and Lindstrom 2006). Long-distance moves are typically undertaken for economic or job-related reasons, such as to find work or relocate to take advantage of regional wage differentials. Residential and local mobility, however, is usually connected to life-cycle and household changes, such as marriage or separation, child-rearing and schooling, or the transition from renting to owning a home. Moving forward, I operate under the general assumption that socioeconomic and job-related shifts will be more influential on long-distance migration between states, while life-cycle and household shifts will prove more influential for short-distance mobility within counties.

2.2 Data and Methods

The central focus in this paper is to understand the contribution of the population composition shifts discussed above on overall declines in mobility and migration. Toward that end, the following analyses decompose migration and mobility trends between 1982 and 2015 into *compositional* and *rate* components. That is, aggregate declines are broken down into the portions attributable to changes in population composition and the portions attributable to changing group-specific rates of mobility and migration.

Aggregate annual migration rates are calculated as the sum of all movement at the individual level, as captured by the IPUMS version of the Current Population Survey (Flood et al. 2015). Since 1948, the CPS has included an item gauging mobility and migration in the previous year, providing an unparalleled look at domestic migration over the long-term. Analysis is limited to individuals at least 18 years of age, and the college-age population is intentionally included for reasons explained below. Individuals are clustered within their larger family units, because families typically move together when they do so. Individual observations in the CPS samples are weighted to more accurately reflect compositional shifts.[1]

I divide movements into three different categories based on the geographic and administrative boundaries crossed. First is intracounty or "local" mobility which does not cross a county boundary. Second is intrastate migration which crosses a county boundary, but not a state border. Finally, interstate migration captures long-distance movements between large, regional labor markets. These three categories are mutually-exclusive and are intended to approximate the

[1] The weights provided by CPSare meant to provide population-level counts for particular subgroups. These weights, however, artificially inflate N in statistical analyses and, therefore, drastically overestimate certainty around coefficient estimates. To account for this, I divide provided weights by the mean weight across all categories. This ensures that the mean weight value is 1, keeps N at the same pre-weight size, and also ensures that composition reflects population-level ratios.

"character" of short-, medium-, and long-distance moves, which are typically undertaken for very different reasons (Greenwood 1975, 1985; Long 1988; White and Lindstrom 2006).

2.2.1 *Individual-Level Predictors of Mobility and Migration*

To gauge the contribution of rate and compositional shifts to overall migration and mobility decline, individual demographic and socioeconomic characteristics are also drawn from the CPS.[2] Unlike the annual migration data dating back to 1948, measures for certain key characteristics are not available in the CPS until the early 1980s or later. As such, decomposition analysis is limited to the post-1980 area.

Population composition shifts associated with the Third Demographic Transition likely place downward pressure on aggregate rates. To gauge the contribution of population aging to overall declines, all individuals 18 and over are grouped into one of seven mutually-exclusive age categories: 18-24, 25-34, …, 65-74, and 75 and over. Four racial and ethnicity categories – non-Latino White, non-Latino Black, Latino, and Other – gauge the impact of increasing diversity on declining mobility.

The effects of fundamental economic and labor market shifts on aggregate trends are captured by education level (less than 4 years of college, 4+ years of college) and income in the previous calendar year (in constant 1999 dollars). While imperfect, these measures are presumed to capture the effects of workers' marginalized bargaining position and stagnating wages, as well

[2] It should be noted that most of these characteristics, with the exception of region, are measured at the end of the mobility interval, not at the beginning. As such, it is possible for a given characteristic to reflect the result of mobility and thereby muddy the interpretation of results. For example, if an individual migrant renter is a homeowner at the end of an interval, the decomposition would attribute their mobility to their final homeowner status. This systematic error would bias measures of mobility upward for homeowners and downward for renters. Unfortunately, because the CPS collects very little information about characteristics at the beginning of the migration interval (and because the CPS is not a panel survey), this short-coming of the data is unavoidable.

as account for the bifurcation of the labor market and the "hollowing-out" of the income distribution in the US.

I also include several indicators of family structure to understand how increasingly varied family forms may contribute to or detract from mobility and migration decline. These indicators include marital status (married=1), dual- or single-earner household status (dual=1), the presence of children under 18 in the household (child present = 1), and homeownership status (owner=1).

Finally, to account for regional economic shifts and the differential "holding power" of regions (Herting, Grusky, and Rompaey 1997), individuals are also grouped by their regional residence at the beginning of the migration , as defined by the Census Bureau (New England, Mid Atlantic, East North Central, West North Central, South Atlantic, East South Central, West South Central, Mountain, and Pacific).

2.2.2 *Oaxaca-Blinder Decomposition Method*

Changes in aggregate migration and mobility rates are decomposed using the Oaxaca-Blinder decomposition method. Following Jann (2008), consider two linear regression models of individual-level movement as a function of individual characteristics between t and t+1:

$$Y_{it} = X_{it}\beta_{it} + \varepsilon_{it}$$

and

$$Y_{it+1} = X_{it+1}\beta_{it+1} + \varepsilon_{it+1};$$

therefore,

$$\bar{Y}_{t+1} - \bar{Y}_t = \left[(\bar{X}_{t+1} - \bar{X}_t)\hat{\beta}_t\right] + \left[\left(\hat{\beta}_{t+1} - \hat{\beta}_t\right)\bar{X}_t\right] + \left[(\bar{X}_{t+1} - \bar{X}_t)\left(\hat{\beta}_{t+1} - \hat{\beta}_t\right)\right].$$

The first of three terms on the right-hand side of the final equation above is an estimate of the effect of changing population composition on the overall change in migration or mobility rates based on time *t* parameter estimates. The second term is an estimate of the effect of

changing parameter estimates on the overall change in migration or mobility based on time *t* population characteristics. The third term is a residual interaction effect. Because this paper is focused on contributions to overall declines, I report results of the first two terms in the third equation above, only.

Each of the independent variables is a categorical dummy variable representing the presence or absence of a given characteristic. By necessity, one category of each group of predictors serves as a reference category for all others. I use the deviation contrast transform method to present categorical variable coefficients as deviations from a grand mean (as opposed to the reference category) and a coefficient variable for the reference category is estimated (Jann 2008). This transformation has two practical benefits. First, this transformation makes the Oaxaca-Blinder results independent of the choice of reference categories. Second, it drastically eases the interpretation of coefficients, particularly in terms of intuitively gauging effects on overall declines in migration and mobility.

2.2.3 *Analytical Strategy*

In the discussion of results below, I first comment on long-term CPS annual mobility trends and concomitant changes in the composition of the American population. I then discuss the first stage Oaxaca-Blinder results which use linear regression to predict mobility outcomes in 1982 and 2015, separately. These first stage results speak to the efficacy of theoretical perspectives on the likelihood of mobility at the individual level. Next, I discuss the second stage Oaxaca-Blinder results, which decompose changes in aggregate mobility and migration rates between 1982 and 2015 into rate and composition components. Finally, because of the tendency for economic effects to drown out the contribution of other factors in the Great Recession period, I then repeat the analysis for the 1982 to 2005 period.

2.3 RESULTS

Sample statistics in 1982 and 2015 for modeled variables are summarized in Table 2.1. Between 1982 and 2015, interstate migration declined by nearly 50 percent (from 0.030 to 0.016), intrastate migration declined by 38v percent (from 0.034 to 0.021), and intracounty mobility declined by 30 percent (from 0.10 to 0.07). Figure 2.1 puts these trends in broader historical perspective and confirms that declines are not simply confined to interstate or local mobility. Furthermore, Figure 2.1 shows that these trends are not simply driven by the Great Recession. While recent drops in long-distance migration were offset by modest increases in local mobility during the recent recession and foreclosure crises (Stoll 2013), Figure 2.1 shows that this increase was temporary. As of 2015 local mobility rates were at an historic low of 7 percent.

These substantial declines in mobility and migration are accompanied by substantial changes in the composition of the CPS sample (Table 2.1) in favor of typically less mobile and migratory groups. While the Non-Latino White population share declined from 0.82 to 0.65 between 1982 and 2015, the Latino (from 0.05 to 0.16) and Other (from 0.02 to 0.08) population shares increased substantially. Significant population aging is also apparent. The share of the sample 34 and younger declined by roughly 27 percent (from 0.41 to 0.30), while the share of the population 45 and older increased 26 percent (from 0.42 to 0.53). These shifts contribute, to some degree, to overall declines in mobility and migration.

At the same time, other compositional shifts in favor of more mobile groups are clear in Table 2.1. The share of the sample married declined from 0.62 to 0.53 suggesting that a larger portion of the population is less tethered to place and, therefore, more likely to move. Likewise, the share of the population with four or more years of college and the average total family income increased between 1982 and 2015. It is important to note the dramatic increase in the

spread around the mean family income between 1982 and 2015. The widening distribution of incomes is consistent with the notion that earnings have stagnated at the middle and bottom of the distribution, while inflating rapidly at the top. While the increasing share of dual-earner couples and homeowners is often cited as a cause of mobility and migration decline, this sample actually saw *stagnating* dual-earner and *declining* homeowner shares between 1982 and 2015. It is likely that these counterintuitive summary statistics are influenced by the Great Recession and foreclosure crisis, which had enormous impacts on homeownership and employment in the U.S. I return to the impact of the Great Recession later in the analysis.

2.3.1 *Stage One Results: Predicting Individual Mobility in 1982 and 2015*

Table 2.2 presents the results of the first stage of the Oaxaca-Blinder decomposition in which individual migration and mobility are regressed on modeled covariates in 1982 and 2015. First stage model results support the notion that compositional shifts associated with the third demographic transition in the U.S. may contribute to migration and mobility slow-downs. In all models, those younger than 65 are much more likely to move than those 75 and over, and the size of the age coefficient decreases with each successive age group. In short, these results support the fundamental theoretical expectation that mobility and migration decrease with age. These results also bear out the expectation that non-Latino Whites are more likely to undertake longer-distance migration than any other racial/ethnic group. Taken together, these results suggest that any compositional shifts in favor of older, more diverse populations should contribute to aggregate mobility and migration declines.

Proposed explanations of migration and mobility declines have also pointed to increasing homeownership rates and the rise in dual-earner households as drivers of increasing "rootedness". The first stage results in Table 2.2 confirm that homeowners and dual-earner

couples are much less likely to move over any distance than their renting and single-earner counterparts. As noted above, however, homeownership rates declined and dual-earner household shares stagnated between 1982 and 2015. Because these groups are, indeed, less likely to move, declining homeowner and stagnant dual-earner shares should place upward pressure on aggregate mobility and migration.

Theoretical perspectives on migration and mobility suggest that because married and child-rearing couples face increased costs when moving, they are typically less likely to move. The first stage models in Table 2.2 confirm these expectations for households with children, but not for married couples. Married couples are actually more likely to move than their single counterparts, regardless of the distance involved. This unexpected finding may reflect the fact that that marital status is gauged *after* the mobility interval; if individuals are single at the start of the interval and move following marriage, they are counted in the CPS as married individuals who moved in the past year. At any rate, these first stage models suggest that declining child-rearing shares should increase migration and mobility while marriage postponement and decline may contribute to aggregate declines between 1982 and 2015.

Finally, the results presented in Table 2.2 confirm that compositional shifts in the socioeconomic status of Americans may contribute to changing migration and mobility trends. Those with 4 or more years of college education are typically more mobile than their less educated counterparts. Because the share with a college education has increased greatly since 1982, compositional shifts associated with education should place upward pressure on migration rates. In particular, education should increase the likelihood of moving over long distances. This notion is partially confirmed by both the relatively smaller coefficients associated with intracounty mobility as opposed to those for interstate migration. While it was hypothesized that

family income should approximate a given household's raw economic ability to undertake migration and/or mobility, these results show that the likelihood of moving *decreases* with income (with the exception of interstate migration and of intrastate migration in 2015).[3] As such, slowly rising incomes since 1982 may increase potential migrants' satisfaction with their current location and, net of other factors, contribute to migration and mobility declines.

2.3.2 *Stage Two Results: Compositional Components of Migration and Mobility Decline between 1982 and 2015*

Table 2.3 presents the results of the second stage of the Oaxaca-Blinder decomposition in which the combined aggregate of individual mobility outcomes is decomposed into portions attributable to compositional and rate shifts between 1982 and 2015. The raw output from the decomposition is relatively difficult to meaningfully interpret, so I do not comment on it. Instead, I transform the raw results such that the values reported in Table 2.3 reflect the percentage contribution of a given characteristic to aggregate migration and mobility trends.

Consider, for example, the value of -12.40 for the composition component of interstate migration decline associated with those age 18 to 24; the negative sign on this value indicates that the decline in the share of individuals ages 18 to 24 contributed to a *decline* in the aggregate interstate migration rate, while the magnitude of the coefficient indicates that the effect is equal to 12.4 percent of the total decline between 1982 and 2015. Likewise, the value of 10.37 for the rate component of intracounty mobility associated with the share of the population with children indicates that households with children saw *less dramatic* declines in mobility between 1982 and 2015 than average, to an extent equal to 10.37 percent of the aggregate decline in intracounty

[3] This unexpected result is not due to the linear income variable used here. In results not shown I model income in quadratic and log-linear forms and obtain the same results. So, I report the linear term here to ease the interpretation of effects.

mobility. Therefore, the relatively muted mobility declines of those with children detract from declines in local mobility, keeping overall mobility rates higher than they would have been if the rates of declines for those with and without children were identical.

Declining mobility and migration associated with population aging is equal to at least 30 percent of total declines between 1982 and 2015. Twenty-eight percent of the decline in interstate migration can be attributed to significant declines in the population share under age 34 and to the increase in the share over age 55, as can 35 percent of intrastate and 32 percent of intracounty migration and mobility declines. Interestingly, these large compositional effects are due more to declines in the shares of younger age groups rather than to growth in older shares. Declining 34 and under shares account for 19 percent of interstate migration decline, 25 percent of intrastate migration decline, and 23 percent of local, intracounty mobility decline; these effects are much larger than those associated with the growth in older age groups.

These results are consistent with several other studies finding substantial population aging effects. In their study of interstate migration decline since the mid-1980s, Karahan and Rhee (2014) find that about half of all interstate migration decline is attributable to population aging. Roughly 75 percent of this effect is direct in that migration typically declines with age (e.g. Table 2.2), but the authors show that the remaining 25 percent of the effect is attributable to age-group spill-over effects by which growth in the middle-aged working population (those 40 to 60) in a state reduces the migration rates of all other workers, as well (ibid). In this light, the estimate shown in Table 2.3 that 28 percent of all interstate migration decline is due to population aging may be conservative. At the intrastate and intracounty levels, the notion that aging accounts for over one-third of all local mobility decline is quite consistent with other studies, which show considerable age effects on short-distance mobility (Cooke 2011; Molloy et al. 2011, 2014).

Increasing racial and ethnic diversity contributes to migration decline at the interstate and intrastate levels to a degree equal to over 25 percent of the total declines in migration and 7 percent of local mobility. Because non-Latino White populations tend to migrate at higher rates than their counterparts (Table 2.2), shrinking non-Latino white shares are associated with 15 percent of interstate and 21 percent of intrastate migration declines. Substantial growth in the Latino population, a typically less-mobile group, is associated with roughly 8 percent of interstate and intrastate declines. Notably, however, changing racial and ethnic composition explains a relatively small amount of the decline in local, intracounty mobility. Taken together with the aging of the non-Latino white population, these results suggest that roughly 64 percent of all intracounty and over 54 percent of all intrastate and interstate declines between 1982 and 2015 are attributable to the Third Demographic Transition (Coleman 2006; Lichter 2013).

Interestingly, increases in the average total family income between 1982 and 2015 (Table 2.1) were associated with *declines* in local mobility and short-distance migration. On the one hand, this may indicate that matches between employers and employees are increasingly strong from the start, and is consistent with findings that Americans are less likely to transfer between jobs and employers now than they were four decades ago (Molloy et al. 2014). On the other hand, as shown in Table 2.1, the spread in the distribution of family incomes widened considerably between 1982 and 2015; this widening is consistent with the notion that wages have stagnated for lower-and middle-class earners since the 1970s. In other words, changes in the distribution of family incomes may represent an increasing inability among American families to overcome the significant economic costs associated with mobility and migration. This finding is consistent with recent ethnographic work conducted in Detroit which finds that tenants lack the

resources to move away from neighborhoods of relative disadvantage when they desire to do so (Seelye 2016).

Offsetting compositional shifts promoting migration and mobility decline are a set of socioeconomic and family structure shifts favoring more mobile groups. Net of other effects, the increasing share of the population with at least 4 years of college education has placed large upward pressure on migration, but not local mobility, in the U.S. Part of this effect may be associated with the mobility of 18 to 24 year olds across state lines for college attendance, but the substantive results presented here do not change when college-aged individuals are removed from the analysis (results not shown). Nevertheless, as suggested by the rate effects shown in Table 2.3Table 2.3. Second Stage Oaxaca-Blinder Decomposition Results, 1982 to 2015, interstate and intrastate migration declines among college-educated individuals are significantly more rapid than the grand mean rate of decline for all Americans. As the share of typically more mobile college-educated individuals grows, their overall rates of migration are declining at a faster rate than average.

Declining marriage and fertility rates should also offset declining mobility caused by compositional shifts associated with the Third Demographic Transition. As expected, the decline in the share of households with children increased migration and mobility net of other effects, but was responsible for a very small portion of overall changes. However, rate effect results suggest that rates of mobility and migration decline among those with children has been much less dramatic than average. Rather than acting as a hurdle to mobility, children are, to an increasing extent, offsetting further declines in migration and mobility. Contrary to theoretical perspectives, stage one results in Table 2.2 showed that married individuals were actually more mobile than their single counterparts, suggesting that declining marriage rates should *decrease*

rather than *increase* aggregate migration and mobility rates. This counterintuitive result is born out in Table 2.3: declining married shares are associated with declines in migration and mobility. At the same time, however, the rate effects associated with marriage suggest that migration and, to a lesser extent, mobility rates for married couples have declined much faster than average. As marriage declines, so does the relative mobility level of married couples.

Increasing dual-earner shares and rising homeownership rates are commonly cited as important drivers of mobility and migration decline. But, as noted above, the homeowner shares actually decreased between 1982 and 2015, while dual-earner shares remained stable at 29 percent (Table 2.1), likely due to the impact of the Great Recession and foreclosure crisis of the mid and late 2000s. Because homeowners are less likely to move than their renting and single-earner counterparts (Table 2.2), declining homeowner shares were associated with increases in interstate, intrastate, and particularly intracounty movement. At the same time, rate effects show that mobility and migration among homeowners declined at dramatically lower rates than average. This is consistent with other recent analyses of mobility trends among PSID householders which find that declines are much more dramatic among renters than among homeowners (Carll et al. 2016). These rate effects are so large that, at the interstate and intracounty levels, they are equal to the total declines in migration and mobility between 1982 and 2015. Put another way, if the rates of migration and mobility decline among renters had mirrored those of homeowners, overall declines in migration and mobility may have been only *half as large* as those actually observed. Similarly, while stagnant dual-earner household shares between 1982 and 2015 did not have a large compositional effect on declines, rate effects are compelling. Rates of interstate migration among dual-earner couples declined much less rapidly

between 1982 and 2015 than the national average; at the local level, however, declines among dual-earner couples were appreciably larger than average.

2.3.3 *The Impact of the Great Recession and Foreclosure Crisis*

There are reasons to suspect that the recent recession and foreclosure crisis of the 2000s bias the decomposition analyses discussed thus far. In his decomposition of intercounty migration decline between 1999 and 2009, Cooke (2011) found that more than 60 percent of all declines were attributable to the foreclosure crisis and resulting recession of the mid-2000s. It is important to note, however, that while the recession appears to have contributed to declines in longer-distance interstate and intercounty migration, it temporarily increased rates of local, intracounty mobility (Stoll 2013).

The central goal of this chapter is to understand how broader shifts in the US population composition have contributed to migration and mobility decline over the long-term. The overwhelming and inconsistent effects of the Great Recession on migration and mobility cloud this broader understanding, so the above analysis is replicated here for the pre-recession, 1982 to 2005 period. The second-stage results of three supplemental Oaxaca-Blinder decomposition analyses of migration and mobility decline between 1982 and 2005 are presented in Table 2.4.

Whereas population aging accounts for 28 and 36 percent of all interstate and intrastate migration between 1982 and 2015, aging accounts for at least 55 percent of these declines between 1982 and 2005 (compare Tables 2.3 and 2.4). The larger portion attributable to aging in the pre-Great Recession period is predominantly due to larger compositional effects among the youngest age groups. Declines in the population share under age 35 alone accounts for 53 percent of all interstate and 48 percent of all intrastate migration slow-down before 2005. Notably, however, population aging effects at the local, intracounty level do not change all that

much before and after the recession. This suggests that the recession had a disproportionate impact on the longer-distance migration patterns of younger age groups. Note, also, that the share of the overall interstate decline attributable to population aging before the recession is remarkably consistent with Karahan and Rhee (2014), who find that aging and related "spillover" effects in the labor market accounts for about half of the observed decline.

Likewise, a much larger portion of declining interstate and intercounty migration is attributable to increasing ethnoracial diversity before the recession than after (compare Tables 2.3 and 2.4). The non-Latino white and Latino population shares are particularly salient in this regard. Non-Latino white population decline accounts for 32 percent of all interstate and 31 percent of all intrastate decline through 2005, but only 16 percent and 22 percent through 2015. Increasing Latino population shares also account for larger portions of overall long-distance migration declines prior to 2005. As such, population composition effects associated with the Third Demographic Transition prior to the Great Recession account for upwards of 90 percent of all declines in longer-distance migration.

What is the contribution of increasing dual-earner and homeowner shares prior to the Great Recession and foreclosure crisis? As shown in Table 2.1, dual-earner and homeowner shares actually declined between 1982 and 2015, but between 1982 and 2005 homeownership remained relatively stable at 72 to 73 percent and dual-earner household shares increased from 29 to 32 percent. As such, the 2005 endpoint allows a more direct test of the long-term impact of homeownership and dual-earner couples in the U.S. on aggregate migration trends. Slight increases in homeownership rates between 1982 and 2005 do, in fact, contribute to migration and mobility declines over this time period, but these effects are relatively small. Homeownership is responsible for roughly 8 percent of interstate and 5 percent of intrastate and intracounty

declines. Similarly, increasing dual-earner shares in the pre-Great Recession period contribute to migration and mobility declines. These compositional effects are strongest at the interstate level equaling roughly 10 percent of the total decline, but are negligible at the local level. Relative to other compositional shifts, then, rising homeownership rates and dual-earner shares have a negligible influence on the aggregate mobility and migration patterns of Americans.

2.3.4 *Rate Components of Mobility and Migration Decline: Age and Race Effects*

Discussion thus far has focused primarily on the *compositional* effects presented in Tables 2.3 and 2.4. To a large extent, this narrow focus is justified in the larger literature on American mobility decline, which to date has been reluctant to acknowledge substantial differences in the timing, rate, and magnitude of declining mobility from one sociodemographic or socioeconomic group to another. Instead, studies to date have been content to note that all groups have seen declining rates of mobility and migration and, therefore, to dismiss the possibility that group-specific causes of immobility may play a role.

Consider, for example, the large negative rate effects associated with the 18-24 age group in Tables 2.3 and 2.4. These effects suggest that the rate of mobility and migration decline among those 18-24 is much faster than that of older age groups. The -27.78 interstate rate effect associated with the 18-24 year old age group reported in Table 2.3 indicates that their increased rate of interstate migration relative to other groups drove aggregate migration rates 28 percent lower than they would have been otherwise. Similar rate effects are apparent among those under age 35 at the intrastate and intracounty level. For those age 55 and over, however, rate effects for both migration and mobility are positive (net of other factors), indicating that migration and mobility declines among these groups were significantly less rapid than average. These diverging

trends produce an intriguing age composition/rate dynamic: as the population ages, the young move less and the old move more.

These intriguing age-specific trends are presented graphically in Figure 2.2 and Figure 2.3, which show the gross probability of any move, regardless of distance traveled, between 1970 and 2015. Figure 2.2 collapses the seven category age structure modeled in the analyses above into three categories: 18 to 34; 35 to 54; and 55 years of age and older. As these trend lines demonstrate, the overall magnitude of declines, as well as the rate of declines, is much greater for those under 35 years of age than for those 35 and older. Moreover, while those over age 35 show some signs of rising mobility rates since 2010, rates for those under 35 continue to decline. Figure 2.3 offers a cohort or generational perspective on age-specific rate effects, plotting mobility rates across the life course for four birth cohorts: the Silent generation (born 1934-45); Baby Boomers (born 1946-64); Gen X (born 1965-80); and the Gen Y or Millenial Generation (born after 1980). The cohort perspective demonstrates clearly the decline in under 35 mobility rates, as the peak of each successive generation's mobility trajectory across the life course is lower than the one before it. Furthermore, the trends in Figure 2.3 suggest that we take seriously the notion that the social, cultural, and economic circumstances in which Americans come of age may influence their mobility and migration patterns across the life course.

Similarly, while studies to date have emphasized the universality of migration and mobility decline regardless of race or ethnicity (Fischer 2002; Molloy et al. 2011), rates of migration among non-Latino Whites have fallen much more precipitously than those of other racial and ethnic groups (Figure 2.4). White interstate and intrastate migration decline is much more dramatic than that of other racial groups to an extent equal to 42 percent and 58 percent of overall declines, respectively. These differences are extremely large. Moreover, these results

suggest that migration decline among non-Latino Blacks and Latinos was significantly less dramatic than that of other groups, net of other factors.

The rapid decline in non-Latino White mobility and migration relative to non-Latino African Americans is depicted graphically in Figure 2.4, which tracks the gross probability of any move between 1970 and 2015.[4] Mobility rates for both White and Black Americans peaked in the late 1980s, but have declined precipitously since then. The rate of decline among non-Latino Whites is more dramatic than that of African Americans, however, resulting in a growing racial gap in aggregate mobility (Carll et al. 2016). This large divergence in migration trends by racial and ethnic group suggests that the increasing cultural "rootedness" (Cooke 2011; Fischer 2002) may be predominantly a non-Latino white phenomenon, not a universal American one. These racial and ethnic differences in longer-distance migration decline are consistent with findings outside of the narrow migration decline literature (e.g. Sharkey 2015) and hold important implications for studies of racial and ethnic inequalities in the U.S. (Carll et al. 2016).

2.4 CONCLUSION

This chapter contributes to the emerging literature on American mobility and migration decline since the mid-20th Century by gauging the contribution of significant population composition shifts to overall declines. In particular, the analyses presented here address two shortcomings of prior research. First, prior analyses of the role of compositional change were limited in temporal scope. I remedy this by decomposing aggregate migration and mobility rates between 1982 and 2015 using consistent measures of movement in the CPS. Second, prior analyses have not systematically addressed how compositional shifts might influence different types of movement

[4] Latino and "Other" populations are not included in the graph because confidence intervals for these groups are quite large. Including trends for these groups muddles the figure and masks the non-Latino white trends that need to be highlighted.

in different ways. I remedy this by decomposing changes in three different types of movement: long-distance migration between states; medium-distance migration between counties in the same state; and short-distance mobility within the same county.

Population change associated with the Third Demographic Transition accounts for more than 50 percent of migration and 40 percent of all local mobility declines between 1982 and 2015. Most of these effects are attributable to population aging, but increasing racial and ethnic diversity driven in large part by the post-1965 wave of immigration from Latin America and Asia also plays a role. Because non-Latino Whites are typically much more migratory than other populations, the on-going transition to a majority-minority society has played a substantial part in the interstate and intracounty migration slowdowns. Interestingly, however, increasing racial and ethnic diversity has a negligible impact on local mobility. Taking these results together, the aging of the native, non-Latino White population suggests that downward trends in long-distance migration may continue well into the future.

Stagnant wages for middle- and lower-class earners in the US also appear to play an important role, particularly in short- and medium-distance mobility decline. To be sure, average family income increased between 1982 and 2015, but the distribution of values around that mean increased, too. This pattern is consistent with the notion that, while incomes for highly-skilled workers have risen, wages have stagnated or declined for the working class (Piketty 2014; Western and Rosenfeld 2011). Increasing inequality in the wage distribution accounts for around 15 percent of intracounty and intrastate mobility decline between 1982 and 2015, but this effect is somewhat muted because of temporary declines in inequality following recession periods (Sherman and Stone 2010). Between 1982 and 2005, stagnating real wages account for 20 percent of all intracounty and 30 percent of all intrastate mobility declines. Broadly speaking,

these results are consistent with recent research showing that the marginalized bargaining position of the typical American worker has reduced transitions between jobs and employers, thereby contributing to declining migration (Molloy et al. 2014). It seems that economic shifts in the latter half of the 20th Century have left Americans with fewer options for, and a weakened ability to take advantage of, opportunities elsewhere.

The results presented here also bring into stark relief sizeable differences in the *rates* at which migration and mobility among different age and racial/ethnic groups. Relative to older age groups, those under 35 (and those under 24, in particular) are becoming less mobile at a much faster rate. Likewise, the decline in migration and, to a lesser extent, mobility is much sharper for non-Latino Whites than for any other racial/ethnic group. These findings do not call into question the oft-cited notion that mobility and migration decline is universal among Americans. But, particularly large declines among the relatively young and among non-Latino Whites adds nuance to our understanding of what some call the increasing "rootedness" of Americans. Moreover, these findings suggest the broader need for the development and testing of *group-specific* causes of immobility.

This work is not without its limitations, however. First, as is clear from prior studies of mobility and migration decline, results are sensitive to the time periods studied. I addressed a major source of sensitivity – namely the Great Recession of the mid-2000s – in this paper by examining declines over two periods of time, from 1982 to 2005 and from 1982 to 2015. As such, analyses were able to isolate long-term composition effects from noise introduced by recession-related economic declines. Second, the retrospective nature of the CPS mobility item means that most of the individual-level covariates used in the preceding analyses are measured *after* mobility or migration occurs. It is possible to overcome this problem by linking

observations for the same individual across monthly iterations of the CPS, but this process is quite difficult, and gets increasingly imprecise in earlier CPS samples (Rivera Drew, Flood, and Warren 2014). Imprecision introduced by this necessary limitation, however, likely biases estimates presented here downward. That is, if estimates are affected at all by measuring characteristics at the end of a mobility interval rather than at the beginning, they likely underestimate the true effects.

The results presented here answer questions about the role of compositional shifts like population aging in overall migration and mobility declines, but they also point to several important areas for future inquiry. First, the effects of income stagnation reported here are consistent with other recent work on declines in job and employer transitions (Molloy et al. 2014). The ability of the typical American to overcome the costs associated with movement is declining just as her ability to bargain with new employers for higher wages has been compromised by union decline (Rosenfeld 2014). Understanding how the returns to mobility and migration have changed over the course of the decline could shed light on the contemporary incentive structures underlying declines in job transitions and mobility. Second, future work should look further into the group-specific differences in *rates* of decline identified here. On the one hand, dramatic declines among non-Latino Whites and younger Americans suggest that the causes of declines may be race-, age-, or generation-specific. On the other hand, group-specific trends and causes may speak to the consequences of increasing immobility – whether positive or negative. Finally, and more broadly, the salience of economic stagnation and group-specific declines uncovered here casts some doubt on prior studies which attribute unexplained mobility and migration declines to a cultural shift among Americans toward “rootedness”. Rather, the results presented here hint at the possibility that Americans may be increasingly constrained in

their mobility and migration choices, and increasingly unable to overcome the costs associated with moving. We may be more “stuck” than “rooted”.

Table 2.1. CPS Summary Statistics for Modeled Variables, 1982 and 2015

	1982		2015	
	Mean	SD	Mean	SD
Interstate	0.030	0.172	0.016	0.126
Intrastate, Intercounty	0.034	0.180	0.021	0.144
Intracounty	0.101	0.301	0.070	0.255
Non-Latino White	0.816	0.388	0.649	0.477
Non-Latino Black	0.107	0.309	0.117	0.322
Latino	0.054	0.225	0.155	0.362
Other	0.024	0.152	0.079	0.270
Homeowner	0.721	0.449	0.670	0.470
Married	0.617	0.486	0.529	0.499
Dual Earner	0.292	0.455	0.284	0.451
Children Present in HH	0.428	0.495	0.368	0.482
Age 18-24	0.177	0.382	0.124	0.330
Age 25-34	0.235	0.424	0.178	0.382
Age 35-44	0.166	0.372	0.165	0.371
Age 45-54	0.136	0.342	0.177	0.381
Age 55-64	0.133	0.340	0.167	0.373
Age 65-74	0.095	0.293	0.111	0.314
Age 75 and Over	0.058	0.233	0.079	0.269
College or More	0.160	0.366	0.298	0.457
Total Family Income (in 1,000s of 1999 dollars)	45.799	34.120	56.032	63.207
New England	0.057	0.232	0.047	0.213
Mid Atlantic	0.167	0.373	0.133	0.340
East North Central	0.182	0.386	0.148	0.355
West North Central	0.074	0.262	0.065	0.247
South Atlantic	0.163	0.369	0.198	0.399
East South Central	0.060	0.237	0.058	0.234
West South Central	0.102	0.303	0.115	0.319
Mountain	0.050	0.219	0.071	0.258
Pacific	0.145	0.352	0.163	0.370
N	99304		149227	

Weighted CPS summary statistics for modeled variables.

Table 2.2. First Stage Oaxaca-Blinder Decomposition, Linear Regression Results for Interstate, Intrastate, and Intracounty Migration and Mobility, 1982 and 2015

	Interstate		Intrastate		Intracounty	
	1982	2015	1982	2015	1982	2015
Race/Ethnicity						
NL White	0.006 (1.76)	0.004 (3.42)***	0.012 (3.13)**	0.007 (4.78)***	0.027 (4.53)***	0.012 (4.77)***
NL Black	-0.015 (-3.84)***	-0.002 (-1.32)	-0.015 (-3.69)***	-0.001 (-0.56)	0.016 (2.42)*	0 (0.04)
Latino	-0.019 (-4.56)***	-0.009 (-6.41)***	-0.013 (-3.03)**	-0.007 (-4.46)***	0.023 (3.19)***	-0.007 (-2.32)*
Other	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Household Structure						
Homeowner	-0.046 (-35.11)***	-0.024 (-31.72)***	-0.035 (-24.92)***	-0.032 (-36.1)***	-0.164 (-74.25)***	-0.107 (-70.86)***
Married	0.017 (12.65)***	0.006 (6.76)***	0.007 (4.6)***	0 (0.23)	0.006 (2.81)**	0 (0.08)
Dual-Earner	-0.021 (-15.84)***	-0.007 (-8.31)***	-0.008 (-5.67)***	-0.005 (-4.7)***	-0.003 (-1.11)	-0.013 (-7.72)***
Child Present	-0.01 (-7.4)***	-0.005 (-5.84)***	-0.01 (-7.25)***	0 (-0.08)	-0.008 (-3.5)***	-0.001 (-0.33)
Age Structure						
18-24	0.054 (20.25)***	0.019 (11.94)***	0.059 (21.14)***	0.027 (15.41)***	0.138 (30.76)***	0.087 (28.28)***
25-34	0.037 (14.24)***	0.017 (12.03)***	0.046 (16.56)***	0.023 (13.59)***	0.099 (22.48)***	0.076 (26.62)***
35-44	0.025 (8.83)***	0.01 (6.64)***	0.026 (8.91)***	0.011 (6.27)***	0.06 (12.83)***	0.041 (13.91)***
45-54	0.017 (6.19)***	0.005 (3.53)***	0.02 (6.89)***	0.007 (4.04)***	0.043 (9.19)***	0.029 (10.02)***
55-64	0.008 (3.06)**	0.003 (1.83)	0.013 (4.44)***	0.007 (4.61)***	0.025 (5.56)***	0.017 (6.04)***
65-74	0.001 (0.41)	-0.001 (-0.44)	0.002 (0.69)	0.003 (1.47)	0.003 (0.65)	0.007 (2.36)*
75 and Over	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Socioeconomic Status						
4+ Years of College	0.02 (13.22)**	0.011 (14.2)***	0.01 (6.12)***	0.004 (4.29)***	-0.001 (-0.56)	0.005 (3.51)***
Total Family Income	0 (-0.6)	0 (-1.94)	0 (-8.52)***	0 (0.28)	0 (-15.65)***	0 (-6.69)***

Census Division						
New England	-0.003 (-1)	0.003 (1.7)	-0.021 (-7.31)***	-0.005 (-2.35)*	-0.045 (-9.93)***	-0.012 (-3.48)***
Mid Atlantic	-0.014 (-7.25)***	-0.007 (-6.16)***	-0.024 (-11.49)***	-0.008 (-5.58)***	-0.054 (-16.47)***	-0.025 (-10.41)***
East North Central	-0.003 (-1.41)	-0.005 (-4.21)***	-0.018 (-8.77)***	0.002 (1.18)	-0.019 (-5.89)***	0.008 (3.53)***
West North Central	0.006 (2.64)**	0.004 (2.9)**	-0.006 (-2.29)*	0.01 (5.95)***	-0.019 (-4.53)***	0.013 (4.26)***
South Atlantic	0.02 (10.02)***	0.008 (7.21)***	-0.004 (-1.85)	0 (0.36)	-0.033 (-9.92)***	0.002 (0.81)
East South Central	-0.002 (-0.85)	0 (0.25)	-0.015 (-5.22)***	0.008 (4.43)***	-0.027 (-5.94)***	0.003 (0.91)
West South Central	0 (-0.16)	-0.005 (-4.35)***	0.011 (4.58)***	0.01 (6.73)***	-0.003 (-0.79)	0.018 (7.05)***
Mountain	0.048 (17.45)***	0.017 (11.87)***	-0.007 (-2.41)*	0.003 (1.98)*	0.005 (0.96)	0.022 (7.81)***
Pacific	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Constant	0.029 (6.76)***	0.02 (11.05)***	0.039 (8.59)***	0.026 (12.24)***	0.173 (23.71)***	0.1 (27.45)***
N	99304	149227	99304	149227	99304	149227
Adjusted R^2	0.0386	0.0176	0.0287	0.0180	0.1107	0.0672

*p<0.05; **p<0.01; ***p<0.001
t-statistics in parentheses

Table 2.3. Second Stage Oaxaca-Blinder Decomposition Results, 1982 to 2015

	Interstate		Intrastate		Intracounty	
Race/Ethnicity	Composition	Rate	Composition	Rate	Composition	Rate
NL White	-15.73	-42.01	-21.49	-58.01	-5.90	-1.28
NL Black	-0.59	5.91	-0.91	8.95	-0.02	-0.25
Latino	-8.71	1.78	-7.45	0.97	2.00	-2.43
Other	2.75	-0.87	1.88	-0.73	-2.98	1.16
	-25.43	-35.19	-27.97	-48.81	-6.90	-2.80
Age Structure						
18 to 24	-12.40	-27.78	-14.91	-26.84	-14.46	-19.67
25 to 34	-6.93	-11.78	-10.20	-20.01	-8.73	-5.48
35 to 44	-0.04	-2.28	-0.03	-3.74	-0.04	-1.82
45 to 54	-0.88	0.52	-1.13	-1.03	-1.25	0.57
55 to 64	-2.88	6.62	-2.99	7.92	-2.99	3.22
65 to 74	-2.17	7.34	-2.77	10.04	-2.57	6.17
75 and over	-3.00	5.20	-3.97	5.87	-3.57	3.01
	-28.30	-22.17	-36.01	-27.79	-33.62	-14.00
Household Structure						
Homeowner	16.41	110.29	13.93	16.75	26.85	133.35
Married	-10.82	-51.43	-4.71	-31.78	-1.86	-12.71
Dual-Earner	1.20	29.06	0.51	7.99	0.06	-10.02
Child Present	4.22	16.46	4.94	35.20	1.54	10.37
	10.99	104.38	14.67	28.16	26.59	120.99
Socioeconomic Status						
4+ Years of College	19.85	-10.71	11.00	-7.93	-0.66	3.48
Total Family Income	-0.80	-0.09	-13.52	61.19	-16.05	60.47
	19.06	-10.80	-2.52	53.25	-16.71	63.95
Census Division						
New England	0.57	3.91	0.86	2.04	0.71	1.51
Mid Atlantic	4.78	12.69	3.91	5.75	3.57	2.30
East North Central	2.04	2.32	2.32	11.40	-0.27	1.52
West North Central	-0.04	1.12	-0.24	2.82	-0.09	1.61
South Atlantic	3.49	-8.68	1.52	-9.43	-1.31	5.21
East South Central	0.08	2.87	0.06	5.31	0.02	0.88
West South Central	-0.57	-0.71	2.05	-10.22	0.78	-1.46
Mountain	6.31	-9.56	0.36	-0.48	1.78	-1.12
Pacific	-0.76	4.25	1.35	-13.41	1.29	-11.68
	15.90	8.22	12.20	-6.22	6.48	-1.23
Constant		-144.39		-85.99		-257.12

Results of Oaxaca-Blinder Decomposition. Effects reported as a percentage contribution to observed aggregate declines between 1982 and 2015. Totals under horizontal lines for each section report the sum contribution of effects in that section.

Table 2.4. Second Stage Oaxaca-Blinder Decomposition Results, 1982 to 2005

	Interstate		Intrastate		Intracounty	
Race/Ethnicity	Composition	Rate	Composition	Rate	Composition	Rate
NL White	-32.47	-158.79	-30.85	-77.29	-4.85	1.85
NL Black	-0.91	14.25	-0.98	5.44	-0.01	0.63
Latino	-18.66	3.61	-11.10	3.99	1.71	-2.32
Other	5.55	-0.14	2.64	-0.72	-2.40	0.83
	-46.50	-141.07	-40.30	-68.57	-5.55	0.98
Age Structure						
18 to 24	-33.70	-59.62	-28.17	-25.96	-15.66	-10.24
25 to 34	-19.43	-15.80	-19.88	-9.59	-9.75	0.96
35 to 44	2.96	-7.04	1.33	-0.49	0.96	-2.09
45 to 54	-3.66	-2.93	-3.26	0.63	-2.07	-2.45
55 to 64	-0.74	23.16	-0.54	1.09	-0.31	-0.26
65 to 74	4.26	18.23	3.80	9.04	2.02	4.86
75 and over	-8.38	5.90	-7.71	4.76	-3.97	2.04
	-58.68	-38.09	-54.42	-20.51	-28.79	-7.18
Household Structure						
Homeowner	-7.66	91.76	-4.52	-10.13	-4.99	140.96
Married	-19.80	-143.58	-5.98	-55.43	-1.35	-6.24
Dual-Earner	-10.29	47.32	-3.06	8.94	-0.22	-12.80
Child Present	7.12	59.52	5.80	35.55	1.04	26.17
	-30.62	55.01	-7.76	-21.07	-5.53	148.09
Socioeconomic Status						
4+ Years of College	39.34	-33.54	15.15	-16.33	-0.52	4.76
Total Family Income	-2.46	37.90	-29.02	103.54	-19.76	63.97
	36.88	4.35	-13.88	87.21	-20.27	68.73
Census Division						
New England	1.25	9.57	1.32	0.04	0.62	1.53
Mid Atlantic	11.86	20.80	6.74	21.47	3.52	1.25
East North Central	4.56	10.95	3.61	26.61	-0.24	-1.56
West North Central	-0.09	12.24	-0.36	-7.41	-0.07	-1.67
South Atlantic	8.16	-16.53	2.47	-1.54	-1.22	5.17
East South Central	-0.03	8.98	-0.02	10.94	0.00	1.93
West South Central	-0.93	-6.61	2.35	-17.29	0.51	-0.11
Mountain	14.49	-23.94	0.57	-4.18	1.63	0.60
Pacific	-1.95	-3.87	2.42	-14.13	1.32	-11.36
	37.32	11.58	19.10	14.51	6.06	-4.21
Constant		40.74		-26.17		-267.93

Results of Oaxaca-Blinder Decomposition. Effects reported as a percentage contribution to observed aggregate declines between 1982 and 2005. Totals under horizontal lines for each section report the sum contribution of effects in that section.

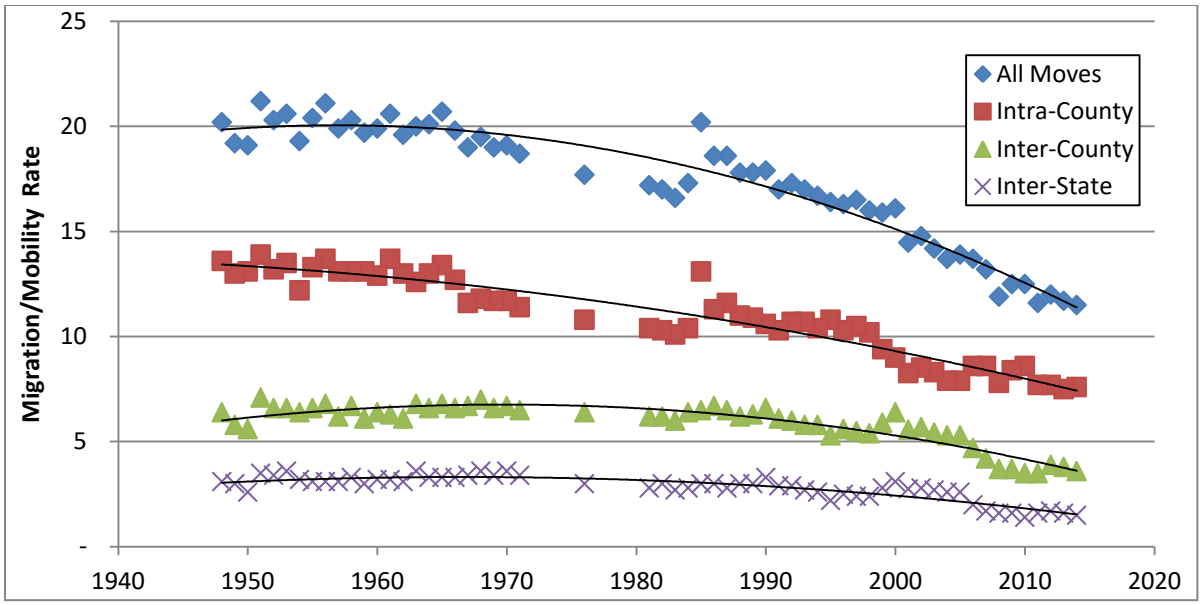

Figure 2.1. Annual Mobility and Migration Trends, 1948-2015.

CPS annual mobility data are shown. Quadratic curves are fit to the data to emphasize overall trends. Note that data are only available periodically in the 1970s, and apparent jumps in mobility in 1985 reflect changes in CPS sampling frames.

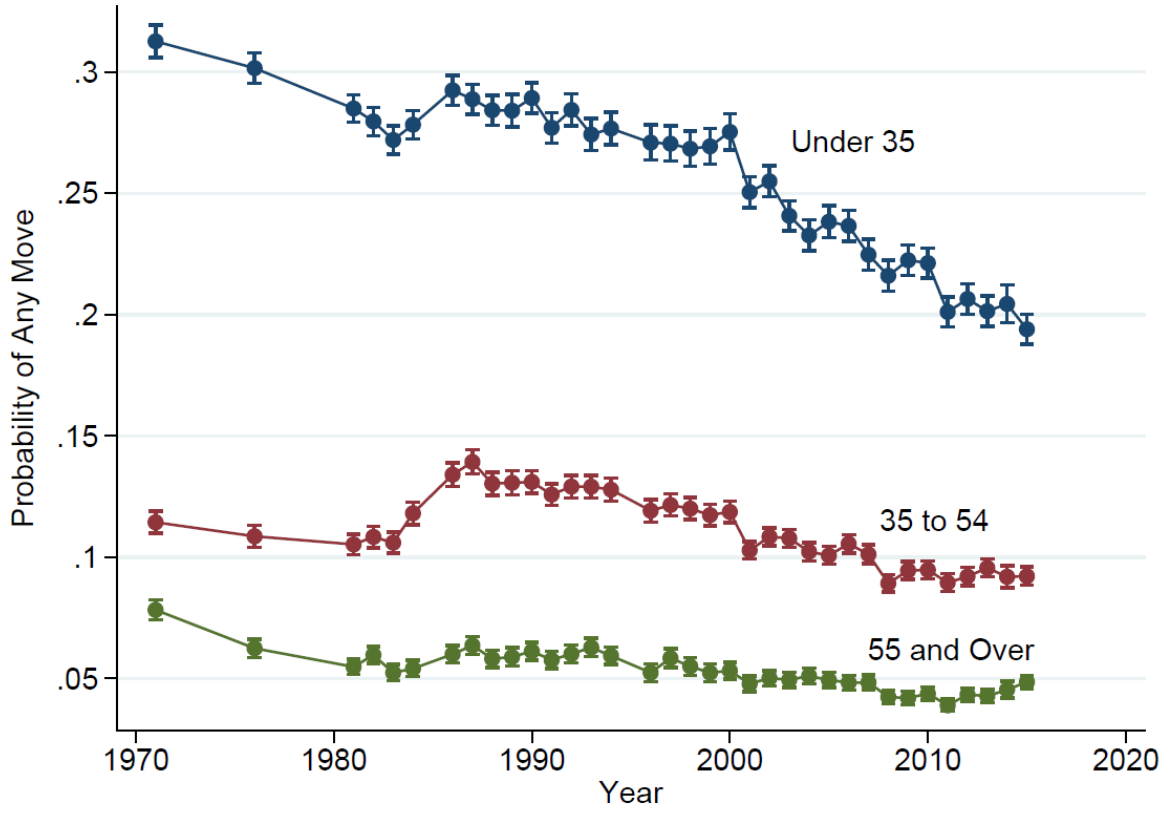

Figure 2.2. Annual Gross Probability of Mobility or Migration between 1970 and 2015, by Age Group.

Bivariate logistic regression of CPS annual mobility data are shown with 95% confidence intervals. Note that data are only available periodically in the 1970s, and apparent jumps in mobility in 1985 reflect changes in CPS sampling frames.

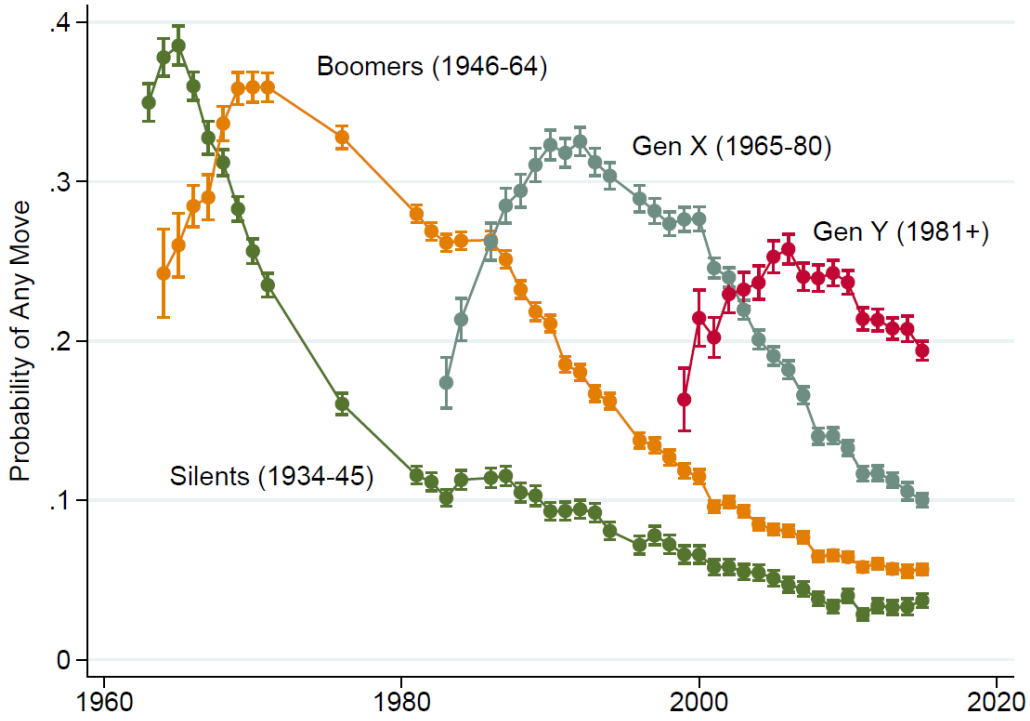

Figure 2.3. Annual Gross Probability of Mobility or Migration between 1970 and 2015, by Birth Cohort.

Bivariate logistic regression of CPS annual mobility data are shown with 95% confidence intervals. Note that data are only available periodically in the 1970s.

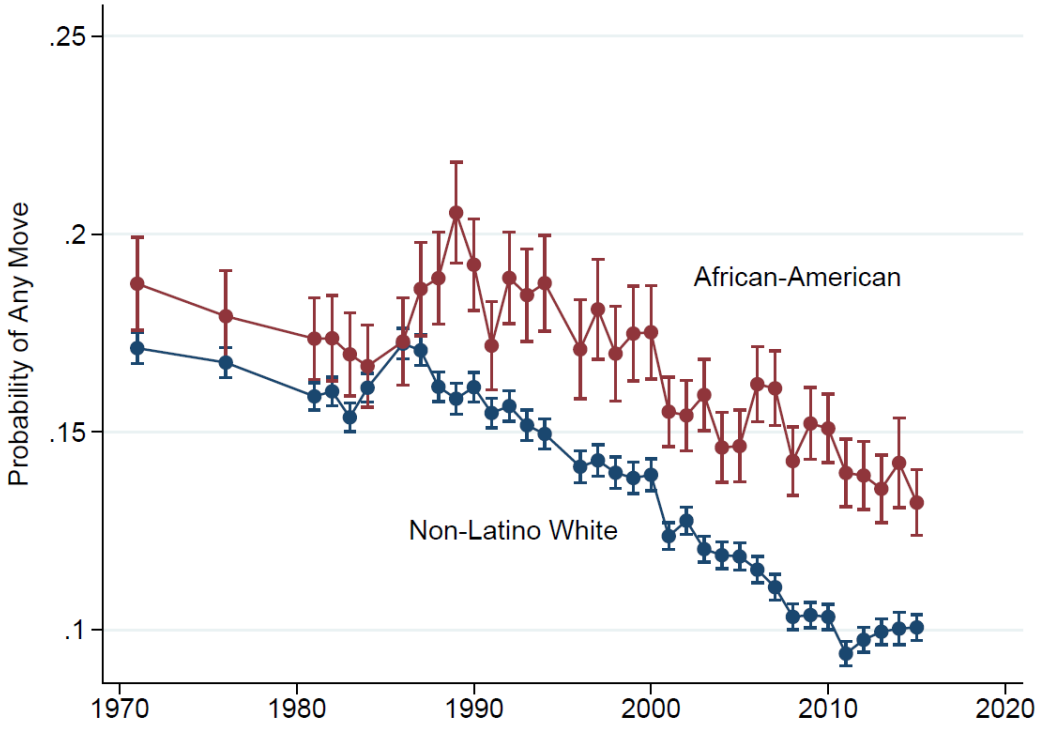

Figure 2.4. Annual Gross Probability of Mobility or Migration between 1970 and 2015, by Race.

Bivariate logistic regression of CPS annual mobility data are shown with 95% confidence intervals. Note that data are only available periodically in the 1970s.

Chapter 3. EXPECTING "ELSEWHERE": THE TEMPORAL AND RACIAL DYNAMICS OF AMERICAN MOBILITY EXPECTATIONS SINCE 1970

Americans used to be restless. Even in the midst of social and economic mobility unparalleled in continental Europe, our 19th and early 20th Century counterparts were exceptionally mobile, geographically speaking (De Tocqueville 1840). Unwilling to settle for modest gains, early Americans were driven onward by the promise of better opportunities *elsewhere*. But since the mid-1900s Americans have been moving less and less. As of 2015, the typical American was only half as likely to move as her 1950s counterpart (Cooke 2011; Molloy et al. 2011; See Also Chapter 2). It seems that Americans have settled down: we are no longer restless, but rooted.

At least that is what much of the emerging literature on contemporary mobility and migration decline concludes (e.g., Cooke 2011; Fischer 2002). Declining geographic mobility, the story goes, is indicative of a cultural shift among Americans in favor of "rootedness" – an attachment to place that is both universal and voluntary. All Americans are moving less because they lack the desire to move; *elsewhere* no longer pulls the typical American as it did before. To date, however, trends in the desire or expectation of mobility have not been empirically examined in the context of American mobility decline.

In this chapter, I leverage four decades of data from the Panel Study of Income Dynamics to understand how (if at all) trends in the expectation of mobility contribute to contemporary mobility and migration decline. First, I describe trends in the expectation of mobility among PSID householders from 1970 to 2011. Second, I model mobility expectations as a function of individual and contextual characteristics to gauge whether any observed declines in mobility expectations over time are simply a function of changes in the correlates of residential

satisfaction. Third, because residential mobility processes are deeply stratified by race in the U.S., I examine the Black-White gap in the formation of mobility expectations and, fourth, track how and why those gaps have changed over time.

The results I present here show that, contrary to the "rootedness" hypothesis, declines in the expectation of mobility do not match declines in actual mobility, and they can be explained by changes in housing market characteristics and the correlates of residential satisfaction. Race-specific results reveal significant baseline gaps and differences in the trends of Black and White householders: while White householders' mobility expectations declined significantly between 1970 and 2011, Black householders' increased creating significant gaps in the probability of mobility expectations by race. White declines are fully explained, however, by changes in socioeconomic and demographic composition, residential satisfaction, and metropolitan context. Furthermore, after accounting for racial differences in individual, familial, and contextual characteristics, temporal trends by race show a closure of the racial gap such that by 2011, there is no significant difference in the probability of the formation of mobility expectations among White and Black householders. Taken together, these results are consistent with the idea that social and economic shifts in the latter half of the 20th Century left Americans with fewer options for, and a compromised ability to take advantage of, opportunities *elsewhere*.

3.1 Background and Theory

3.1.1 *Theoretical Perspectives on the Formation of Mobility Expectations*

Models of residential satisfaction suggest that the residential mobility process begins with a mismatch in current residential quality, size, or location and perceived residential needs (Brown and Moore 1970; Rossi 1980; Speare, Goldstein, and Frey 1987; Wolpert 1966). Given a mismatch between current residence and perceived needs, potential movers develop the *desire* to

move, which may or may not then be translated into the *expectation* of actually moving. The basic tenets of these models are supported in the residential mobility literature (Bach and Smith 1977; Deane 1990; Landale and Guest 1985; Mateyka 2015; Newman and Duncan 1979).

The residential satisfaction perspective takes into account characteristics of both the current residence (including the broader neighborhood context) and the family or household occupying it (Bach and Smith 1977). Dissatisfaction with one's current residence is associated with crowding, inadequate or dangerous conditions, high costs, and with renting. Important life-cycle transitions such as marriage/divorce, childrearing, and retirement also prompt the desire for more suitable housing (Long 1988; Rossi 1980). But satisfaction with one's current residence is also influenced by the broader neighborhood context. Dissatisfaction increases when one's neighborhood is unsafe, impoverished, or lacks important amenities such as quality schools, parks, and economic opportunities (Mateyka 2015). Studies also show that (changes in) the racial composition of the neighborhood may be associated with (dis)satisfaction, net of socioeconomic concerns (Krysan et al. 2009; Swaroop and Krysan 2011). Because Black householders are more likely than their White counterparts to rent and to live in predominantly Black neighborhoods of relative disadvantage, they expect to move in the near future at much higher rates than White householders (Crowder 2001; St. John and Clark 1984).

Although residential dissatisfaction may generate the *desire* for mobility, the translation of that desire into the *expectation* of mobility may depend upon the ability of a household or family to overcome the significant social, economic, and psychological costs associated with mobility. The spatial assimilation perspective on residential mobility argues that mobility outcomes are structured by the socioeconomic resources householders and families are able to leverage and translate into residential attainment (Charles 2003). By extension, this perspective suggests that

the formation of mobility expectations (or the translation of desires into expectations), as well as racial gaps in the likelihood of mobility expectations, may also reflect the level of socioeconomic resources available to the householder or family.

The translation of mobility desires into mobility expectations may also depend upon characteristics of the larger metropolitan housing market. The housing availability model of residential mobility, put simply, suggests that householders are more likely to move when alternative housing options are relatively abundant and affordable (Crowder and South 2008). The relative openness or closure of the local housing market might, therefore, also influence whether dissatisfaction with one's current residence results in the formation of a mobility expectation.

As the place stratification model notes, however, housing markets in major metropolitan areas are often bifurcated or otherwise stratified by race and ethnicity, reflecting historical and contemporary modes of neighborhood exclusion. Systematic discrimination at multiple stages in the residential mobility process effectively creates a segmented housing market in which the ability of racial and ethnic minorities to translate socioeconomic gains into residential quality is limited (Logan and Molotch 1987). As such, the formation of mobility expectations may depend not only upon the availability of affordable housing alternatives, but also on the extent to which available options are racially and ethnically structured.

3.1.2 *American Mobility Decline and the Expectation of Mobility*

Mobility decline in the US is typically thought to be indicative of a cultural shift in Americans' attachment to place over time. We have transitioned from a restless to a "rooted" nation, and this transition is thought to be both universal and voluntary. In his description of mobility decline, Fischer (2002: 193) notes that "the story of increasing rootedness generally applies across age,

gender, race, housing tenure, and…class." The claim of universality generally stands up to empirical verification, though the rate and timing of declines does vary substantially by race, age, and other characteristics (see Chapter 1). Increasing immobility among all Americans is also, according to Cooke (2011: 202), a voluntary phenomenon: "the U.S. has long ago entered into a post-modern period of reduced mobility because of the increased value of leisure time [and] increased ability to remain rooted and yet travel for leisure and work…" We are all moving less, it is claimed, because we place more value on our down-time and are better able to travel without having to permanently relocate.

A corollary of the "rootedness" hypothesis is that declining mobility is driven, at the most basic level, by the declining *expectation* of mobility among all Americans. But this assumption has yet to be tested in the literature on mobility and migration decline. Put simply, if mobility and migration decline are primarily cultural, voluntary, and universal, then we should see downward trends in the expectation of mobility over time that, more or less, match observed declines in actual mobility. The "rootedness" hypothesis also suggests that the declining expectation of mobility should be orthogonal to concomitant shifts in the predictors of mobility and mobility expectations, more generally. In other words, to what extent is any observed decline in the expectation of mobility indicative of "rootedness" as opposed to mere changes in the predictors of mobility expectations discussed above?

As I show in Chapter One, changes in the composition of the American population are responsible for the majority of all declines in mobility and migration between 1982 and 2005. Population aging and increasing racial and ethnic diversity shift the composition of the population in favor of typically less-mobile groups, thereby decreasing aggregate mobility and migration rates. Likewise, I show that stagnation in wages for those in the middle and bottom of

the income distribution reduces the extent to which householders can overcome the economic costs associated with mobility and migration. By extension, because actual mobility is typically preceded by the desire for and expectation of mobility, these shifts in population composition and economic endowments may also drive declines in the expectation of mobility. If observed declines in mobility expectations remain net of these shifts, then "rootedness" may be to blame.

3.1.3 *Hypotheses*

The analyses that follow seek to understand (1) trends in the expectation of mobility, (2) whether those trends are indicative of "rootedness" or not, and (3) changes in the racial gap in mobility expectations over time. Given the universality of declining mobility among Americans, it is likely that the expectation of mobility as expressed by householders in the PSID will have declined to some degree. But, it is also likely that this downward trend reflects changes in population composition and the correlates of residential satisfaction rather than "rootedness". Furthermore, given racial gaps in the likelihood of mobility expectations identified in previous studies, I hypothesize that racial gaps in the expectation of mobility will have increased over time.

3.2 Data and Methods

Subsequent analyses draw on the Panel Study of Income Dynamics (PSID), a longitudinal, nationally representative survey of Americans and their families (Institute for Social Research 2015). Beginning in 1968 with roughly 5,000 families, the PSID sample has grown to roughly 9,000 families as of the 2003 wave, as new households formed by PSID respondents have been

incorporated. The PSID includes detailed demographic, life cycle, family, and economic characteristics, making the data suitable for this study of mobility expectations.

Respondents for this analysis are selected from PSID surveys between 1970 and 2011. The sample is then restricted further by including only non-Latino White and non-Latino Black household heads. Restricting the sample to only household heads is necessary because only household heads are asked about their expectations of mobility. Restricting the sample to only those respondents who self-identified as non-Latino and Black or White is necessary because the PSID panel contains too few members of other racial and ethnic groups prior to 1990 to support group-specific analyses. Selection on these criteria results in an effective sample containing at least one observation from 7,615 Black and 10,757 White householders, contributing 61, 549 and 97,455 person-year observations, respectively.

3.2.1 *Measuring Mobility Expectations*

The PSID contains several items offering insight into mobility expectations. Household heads in every wave of the PSID (with the exception of the 1994 and 1995 waves) are asked, “Are you (head) likely to move in the next few years?” Among those responding in the affirmative, two follow-up items gauge the reasons for the likely move and the probability that a move will actually be made. Through the 1993 survey, heads expressing an expectation to move were asked, “Why are you (head) likely to move?” In every survey since 1975 (again, with exceptions in 1994 and 1995), they were also asked, “Would you say you definitely will move, probably will move, or are you more uncertain?” There is a precedent in the literature on the expectation-mobility link for a focus only on *purposive* moves – those made in order to improve one’s economic or social standing (Crowder 2001).

However, in the results presented here, I do not limit measurement to only purposive or more certain mobility expectations. I do this for a couple of reasons. First, as shown in Table 3.1, limiting expectations by certainty or purpose does not change overall rates of mobility expectation all that much. Across the entire PSID, 38 percent of householders expressed an expectation of mobility: 81 percent of those householders were relatively certain they would actually move and 82 percent of those householders expected to make a purposive move. Second, limiting expectations by certainty or purpose requires limiting the temporal scope of this analysis. Because the theoretical emphasis here is on understanding how and why the expectation of mobility has changed *over time*, I make a deliberate decision to include the entire PSID sample, from 1970 to 2009. Finally, it should be noted that this measure does not speak to the distance over which a householder plans to move. As such, the dependent variable in all analyses presented below is coded "1" if the respondent expressed an expectation of mobility in the near future and "0" if they did not.

3.2.2 *Individual and Household Characteristics*

The residential satisfaction perspective suggests that the formation of expectations is driven primarily by life-cycle factors and characteristics of the current residence (Landale and Guest 1985; Speare 1974). To understand the role of demographic and life-cycle factors I control for the gender (1=female), age, and marital or cohabitation status (1=married/cohabiting) of the householder. Then, I capture key correlates of residential satisfaction such as changes in employment (1=change) or marital/cohabiting status (1=change), tenure status (1=homeowner) between t and t+1 with the assumption that householders might form expectations knowing that a change in employment or marital status is looming. I also include the number of children in the

household and an indicator of crowding (persons per room) which have also been shown to be associated with residential satisfaction (Long 1988; Rossi 1980).

The spatial assimilation model suggests that, net of residential satisfaction, the development of mobility expectations may reflect householders' assessment of their own socioeconomic resources. Because mobility is economically, socially, and psychologically costly (Greenwood 1975, 1997), those dissatisfied with their current residence may only expect to move if they have the resources available to do so. I include the householder's education (in years) and current employment status (1=employed), as well as the total family income for the household (logged and inflation adjusted). The spatial assimilation model would predict higher probabilities of mobility expectations among those with more socioeconomic resources, but being currently employed may have the effect of suppressing the expectation of mobility after controlling for income, because changing jobs or employers is costly in and of itself.

To the extent that these socioeconomic characteristics fail to explain the development of and/or racial gaps in the formation of mobility expectations, results may provide evidence of the sorts of housing market bifurcation and discrimination highlighted by the place stratification model. No direct measure of discrimination is included in the analyses below, however. Instead, to capture the extent to which racial barriers in the housing market drive the development of expectations, I indicate the race (1=black) of the householder with the expectation that, net of other factors, black householders will be *less likely* to expect to move than their white counterparts. As noted above, I also hypothesize that racial gaps will have increased over the course of the PSID survey.

3.2.3 *Neighborhood and Metropolitan Contextual Characteristics*

A growing body of research attests to the notion that individuals consider a broad set of contextual factors when making residential mobility decisions. On the one hand, the determinants of residential satisfaction do not end at the front door. Characteristics of one's neighborhood also influence satisfaction with the current residence. On the other hand, net of individual and neighborhood level characteristics, individuals may weigh their (dis)satisfaction against the alternatives available to them in the larger housing market.

The preferences perspective on destination selection in residential mobility processes shows that householders incorporate the characteristics of the broader neighborhood context into their decision-making process (Charles 2003). To account for the particularly salient effects of neighborhood racial/ethnic and socioeconomic composition (Krysan et al. 2009; Swaroop and Krysan 2011), I include the householder's neighborhood (tract) poverty rate and racial composition (percent Black).

The housing availability model argues that residential mobility decisions and outcomes are dependent upon the broader housing market context (Crowder and South 2008). Put simply, mobility is easier in relatively open, affordable markets and more difficult in competitive, expensive ones. By extension, householders may develop expectations for mobility with the local housing market in mind. To understand how the local housing market influences the development of mobility expectations, I control for the housing unit vacancy rate, the homeownership rate, and the share of housing built in the last 10 years in the larger metropolitan area. Generally, I expect householders in markets with ample vacancies, newer housing stocks, and lower homeownership rates to develop mobility expectations more readily than those in more closed and expensive markets.

3.2.4 *Analytic Strategy*

This paper addresses three central questions. First, have mobility expectations for American householders have declined over time, in a way roughly mirroring declines in actual mobility? Second, do identified changes in the likelihood of mobility expectations reflect "rootedness", or are they explained by concomitant changes in the individual, household, and contextual factors associated with residential satisfaction and the development of expectations? Finally, are there racial gaps in the formation of mobility expectations, and how does this gap change over time? To answer these questions, I estimate logistic regression models predicting the log odds of forming mobility expectations as a function of the individual, household, and contextual characteristics outlined above. Because the observations contributed by the same individual over time are not completely independent, standard errors in all models are corrected by clustering observations for the same individual over time (Liang and Zeger 1986).

3.3 RESULTS

3.3.1 *Trends in the Expectation of Mobility*

As Shown in Figure 3.1, which plots trends in the expectation of mobility for non-Latino Black and White householders since 1970, mobility expectations have declined since their peak in 1978. This is consistent with the notion that American mobility decline is driven by a cultural shift toward "rootedness": Americans are moving less because they expect to move less. However, declines in the expectation of mobility are much less dramatic than declines in actual mobility. Trends in annual mobility from the Current Population Survey (e.g. Chapter 2) show that the typical American was 30 percent less likely to have moved in the last year in 2009 than in 1976 (from 17.7 to 12.5 percent), but Figure 3.1 shows that mobility expectations between

1978 and 2009 dropped by only 16 percent (from 43 to 36 percent). Moreover, longer term trends in the expectation of mobility between 1970 and 2011 are actually *upward*: while only 36 percent of PSID householders expected to move in 1970, 39 percent did so in 2011 (Table 3.1). In short, despite episodic declines, the expectation of mobility actually *increases* between 1970 and 2011 and rates of actual mobility are declining much faster than any periodic mobility expectation declines observed.

Changes in the prevalence of mobility expectations between 1970 and 2011 reflect, to some extent, changes in the composition of PSID householders (Table 3.2). Over the 40 year span of the PSID survey, the typical householder has changed considerably. Placing downward pressure on the formation of mobility expectations are population aging (average increased by 2 years) and increasing homeownership rates (from 48 to 55 percent in this sample). But several compositional shifts in the PSID sample might help explain the overall upward trend in expectations between 1970 and 2011. For example, the average householder's education and income level increased, even after controlling or inflation, and employment and marital transitions (associated with retirement and divorce) increased. At the same time, marriage and employment rates decreased alongside the number of children present in the household and the persons per room in the average home. Controlling for all of these factors placing upward pressure on mobility expectations may reveal even larger declines in expectations over time.

As shown in Model 1 of Table 3.3, the general trend[5] in mobility expectations is downward ($\beta_{year} = -0.005, p < 0.001$), but this trend may be explained by householders' changing individual, familial, and contextual characteristics. Model 2 of Table 3.3 introduces some individual level demographic controls, as well as indicators of socioeconomic status touted by

[5] Note that the year term in these models is linear and is intended only to capture the *general trend* in expectations over time. More nuanced non-linear year terms are depicted in Figure 3.2 and Figure 3.4 in order to more accurately depict periods between 1970 and 2011.

the spatial assimilation model. As suggested by the decreasing size of the year coefficient and associated t-score ($\beta_{year} = -0.001,\ t = -1.17$), the spatial assimilation model accounts for virtually all observed declines in mobility expectations. In other words, mobility decline appears to reflect PSID householders' shifting socioeconomic and sociodemographic statuses, rather than their increasing "rootedness".

The residential satisfaction perspective, tested in Model 3 of Table 3.3, only increases the certainty that declining mobility expectations are not indicative of Americans' "rootedness". After controlling for homeownership, childrearing, persons per room, and changes in marital/cohabiting and employment status, the year coefficient is actually *positive* though its effect remains statistically insignificant ($\beta_{year} = 0.001, t = 1.43$). This positive coefficient suggests that despite changes in the correlates of residential satisfaction that would typically promote satisfaction and decrease mobility (Table 3.2), the expectation of mobility may actually be increasing over time.[6] As such, the declining expectation of mobility among householders appears to have less to do with a cultural shift toward "rootedness", and more to do with factors that tend to increase one's satisfaction with their current residence.

Declining mobility expectations also reflect householders' neighborhood and metropolitan contexts and changes in those contexts since 1970. The housing availability model results presented in Model 4 of Table 3.3 are particularly striking. In general, metropolitan housing markets have become tighter and more competitive since the 1970s, reducing the options available to those with the desire to move, thereby reducing the rate at which desires are transformed into expectations of mobility. For example, newer metropolitan housing stocks have

[6] Note that temporal trends my also reflect the effects of variables not included in the analysis. While the covariates included here are relatively comprehensive, the list does not include factors such as metropolitan population or labor market characteristics, or individual level industry codes, which might also impact changes in the expectation of mobility over time, thereby confounding these results.

a positive effect on the formation of expectations ($\beta_{new\ housing} = 0.36, p < 0.05$), but the size of the new housing stock in most metro areas has declined since 1970 (Table 3.2), thereby decreasing aggregate mobility expectations. Unexpectedly, however, housing vacancies tend to suppress the formation of expectations; as such, the increasing vacant shares since 1970 in most metro areas has a net negative effect ($\beta_{vacant} = -0.988, p < 0.001$), on expectation formation.

Figure 3.2 graphically represents the impact of the models presented in Table 3.3 by plotting the marginal probability of mobility expectations for householders.[7] The left-hand panel corresponds to Model 1 and closely resembles the raw trends presented in Figure 3.2. The right-hand panel corresponds to Model 4 in Table 3.3 and shows trends in mobility expectations controlling for the factors hypothesized to drive the formation of those expectations. After accounting for individual, familial, and contextual characteristics, there is no indication of declining expectations or "rootedness" among PSID householders. In fact, once neighborhood and metropolitan characteristics are included in Model 4 of Table 3.3, the positive effect of the year coefficient reaches statistical significance ($\beta_{year} = 0.004, p < 0.01$). This positive and significant effect suggests that, absent sociodemographic, socioeconomic, contextual, and housing market shifts that suppress the translation of mobility desires into expectations, we may have actually witnessed *increases* in the expectation of mobility between 1970 and 2011. This finding provides little evidence in favor of a cultural explanation of mobility decline and, instead, points toward changes in the housing market and in the socioeconomic position of householders as key drivers of declining expectations and actual mobility.

[7] Note that the plots in Figure 3.2 include a third-order polynomial year effect (i.e., a year*year*year interaction) as opposed to the linear year term presented in Table 3.3. This is done for aesthetic reasons, as well as to better capture the raw trends in expectations shown in Figure 3.1.

3.3.2 *The Changing Black-White Gap in Mobility Expectations*

Is there a Black-White gap in the formation of mobility expectations? Table 3.2 shows clear evidence of a racial gap. Over the entire 40 year course of the PSID, roughly 36 percent of non-Latino White and 42 percent of Black householders expressed an expectation of mobility in the near future. The higher rate of mobility expectations among Black householders is entirely explained by group differences in, primarily, socioeconomic status and housing tenure (analysis not shown). Because Black householders are much more likely than Whites to rent their homes (64 to 34 percent), and because renters are much more mobile than homeowners due to the nature of lease agreements and the costs associated with buying and selling a home, Black householders expect to move much more often than White householders.

So, a Black-White gap in the expectation of mobility exists in pooled time-series PSID data, but how has this gap changed over time and in the context of declining mobility? Figure 3.3 plots raw trends in the probability of mobility expectations separately for Black and White householders. This graph reveals a stark racial divide in mobility expectation trends: though the probability of mobility expectations is roughly equal through the mid-1970s, White householders' expectations trend downward thereafter, while Black expectations remain high and, as of the most recent recession, increase sharply. As of 2011, the probability of mobility expectations was 35 percent higher for Black than for White householders (0.46 vs 0.34). To the extent that declining mobility expectations support the "rootedness" hypothesis, then it appears that White, but not Black, householders may be more rooted as time goes on and as mobility declines.

What, if anything, accounts for the growing expectation gap between White and Black householders over time? Table 3.4 shows the results of a series of logistic regression models

predicting the log-odds of expecting to move as a function of time, race, and other individual, familial, and contextual covariates. As shown by the year coefficient in Model 1, the trend for White PSID householders is strongly negative ($\beta_{year} = -0.01\ p < 0.001$), while the trend for Black householders is strongly positive ($\beta_{year*Black} = 0.015\ p < 0.001$). These coefficients confirm the raw trends reported in Figure 3.3.

The sharp downward trend among White householders is *fully explained* by changes in socioeconomic status, demographic characteristics, residential satisfaction, and contextual characteristics between 1970 and 2011. After controlling for age, marital status, education, income, and employment in Model 2 of Table 3.4, the year coefficient increases by roughly one-third ($\beta_{year} = -0.006 p < 0.001$). The downward trend among Whites is explained even further by changes in the correlates of residential satisfaction over time (Model 3, Table 3.4). Once the generally negative influence of housing market shifts on mobility expectations is accounted for, White householders are no less likely to expect to move in 2011 as in 1970 ($\beta_{year} = -0.002,\ t = -1.57$). As such, more than one-half of the decline in mobility expectations among White householders is attributable to changes in sociodemographics, socioeconomic status, and increasing residential satisfaction; the rest is attributable to changing neighborhood conditions and ever-tightening housing markets in major metropolitan areas.

Upward trends in the expectation of mobility among Black householders, however, cannot be explained by changes in socioeconomic status, residential satisfaction, or neighborhood/metropolitan context. The Black*Year interaction effect shows that the trend in expectations among Black householders is still strongly upward in Models 2 and 3 of Table 3.4 ($\beta_{year*Black} = 0.013\ and\ 0.014, p < 0.001$).

To shed light on the difficult-to-interpret interactions effects reported in Table 3.4, Figure 3.4 plots trends in the gross and net marginal probability of mobility expectation formation for White and Black householders.[8] The left-hand panel of Figure 3.4 closely resembles the raw trends shown in Figure 3.3 and corresponds to Model 1 of Table 3.4. The right-hand panel of Figure 3.4 reports trends in mobility expectations net of individual, familial, and contextual covariates and corresponds to Model 4 in Table 3.4.

As shown in the right-hand panel of Figure 3.4, the Black-White gap in mobility expectations (controlling for all else) has closed completely as of 2011. That is, as of the most recent PSID wave and after controlling for factors associated with the formation of mobility expectations, there is no significant racial difference in the probability that a given householder will expect to move in the near future. The closing of this gap has occurred almost entirely because of the increasing probability of mobility expectations among Black householders. This story is a hopeful one, and I return to it in the discussion below.

Figure 3.4 provides little evidence that the declining expectations among White householders shown in Figure 3.3 are the result of an intangible, cultural shift toward "rootedness". The White decline is completely explained by changes in the sociodemographic and socioeconomic composition of White householders, as well as in the correlates of residential satisfaction and neighborhood/metropolitan context between 1970 and 2011. As such, rather than indicating a cultural shift among White Americans, these results are consistent with the idea that economic and demographic shifts since the 1970s have left Americans with fewer options for and incentives to move (or expect to move) elsewhere.

[8] Again, I've included a third-order polynomial (year*year*year interaction) term here to more realistically model trends over time. This effect is also interacted with a racial dummy variable to produce race-specific marginal probabilities.

3.4 CONCLUSIONS

Trends in the formation of mobility expectations among PSID householders between 1970 and 2011 are, generally speaking, consistent with the hypothesis that Americans are both more "rooted" in place and voluntarily choosing to move less. Between a peak in 1978 and the onset and prolonged impact of the Great Recession in 2009, the share of householders expecting to move in the near future dropped from 43 to 36 percent (a 16 percent decline). It is important to note, however, that these declines are not monotonic: in the periods prior to 1978 and after the Great Recession, mobility expectations were on the rise.

Observed declines in mobility expectation formation are fully explained, however, by changes in the demographic and socioeconomic composition of American householders, the correlates of residential satisfaction, and neighborhood and metropolitan context. Housing market conditions and homeownership are particularly influential in explaining declining mobility expectations. Rising homeownership rates, coupled with increasingly tighter and more competitive housing market conditions in major metropolitan areas (as indicated by smaller newly-built housing stocks) have placed strong downward pressure on mobility expectations. Other important, but less influential, shifts include population aging and relatively stagnant family incomes (particularly at the bottom and middle of the income distribution). In other words, once we take into account changes in individual, familial, and contextual characteristics known to discourage mobility – and, therefore, the expectation of mobility – American householders are no less likely to expect to move than their counterparts in 1970.

The predominantly downward trend in the expectation of mobility masks substantial racial differences in mobility expectations, in general, and in their trajectories over time. While Black householders expect to move at much higher rates than their White counterparts (42 to 36

percent), this difference is entirely the result of group differences in socioeconomic status and housing tenure. Once these factors are controlled, Black householders are *much less likely* to expect to move than White householders, though this gap has closed over time. Raw trends in the expectation between 1970 and 2011 show that the downward trend among all households is entirely a White phenomenon; the expectation of mobility among Black householders actually *increased* over time. These divergent racial trends suggest that White, but not Black, householders in the US may be more "rooted".

Results reported here, however, cut even deeper against the "rootedness" hypothesis and show that White declines are fully explained by compositional and housing market dynamics, while the upward trends in Black expectations are not. In fact, positive trends in the formation of mobility expectations among Black PSID householders are quite robust and are not explained by any of the dominant residential mobility or residential satisfaction models. Controlling for all else, Black householders are much more likely to expect to move as time goes on. As of 2011, the substantial 1970s net Black-White gap in mobility expectations had completely closed.

Overall, then, the racial story is one of consistent mobility expectations for Whites (all else equal) and a significant increase in the formation of mobility expectations among Blacks such that racial gaps are non-existent as of 2011. This likely signifies the easing of racial tensions and the erosion of legal and extra-legal forms of housing discrimination which severely limited the mobility options of Black householders in the past. In other words, as the barriers to free mobility are eased, Black householders appear more optimistic about their chances of translating latent *desires* for mobility into more concrete *expectations* of moving in the near future.

To be sure, this finding does not suggest the complete disintegration of racial discrimination (whether overt or systematic), as new, more subtle forms of racial exclusion have replaced those

of old (Massey, Rothwell, and Domina 2009). As I show in Chapter 4, Black householders are significantly less likely than their White counterparts to translate their mobility expectations into actual mobility. While this gap, too, is closing over time, it is not closing because of the increased ability of Black householders to realize their mobility expectations. Rather, the gap is narrowing because White householders' ability to translate expectations into mobility is declining at a faster rate than that of Black householders'. In short, the increasing expectation of mobility among Black householders – while promising and hopeful – has not resulted in the increased probability that they will realize those expectations.

Considering the results reported here in the broader context of American mobility decline, it appears that the "rootedness" hypothesis holds little water. While declines in the expectation of mobility are apparent, they are confined to White householders and can be fully explained by changes in the correlates of residential satisfaction and the demographic and socioeconomic composition of the US population. Instead, these results bolster an alternative hypothesis forwarded in this dissertation that Americans are "stuck" in place, rather than "rooted". Results reported here are more consistent with the notion that social and economic changes in the latter half of the 20th Century have left Americans with a decreased ability to take advantage of, and fewer options for, opportunities *elsewhere*.

Table 3.1. Certainty and Purpose of Mobility Expectations for Black and White PSID Householders, 1970-2011

	White			Black			Pooled		
	Mean	SD	N	Mean	SD	N	Mean	SD	N
Expect to Move	0.36	0.48	91,975	**0.41**	0.49	57,716	0.38	0.49	149,691
Expect to Move (Certain)	0.79	0.41	29,251	**0.84**	0.37	21,102	0.81	0.39	50,353
Purposive	0.81	0.39	23,981	**0.84**	0.37	17,568	0.82	0.38	41,549
Non-Purposive	**0.19**	0.39	23,981	0.16	0.37	17,568	0.18	0.38	41,549
Outside Events	**0.08**	0.27	23,981	0.07	0.26	17,568	0.07	0.26	41,549

Unweighted Sample Means. Note that "certainty" in expectations is only available from 1975 on, and the "purpose" for an expected move is only available until 1993. The PSID variable gauging mobility expectations is not available for download in 1994 and 1995).

Table 3.2. Summary Statistics for Modeled Variables for Black and White PSID Householders, 1970-2011

	Pooled		1970		2011		White		Black	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Expect to Move	0.38	0.49	0.38	0.49	0.39	0.49	0.36	0.48	0.42	0.49
Black	0.39	0.49	0.41	0.49	0.39	0.49				
Female	0.31	0.46	0.31	0.46	0.33	0.47	0.22	0.41	0.46	0.50
Age	43.04	16.18	42.42	15.01	45.47	16.54	44.38	16.74	40.93	15.02
Married/Cohabiting	0.56	0.50	0.61	0.49	0.51	0.50	0.67	0.47	0.39	0.49
Education (years)	12.43	3.44	10.60	4.02	13.82	2.97	13.23	3.34	11.16	3.21
Family Income (logged, adjusted)	3.50	1.07	3.45	0.84	3.50	1.07	3.78	0.92	3.06	1.13
Employed	0.73	0.44	0.79	0.41	0.68	0.46	0.77	0.42	0.66	0.47
Homeowner	0.54	0.50	0.47	0.50	0.55	0.50	0.66	0.47	0.36	0.48
Number of Kids in HH	1.00	1.33	1.74	1.99	0.77	1.16	0.82	1.15	1.29	1.52
Persons per Room	0.59	0.44	0.86	0.89	0.54	0.37	0.52	0.36	0.70	0.52
Change in Employment Status	0.11	0.31	0.06	0.24	0.19	0.39	0.09	0.29	0.14	0.34
Change in Married/Cohabiting Status	0.06	0.23	0.04	0.21	0.11	0.32	0.06	0.23	0.06	0.23
Tract Poverty Rate	0.16	0.13	0.17	0.14	0.16	0.13	0.10	0.08	0.25	0.14
Tract Percent Black	0.28	0.35	0.31	0.38	0.25	0.31	0.06	0.12	0.62	0.32
Metro Vacancy Rate	0.08	0.04	0.05	0.02	0.10	0.04	0.08	0.04	0.08	0.03
Metro Homeownership Rate	0.60	0.09	0.59	0.07	0.58	0.05	0.60	0.11	0.59	0.06
Metro Housing Built in Last 10 Years	0.22	0.10	0.28	0.09	0.13	0.06	0.21	0.10	0.23	0.09
Year	1989.31	11.54					1989.71	11.51	1988.66	11.55
N (Unique Individuals)		18,372		3,098		6,872	10,757		7,615	
N (Person-Year Observations)		159,004		3,098		6,872	97,455		61,549	

Unweighted sample statistics.

Table 3.3. Logistic Regression Coefficients Predicting the Log-Odds of Mobility Expectations for PSID Householders, 1970-2011

	(1)	(2)	(3)	(4)
Year	-0.00457***	-0.000985	0.00124	0.00365**
	(-5.80)	(-1.17)	(1.43)	(3.15)
Black		-0.00714	-0.270***	-0.238***
		(-0.28)	(-10.52)	(-6.93)
Female		-0.381***	-0.298***	-0.296***
		(-11.25)	(-8.45)	(-8.39)
Age		-0.113***	-0.0654***	-0.0653***
		(-33.33)	(-17.85)	(-17.87)
Age^2		0.000633***	0.000274***	0.000273***
		(17.77)	(6.97)	(6.94)
Married/Cohabiting		-0.850***	-0.382***	-0.381***
		(-27.89)	(-11.57)	(-11.53)
Education (years)		0.0454***	0.0626***	0.0591***
		(11.72)	(15.73)	(14.78)
Family Income (logged, adjusted)		-0.0634***	0.104***	0.0906***
		(-6.13)	(9.88)	(8.66)
Employed		-0.125***	-0.0407	-0.0467
		(-5.06)	(-1.60)	(-1.83)
Homeowner			-1.677***	-1.674***
			(-66.04)	(-65.81)
Number of Kids in HH			-0.0889***	-0.0853***
			(-9.78)	(-9.40)
Persons per Room			0.304***	0.301***
			(9.28)	(9.18)
Change in Employment Status			0.234***	0.235***
			(10.47)	(10.48)

Change in Married/Cohabiting Status			0.228***	0.228***
			(8.14)	(8.12)
Tract Poverty Rate				-0.338**
				(-3.04)
Tract Percent Black				-0.0250
				(-0.48)
Metro Vacancy Rate				-0.988**
				(-2.99)
Metro Homeownership Rate				-0.772***
				(-6.26)
Metro Housing Built in last 10 Years				0.360*
				(2.44)
Constant	-0.384***	3.327***	1.932***	2.449***
	(-17.78)	(35.40)	(19.22)	(17.43)
N (Person-Year Observations)	159004	159004	159004	159004
Chi-Squared	33.67	7593.2	11336.4	11444.9

t-statistics in parentheses. *p<0.05, **p<0.01, ***p<0.001

Table 3.4. Logistic Regression Coefficients Predicting the Log-Odds of Mobility Expectations for PSID Householders with Emphasis on Black-White Gaps, 1970-2011

	(1)	(2)	(3)	(4)
Year	-0.00997***	-0.00623***	-0.00446***	-0.00213
	(-9.69)	(-5.94)	(-4.06)	(-1.57)
Black	-0.0543	-0.274***	-0.555***	-0.551***
	(-1.24)	(-6.26)	(-12.77)	(-10.58)
Black*Year	0.0145***	0.0132***	0.0141***	0.0142***
	(9.05)	(8.23)	(8.85)	(8.74)
Female		-0.385***	-0.305***	-0.303***
		(-11.36)	(-8.65)	(-8.59)
Age		-0.113***	-0.0661***	-0.0663***
		(-33.46)	(-18.04)	(-18.13)
Age^2		0.000638***	0.000282***	0.000283***
		(17.88)	(7.17)	(7.19)
Married/Cohabiting		-0.853***	-0.390***	-0.387***
		(-28.00)	(-11.81)	(-11.73)
Education (years)		0.0438***	0.0612***	0.0580***
		(11.27)	(15.30)	(14.42)
Family Income (logged, adjusted)		-0.0605***	0.107***	0.0949***
		(-5.86)	(10.15)	(9.03)
Employed		-0.128***	-0.0433	-0.0477
		(-5.16)	(-1.70)	(-1.87)
Homeowner			-1.678***	-1.674***
			(-66.12)	(-65.80)
Number of Kids in HH			-0.0858***	-0.0823***
			(-9.40)	(-9.03)
Persons per Room			0.304***	0.300***
			(9.32)	(9.20)

Change in Employment Status			0.231***	0.231***
			(10.31)	(10.32)
Change in Married/Cohabiting Status			0.228***	0.228***
			(8.12)	(8.12)
Tract Poverty Rate				-0.304**
				(-2.74)
Tract Percent Black				0.0164
				(0.31)
Metro Vacancy Rate				-0.907**
				(-2.74)
Metro Homeownership Rate				-0.823***
				(-6.64)
Metro Housing Built in last 10 Years				0.356*
				(2.42)
Constant	-0.366***	3.453***	1.806***	2.372***
	(-12.90)	(39.93)	(19.00)	(17.55)
N (Person-Year Observations)	159004	159004	159004	159004
Chi-Squared	256.5	7727.7	11502.6	11592.5

t-statistics in parentheses. *p<0.05, **p<0.01, ***p<0.001

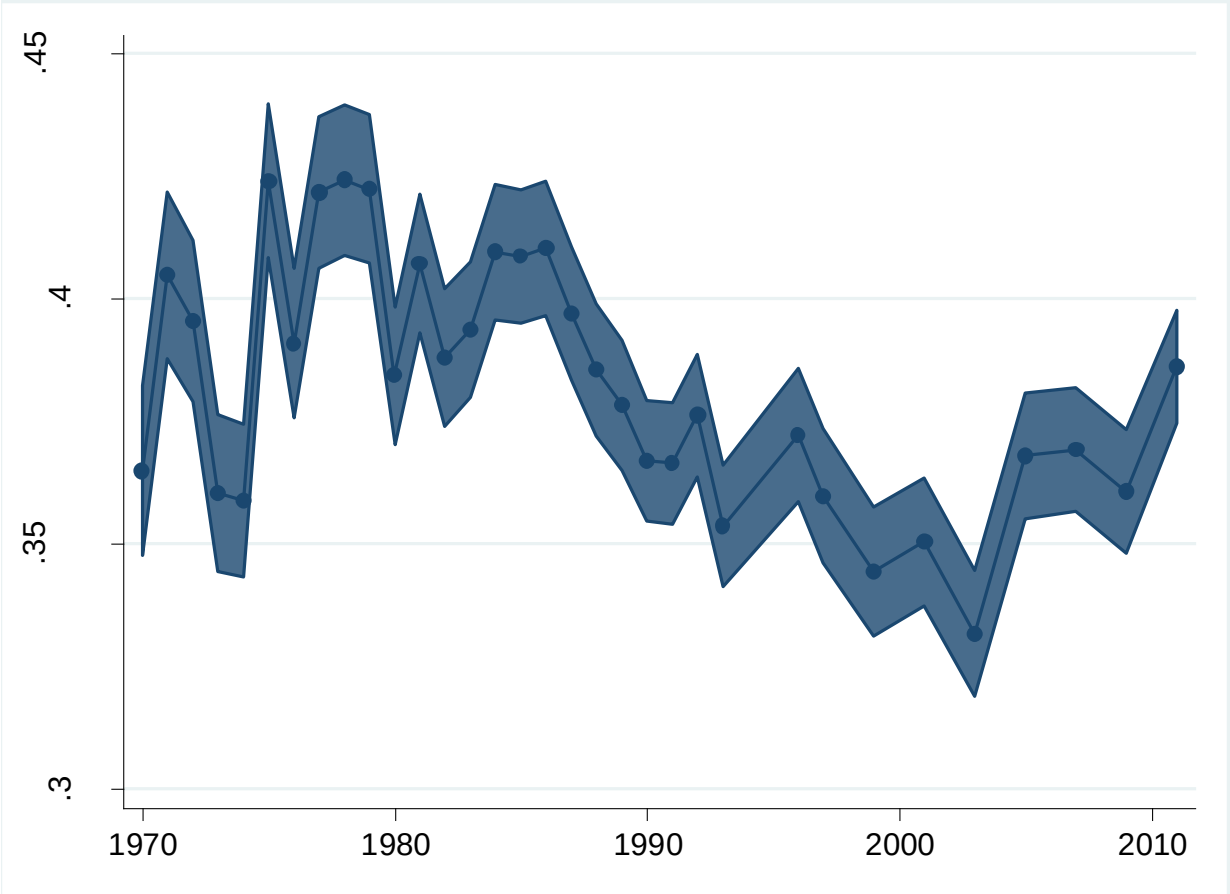

Figure 3.1. Trends in the Expectation of Mobility among PSID Householders, 1970-2011.

Predicted marginal probabilities of expecting to move for non-Latino White and Black PSID householders. Models include no controls and are intended to show raw trends in mobility expectations over time.

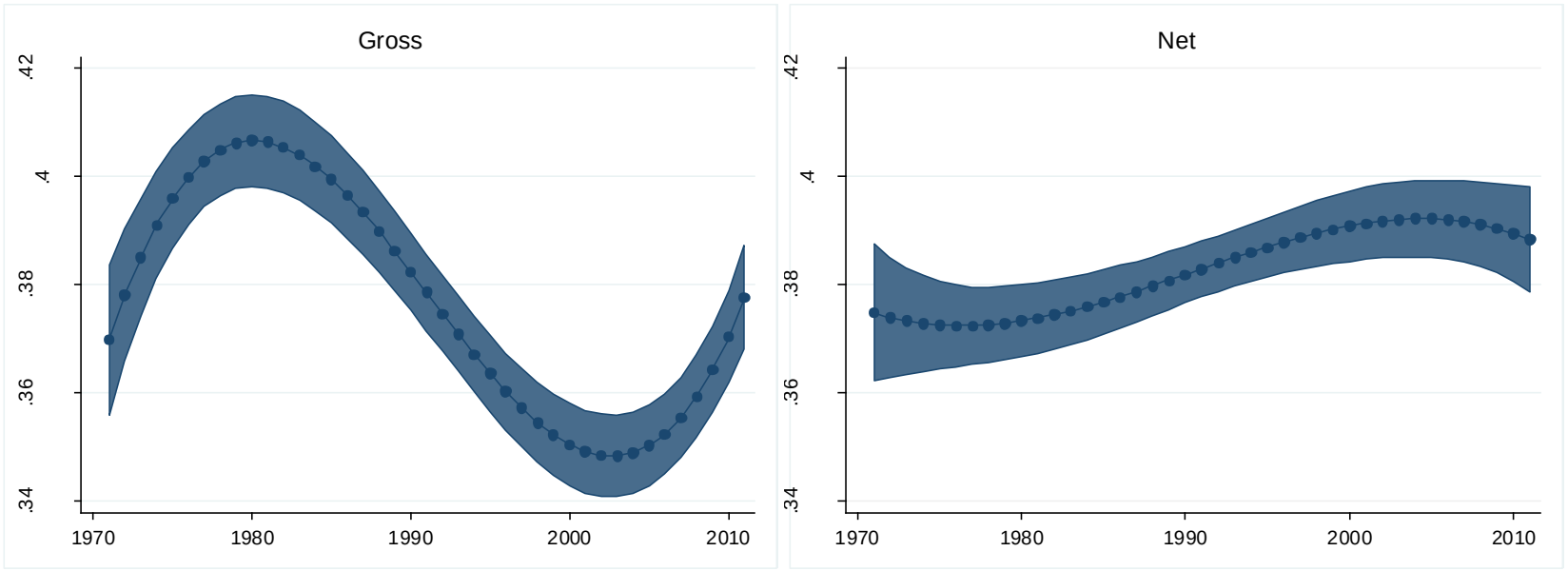

Figure 3.2. Gross and Net Trends in the Predicted Probability of Mobility Expectations for PSID Householders, 1970-2011.

Predicted marginal probabilities of expecting to move for non-Latino White and Black PSID householders. For the purposes of this figure, a third-order polynomial year term (i.e., a Year*Year*Year interaction term) is modeled to better approximate observed raw trends in the probability of mobility expectations. The left hand panel corresponds with Model 1 of Table 2 and includes no controls. The right-hand panel corresponds with Model 4 of Table 2 and includes all individual, familial, and contextual controls.

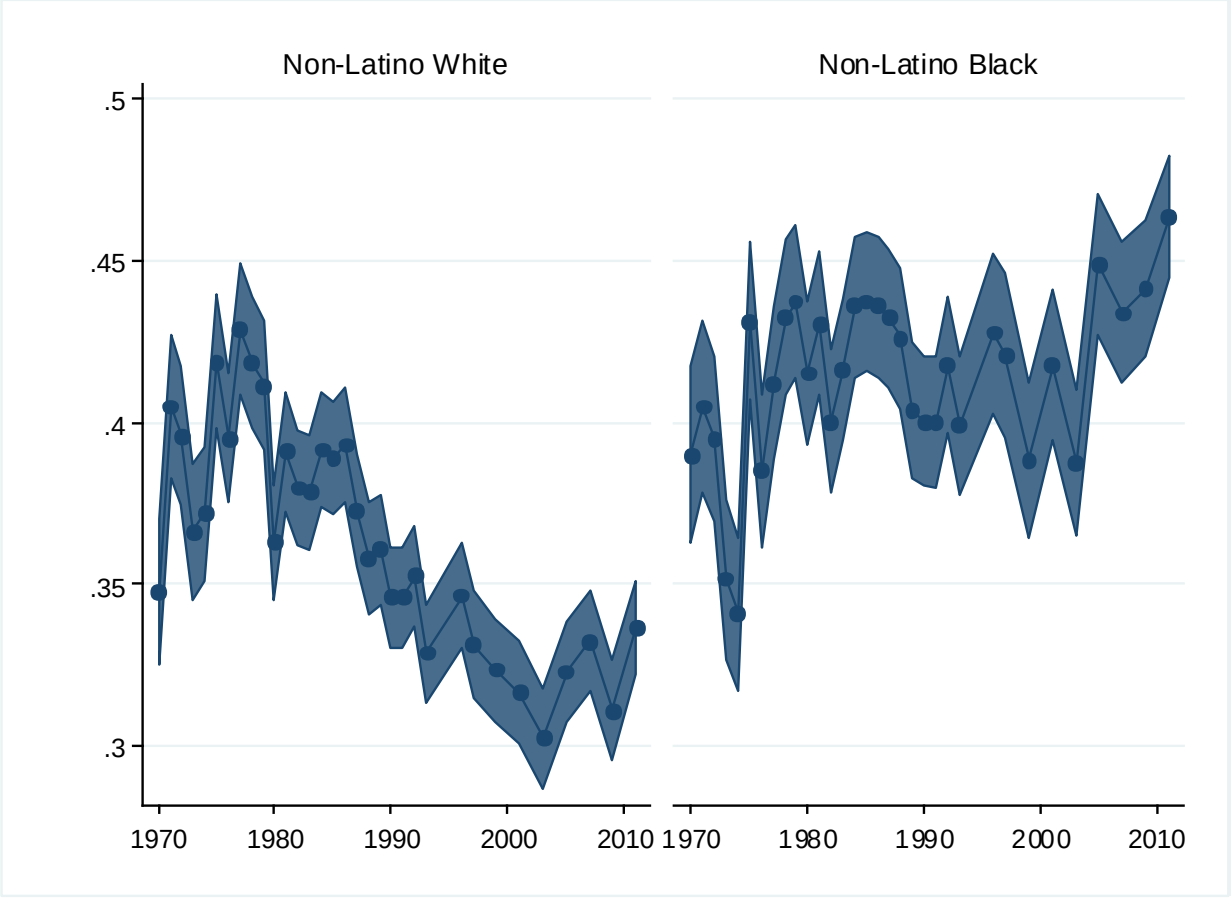

Figure 3.3. Raw Trends in the Expectation of Mobility for Black and White PSID Householders, 1970-2011.

Predicted marginal probabilities of expecting to move for non-Latino White and Black PSID householders. Models include no controls and are intended to show raw trends in mobility expectations over time.

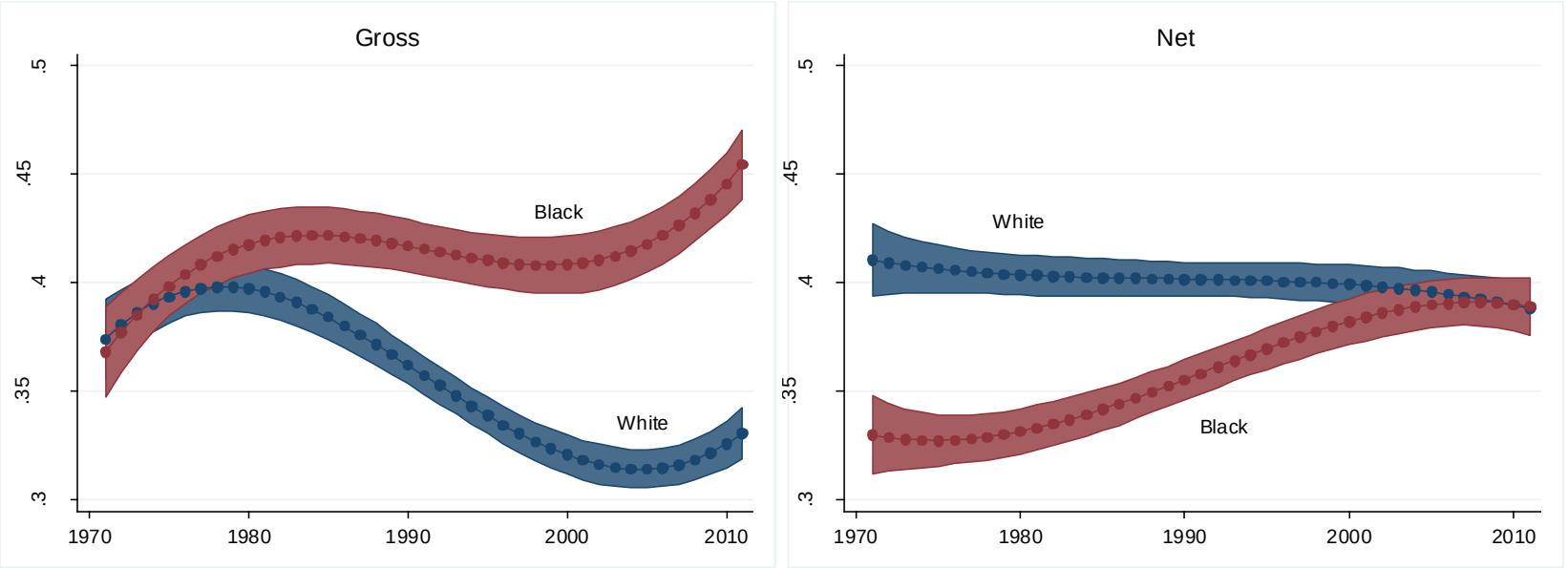

Figure 3.4. Gross and Net Trends in the Predicted Probability of Mobility Expectations of Black and White PSID Householders, 1970-2011.

Predicted marginal probabilities of expecting to move for non-Latino White and Black PSID householders. For the purposes of this figure, a third-order polynomial year term (i.e., a Year*Year*Year*Race interaction term) is modeled to better approximate observed raw trends and racial gaps in the probability of mobility expectations. The left hand panel corresponds with Model 1 of Table 3 and includes no controls. The right-hand panel corresponds with Model 4 of Table 3 and includes all individual, familial, and contextual controls.

Chapter 4. THE WEAKENING LINK BETWEEN, AND PERSISTENT BLACK-WHITE GAP IN, MOBILITY EXPECTATIONS AND MOBILITY OUTCOMES

Racial stratification in residential mobility outcomes in the US is well-documented. Relative to their White counterparts, Black householders are less likely to gain access to quality neighborhoods, escape impoverished communities, or avoid environmentally-hazardous and polluted areas (Crowder and Downey 2010; Crowder and South 2005). Over time, these disparate outcomes have resulted in the persistence of racial and ethnic segregation (Logan and Stults 2011), substantial overlaps in economic and racial segregation (Massey 1996; Massey and Denton 1993), significant racial gaps in neighborhood quality and safety, and the intergenerational inheritance of contexts of (dis)advantage (Sharkey 2013). Dominant theoretical perspectives on residential mobility suggest that the persistence of racial disparities reflects group differences in socioeconomic resources, contemporary and historical discrimination in housing markets, and evolving preferences for neighborhoods with particular amenities and racial composition. But these perspectives often fail to explain racial gaps in residential mobility outcomes in their entirety (Charles 2003; Krysan and Bader 2009).

In this chapter, I consider how racial gaps in mobility outcomes are rooted in the early stages of the mobility process, when mobility expectations are formed and translated into actual mobility. Using data from the Panel Study of Income Dynamics, I address three interrelated topics. First, I consider the ways in which barriers in the early stages of the residential mobility process may contribute to racial stratification in residential mobility by limiting the translation of mobility expectations into actual mobility. Second, I document how identified racial gaps in

early stages of the mobility process change over time, particularly in the context of declining mobility rates in the US. Third, I note the substantial weakening of the relationship between mobility expectations and mobility outcomes for all Americans and discuss the potential consequences of this trend for residential mobility outcomes that are already starkly stratified by race.

4.1 Background and Theory

4.1.1 *Racial Stratification in the Expectation-Mobility Link*

Models of residential satisfaction suggest that the residential mobility process begins with a mismatch in current residential quality, size, or location and perceived residential needs (Brown and Moore 1970; Rossi 1980; Speare et al. 1987; Wolpert 1966). Given a mismatch between current residence and perceived needs, potential migrants compare the current residence with any number of potential destinations and, subsequently, form mobility expectations based on this comparison. Weighing the costs and benefits associated with mobility, potential movers then decide whether or not to translate mobility expectations into actual mobility. The basic tenets of these models – in particular, those linking mobility expectations to actual mobility – are supported in the residential mobility literature (Bach and Smith 1977; Deane 1990; Landale and Guest 1985; Mateyka 2015; Newman and Duncan 1979).

The spatial assimilation and place stratification models, while typically used to understand later stages of the residential mobility process, also suggest hypotheses concerning racial stratification in the translation of mobility expectations into actual mobility. The spatial assimilation model asserts that racial and ethnic stratification in residential mobility is a function of differences in socioeconomic status and human capital (Charles 2003). Thus, any racial gaps in the ability to translate expectations into actual mobility should be explained by group

differences in education, income, and other human capital characteristics. By extension, changes in racial gaps over time should reflect concomitant shifts in the distribution of human capital across racial groups.

In contrast, the place stratification model suggests that systematic discrimination at multiple stages in the residential mobility process effectively creates a segmented housing market in which the ability of minorities to translate socioeconomic gains into residential quality is limited (Logan and Molotch 1987). With respect to racial gaps in the translation of mobility expectations into actual mobility, the stratification model suggests that Blacks who expect to move will be less likely than Whites with similar expectations to actually move because their mobility options are limited. It follows that any shifts over time, whether positive or negative, in the racial gap in the ability to translate expectations into mobility may reflect the easing of racial bias in the housing market, changes in the competing abilities of majority groups to out-bid minorities, new legal barriers to discrimination, or the development of new forms of exclusion (Massey et al. 2009).

Prior work on racial gaps in the ability of householders to translate mobility expectations into actual mobility supports both the place stratification and spatial assimilation perspectives. Crowder's (2001) analysis of PSID data for the 1970 to 1993 period shows large Black-White gaps in the actuation of mobility expectations. While a portion of this gap was explained by group differences in housing tenure, socioeconomic status, and other familial and contextual characteristics, Black householders remained significantly less likely to actuate mobility expectations than their White counterparts. Moreover, Crowder's (2001) analysis provides evidence in favor of the "strong version" of the place stratification perspective: while socioeconomic resources help White householders translate their expectations into mobility

outcomes, high income and highly educated Black householders are unable to leverage their socioeconomic resources to realize their mobility expectations.

The translation of mobility expectations into actual mobility may depend upon other characteristics of the housing market, as well. The housing availability model relates mobility to the openness or closure in the local housing market (South and Crowder 1997). Put simply, householders are more likely to move when there are other housing options available. Open housing markets where costs are relatively low and newly constructed and vacant units are abundant encourage mobility, whereas competitive, oversaturated, and high-cost housing markets discourage it. Because White and Black Americans often live in different housing markets and occupy different niches within those markets, the relative "openness" or "closure" of the housing market in which individuals make mobility decisions may help explain racial stratification in mobility outcomes.

4.1.2 *Changes in the Expectation-Mobility Link over Time*

The discussion thus far has considered *racial stratification* in the link between mobility expectations and actual mobility, but there are also reasons to suspect substantial changes in the basic relationship between expectations and mobility, regardless of race or ethnicity, *over time*. A small but growing body of literature has noted substantial and sustained declines in mobility among Americans since the mid-20th century (Cooke 2011; Fischer 2002; Molloy et al. 2011). The default, but by no means conclusive, explanation of this phenomenon is a cultural one: Americans have experienced a cultural shift toward geographic "rootedness" characterized by an increasing attachment to place and facilitated by technological advancements in communication and transportation that reduce the need for permanent relocation (Zelinsky 1971).

The shift toward "rootedness" is thought to be both universal and voluntary. In his early description of mobility decline, Fischer (2002: 193) notes that "the story of increasing rootedness generally applies across age, gender, race, housing tenure, and…class." Increasing immobility among all Americans is, according to Cooke (2011: 202), a voluntary phenomenon: "U.S. has long ago entered into a post-modern period of reduced mobility because of the increased value of leisure time [and] increased ability to remain rooted and yet travel for leisure and work…" While it is difficult to measure changes in cultural attachment to place, particularly over time, the notions that American mobility decline is *universal* and *voluntary* are subject to empirical verification.

Work to date on the long-term decline in American mobility generally confirms the universality of declines, suggesting "deep and pervasive" shifts in the typical American's orientation toward mobility (Fisher 2002). Nevertheless, significant variations in the timing, rate, and magnitude of mobility declines across race, gender, age, and socioeconomic groups hint that other factors may be at work (Fischer 2002). For example, Carll, Foster, and Crowder (2016) find that while local mobility declined between 1970 and 2011 for White and Black, male and female householders alike, declines were most dramatic for White men. Moreover, while mobility declines for Black and White female householders are generally explained by changing individual, life-cycle, and family characteristics, declines among White male householders were not (ibid). Such findings leave room for "rootedness" among White males, but suggest that declines among other groups may be driven by socioeconomic and market shifts since the 1970s.

There are several reasons to doubt the hypothesis that American mobility decline is voluntary. If increasing "rootedness" is indicative of increased attachment to place, it follows that self-reported expectations of mobility should drop in-step with declines in actual mobility.

Moreover, because knowledge of potential destinations is a key factor in the mobility process (Krysan and Bader 2009) and technological advancements in communication and transportation reduce the information costs associated with mobility, the link between expectations and actual mobility should improve over time. Householders should be better equipped to realize their mobility expectations, whether they intend to move or not.

Recent ethnographic work in Detroit suggests that the considerable economic and social costs associated with mobility, as well as difficulties finding affordable housing options elsewhere, may keep householders who would like to move from doing so (Seelye 2016). Sharkey's recent work supports these qualitative findings. While each successive generation of Black householders is less likely to leave the county, state, and region of the previous generation, White householders have not seen such mobility declines (Sharkey 2015). As such, the so-called "rootedness" of Americans may, in fact, reflect the increasing inability of householders to actually move when they expect to.

Recent work on evictions corroborates the notion that Americans, in general, and non-White populations, in particular, may have less control over their mobility outcomes. Desmond (2012, 2016), for example, notes the dramatic increase in evictions in the U.S. over the course of the 20th century. The recent recession and foreclosure crisis may have exacerbated these trends. While the economic downturn affected all Americans, the impact was disproportionately felt in segregated, predominantly Black neighborhoods (Rugh and Massey 2010), suggesting the potential for increasing unexpected or forced mobility, especially among Black householders.

4.1.3 *Implications for Social Well-Being and Racial Stratification*

Setting aside for a moment potential racial stratification in the translation of expectations into residential mobility, a more "rooted" population may have quite positive long-term implications.

The excessive mobility of the American population is blamed for the weakening of social ties in neighborhoods, families, and extended kin networks (Wuthnow 1994), producing a general sense of metaphysical homelessness or rootlessness (Roof and McKinney 1987) and neighborhood anonymity (Popenoe 1985). Residential mobility is also a disruptive event associated with numerous detrimental outcomes for children – such as poor academic achievement (Scanlon and Devine 2001; Voight, Shinn, and Nation 2012), higher drop-out rates (Metzger et al. 2015), depression (Susukida et al. 2015), and the under-utilization of healthcare services (Jelleyman and Spencer 2008) – and adults – including higher rates of depression (Oishi 2010), particularly among women (Magdol 2002). Given the established links between mobility and these negative outcomes, declining mobility and migration may benefit society, improving neighborhood quality and social ties as well as individual well-being (Newman et al. 2010:1).

Residential mobility is often a positive event, however, facilitating improvements in housing and neighborhood quality, access to better school systems, and escape from regional economic stagnation and discrimination. Residential mobility patterns directly influence patterns of racial/ethnic and economic segregation (Lichter, Parisi, and Taquino 2015; Massey and Denton 1993), which in turn structure access to quality schools, neighborhoods, and labor markets (Sampson 2012), influence political outcomes (Bishop 2008; Frey 2014), and contribute to economic inequality over time (Lichter 2013; Sharkey 2013). If declines in mobility represent Americans' inability to relocate and take advantage of opportunities elsewhere, then mobility decline may be detrimental.

Racial stratification in the ability of Black and White householders to realize mobility expectations complicates the picture. The extent to which Black mobility decline is voluntary and reflective of "rootedness" has important implications for the future of Black-White

segregation and a host of other outcomes stratified by race. Because Blacks and Whites live in neighborhoods of discrepant quality, vast racial gaps in access to good schools, tax funding, community institutions, employment, and affordable housing reproduce inequality across generations (Massey and Denton 1993; Sharkey 2013). Black mobility out of poor, low-quality neighborhoods is uncommon, both generally and relative to Whites (Crowder and South 2005; South and Crowder 1997). As such, any racial gaps in the ability to translate mobility expectations into actual mobility may further limit access to quality neighborhoods and opportunities for upward mobility.

4.1.4 *Summary of Research Questions*

To gain a better understanding of the underlying causes and potential consequences of mobility decline, the following analyses address three interrelated questions. First, to what extent does stratification in the early stages of the residential mobility process may contribute to racial stratification in residential mobility by limiting the translation of mobility expectations into actual mobility? Second, how do identified racial gaps in early stages of the mobility process change over time, particularly in the context of declining mobility rates in the US? Third, how has the relationship between mobility expectations and mobility outcomes changed over the course of the contemporary decline in mobility, and how, if at all, do these changes differ by race?

4.2 METHODS AND DATA

Subsequent analyses draw on the Panel Study of Income Dynamics (PSID), a longitudinal, nationally representative survey of Americans and their families (Institute for Social Research 2015). Beginning in 1968 with roughly 5,000 families, the PSID sample has grown to roughly

9,000 families as of the 2003 wave, as new households formed by PSID respondents have been incorporated. The PSID includes detailed demographic, life cycle, family, and economic characteristics, making the data suitable for this study of residential mobility.

Respondents for this analysis are selected from PSID surveys between 1970 and 2011. The sample is then restricted further by including only non-Latino White and non-Latino Black household heads. Restricting the sample to only household heads is necessary to avoid counting multiple moves made by individuals in the same family. Restricting the sample to only those respondents who self-identified as non-Latino and Black or White is necessary because the PSID panel contains too few members of other racial and ethnic groups prior to 1990 to support group-specific analyses. Selection on these criteria results in an effective sample containing at least one observation per survey from 6,939 Black and 9,892 White householders.

4.2.1 *Measuring Mobility Outcomes*

In the following analyses data are arranged in person-year format, allowing the prospective tracing of several different moves made by each respondent. As such, the dependent variable in all analyses is coded "1" if the respondent moved in a given mobility interval and "0" if they did not. The PSID switched from an annual to a biennial survey in 1997, and the retrospective nature of the PSID mobility questions means that the switch to a biennial format effectively gives respondents more time to move. Retrospective mobility items in the PSID have also changed subtly since 1968 in ways that appear to influence the reporting of mobility outcomes and, therefore, the probability that expectations are translated into actual mobility (or not).

I account for these changes in two ways. First, to account for new biennial format, I modify the effective mobility interval such that mobility is measured from t-4 to t+15 months. I identified this interval after examining the time between a given survey and subsequent mobility

in the years between 1993 and 1997. This is a period in the PSID in which it is possible to count the number of months between an interview and a move. The range of *t*-4 to *t*+15 months represents the middle 98 percent of the distribution of months before mobility. Using this effective interval produces an adjusted mobility variable that correlates to inter-wave mobility at $r = 0.98$. While this does allow some moves that reportedly took place *before* an interview to be counted as a move in the following interval, this is rare in the 1993 to 1997 period and is likely an artifact of reviewer/respondent reporting error. Second, given that changes in the items gauging mobility appear to have influenced the likelihood of reporting mobility, I include in all models two dummy variables capturing mobility changes associated with the 1999 and 2003 question changes. This is a reasonable approach given that there is no evidence that the change in mobility items disproportionately influenced Black or White householders.

The longitudinal nature of the PSID, coupled with the retrospective assessment of mobility outcomes, means that respondent attrition may bias estimates of mobility downward. Attrition is likely higher among mobile populations. For example, imagine that a householder is interviewed at the start of a mobility interval, subsequently moves, and then cannot be located by PSID interviewers in the next wave. This householder may be erroneously considered immobile, even though the cause of their attrition from the sample was mobility. Such attrition is a valid concern, but, for several reasons, is not likely to have biased the estimates reported here. First, response rates in nearly every wave of the PSID are above 90 percent (PSID Main Interview User Manual 2015). Second, the PSID uses a variety of strategies to minimize attrition, including monetary incentives, information on research they contribute to, newsletters, and off-year mailing address updates (Schoeni et al. 2001). Third, should those strategies fail, the family network structure of

PSID sampling means that a mobile respondent's next of kin can easily update his or her contact information.

4.2.2 *Measuring Mobility Expectations*

The PSID contains several items offering insight into mobility expectations. Household heads in every wave of the PSID are asked, "Are you (head) likely to move in the next few years?" Among those responding in the affirmative, two follow-up items gauge the reasons for the likely move and the probability that a move will actually be made. Through the 1993 survey, heads expressing an expectation to move were asked, "Why are you (head) likely to move?" In every survey since 1975, they were also asked, "Would you say you definitely will move, probably will move, or are you more uncertain?" There is a precedent in the literature on the expectation-mobility link for a focus only on *purposive* moves – those made in order to improve one's economic or social standing (Crowder 2001).

In this paper, however, theoretical emphasis is placed on involuntary, unexpected, and forced mobility as well, which may be missed if the definition the expectation of mobility is limited to those with purposive expectations only. I also do not limit mobility expectations with respect to the self-reported likelihood of actually moving. As such, the measure of mobility expectations used here is meant to maximize inclusivity and define the expectation to move broadly. Householders who expect to move are coded "1" on the mobility expectation variable in subsequent analyses, regardless of the likelihood of or reason for expected mobility. Those reporting no expectation of mobility are coded "0".

4.2.3 *Measuring Other Independent Variables*

The spatial assimilation model of residential mobility suggests that socioeconomic characteristics may explain any racial gap in the expectation-mobility link. To account for racial differences in employment income, as well as wealth and other assets, I control for family income (logged). In the PSID, this item captures the total taxable family income for the preceding year in thousands of 2000 constant dollars. Educational attainment indicates the number of years of completed education for the household head. Current employment (1 = employed) and changes in employment (1 = change between *t* and *t* +1) for the household head gauge respondents' relative economic stability (Newman and Duncan 1979; Speare 1974) and the degree to which respondents are tied to their current location and residence (Long 1988).

Life-cycle characteristics and transitions are associated with mobility. To model the generally negative and non-linear effect of age, I include both the household head's age (in years) and the quadratic term age-squared. Married couples are generally less mobile than their single counterparts (South and Deane 1993), but changes in marital status often necessitate mobility (Speare et al. 1987). Therefore, I control for current marital status (1=married or cohabiting) and changes in marital status over the mobility interval. Householders with children, measured in this analysis as the total number of children in the household, may be more tied to the community and, therefore, less likely than their childless counter parts to move (Long 1972; Rossi 1980). At the same time, however, children may also promote mobility as householders seek access quality schools and neighborhoods (South and Crowder 1997). Finally, because female householders tend to move more often than other families (Long 1992), I also control for the gender of the household head (1=female).

Models of residential satisfaction stress the importance of several housing characteristics in determining the mobility of families and individuals (Speare 1974). Residential crowding, measured here as the number of persons per room, increases the likelihood of moving (Rossi 1980). Net of other factors, homeownership (1=homeowner) reduces mobility, relative to renters, by virtue of greater financial and social investments in the current location, as well as the greater costs associated with buying and selling a home. Finally, mobility is negatively associated with the tenure length (Rossi 1980), measured here as a dummy variable indicating whether the householder has lived in the same house for at least three years (1=yes).

Metropolitan housing market variables are intended to capture "tightness" and competition in the local housing market, as individuals may be less likely to move when vacancies are low. The proportion of housing units in the metro area that are vacant and the proportion of units built in the last 10 years directly capture the local available options for householders expecting to move. The owner-occupancy rate is also included because markets that are owner-dominated are likely tighter than those where rental units are more prevalent. Finally, I include a regional dummy variable to account for regional variations in unmeasured economic, social, and political characteristics that may influence mobility. These metropolitan area contextual indicators are drawn from the Neighborhood Change Database, which normalizes tract and metropolitan boundaries over time and reports decennial Census and ACS data. Respondent records for the 1970-1975 period are linked to 1970 Census data, while those for the 1976-1985, 1986-1995, and 1996-2005 periods are linked to Census data from 1980, 1990, and 2000 respectively. Data for 2006-2011 are linked to American Community Survey 2006-2010 data.

4.2.4 *Analytical Strategy*

Analyses proceed as follows. First, I estimate logistic regression models predicting the log odds of inter-dwelling mobility as a function of mobility expectations, while controlling for the individual, familial, and metropolitan contextual characteristics discussed above. Second, I estimate multinomial logistic regression models predicting specific expectation-outcome combinations. Because the observations contributed by the same individual over time are not completely independent, standard errors in all models are corrected by clustering observations for the same individual over time (Liang and Zeger 1986).

Any potential mover may either expect to move or not, and may actually move or not. Therefore, for the multinomial logit model, expectation-mobility outcomes are categorized as follows: "Rooted" indicates that a householder both did not expect to and did not move in a given interval; "Unexpected" indicates that a move occurred despite not expectation of mobility; "Stuck" indicates that no move occurred despite the expectation of mobility; and "Realized" indicates that a householder both intended to and actually did move in a given interval. It should be noted, however, that the names attached to these combinations is merely short-hand and may not reflect the true character of any specific expectation-mobility outcome.

4.3 RESULTS

Summary statistics are presented in Table 4.1, separately for Black and White householders. Over the period from 1970 to 2011, Black householders were more likely than Whites to expect to move in the near future (41% to 36%) and slightly more likely to move between successive PSID surveys (22% to 19%). In analyses not shown, I find that the higher mobility of Black householders reflects group differences in homeownership and socioeconomic status. Only 35% of Black householders are homeowners, but 66% of their White counterparts owned their home.

Black women are also far more likely head the household than White women in this sample (46% and 22% respectively), and Black households have more children, on average, than White households. Finally, the average housing market characteristics of Black and White householders are quite similar. Householders in this sample live in markets with vacancy rates of 8%, homeownership rates of roughly 60%, but Black householders tend to live in markets with larger new housing stock shares (24% to 21%).

4.3.1 *Racial Stratification in the Expectation-Mobility Link*

Is there a gap in the ability of Black and White householders to translate mobility expectations into actual residential mobility? Table 4.2 presents the results of a series of logistic regression models predicting the log-odds of moving between dwellings between successive PSID interviews. Of central importance to this study are mobility expectations, which significantly increase the odds of actually moving among both Black and White householders. As the negative coefficient in Model 1 for the interaction between race and mobility expectations indicates, there is a large and statistically significant racial difference in the connection between mobility expectations and actual mobility. Expecting to move is substantially less predictive of a subsequent move for Blacks than for Whites.

The spatial assimilation perspective suggests that racial gaps in the expectation-mobility link may reflect the disadvantaged socioeconomic position of Blacks relative to Whites. Black householders may be less able to realize their mobility expectations because they lack the requisite economic resources. Model 2 in Table 4.2 adds in several measures of socioeconomic standing to test the spatial assimilation perspective. The inclusion of these socioeconomic controls decreases the magnitude of the race-expectations interaction term (from -0.684 to -0.675), but the effect remains substantial and statistically significant. As such, contrary to the

expectations of the assimilation model, after controlling for racial differences in socioeconomic characteristics the connection between mobility expectations and actual mobility is still significantly weaker for Blacks than for Whites.

The racial gap in the link between expectations and actual mobility is explained further by individual life-cycle and household structure characteristics. Model 3 in Table 4.2 shows that the inclusion of these characteristics shrinks the coefficient for the expectations-by-race interaction term (from -0.675 to -0.586), but the coefficient remains statistically significant at $p<0.001$. As expected by life-cycle perspectives, the log odds of mobility decrease with marriage/cohabitation, the number of children in the household, and with age (though the age effect is non-linear due to retirement mobility). Changes in marital/cohabitation status and household crowding are associated with increased mobility.

Metropolitan housing market characteristics do little to explain the racial gap in the link between expectations and mobility, but they nonetheless influence the log odds of mobility significantly. Results in Table 4.2, Model 4 suggest that mobility is, indeed, more likely in relatively open housing markets. The log odds of mobility are higher in markets with larger vacant ($\beta = 1.034$, $p<0.001$) and newly constructed ($\beta = 0.991$, $p<0.001$) shares. Contrary to expectations, however, mobility is also higher in markets with larger homeownership rates.

The practical implications of the results presented in Table 4.2 are illustrated in the left-hand panel of Figure 4.1, which shows the predicted probability of inter-dwelling mobility for Black and White householders expecting a move (or not) at the beginning of a mobility interval, based on coefficients in Model 1 of Table 4.2. Consistent with prior studies, there is a rather sharp racial mobility gap among those who do not expect to move (Crowder 2001). While only 7% of White householders experience an unexpected move, 11% of Black householders do. This gap

suggests that mobility for Blacks is less a matter of choice than it is for Whites. This conclusion is also supported by retrospective items in the PSID which gauge the respondent's reasons for making a move. Nearly 20% of Black householders report making a move necessitated by "outside events", while only 14% of Whites do so.

Consistent with past studies (Crowder 2001), these results suggest a relatively small gap in gross predicted probabilities among Whites and Blacks who expect to move. Forty-one percent of Whites and 38% of Blacks who expected to move at time *t* did so by time *t*+1. Controlling for racial differences in socioeconomic status, family structure, housing, and contextual characteristics does little to explain the racial gaps in the expectation-mobility link. The persistence of the racial gap in the face of these controls provides evidence for the stratification model of residential mobility. As shown in the right-hand panel of Figure 4.1, micro-level and contextual controls do not attenuate the racial mobility gap in unexpected moves, and controlling for family and housing micro-level characteristics, by accounting for the higher mobility of Black householders, unveils an even larger racial mobility gap in expected moves. Among those who expect to move, Black householders are fully 25% less likely to realize those expectations than Whites (0.252 vs. 0.316). As such, even after controlling for racial differences in micro- and contextual-level characteristics, Blacks are less likely than Whites to convert mobility expectations into a move and more likely to experience an unexpected move.

4.3.2 *The Weakening Link between Expectations and Mobility*

The positive link between mobility expectations and mobility outcomes has weakened considerably over time, even as overall rates of mobility have declined. Models 3 and 4 in Table 4.2 include a measure of time denoting the year of the start of each mobility interval. As the negative coefficients for year in both models suggest, the log odds of mobility decrease over

time. The statistical robustness of the year terms suggest that many of the proposed explanations of mobility decline – such as population aging, increasing homeownership, and rising education levels – cannot fully explain the increasing immobility of Americans since 1970.

In the context of this unexplained long-term decline, the cultural "rootedness" hypothesis implies that Americans should be increasingly able to translate expectations into actual residential mobility because the information and transportation costs associated with mobility have declined (Cooke 2011; Zelinsky 1971). Model 1 of Table 4.3 tests this hypothesis with a three-way Expectation*Year*Year interaction term capturing non-linear changes in the effects of expectations on mobility outcomes over time. Contrary to the "rootedness" hypothesis, the ability of both Black and White Americans to translate mobility expectations into actual mobility has *declined* since the 1970s.

The non-linear and weakening link between expectations and mobility outcomes is difficult to appreciate by only examining the coefficients in Model 1 of Table 4.3. Therefore, Figure 4.2 plots the predicted probabilities of mobility separately for householders expecting and not expecting to move. Fortunately, there is no indication of an upward trend in mobility among those not expecting to move in Figure 4.2. Householders expecting to move, however, are increasingly *less likely* to actually move over the course of the PSID, from 1970 to 2011. This changing effect is non-linear, and recent weakening in the link appears to predate the recession and foreclosure crises of the 2000s. As such, rather than having more control over their mobility outcomes, Americans today are roughly 45% less likely to move when they expect to than they were in 1970 (0.34 to 0.18). "Rootedness" is less voluntary than studies of mobility decline to date have acknowledged. Absent some inexplicable change in what PSID respondents mean

when they say they expect to move, Black and White householders alike are increasingly unlikely to realize their stated mobility expectations.

4.3.3 *Stratification in the Weakening Expectation-Mobility Link*

How has the Black-White gap in the expectation-mobility link changed over time? Models 2 and 3 in Table 4.3 model White and Black householders, respectively. These models show, once again, that the link between mobility expectations and mobility outcomes is weaker for Blacks than for Whites, though three-way (Expectation*Year*Year) interactions in Table 4.3 make gaps and changes in those gaps difficult to gauge.

These complicated interactions are depicted graphically in Figure 4.3. On the bright side, Figure 4.3 clear shows that Black-White gaps in the predicted probability of mobility have closed over time, such that the gap is nearly insignificant as of 2011. However, the gap has closed not because of the increased probability that Black householders expecting to move will do so, but because of the rapidly declining probability of mobility among expectant White householders. As such, these results suggest a continuation of residential mobility trends which keep Black householders in relatively disadvantaged contexts, even as White householders' power to control their residential mobility outcomes weakens.

4.3.4 *"Rooted" or "Stuck"*

Black-White gaps in the expectation-mobility link has, thus far, been modeled and discussed only in general terms which mask significant racial and temporal variations in the four possible combinations of expected and actual mobility outcomes. Given that expectations matter less over time, are Black and White householders equally likely to be more "rooted" or "stuck", to experience "unexpected" mobility, or to "realize" expectations to move? Figures 4.4 through 4.7

depict the results of multinomial logistic regression models (Table 4.4) predicting householders' expectation-mobility outcome combinations, before and after controlling for individual, life-cycle, family, household, and housing market characteristics as shown in Models 1 and 4 of Table 4.2. In short, these plots show the predicted probability of each expectation-mobility outcome combination between 1970 and 2011 for both Black and White householders.

Figure 4.4 provides little evidence that all Americans are simply more "rooted". The left-hand panel depicts the gross predicted probability of not expecting to move and actually not moving for White and Black householders between 1970 and 2011. While both White and Black householders are more likely to remain "rooted" than to fall into any of the other three categories (as indicated by predicted probabilities greater than 0.5), the probability of remaining "rooted" has increased for Whites (0.55 to 0.64) but has declined slightly for Blacks. As shown in the right-hand panel of Figure 4.4, the increasing rootedness of White householders is accounted for by the individual, household, and contextual controls used in Model 4 of Table 4.2. Conversely, the decline in the probability of rootedness among Blacks is more dramatic after accounting for the generally disadvantaged position of Black householders. Taken together with the evidence of a weakening link between expectations and actual mobility, changes in the likelihood of "rootedness" as defined here cast serious doubts on the cultural hypothesis often defaulted to in the mobility decline literature.

Rather than becoming more "rooted" over time, White and, to a larger extent, Black householders are increasingly "stuck" in place – increasingly less likely to move despite the expectation to do so. As shown in the left-hand panel of Figure 4.5, the raw predicted probability of being "stuck" in place increased from just over 0.2 to roughly 0.3, while Whites were no more likely to remain "stuck" in 2011 than in 1970. While controls account for some of the racial gap

in failing to move despite an expectation to do so, Black householders were more likely to be "stuck" in place in 2011 than their White counterparts. These trends are consistent with Sharkey's (2013) contention that Black Americans are figuratively "stuck in place", moving between relatively disadvantaged neighborhood contexts, but they suggest that the turn-of-phrase may be more descriptive of actual mobility outcomes than Sharkey intended. To an increasing extent, then, Blacks are simply less able to escape disadvantaged contexts (Seelye 2016) or less willing to settle for more of the same, resulting in unrealized mobility expectations.

Both White and Black householders are increasingly less likely to expect to move and realize those expectations (Figure 4.6). As shown in the left-hand panel of Figure 4.6, the gross probability of White householders expecting to move and actually doing so fell from 0.2 to 0.1 between 1970 and 2011. Over the same time period, Black "realized" mobility decreased only slightly. Individual, household, and contextual controls account for some of the dramatic decline among White householders, while explaining away slight declines among Blacks. As White householders become less likely to "realize" a mobility expectation, they also become more likely to remain "stuck". This trend is underscored by the fact that, between 1970 and 2011, householders were more likely to remain "stuck" in place than to "realize" their expectations, regardless of race (compare Figures 4.5 and 4.6).

Finally, despite increases in eviction rates (Desmond 2016: 3) and increased local mobility necessitated by foreclosures during the Great Recession (Stoll 2013), the left-hand panel of Figure 4.7 shows clear declines in the raw probability of "unexpected" or "forced" mobility for both Blacks (.077 to .057) and Whites (.049 to .039). Moreover, the racial gap in unexpected mobility is largely explained by the individual, household, and contextual variables as shown in the right-hand panel of Figure 4.7. As such, these results suggest that while widespread evictions

may be felt among subsets of the Black and White populations, namely women (Carll et al. 2016; Desmond 2016), the impact of evictions on aggregate mobility patterns is not so new as to offset long-term mobility decline.

4.4 CONCLUSIONS

This study links stratification in the early stages of the mobility process to persistent segregation, racial gaps in residential attainment and mobility, and long-term mobility in the U.S. Results locate the origins of racial stratification in mobility at the barriers Black householders face as they attempt to translate mobility expectations into actual mobility. Black householders, relative to their White counterparts, are less likely to move when they expect to and more likely to move when they do not expect to.

Thus, a racial gap in the salience of mobility expectations for actual mobility exists, but this gap has been shrinking since 1970. On the one hand, Blacks expecting to move remain less likely than Whites with similar expectations to actually make a move in the near future and the gap in the likelihood of remaining "stuck" is increasing over time. On the other hand, the link between mobility expectations and mobility outcomes is weakening at a much faster rate for Whites than for Blacks. The gap is shrinking, but not because Black householders are gaining more control over the residential mobility process. Instead, the closing gap reflects the increasingly likelihood among all Americans that their mobility expectations will remain unfulfilled.

The notion that Black Americans are "stuck in place" (Sharkey 2013), therefore, may not apply only to their tendency to remain in the same disadvantaged contexts regardless of mobility: Black Americans are actually stuck in the same physical space and unable to move despite the expectation to do so. This finding is consistent with Sharkey's (2015) more recent work noting sharp intergenerational declines and Blacks in the likelihood of mobility across county, state, and

regional boundaries. Moreover, this quantitative evidence corroborates recent qualitative studies of immobility in and among Detroit neighborhoods (Seelye 2016). However, the results presented here for White householders are inconsistent with Sharkey's (2015) findings that intergenerational trends for White mobility are constant. I find, instead, that all Americans, not just Black householders, are increasingly less likely to move.

The higher likelihood of unexpected or "forced" mobility among Black householders over the entire course of the PSID is consistent with Desmond's (2012, 2016) work on the rising incidence of evictions since the early 20th Century, particularly among females and householders of color. Black householders are much more likely than White householders to move despite no expectation of mobility, though this racial gap is explained by group differences in socioeconomic status and family structure. However, my results show that neither the overall likelihood nor the racial gap in "forced" mobility has increased over time. To the extent that widespread evictions across metropolitan areas contribute to unexpected mobility, this suggests that evictions for both Blacks and Whites may be part of a long-term trend that dates to at least the 1970s.

This study not only highlights racial gaps in the realization of mobility expectations, but it also shows that, regardless of race, expectations of mobility are less predictive of mobility outcomes over time. This is surprising, given that improvements in communication and transportation technologies have reduced the costs of mobility. Though the weakening link between mobility expectations and actual mobility is more dramatic among White householders, the mobility expectations of Black and White householders, alike, are less salient for actual mobility now than in 1970.

The weakening link between and persistent racial gap in expectations and mobility cast some doubt on the notion of a general mobility transition in favor of "rootedness". While it is true that mobility has declined for nearly all demographic and socioeconomic groups (Fischer 2002), the results presented here suggest that declines are the results of race-specific phenomena. Furthermore, these results have implications for the emerging literature attempting to explain long-term declines in mobility in the U.S. The tendency in this literature is to attribute unexplained portions of the decline to a cultural shift toward "rootedness" (Fischer 2002; Cooke 2011), but at least some portion of that unexplained decline may reflect the weakening link between mobility expectations and actual mobility.

This analysis is the first to identify and quantify the *narrowing* racial gap in and *weakening* expectation-mobility link among both Black and White Americans, but it has its limitations. First, changes in the salience of expectations for actual mobility may reflect changes in the formation of mobility expectations over time, rather than changes in Americans' abilities to realize stable expectations. Understanding if, how, and why mobility expectations change over time may add nuance to the results presented here, particularly if the expectation to move changes differently for Blacks than for Whites over time. Moreover, items gauging expectations in the PSID do not distinguish between long- or short-distance mobility aspirations. While both local mobility and long-distance migration have declined since the 1970s, it is unclear whether both long- and short-distance aspirations adhere to the racial and temporal patterns uncovered here.

Second, because of sample size issues in the PSID, this study includes only non-Latino White and non-Latino Black householders. But, the increasing diversity of the American population necessitates an understanding of the link between expectations and actual mobility for

Latinos, Asians, immigrant, and other groups. Incorporating these householders into the analysis, where and when possible, may expand our understanding of racial and ethnic stratification in the expectation-mobility link, while also broadening our understanding of the ways in which racial and ethnic segregation and inequality are perpetuated.

Finally, this study suggests that the link between mobility expectations and actual mobility may prove important for understanding long-term declines in mobility and migration since the mid-20th Century. Results do not support the notion of increasing "rootedness". Instead, my findings are consistent with the idea that social and economic shifts in the latter half of the 20th Century have left Americans with fewer options for, and a weakened ability to take advantage of, opportunities elsewhere.

Table 4.1. Summary Statistics for Black and White PSID Householders, 1970-2011

	NL Blacks		NL Whites	
	Mean	SD	Mean	SD
Expect to Move	0.41	0.49	0.36	0.48
Moved between Dwellings (t to t+1)	0.22	0.42	0.19	0.39
Education (years)	11.09	3.22	13.18	3.34
Family Income (logged, adjusted)	3.04	1.13	3.78	0.92
Employed	0.66	0.47	0.77	0.42
Change in Employment Status	0.13	0.34	0.08	0.28
Age	41.21	15.15	44.52	16.74
Female	0.46	0.50	0.22	0.41
Married/Cohabiting	0.39	0.49	0.66	0.47
Change in Marital/Cohabiting Status	0.05	0.22	0.05	0.22
Number of Kids in HH	1.28	1.51	0.82	1.15
Homeowner	0.35	0.48	0.66	0.47
Persons per Room	0.70	0.52	0.52	0.36
Tenure Length > 3 Years	0.51	0.50	0.57	0.49
Year	1987.87	10.41	1989.02	10.46
Vacancy Rate	0.08	0.03	0.08	0.04
Homeownership Rate	0.59	0.06	0.60	0.11
Housing Stock Built in Last 10 Years	0.24	0.09	0.21	0.09
N (Person-Years)	91,468		57,359	
N (Individual Observations)	9,892		6,939	

Unweighted Sample Means

Table 4.2. Logistic Regression Results Predicting the Log-Odds of Interdwelling Mobility for PSID Householders, Emphasis on Racial Gaps in Expectation Effects, 1970-2011

	(1)	(2)	(3)	(4)
Expect to Move	2.252***	2.164***	1.511***	1.510***
	(91.55)	(88.11)	(60.53)	(60.49)
Black	0.546***	0.383***	0.105***	0.0843**
	(16.26)	(11.08)	(3.44)	(2.69)
Black*Expect to Move	-0.684***	-0.675***	-0.586***	-0.588***
	(-18.41)	(-18.26)	(-17.09)	(-17.11)
Education (years)		0.0164***	0.00162	0.00290
		(4.87)	(0.49)	(0.88)
Family Income (logged, adjusted)		-0.287***	-0.0363***	-0.0268**
		(-26.18)	(-3.92)	(-2.87)
Employed		0.327***	0.0000762	-0.0139
		(14.34)	(0.00)	(-0.60)
Change in Employment Status		0.433***	0.242***	0.235***
		(18.96)	(10.14)	(9.86)
Age			-0.0632***	-0.0615***
			(-19.01)	(-18.50)
Age Squared			0.000483***	0.000462***
			(13.72)	(13.08)
Female			-0.0317	-0.0300
			(-1.17)	(-1.11)
Married/Cohabiting			-0.101***	-0.110***
			(-3.72)	(-4.06)
Change in Marital/Cohabiting Status			0.965***	0.960***
			(28.98)	(28.77)
Number of Kids in HH			-0.0302***	-0.0315***
			(-3.79)	(-3.94)

Homeowner			-0.909***	-0.948***
			(-41.84)	(-43.33)
Persons per Room			0.128***	0.132***
			(6.37)	(6.78)
Tenure Length > 3 Years			-0.692***	-0.658***
			(-34.74)	(-33.23)
Vacancy Rate				1.034***
				(3.44)
Homeownership Rate				0.272**
				(2.60)
Housing Stock less than 10 Years Old				0.991***
				(6.48)
Midwest				0.248***
				(8.05)
South				0.175***
				(4.90)
West				0.329***
				(9.05)
Year			-0.00788***	-0.00568***
			(-6.18)	(-3.67)
Constant	-2.538***	-1.946***	15.92***	10.86***
	(-109.55)	(-35.12)	(6.33)	(3.54)
N (Person Years)	148827	148827	148827	148827
N (Unique Individuals)	16831	16831	16831	16831
Chi-Squared	11885.2	13015.7	23405.8	23837.3

t-statistics are in parentheses; *p<0.05, **p<0.01, ***p<0.001.

Table 4.3. Logistic Regression Results Predicting the Log-Odds of Interdwelling Mobility for PSID Householders, with Emphasis on Changing Expectation Effects, 1970-2011

	Pooled	NL White	NL Black
Expect to Move	1.305***	1.563***	1.042***
	(24.61)	(21.66)	(13.27)
Year	-0.00393	-0.00509	0.0000633
	(-0.76)	(-0.73)	(0.01)
Year*Year	0.0000711	0.0000747	0.0000288
	(0.50)	(0.39)	(0.13)
Black	-0.299***		
	(-13.86)		
Expectation*Year	0.0140*	0.0200*	0.00338
	(2.44)	(2.56)	(0.39)
Expectation*Year*Year	-0.000704***	-0.000846***	-0.000525**
	(-5.21)	(-4.64)	(-2.62)
Education (years)	0.000101	-0.0000253	-0.00532
	(0.03)	(-0.01)	(-0.92)
Family Income (logged, adjusted)	-0.0259**	-0.0163	-0.0226
	(-2.74)	(-1.12)	(-1.83)
Employed	-0.0117	0.0310	0.000993
	(-0.50)	(0.85)	(0.03)
Change in Employment Status	0.237***	0.294***	0.185***
	(9.87)	(8.16)	(5.83)
Age	-0.0585***	-0.0638***	-0.0533***
	(-17.62)	(-14.37)	(-10.31)
Age Squared	0.000425***	0.000510***	0.000330***
	(12.09)	(11.06)	(5.73)
Female	-0.0281	0.0152	-0.101**
	(-1.04)	(0.39)	(-2.67)

Married/Cohabiting	-0.121***	0.00191	-0.277***
	(-4.48)	(0.05)	(-6.76)
Change in Marital/Cohabiting Status	0.961***	1.052***	0.882***
	(29.12)	(22.89)	(18.27)
Number of Kids in HH	-0.0332***	-0.0287*	-0.0327**
	(-4.09)	(-2.36)	(-2.99)
Homeowner	-0.970***	-0.949***	-1.042***
	(-44.19)	(-34.14)	(-26.89)
Persons per Room	0.130***	0.132***	0.147***
	(6.68)	(4.30)	(5.73)
Tenure Length > 3 years	-0.659***	-0.638***	-0.666***
	(-33.23)	(-23.95)	(-22.36)
Vacancy Rate	0.940**	0.334	3.006***
	(3.23)	(0.98)	(4.63)
Homeownership Rate	0.220*	0.0806	1.057***
	(2.12)	(0.65)	(4.09)
Housing Stock Built in Last 10 Years	1.032***	1.309***	0.453
	(6.77)	(6.70)	(1.74)
Midwest	0.239***	0.242***	0.168**
	(7.84)	(6.59)	(2.89)
South	0.173***	0.261***	0.0585
	(4.88)	(5.95)	(0.94)
West	0.321***	0.310***	0.371***
	(8.91)	(7.08)	(5.27)
Constant	-0.235*	-0.499**	-0.679**
	(-2.02)	(-3.23)	(-3.25)
N (Person-Years)	148827	91468	57359
N (Unique Individuals)	16831	9892	6939
Chi-Squared	24318.1	16811.9	7638.6

t-statistics are in parentheses; *p<0.05, **p<0.01, ***p<0.001.

Table 4.4. Multinomial Logistic Regression Results Predicting Expectation-Mobility Outcomes for Black and White PSID Householders, 1970-2011.

	Forced	Stuck	Realized	Forced	Stuck	Realized
Black	0.452***	0.107	-0.134	-0.219*	-30.96***	-0.836***
	(4.90)	(1.55)	(-1.89)	(-2.37)	(-7.71)	(-11.20)
Year	-0.00901	-0.00469	-0.00137	-0.00199	0.00266	0.00414
	(-1.24)	(-0.98)	(-0.26)	(-0.27)	(1.17)	(0.72)
Year*Year	-0.0000632	0.0000596	-0.000661***	-0.0000524	0.000210	-0.000379*
	(-0.32)	(0.47)	(-4.50)	(-0.25)	(1.50)	(-2.33)
Black*Year	0.00715	0.00922	0.0184*	0.00804	0.0155***	0.0114
	(0.73)	(1.31)	(2.46)	(0.83)	(7.68)	(1.48)
Black*Year*Year	-0.0000727	0.0000904	-0.0000566	-0.0000228	0.0000634	0.000153
	(-0.32)	(0.57)	(-0.32)	(-0.10)	(0.38)	(0.85)
Education (Years)				-0.0229***	0.0510***	0.0624***
				(-4.40)	(11.10)	(12.91)
Family Income (logged, adjusted)				-0.0391**	0.0957***	0.0826***
				(-3.03)	(7.19)	(6.17)
Employed				0.0174	-0.0147	-0.0466
				(0.47)	(-0.47)	(-1.46)
Change in Employment Status				0.332***	0.245***	0.436***
				(8.70)	(8.99)	(14.19)

Age	-0.0841***	-0.0604***	-0.108***
	(-16.71)	(-13.73)	(-22.79)
Age Squared	0.000657***	0.000260***	0.000593***
	(12.88)	(5.55)	(11.58)
Female	-0.112*	-0.319***	-0.340***
	(-2.50)	(-7.52)	(-8.08)
Married/Cohabiting	-0.258***	-0.386***	-0.445***
	(-5.47)	(-9.61)	(-11.13)
Change in Marital/Cohabiting Status	1.495***	0.420***	1.064***
	(30.93)	(10.96)	(25.82)
Number of Kids in HH	0.00856	-0.0563***	-0.121***
	(0.63)	(-5.28)	(-10.65)
Homeowner	-1.171***	-1.537***	-2.315***
	(-33.58)	(-49.63)	(-75.59)
Persons per Room	0.0178	0.241***	0.411***
	(0.37)	(6.77)	(10.05)
Housing Tenure Length > 3 Years	-0.849***	-0.0238	-0.571***
	(-26.41)	(-1.09)	(-21.85)
Vacancy Rate	0.871	-1.193**	0.241
	(1.88)	(-2.97)	(0.60)

Homeownership Rate				0.102	-1.209***	-0.765***
				(0.68)	(-7.39)	(-5.16)
Housing Stock built in Prior 10 Years				0.986***	0.583*	1.607***
				(4.10)	(2.54)	(7.21)
Midwest				0.250***	0.128**	0.377***
				(4.79)	(2.80)	(8.28)
South				0.227***	-0.0902	0.0698
				(3.95)	(-1.74)	(1.35)
West				0.423***	0.0115	0.317***
				(6.88)	(0.21)	(5.87)
Constant	-2.440***	-0.963***	-0.985***	0.831***	1.974***	2.479***
	(-36.93)	(-27.16)	(-26.38)	(4.41)	(11.85)	(15.04)
N		148827			148827	
Chi-Squared		1126.9			23172.6	

t-statistics are in parentheses; *p<0.05, **p<0.01, ***p<0.001.

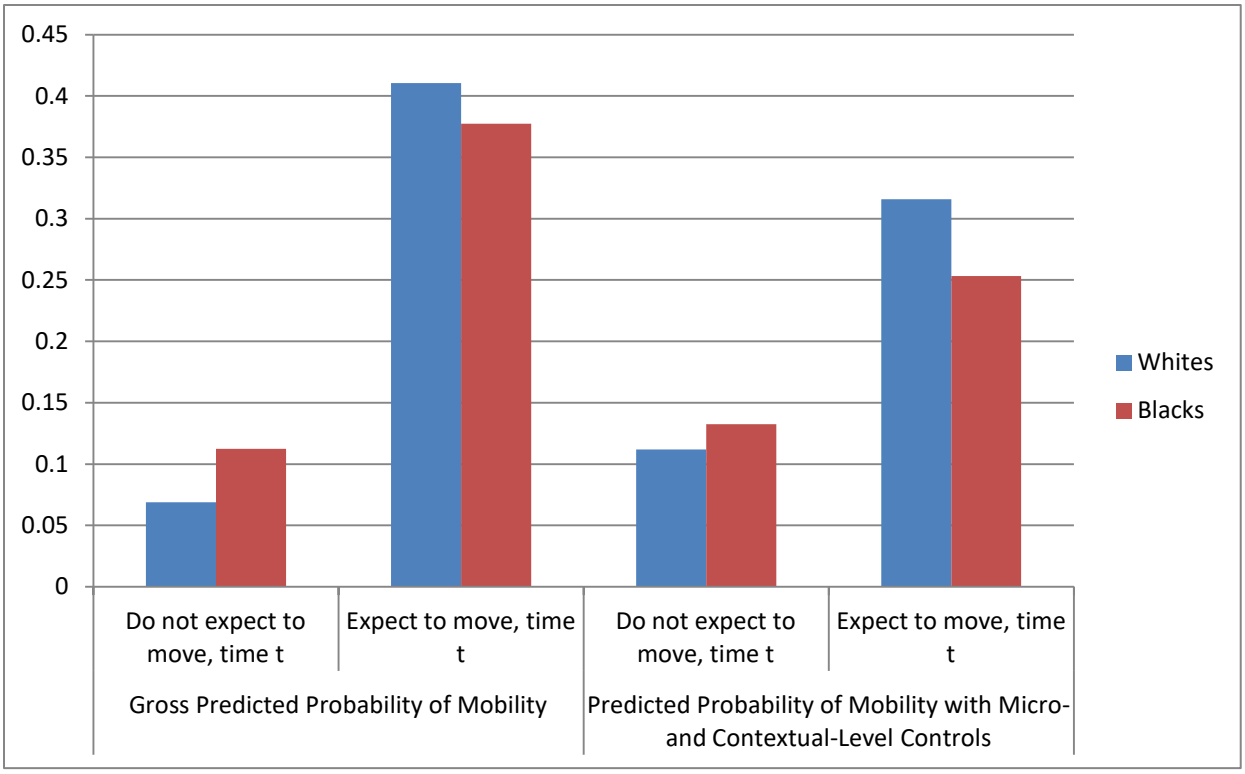

Figure 4.1. Racial Differences in the Predicted Probability of Interdwelling Mobility for Black and White Household Heads, 1970-2011.

The left-hand panel is based on coefficients in Table 2, Model 1. The right-hand panel is based on coefficients in Table 2, Model 4, and pooled means on all control variables are assumed.

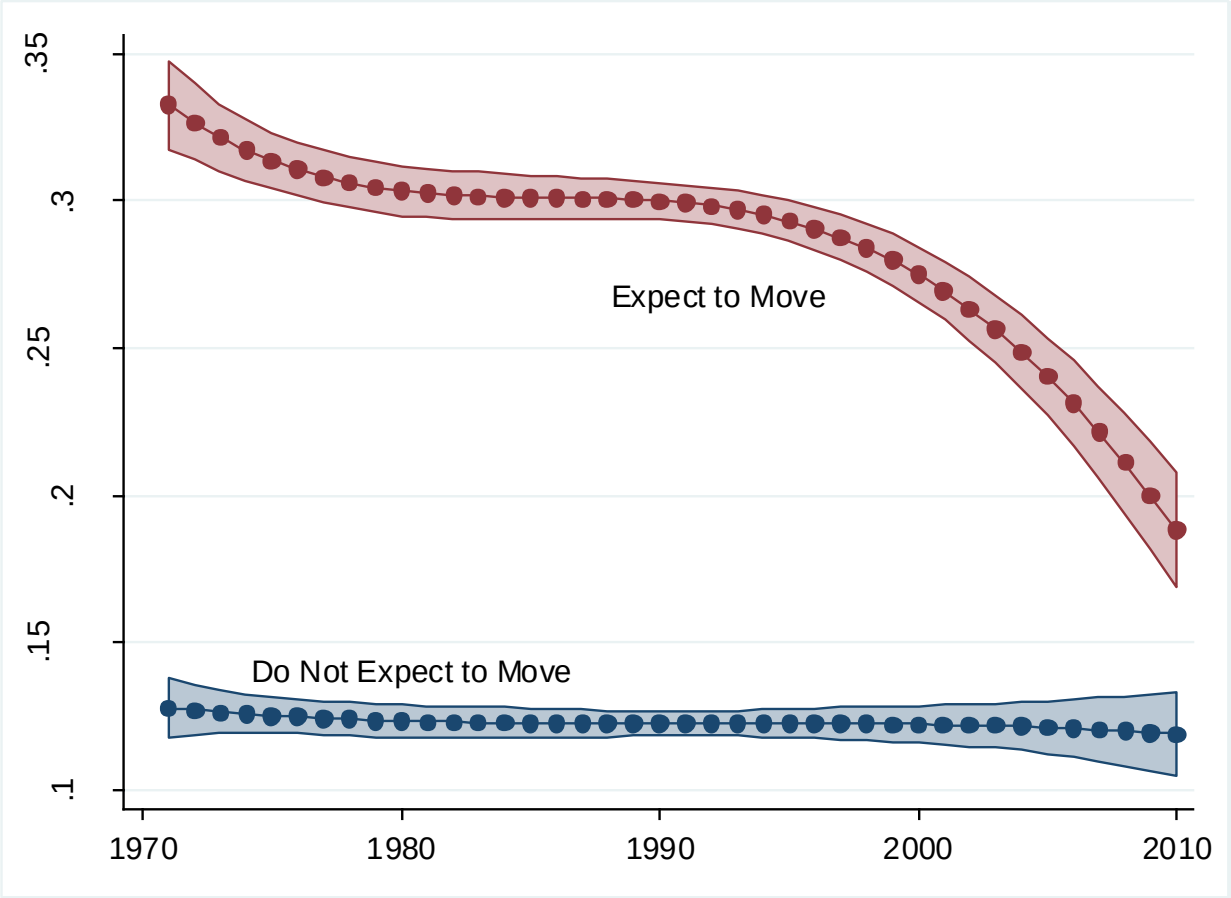

Figure 4.2. The Weakening Link between Mobility Expectations and Mobility Outcomes among PSID Householders, 1970-2011.

Marginal Probabilities based on Model 1 of Table 3, and pooled means on all control variables are assumed. Shaded regions represent a 95% confidence interval.

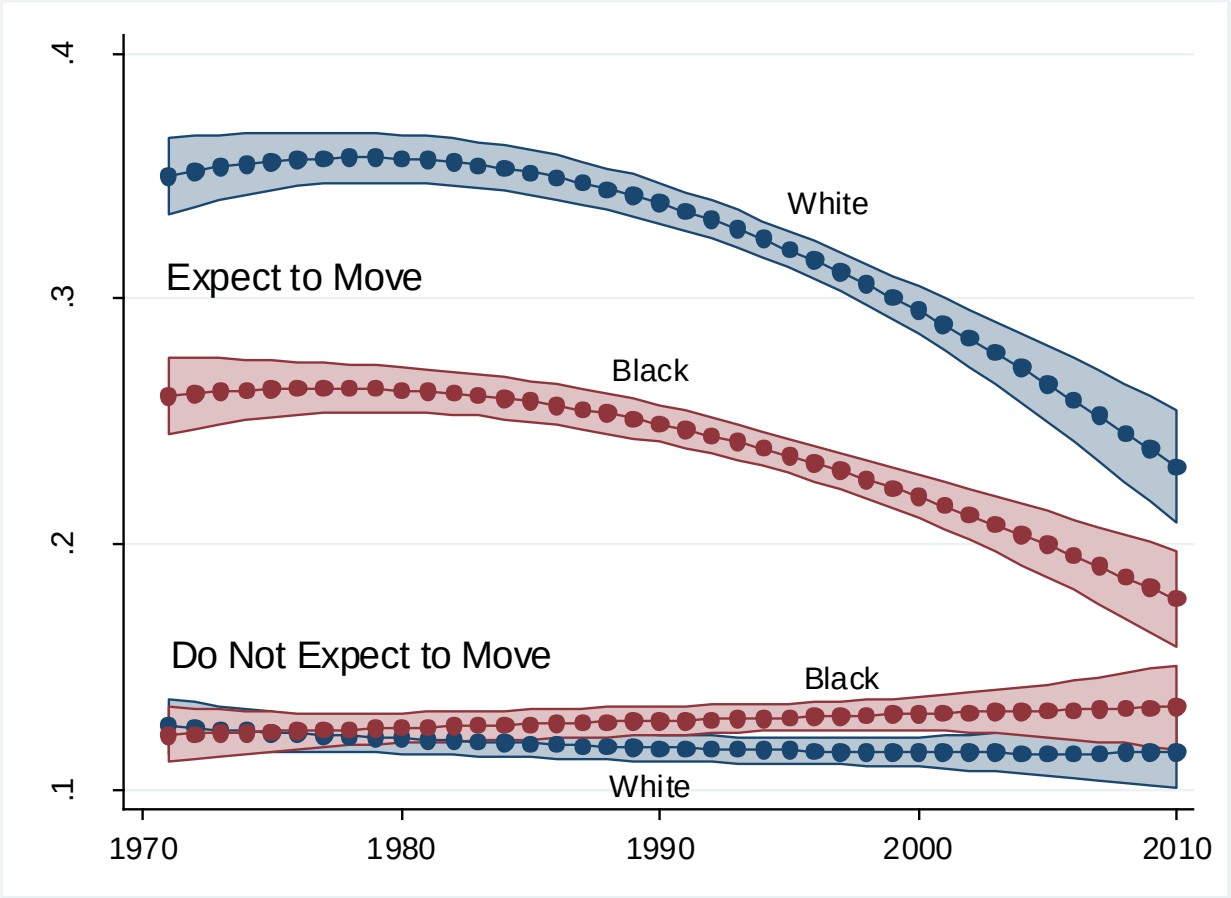

Figure 4.3. The Changing Black-White Gap in the Link between Mobility Expectations and Actual Mobility among PSID Householders, 1970-2011.

Marginal probabilities are based on the results of a model not shown, but similar to Model 1 in Table 3, which models a four-way interaction between Race, Expectations, and Year^2. Pooled means on all control variables are assumed. Shaded regions represent a 95% confidence interval.

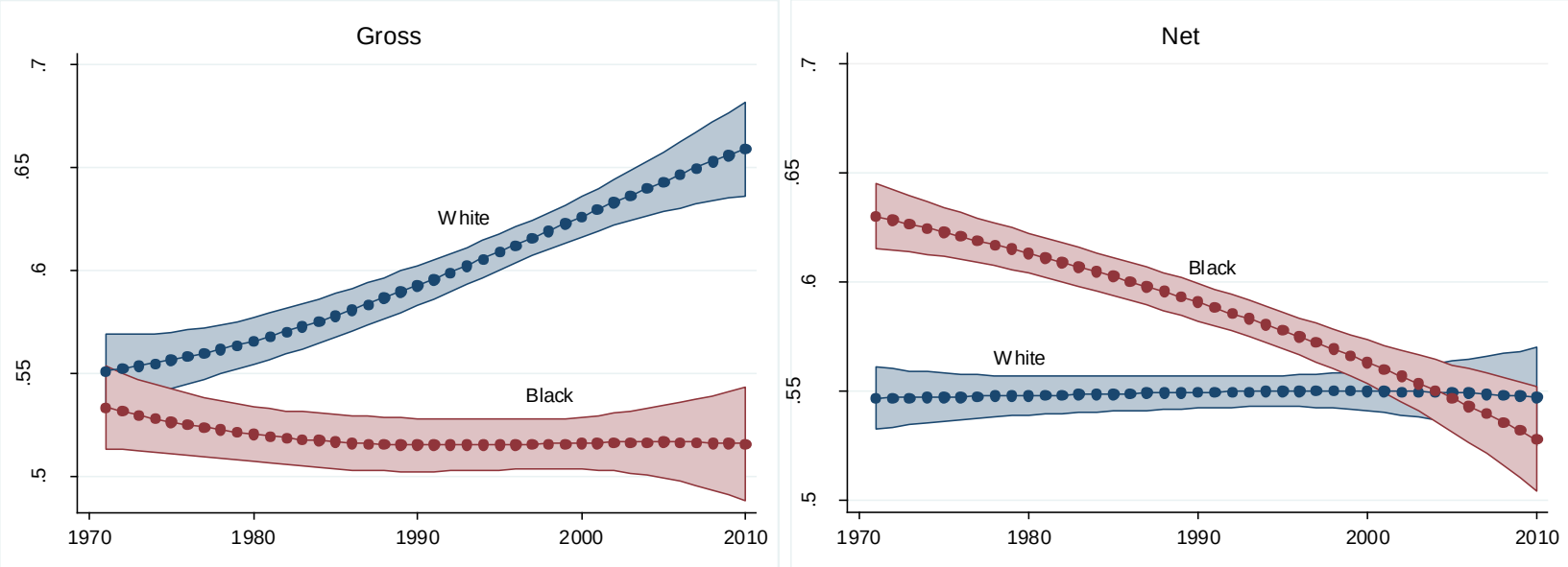

Figure 4.4. Racial Differences in the Predicted Probability of "Rootedness" for Black and White PSID Householders, 1970-2011.

Predicted probabilities are based on the results of multinomial logistic regression models (Appendix A). Shaded regions represent a 95% confidence interval.

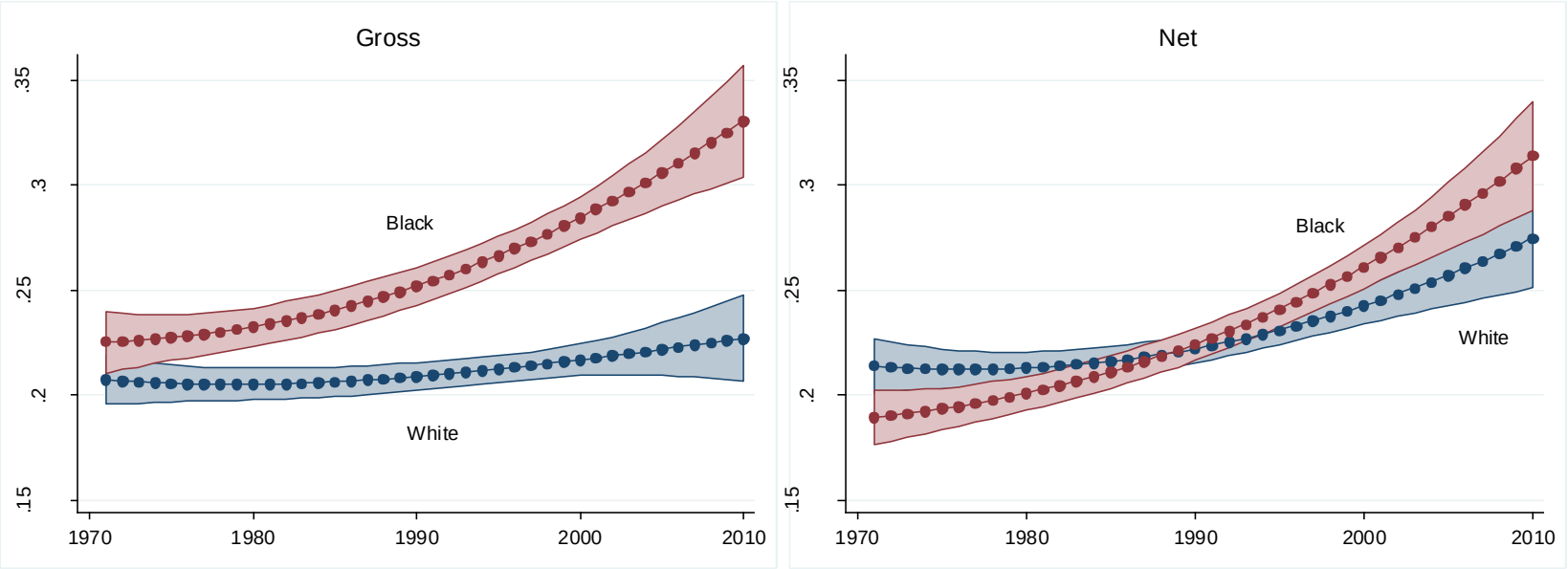

Figure 4.5. Racial Differences in the Predicted Probability of Remaining "Stuck" for Black and White PSID Householders, 1970-2011.

Predicted probabilities are based on the results of multinomial logistic regression models (Appendix A). Shaded regions represent a 95% confidence interval.

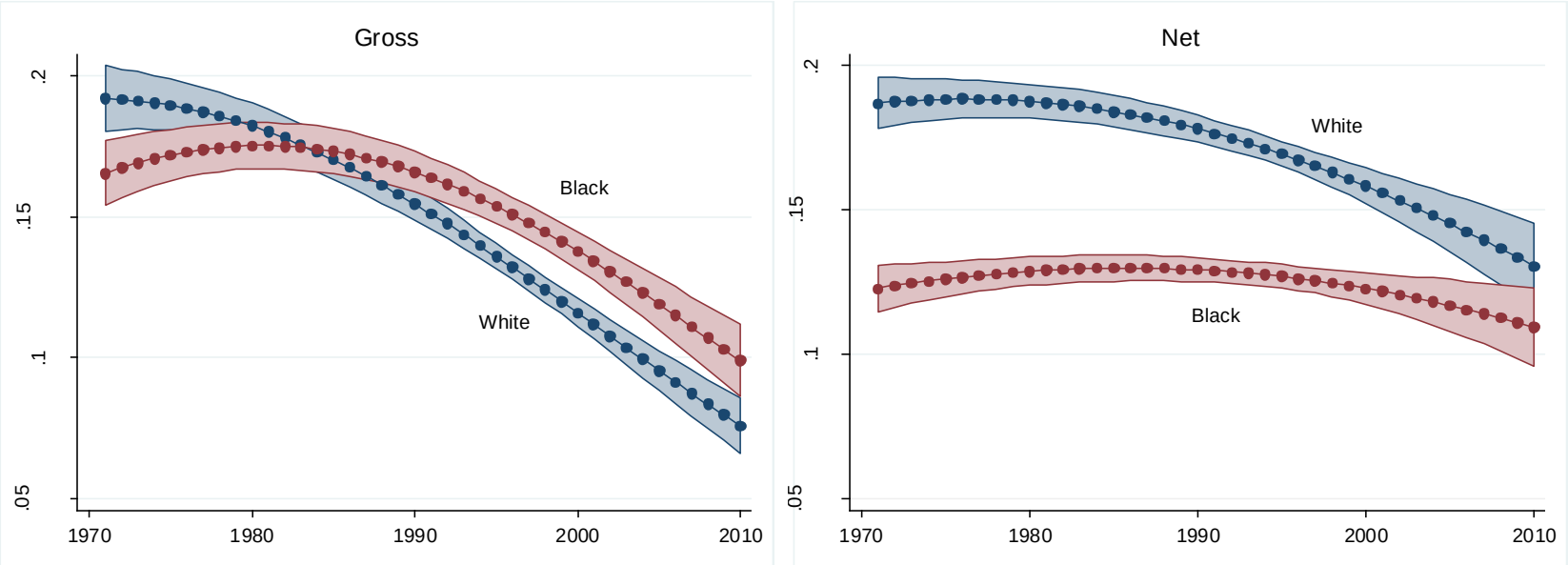

Figure 4.6. Racial Differences in the Predicted Probability of "Realizing" Mobility Expectations for Black and White PSID Householders, 1970-2011.

Predicted probabilities are based on the results of multinomial logistic regression models (Appendix A). Shaded regions represent a 95% confidence interval.

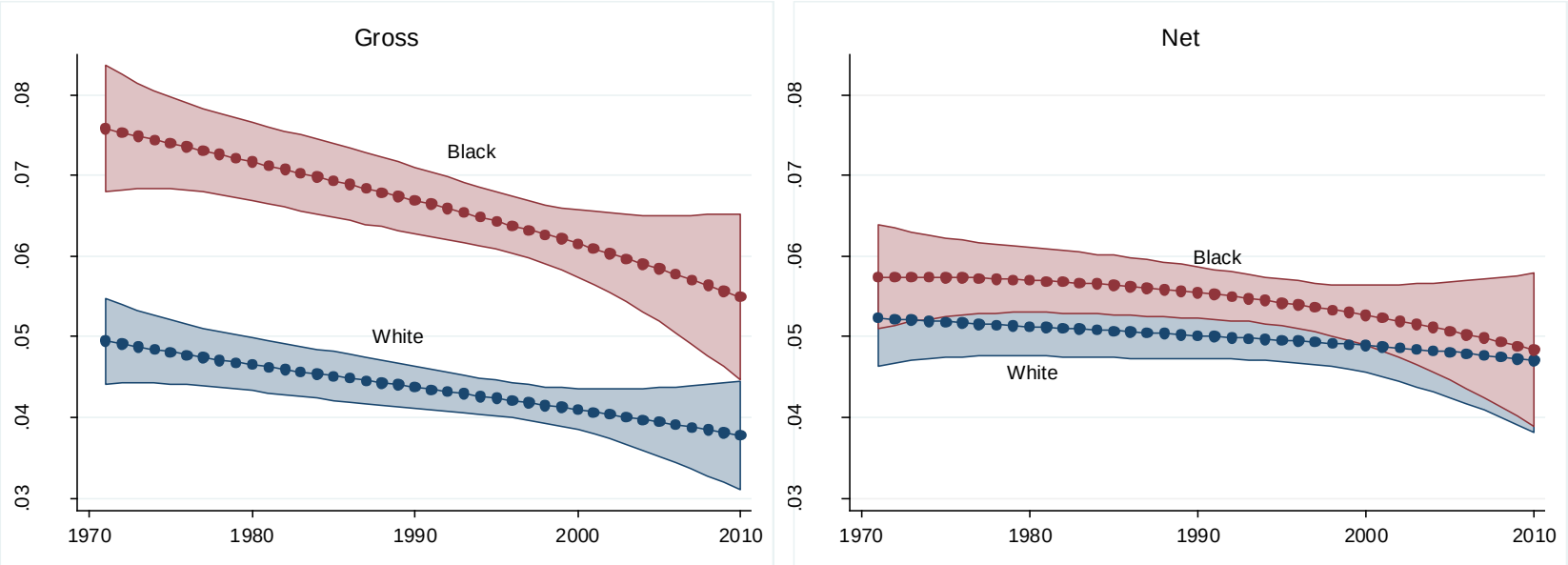

Figure 4.7. Racial Differences in the Predicted Probability of "Forced" Mobility for Black and White PSID Householders, 1970-2011.

Predicted probabilities are based on the results of multinomial logistic regression models (Appendix A). Shaded regions represent a 95% confidence interval.

Chapter 5. CONCLUSION

5.1 STUCK, NOT ROOTED

Recent declines in mobility and migration are not unprecedented. Immobility does not appear to be voluntary. And, while it is relatively widespread among all Americans, the rate of decline varies substantially from one group to another, especially by race and age group. The findings reported in previous chapters, therefore, support one general conclusion regarding increasing immobility in the U.S.: we are not rooted, we are stuck.

Evidence in favor of this general conclusion comes, first, in the form of trends in the expectation of mobility among American householders. While the share of the population expecting to move in a given year declines between the late 1970s and early 2000s, the general long-term trend is upward. Moreover, the periodic decline in mobility expectations is fully explained by changes in the determinants of mobility expectations over time. As such, there is little room left for a shift toward a more "rooted" populace. On the contrary, recent upticks in the expectation of mobility since the Great Recession may, in fact, signal the beginning of a new rise in mobility and migration in the U.S.

Further evidence in favor of the "stuck" hypothesis comes in the form of American householders' weakening ability to translate expressed mobility expectations into actual residential mobility. Between 1970 and 2011, the probability of mobility among householders expecting to move declined rapidly, such that as of 2011, householders expecting to move are only slightly more likely to move than those not expecting to do so. So, while householders are more likely to expect to move now than in 1970, they are much less likely to actually do so. In other words, they are increasingly stuck in place.

Evidence against the "rootedness" interpretation of declining geographic mobility is also found in the form of dramatic variation in the rates at which mobility and migration decline occurs in particular demographic groups. Declines are particularly sharp among Whites and those under age 35. The demographic concentration of declines suggests that the source of migration and mobility decline is not a universal cultural shift, but may instead be structural shifts that influence the mobility of some groups disproportionately.

5.2 CAUSES

I argue that the causes of contemporary migration and mobility decline, broadly speaking, are social and economic shifts in the latter half of the 20th Century that left the typical American with fewer options for, and a weakened ability to take advantage of, opportunities elsewhere. To an increasing extent, Americans are stuck in place with few options for positive mobility and a compromised ability to act on opportunities when they present themselves.

Several monumental shifts in the US deserve noting here, in that they contribute to what some have described as "decades of discontent". Since the peak in annual mobility rates circa 1950, we have witnessed broad economic restructuring involving a shift from a manufacturing to an information economy; rapidly increasing inequality and stagnant wages for those in the middle and bottom of the income distribution; deunionization, deregulation, and the rise of neoliberal ideologies; and monumental advancements in communication and transportation technologies. Most scholars of contemporary mobility decline acknowledge that some, if not all, of these factors play a role in increasing immobility among Americans.

Some interesting research on declining job and employer transitions is consistent with this perspective. Declining union membership has left the typical worker in a marginalized

bargaining position vis-à-vis their employers (Rosenfeld 2014). According to Molloy and colleagues (2014), this marginalization is a key driver of declines in employer and industry transitions since the 1980s: because workers are increasingly unable to negotiate an improved starting wage with new employers, job transitions and migration between labor markets have declined. Deunionization, coupled with the significant bifurcation of the labor market into high-skill, high-wage knowledge work and low-skill, low-wage service work (Harrison and Bluestone 1988), has resulted in stagnating or declining real wages for most Americans (Western and Rosenfeld 2011). More work is needed to understand exactly why job and employer transitions are on the decline, however. As Karahan and Rhee (2014) demonstrate, roughly half of all declines in interstate migration since 1980 (much of which is the result of work transitions) can be attributed to population aging and the second-order calming effects of an older labor force on the migration patterns of younger age groups.

Making sense of migration decline and labor market dynamics might require theoretical perspectives that acknowledge the political economy of place (Logan and Molotch 1987; Molotch 1976). There is some indication that labor market convergence and equilibration may play a role in reducing migration (Kaplan and Schulhofer-Wohl 2012), but results are by no means conclusive (Partridge et al. 2012). As such, the unresponsiveness of labor to regional disequilibria in demand and wages confounds theoretical approaches to migration and mobility grounded in neoclassical economics. The political economy of place perspective acknowledges the grounding of macroeconomic processes in particular places, as well as the competing interests guiding where and when those processes are grounded. A better understanding of how and why certain labor markets succeed and others fail may also inform our understanding of declining mobility and its consequences.

A complementary line of research might pursue a closer understanding of the cost-benefit decisions made by individuals and families when considering migration and an analysis of the returns to migrations for those who move. This line of research might address, among other things, three important lingering questions in the migration decline literature. First, are the returns to migration and mobility declining over time? Second, is there any indication that the decision-making calculus of families has changed over time? That is, do individuals and families today place less weight on the perceived returns to migration than they did in the past? Finally, is there any indication of racial/ethnic stratification in these changes over time?

Decomposition analyses also revealed concentrated declines among those 18 to 35, and in particular, those 18 to 24. Future research would do well to shed light on this phenomenon. On the one hand, successively lower peak mobility rates across successive synthetic cohorts (Figure 2.3) might point to cultural or generational changes. For example, changes in cultural expectations of children and parents surrounding household formation, labor market entry, and self-sufficiency could underlie these sorts of trends. On the other hand, declining mobility in each successive generation could reflect the increasing costs associated with labor market entry (i.e., the need for a college or advanced degree) and household formation (i.e., the need for a dual-earner household and/or the rising costs of housing), as well as skill and credential mismatches in the new information economy. Acknowledging and understanding these group-specific differences in declines could shed additional light on the potential consequences of immobility.

5.3 Consequences

I consider the consequences of mobility and migration decline in this dissertation primarily through the lens of racial stratification in residential mobility. On the one hand, this is a function

of the tendencies of the residential mobility literature to focus on racial and ethnic differences in outcomes. On the other hand, the decomposition presented in Chapter Two identifies drastic racial differences in rates of mobility decline. Subsequent analyses of mobility expectations and the translation of those expectations into actual mobility also point to substantial Black-White differences in the character or experience of mobility decline.

The declining expectation of mobility noted above is entirely a White phenomenon. Mobility expectations among Black householders increased steadily between 1970 and 2011. While the decline in mobility expectations among White householders is fully explained by concomitant shifts in individual, familial, and contextual characteristics, the increasing expectation of mobility among Black householders is not. This latter point, in and of itself, is a refreshingly hopeful finding and suggests that Black householders may less restricted with respect to the possibility of mobility than in the past.

Despite the increasing expectation of mobility, however, Black householders are less able to translate those expectations into actual mobility outcomes as time goes on. Nevertheless, the Black-White gap in the expectation-mobility link has shrunk to non-significance because the ability of White householders to move when they expect to has declined even faster than that of Blacks. My analysis of PSID householders suggests that, as of 2009, Black householders expecting to move were only slightly more likely to actually move than those with no expectation of mobility.

Racial stratification in expectations and the translation of expectations into mobility is concerning because immobility threatens to slow racial/ethnic integration witnessed in recent decades (Glaeser and Vigdor 2012; Vigdor 2013). Integration, whether by race, socioeconomic status, or both, requires mobility. But racial integration, in particular, often requires the

pioneering of predominantly White communities by Black householders. As such, increasing immobility has probably slowed the path toward integration. Slowing integration, in turn, has direct impacts on racial stratification in neighborhood quality, exposure to pollution, access to quality schools and labor market opportunities, and access to quality and affordable housing.

5.4 The Future of American Mobility and Migration

Understanding the underlying causes and varied consequences of migration and mobility decline ultimately informs policy which may encourage both geographic and socioeconomic mobility. Peaks in both forms of mobility have, in the past, coincided with policies at the federal and local levels to either increase opportunity elsewhere and/or reduce the costs associated with mobility and migration. New Deal era federal policies emphasized the rights of labor and encouraged geographic mobility via the GI Bill and the 30-year mortgage. Simultaneously, protectionist and xenophobic immigration policies led to the recruiting of Southern labor in Northern and Midwestern industry. Together, these sorts of policies produced unprecedented long-distance migration now know as the Great Migration and peaks in local mobility associated with suburbanization.

Contemporary mobility and migration decline has, likewise, occurred alongside important policy decisions that have shaped the geographic distribution of opportunity and the ability of typical Americans to pursue the opportunities that are available. As I argue throughout, the root causes of migration and mobility decline appear to be the social and economic shifts of the last 40 years, which have also contributed to rising inequality in income and wealth. An important aspect of these shifts has been the dismantling of union labor, which has negative impacts not only on union wages, but also on wages across the labor force (Rosenfeld 2014; Western and Rosenfeld 2011).

If we so choose, we can work to increase geographic and socioeconomic mobility moving forward, but it is difficult to tell what those policies might look like. Nevertheless, a few options seem promising. First, encouraging increased mobility among Americans might entail promoting union membership and enshrining a national living minimum wage. As discussed throughout this dissertation, one of the key drivers of mobility decline appears to be the marginalized economic situation of many Americans. By reinstituting redistributive and more stringent regulatory policies reminiscent of the Golden Age, federal and local entities may not only promote upward social and economic mobility, but also encourage geographic mobility. Second, encouraging mobility may require a rethinking of safety net programs tied to specific places. Seattle Housing Authority vouchers, for example, are for use in areas under the purview of SHA. Clearly a complete overhaul of all place-based safety-net policy is difficult, but piloting specific programs and systems that create a regional or national network across place-based programs might remove significant barriers to mobility. Third, disproportionately sharp declines among those under age 34 suggest an honest assessment of how students are trained and prepared for work in the new information economy. It is not clear what a better instructional or vocational system would look like, but current trends point to a mismatch in the skills students are cultivating in higher education institutions and the skills that are required by employers. Finally, by encouraging high-density urban living, federal and local policy could promote mobility while at the same time accomplishing the primary goals of more environmentally sound city design, public transportation use, reducing commute times/distances, and decreasing traffic burdens (Ehrenhalt 2012).

At the start of this dissertation I included an oft-cited quote from Alexis de Tocqueville establishing a link between the peculiar restlessness of Americans and their unprecedented levels

of socioeconomic mobility. His quote suggests that 19th Century Americans were successful and mobile *despite* their restlessness. An alternative reading of American history suggests that Americans are more often socioeconomic mobile *because* of their restlessness and the policies that encouraged it. The results presented point toward the latter reading rather than the former, and they suggest that in order to move upward, we need to be able to move.

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