Next to Kin: How Children Influence the Residential Mobility Decisions of Older Adults

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Abstract: This paper explores the residential mobility of older adults, with a focus on the influence of distance to children on those decisions. Using the geocoded Health and Retirement Study, we statistically estimate the importance of adult child proximity on older adult moves after controlling for a host of other factors. We find that having adult children nearby is associated with a lower propensity to move, with closer proximity generally having a stronger negative relationship, up to a distance of 50 miles. These results are more pronounced if we define mobility as having moved at least 30 miles, or across metropolitan areas. We also show that the relationship is stronger for those with care needs, and for renters compared with homeowners. Results for the baby boomer cohort suggest that the proximity of children continues to have an important influence on older adult mobility among more recent cohorts of older adults.

Keywords: mobility; housing; aging; proximity; parents; children

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1. Introduction

Older adults are experiencing a period of life changes, one where planning for future needs becomes salient and where moving homes or communities may offer benefits across multiple dimensions. As households' incomes decline during retirement and as they become empty nesters, moving can be a way to reduce housing expenditures, a way for homeowners to tap home equity, and an opportunity to live in destinations with better climate or other desirable amenities since commuting distance to jobs and the quality of local public schools are less relevant considerations. Current or anticipated declines in health should also motivate moves to accessible housing with low maintenance requirements and neighborhoods with suitable aging-friendly supports and services. At the same time, the literature finds strong preferences for proximity to family and friends in location and mobility decisions (Koşar et al, 2020).¹

For older adults in particular, already having children living close by means that any potential benefits of moving have to be weighed against the potential loss of social support and practical assistance from their adult children. Prior research shows that support from nearby family members is associated with a variety of positive outcomes, including formal caregiving and assistance, social bonds, labor market outcomes, and delayed nursing home entry (Choi et al, 2021; van der Pers et al, 2015; Compton and Pollak 2014). Given the substantial influence of social networks, local services, housing, and neighborhood characteristics on the well-being of older adults (Kan et al, 2020), it is important that we have a good understanding of the role of

¹ An AARP survey also found that three quarters of adults in the U.S. aged 50+ want to continue living in their current residence and their community for as long as possible, with proximity to family and friends most frequently cited as an important reason for wanting to stay (Barrett, 2014).

children in older adult mobility decisions, both to assess future caregiving needs and to facilitate effective targeting of resources and amenities in locations where both older adults and their children want to live.

Our goal is to further the understanding of residential mobility decisions for older adults using the Health and Retirement Study (HRS), a large U.S. nationally-representative biennial panel dataset that follows households aged 50+ over time, and that provides geocoded family linkages. We focus on the influence of adult child proximity on the propensity to move, controlling for other factors that are known to influence residential mobility; including age, income, and personal life events such as retirement, declines in health, and partnership changes (Lee and Painter, 2014; Banks et al, 2012; Bradley and Longino 2009; Calvo et al, 2009; Choi 1996; Zhang 2013; and many others).

We build on the existing literature in several ways. First, we exploit the rich information available in the HRS to focus on adult child proximity, while incorporating an extensive set of controls that have been shown in prior research to affect mobility. The family linkages and geocodes allow us to examine the relationship between child proximity or coresidence on the propensity to move of a broadly defined set of households spanning the 50 to 84 age range. While the Panel Study of Income Dynamics (PSID) has been more commonly used to study the general relationship between mobility and child proximity in the U.S. (e.g., Lee and Painter, 2014; Banks et al, 2012), the HRS has a larger, more nationally representative sample of older households, and offers the advantage of information specifically relevant to older households

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that we can use as controls in our analyses.² Other studies that have used the HRS to study the influence of adult children on residential mobility have tended to focus on more narrowly defined samples. For example, Choi et al (2014) and (2015) examine the mobility of older individuals with new onset of ADLs and cardiovascular events in 2004, and Zhang et al (2013) limit their analysis to households aged 69 and above in 2000.

Second, with the long time period and span of birth years in the HRS, we can explore whether there has been a shift in behavior by cohorts over time. As demographers have noted, the baby boomer cohort is markedly differently from earlier generations in their higher rates of college completion and female labor force participation; lower rates of marriage, more divorce, and fewer children; as well as greater racial and ethnic diversity (Frey, 2010). It would therefore not be surprising if baby boomers behaved differently than earlier generations. Their greater independence compared with earlier generations may mean that they are less tied to the location of family members; on the other hand, their fewer numbers of children and higher shares of single households may mean stronger ties to each child so that proximity makes them less likely to move. Indeed, a recent review of research on predicting baby boomer care needs suggests not only a potential 'care gap' due to fewer members of younger generations, but also substantial uncertainty in future baby boomer outcomes due to these new 'demographic and societal trends' (Spillman et al, 2021). The large HRS sample size allows us to focus on this relatively younger

² For example, the HRS asks about retirement plans and contains better information on income during retirement (Chen et al, 2018). Furthermore, the HRS sample has been replenished every six years with younger cohorts since 1998, making it more continually representative of older U.S. households. In contrast, the PSID consists of an original set of families from 1968 plus their descendants, with additional immigrant families added in 1997 and 2017 only. However, one advantage of the PSID is a more granular view of child location, as they provide census block-group location information for all respondents, including children.

group whose behavior will likely be more relevant for predicting the actions of older households to come.

Third, unlike much of the existing economics literature on the residential mobility of older households, we include renters as well as homeowners in our analyses. U.S. Census Bureau data show that homeownership rates have been falling since 1990, and not just among younger households. Goodman and Zhu (2021) argue that this downward trend is likely to continue as prime-aged households affected by the foreclosure crisis—in terms of losing their homes or failing the new, more stringent mortgage qualification requirements—age into retirement. Their housing tenure projections for 2020 to 2040 show a 21% increase in the number of renter households, with the increase predominantly consisting of older renters. Including renters is particularly important for understanding the behavior of Black and Hispanic households given their lower homeownership rates. Additionally, renters generally have lower levels of wealth and income compared with owners and thus may be more reliant on their adult children for current or anticipated caregiving needs.

We find that, after controlling for a host of other factors, having adult children nearby (up to a distance of 50 miles) is associated with a lower propensity to move, with the negative relationship being more pronounced if we define mobility as having moved at least 30 miles, or across metropolitan areas. We also find that the negative relationship is stronger for households with greater care needs, as captured by having existing or new ADL difficulties, and for households receiving help from an adult child. Renters are more sensitive to the location of adult children than homeowners in absolute terms, though not in percentage terms given their higher overall mobility rate. We also find that adult child proximity continues to be important for the baby boomer generation. While their sensitivity to very close proximity is less pronounced than

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earlier cohorts, a larger share of them have coresident adult children compared with earlier generations.

These results highlight the importance of adult child proximity in older adult mobility decisions, and suggest that communities need to plan for younger and older generations in tandem. Younger households tend to be more mobile, and may also choose to move to be closer to parents, reinforcing local social connections for older adults (Choi et al, 2021). These dynamics should put pressure on policymakers to ensure adequate local caregiving resources and to promote the creation of age-friendly infrastructure, housing, and local amenities.

The paper is organized as follows: in the next section we summarize the related literature and use that to inform our conceptual framework and empirical strategy in Section 3. Section 4 reviews the data and summary statistics for our main samples. Section 5 describes mobility patterns and the results from our statistical models. Section 6 concludes.

2. Background and Related Literature

Older adult mobility decisions are studied across multiple disciplines and our work draws on several branches of literature beyond economics. In gerontology and demography, there has been a focus on move typologies, with many studies based on a framework developed by Litwak and Longino (1987).³ Their "life course model" categorizes moves made by older households into three main types: moves around retirement, moves when there are minor impediments to

³ For example, Bradley (2011) reexamines their typology using the 2005–2007 American Community Survey and finds that movement across regions is still consistent with their "amenity inbound, assistance outbound" framework. On the other hand, Bradley and Longino (2009) note that the majority of older household moves are local, with interstate moves mostly driven by differences in the cost of living, taxes, and other policies.

performing activities of daily living (ADL), and moves due to serious difficulty completing ADLs.⁴ They argue that these moves are consistent with a lifecycle pattern, with moves close to retirement focused on lifestyle improvements, and later moves in reaction to life and health events.

Many older adult moves are local, which led to another framework that emphasizes how emotional attachment to home and community, or lack thereof, may motivate moving decisions (Cuba and Hummon, 1993). A number of studies in this vein focus on the location of family members and current or future anticipated care needs in driving older adult mobility decisions. For example, Silverstein (1995) finds that declines in physical health and widowhood increased proximity to adult children, while Silverstein and Angelelli (1998) show that expectations of moving closer to adult children increased with age and poor health, especially among those living alone. Similarly, Choi (1996) finds that the majority of older households move due to poor health or a "desire for close kinship," Choi et al (2014) find that households who experience cardiovascular events are more likely to be living closer to children in the future, and Choi et al (2015) find an analogous result for households with new difficulties with ADLs. Longino et al (2008) also show that community ties (including family and friends) in both the origin and the destination location influence non-local moves among older adults, though they emphasize that baby boomers may not follow the trends of earlier cohorts in their study. Zhang et al (2013) examine moves between parents and children in the early 2000s and find that parents who expect to live longer are more likely to move near their children.⁵ Other studies of motivations for moving include Calvo et al (2009) who use the HRS from 1992 to 2004 to highlight the

⁴ The authors refer to these as "moderate forms of disability," and "major forms of chronic disability."

⁵ For the Netherlands, van der Pers et al (2015) show that older adults are less likely to move and less likely to enter institutional care when their children live nearby.

difference between planned moves and moves as a result of a household shock such as a health shock, a job loss, or death of a spouse. They find that shocks are more predictive of moves in their sample of households aged 51 to 73.

Most closely related to our work, Spring et al (2017), using data from the PSID, find that current child proximity reduces mobility among lower income households, as well as among younger adults and their parents. They also find a higher incidence of moves to increase family proximity among higher income households, white households, and households with aging parents. Although not focused on mobility per se, Choi et al (2020) find that almost 75% of all adults in the 2013 PSID have an adult child or parent within 30 miles of their home, but also find variation in proximity across socioeconomic groups. Choi et al (2021) further confirm that these factors are important in explaining child distances over the life course using a much longer time frame. Several recent economics papers also incorporate child proximity into their analyses of household moves. Koşar et al (2020) find strong preferences for proximity to family and friends in household mobility decisions (for households of all ages). Similarly, Büchel et al (2020) show that family and friends have an important role in mobility and location choices, and note that family matters more as households age.

Nevertheless, much of the economics literature on older adult mobility focuses on housing tenure transitions away from homeownership, and whether households downsize as they age.⁶ The primary focus here is on homeowners,⁷ with Banks et al (2010) and (2012) being rare exceptions that examine downsizing for both older homeowners and renters in the PSID and

⁶ The notable exception to this is work that investigates the influence of state and local policies on mobility and location choice. Examples include Farnham and Sevak (2006), Engelhardt and Greenhalgh (2010), Shan (2010), Marois et al (2019) and Banzhaf et al (2021), among others.

⁷ For example, Venti and Wise (2004), Engelhardt (2008), Murray (2019), Zhu and Painter (2019) and Munnell et al (2020).

HRS by incorporating a broader definition of downsizing that includes moving to homes with fewer rooms as well as lower priced homes. Their models of mobility at older ages include age, education, marital transitions, children living at home, health, work transitions such as retirement, income and assets, including home value and home equity for homeowners.

Several economics papers explicitly incorporate the location of adult children into studies of residential mobility. Painter and Lee (2009) and Lee and Painter (2014) use the 1968–2005 PSID to look at tenure transitions and downsizing among older homeowners. They find that while health and single status are correlated with housing tenure choices, homeowners with children in the same state are less likely to both downsize their homes and transition from owner to renter. They do not find a similar significant effect when state is replaced with smaller levels of geography, such as county or census tract. Finally, Goodstein (2016) uses the HRS and also examines housing transitions among homeowners only. He focuses on the effect of coresident adult children, and finds that an increase in their number reduces the propensity of homeowners to downsize or to become a renter, both of which require moving.

We build on this existing economics literature by using the HRS for our analyses, taking advantage of its deliberate focus on older households, more variables relevant to older adult moves, and the geocoded linkages to adult children. The large sample and long time frame allow us to compare the behavior of baby boomers with earlier generations. We also include renters in our analyses and compare their mobility with homeowners, given the projected increasing importance of renters among older households.

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3. Conceptual Framework and Empirical Strategy

Our goal is to shed light on the role of adult children in the residential mobility decisions of older households. The literature shows that in general, older households have a preference for living near their children and thus, all else equal, they will be less likely to move away if they have children living nearby. Since longer distance moves would likely result in the parent being further away from a nearby child, we would expect such moves to be even more sensitive to current child proximity compared with moves in general, all else equal. The benefits of proximity should be greater when the distance or travel time between parents and children are shorter. However, we may not expect a monotonic relationship between the likelihood of moving and the distance to adult children because it can be possible for a local move to meaningfully reduce the travel distance or time to children when they already live moderately close. In this case, moves may be more likely for those with children at a moderate distance away, compared to those with children very close or far away. The literature also shows that the general preference for locating near children is especially notable after adverse health events or whenever care needs are elevated (e.g., Choi et al, 2014 and 2015). Even if nearby children do not regularly provide care, their proximity can serve as a form of insurance in case care needs escalate in the future. Thus, we would expect households who have difficulties with ADLs or who are receiving care from their children to be more sensitive to the proximity of their adult children in their mobility decisions, all else equal.

Our hypotheses can therefore be summarized as follows:

1. All else equal, there is a negative relationship between adult child proximity and residential mobility: older households with an adult child living at home or close by are less likely to move.

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2. The negative relationship is stronger for longer distance moves than for shorter distance local moves.

3. The negative relationship is stronger for older households with greater care needs or that receive help from their adult children.

The existing literature also makes clear that mobility decisions depend on multiple other factors, and so we estimate the influence of adult children on the likelihood of moving while controlling for these other factors. We use the following linear probability model for its intuitive and clear interpretation:

$$M_{it} = \alpha + \beta C_{it-1} + \gamma X_{it-1} + \lambda L_{it} + \delta Z_{t-1} + \theta_t + \varepsilon_{it}$$
^[1]

The dependent variable, M_{it} , is a binary variable reflecting whether household *i* in time *t* moved since the prior survey wave, *t*-1, a difference of two years. We also consider alternative measures of M_{it} conditioned on distance moved—whether the household moves at least 30 miles and whether the household moves out of the metropolitan area. Standard errors are clustered by household *i*.

We focus our analysis on households with at least one adult child aged 25 or above. Using age 25 as a lower threshold for 'adult child' avoids the typical ages for college attendance and avoids the measurement of adult child proximity based on the location of a college residence that will cease upon graduation.⁸ We further exclude households with children aged 18 or younger as they are in a different life stage where mobility decisions may be driven by these younger children's needs.⁹ As robustness checks, we considered alternative young adult age

⁸ The age 25 threshold is also used by the U.S. Census Bureau in their main tabulations of educational attainment, as the vast majority of people who will ever earn a college degree have completed their degree by age 25.

⁹ For example, there is ample evidence that neighborhood K-12 public school quality affects residential location choice for U.S. households with children; see Barrow (2002), among many others.

cutoffs, as well as the inclusion of minor children, but as noted below, neither qualitatively changed our results.

 C_{it-1} is a set of indicator variables that capture the proximity of the closest adult child at t-*I*; the estimated β 's are therefore our main coefficients of interest. X_{it-1} represents other household characteristics measured at *t-1* that the prior literature in economics has shown affects residential mobility, including age, education, marital status, race and ethnicity, retirement expectations, difficulties with ADLs (bathe, dress, eat, walk across a room and get out of bed), as well as homeownership, since owners tend to be less mobile than renters. Income and wealth are also important variables that are directly tied to housing security and thus mobility. Given the skewed distribution of income and wealth in our sample, we incorporate them in our models in natural logarithmic form, with the log transform of non-positive values set to zero, and a separate flag to capture households with non-positive wealth. While our focus is on the proximity of adult children (age 25 or above), we also control for having other young adult children (age 19 to 24) in t-1. College age children are in a period of transition where they may be living in a college residence or other temporary location. This may reduce mobility among their parents as they wait for these young adults to complete their schooling; alternatively, young adults not living at home may be indicative of older adults who are empty-nesters with a higher likelihood of moving.

A set of controls L_{it} represent life course events—declines in health, retirement, partnership changes, and younger children leaving home—that prior literature suggests often coincide with moving. Given data constraints (explained further below), these contemporaneous controls are measured over the same time horizon as the dependent variable (between *t*-*1* and *t*), and therefore endogeneity is a concern. Nevertheless, we believe that these models provide

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useful evidence of association between mobility and these life events. Goodstein (2016) and Banks et al (2010) also use contemporaneous changes as controls in their residential mobility models.

We include Z_{t-1} to control for location characteristics that the literature also shows may be correlated with mobility. Population density and metropolitan area size will capture access to local amenities such as health care facilities and transit options (other than driving), and state fixed effects will capture variation in state level public policies, as well as climate. We also include zip code-level measures of median housing values and rents to capture local housing costs, which may also influence moving decisions. Finally, we include calendar-year fixed effects, θ_t , to capture economy-wide macroeconomic factors that may affect the propensity to move.

In estimating equation [1] at the household level, we create a unit of observation that we call "intact households," defined as stable sets of singles or couples, with any partnership changes treated as new households. An intact household will make mobility decisions as one unit, and thus it makes sense as a unit of observation in the study of mobility. A change in partner composition necessitates a move for at least one of the partners, and by focusing on intact households (i.e., those without changes in partnership composition) we are attempting to ensure those necessary moves are not driving our results. Nevertheless, as an alternative, we also estimate equation [1] at the individual level, separately for female and male respondents regardless of their household composition. In these individual-level models, we are able to control for partnership changes in L_{it} explicitly.

We also estimate equation [1] separately for homeowners and renters as the residential mobility literature has typically considered homeowners to be distinct from renters across many

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dimensions, including their wealth accumulation, housing security, and attachment to home and community. To explore the possibility of fundamental generational shifts that may make baby boomers distinct from prior generations across our covariates, we separately estimate models for baby boomers and earlier cohorts. Finally, given the emphasis in the prior literature on the increased importance of child proximity for older adults with health issues and care needs, we capture the additional potential influence of health on the sensitivity to adult child proximity by using models based on equation [1], where C_{it-1} is interacted with an indicator for having existing difficulties with ADLs, new difficulties with ADLs, or receiving in-kind assistance from children.

4. Data from the Health and Retirement Study

To understand the residential mobility decisions of older adults, we use the 2004–2014 waves of the Health and Retirement Study, a U.S. biennial panel survey of households age 50 and above.¹⁰ As mentioned above, we use intact households (with no partnership changes over adjacent waves) as our unit of analysis to simplify decisions around couple status that would necessitate a move into or out of a home. However, since the HRS interviews both members of a couple in a household separately, we also create individual samples of females and males so that we can examine the influence of these partnership changes across waves, while avoiding more

¹⁰ While respondent geocodes are available for all HRS waves, the locations of their children are only available from 2004. We primarily use child information from the RAND HRS Family Data; the 2014 wave is the most recent available.

than one individual per household in most cases.¹¹

We identify households that meet our analysis sample criteria (described above) of having adult children age 25 or above and no children age 18 or below. Based on the life course model of mobility, we expect a different set of motivations for moves at the end of life, therefore, we drop all observations with household members aged 85 and older, or that were in a nursing home in the prior or current waves. We then keep all households with at least two consecutive waves so that we can observe geocoded moves between waves. The individuals aged 50–84 in these households then form our individual female and male samples.

Respondents are asked whether they live within 10 miles of each child. If they report no, the geocodes provide the zip code of the child. Therefore, in conjunction with the parent geocodes, we calculate the distance between parents and children based on the centroids of their zip codes for those parents who report not living within 10 miles.¹² We further use the geocodes to identify whether parents and children live in the same metropolitan area (metro), and to construct measures of mobility based on distance. Lastly, we merge on census tract-level data for 2000 to 2010 using the Neighborhood Change Database which offers tract-consistent data from the U.S. Decennial Census and the American Community Survey (ACS), standardized across decades.¹³

Our final dataset includes information on household composition, socioeconomic characteristics, proximity to adult children, measures of help received from adult children, and

¹¹ This strategy may still double count same-sex couples. The HRS questionnaire asks respondents to report their sex, but not gender. Fewer than 0.5% of households that met our sample criteria are same-sex couples. Both members of these households are included in the individual-level results reported below, but keeping only one of the two members does not change the results.

¹² The child zip code is only given if they are not within 10 miles. Therefore, if the calculated distance between centroids is less than 10 miles, we reset the value to be equal to 10 miles.

¹³ <u>https://geolytics.com/products/normalized-data/neighborhood-change-database</u>

residential mobility. Descriptive statistics are shown in Exhibit 1. The first column shows our sample of intact household-wave observations, while the second and third columns show the analogous information for the individual-level female and male samples. The majority of the household sample is under 75 years old, with the female sample skewing younger than the male sample. Just over half of the households are married, with single-person households being disproportionately female. Over three-quarters of each sample are homeowners. The HRS asks respondents how many children provide any help (for example, with ADLs, yard work, or money management), referring to these children as 'helpers.' About 9% of the intact household and female samples report having any children helpers, with 6% for the male sample. With respect to contemporaneous life events since wave *t-1*, the most common are retirement transitions (17% of the household sample)¹⁴ and new difficulties with ADLs (14%). New partnerships, new separations, widowhood, and having a young adult child (age 19–24) leave home occur in less than 5% of observations.

[Exhibit 1]

Exhibit 2 describes residential mobility patterns for our HRS samples. Household-wave observations by age group are displayed, with couples classified by the age of the oldest person. Panel A shows that mobility generally decreases with age and on average, 10% of households

¹⁴ The definitions of retirement follow Begley and Chan (2018) based on self-reported retirement and employment status in the HRS. Workers who are not yet fully retired make a transition towards more retirement across waves if they transition from not retired to partially or fully retired, or from partially to fully retired.

move between biennial waves.15

[Exhibit 2]

The remaining panels in Exhibit 2 show moving patterns across our subpopulations of interest: homeowners, renters, baby boomers, and earlier generations (pre-baby boomers). Panel B shows limited variation across age groups for homeowners, with an average of 7% of households moving between waves. In contrast, Panel C shows that renters have much higher mobility rates at younger ages, a steeper drop in rates with age and an average mobility rate of 22%. Finally, Panels D and E show baby boomers and earlier generations, who look quite similar in terms of mobility for the ages where they overlap (an average of 13% between waves for baby boomers compared to 12% for earlier generations at the same age range).

[Exhibit 3]

Exhibit 3 shows patterns of adult child proximity. We rely on four mutually exclusive buckets of distances: adult children at home, away from home but within 10 miles, 10–29 miles, 30–49 miles, and 50+ miles. Many households live close to their children, with 21% having their closest adult child living at home, and another 46% living away from home but within 10

¹⁵ These (approximately) two-year mobility rates are comparable to that of people aged 50 to 84 in the American Community Survey, where the one-year mobility rate is just under 7% each year between 2006 and 2016.

miles.¹⁶ Notably, renters, baby boomers, households where any member of a couple has an ADL or new ADL since the prior wave, and households with adult child helpers are all more likely to have children living at home. Households with adult child helpers in particular stand out, with 87% of households reporting an adult child at home or within 10 miles and the highest share of closest children within 50 miles overall. Although the assistance variable includes help that could technically be provided remotely (e.g., money management), there are hardly any households that both receive help from adult children and who live more than 30 miles from their closest adult child.¹⁷ Baby boomers also are interesting with their higher share of adult children at home than earlier generations, and this pattern holds even when we age-restrict the pre-baby boomers to the same age range as the baby boomer cohort in our sample.

5. Results: the relationship between adult child proximity and the likelihood of moving

We first summarize how adult child proximity is related to older household mobility using three alternate mobility measures: moving any distance, moving at least 30 miles, and moving across metropolitan areas (with all non-metropolitan locations in each state treated as though they were another metro in that state). In the latter two cases, moves within 30 miles or within-metro are coded as not moving, so these variables are always binary. Exhibit 4 plots mobility rates by whether intact household-waves have any children living within 50 miles

¹⁶ In earlier work, Lin and Rogerson (1995) also find that in the 1987 National Survey of Families and Households, about 60 percent of respondents aged 60 years or older have at least one adult child living within 10 miles. Likewise, Choi et al (2021) using almost 50 years of PSID data find a large share of adult children continue to live close to their mothers throughout their lives.

¹⁷ This is consistent with the findings of Schoeni et al (2022), who find a strong relationship between caregiving by adult children and living within 5 miles of a parent with a disability.

(including at home). Across all three measures of mobility, those with adult children living nearby are less likely to move by the next wave. The contrast across groups is greater when mobility is defined as moving at least 30 miles or across metros, with the mobility rates for these longer distance moves more than doubling for those with no children nearby.

[Exhibit 4]

We now turn to estimating the importance of adult child proximity on mobility while controlling for a multitude of other factors that affect the likelihood of moving. Exhibit 5 displays key estimates from the linear probability model shown in equation [1] for the intact household sample where the dependent variable is whether the household moved, moved at least 30 miles, or moved across metros between waves t-1 and t. We pool all observations from 2004 to 2014, and standard errors are clustered by household.

[Exhibit 5]

Models 1–3 present results for the three alternate dependent variables, controlling only for proximity of the closest adult child and year fixed effects. Models 2 and 3 have slightly fewer observations because of some missing move distances, however we obtain very similar results if these observations are also dropped in model 1. Having an adult child living at home (the closest possible distance) is significantly associated with reductions in all three measures of mobility, compared with households whose closest adult child is at least 50 miles or more away (the reference group). The next three rows show that having the closest adult child within 10 miles

(but not at home), 10–29 miles away, or 30–49 miles away also reduces the likelihood of moving. In other models (not shown), we further explored the effect of adult child distances beyond 50 miles, but these were small and never significant.

In models 4–6 we add explanatory variables measured at t-1, such that we can interpret the coefficients as explanatory factors for mobility that are observed before any move is made. In models 7–9, we add life events that reflect changes between t-1 and t. For brevity, the additional coefficients in models 4–9 are omitted from Exhibit 5, but are shown in the Appendix. As mentioned earlier, some caution is required in interpretation of the life events, as the interview waves are two years apart and it is possible for the move to have occurred before changes in the explanatory variable. For the controls that appear in both sets of models, we focus on describing coefficients from models 7–9 below, but the values in models 4–6 are very similar in most cases. All of these controlled models include year and state fixed effects.

Compared with the reference group of households whose closest adult child is at least 50 miles or more away, an adult child living at home is associated with a 3.0, 3.9, and 3.7 percentage point reduction in moving any distance, moving at least 30 miles, and moving across metros (models 7–9), respectively. Having the closest adult child living within 10 miles significantly reduces these same three mobility measures by 3.4, 4.6 and 4.5 percentage points.

At child proximities of 10–29 and 30–49 miles, the negative association is smaller in magnitude for moves of at least 30 miles or across metros (models 8 and 9), but remains statistically significant. Moreover, for households that do not have an adult child at home, there is a monotonically decreasing relationship by child proximity. For moves of any distance, the non-monotonicity of the coefficients appears to be driven by households with the closest adult child at 10–29 miles being *more* likely to make local moves compared with households with

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children at other distances.¹⁸ As noted above, moving may be more likely for those with children at moderate distances away, compared with very close or far away, as a short move could meaningfully reduce the travel time to children. Households with children within a moderate distance may also be more likely to move locally for other utility-enhancing reasons if they can achieve this in their local area while remaining close to children.

We ran robustness checks of our model by broadening the sample to households with adult children age 21 and above (instead of age 25 as the cutoff), as well as by including households with children age 18 and younger and controlling for their presence. Our results are very similar in both of these scenarios, with slightly smaller coefficients on adult child proximity for households with minor children.

Overall, these results imply that adult child proximity is an important factor in older households' residential mobility decisions and we can confirm the negative relationship (Hypothesis 1), with proximity up to 50 miles being associated with a lower propensity to move than when proximity is 50 miles or more. Moreover, we find that the negative relationship is stronger for moves of at least 30 miles or across metros (Hypothesis 2).

The demographic controls in models 4–9 have coefficients that are generally in line with our expectations.¹⁹ Retirement is also an important factor in mobility decisions. Households

¹⁸ When we estimated equation [1] using a binary dependent variable that is equal to one if the household moved less than 30 miles, zero otherwise, and dropped observations that moved 30 miles or more, we found a positive and significant coefficient on having the closest adult child within 10–29 miles while all other child proximity coefficients were insignificant.

¹⁹ The age indicators show that the likelihood of moving decreases with age through the late 70s. Singles are more likely to move than couples. Black households are generally less likely to move than white households (the reference group), while Hispanic households are significantly less likely to make across metro moves only. Households with higher levels of education attainment are generally more likely to move. Consistent with Exhibit 2, homeowners have lower mobility rates than other households. Higher positive values of net wealth do not significantly affect mobility, though households with negative net wealth are more likely to move. Household income is also positively related to moving.

where at least one person was not retired in the previous wave are significantly less likely to move for all three measures of mobility.²⁰

The onset of new difficulties with ADLs between *t-1* and *t* increases the likelihood of moving any distance, but it is insignificant for longer distance moves, whereas ADL difficulties in the prior wave are not significant for any distance (models 7–9). For the moves across metros, mobility is increased when both members of a couple have ADL difficulties.

We find that having more than one adult child of 25 years or older increases all three measures of mobility. Having young adult children (age 19–24) living at home reduces the likelihood of moving at least 30 miles or across metros; on the other hand, a young adult child leaving home between t-l and t is associated with an increase in moving at least 30 miles or across metros.

Finally, turning to the location variables, we find that mobility is higher among households living in large metropolitan areas compared with those living in smaller or nonmetropolitan areas (the reference group). However, conditional on these metro size controls, mobility rates are lower from more densely populated zip codes. This is consistent with older households benefiting from proximity to others and the amenities that come with higher density neighborhoods, giving them less incentive to move from such neighborhoods.

We ran analogous models for the individual samples, which allows us to add contemporaneous controls for partnership transitions. Key coefficients are shown in Exhibit 6,

²⁰ We also included a control for whether a household member plans to retire within the next two years (self-reported in *t*-1), but the coefficient was small and statistically insignificant. However, when we control for an actual transition towards retirement between *t*-1 and *t* in models 7–9, we find that it is associated with a higher likelihood of moving for all three dependent variables. We further explore this relationship by including a specification with an additional lag applied to all the retirement variables, and we see that after controlling for having transitioned to retirement in the prior wave, the coefficients on child proximity are slightly larger than in our main specifications.

with expanded results in the Appendix. The results on adult child proximity for both females and males are similar to those for the intact households: having adult children nearby reduces the propensity of older individuals to move, with closer distances generally having a stronger negative impact. In addition, the coefficients on child proximity tend to be larger in magnitude for the female sample (and statistically different from the male sample in many cases), suggesting that women are more sensitive to having children nearby in their mobility decisions.

For the partnership transition variables, we find a higher likelihood of moving among individuals experiencing new marriages and partnerships, as well as divorces and separations, relative to those with no partnership changes.²¹ Conversely, widowhood is associated with less mobility for both men and women.²² For mobility over longer distances (models 2–3 and 5–6), the coefficients on all three partnership transition variables are much smaller in magnitude, and not consistently statistically significant.

[Exhibit 6]

Homeowners versus renters

Given the distinctiveness of homeowners versus renters in terms of their wealth accumulation, locations, housing security, and their attachment to home and community, we investigate the influence of adult child proximity by estimating equation [1] for homeowner and renter households separately. Exhibit 7 shows the key coefficients on adult child proximity

²¹ New marriages and partnerships between t-1 and t are associated with a higher propensity to move of 20.0 and 25.0 percentage points for females and males, respectively. Partnership dissolution effects are even greater, with divorces and separations increasing mobility rates by 35.4 and 31.1 percentage points respectively for females and males, relative to those with no partnership changes.

²²Among females we find that becoming a widow between *t*-1 and *t* is associated with a 25.0 percentage point reduction in mobility, while for males, it is a 26.1 percentage point reduction.

across our three dependent variables, while expanded models are in the Appendix. The results reveal that once we control for the full set of other factors, adult child proximity matters for both groups. The mobility of homeowners tends to be less sensitive to the proximity of adult children than that of renters in absolute terms, particularly in moving longer distances. When an adult child is living at home, homeowners are 3.7 percentage points less like to move at least 30 miles, whereas the reduction for renters is 6.3 percentage points (model 2 versus 5). And when the closest adult child lives away from home but within 30 miles, homeowners are 3.4–3.9 percentage points less likely to move at least 30 miles compared with 8.0–8.5 percentage points less likely for renters. A similar pattern holds for moving across metros (model 3 versus 6). In the case of moving any distance, an adult child living at home has an insignificant effect for renters (model 4); but renters are still more sensitive to adult children living within 30 miles and away from home, than are homeowners (model 1 versus 4). We note, however, that the greater sensitivity of renters to adult child proximity is in absolute terms, but not in percentage terms given their higher overall mobility rate.

[Exhibit 7]

In results not shown, we also parse homeownership by race and ethnicity to understand whether there are differential effects for these households, given the disparities in homeownership rates and other potential differences across groups. In general, the patterns across these models are the same as those shown with stronger coefficients for renters, but the coefficients for Black and Hispanic households are smaller and less likely to be statistically significant.

Baby boomers versus earlier generations

We also investigate mobility patterns for baby boomers versus older generations by estimating equation [1] for these groups separately. Exhibit 8 displays the key coefficients on adult child proximity, with expanded models in the Appendix. The results show that the influence of adult child proximity on mobility continues to be important for baby boomers, as it is for earlier generations, though the estimated coefficient for children living at home is smaller in magnitude for the baby boomer cohort (model 1 versus 4), and for the longer distance moves, the proximity coefficients for baby boomers are smaller in magnitude than for earlier generations (models 2–3 versus 5–6). As noted earlier, baby boomers are more likely to have adult children living at home compared with earlier generations at the same age range. Thus, while the negative relationship for longer distance moves is somewhat weaker for the baby boomer cohort, the greater proportion of baby boomer households that have coresident adult children means that child proximity continues to play an important role in the mobility decisions of older households.²³

[Exhibit 8]

Variation by care needs

To investigate whether our main results are primarily driven by the care needs of older households, we estimate models where the adult child proximity measures are interacted with

²³ To further test the potential role of lifecycle differences in our sample, we interacted child proximity with an indicator for whether the oldest household member is aged 65 or above (regardless of generational cohort) to see whether child proximity has a stronger influence for older age groups, but we found no consistent differences.

one of following proxies: having ADL difficulties at t-1, experiencing new or additional ADL difficulties since t-1, or having an adult child helper in t-1. Results are displayed in Exhibit 9.

[Exhibit 9]

Models 1–3 show that across all three dependent variables, the coefficients on child proximity are larger in magnitude for households with ADL difficulties compared to those without, up to a proximity of 30 miles. In all cases, the difference is statistically significant. We see a similar pattern in models 4–6 when we replace the interaction variable with experiencing new ADL difficulties: households with new ADL difficulties are more sensitive to child proximity and are less likely to move than households with similar child proximity that do not have new ADL difficulties.

Finally, models 7–9 show the interactions with receiving help from an adult child in t-1. Here we find statistically significant coefficients for the longer distance moves for households that have their closest adult child living at home or within 10 miles for both groups; however, households receiving help are significantly less likely to move at least 30 miles or across metros compared to those that do not receive help. For households without adult children at home and not receiving help in t-1, we see a monotonic decline in the sensitivity of longer distance moves to miles away from the closest child that is similar to the models in Exhibit 5. However, for those receiving help, the estimated coefficients are far noisier beyond a proximity of 10 miles possibly because these households have an incentive to move even closer to their children to facilitate receiving help.

Overall, these results show that the negative relationship between adult child proximity

and residential mobility is generally stronger for households with greater care needs (Hypothesis 3). Yet the importance of proximity holds even for households not reporting ADL difficulties or receiving help.

6. Conclusion

In this paper we used the matched child-parent data from the Health and Retirement Study to explore mobility patterns among a broadly defined set of older households, with a focus on the role of proximity to adult children in predicting household moves. We examined whether child proximity matters even after controlling for an extensive set of other factors shown in the economics literature to affect mobility. While we cannot make causal claims with our model specification and research design, we see strong evidence that having adult children nearby is associated with a lower probability of moving, especially across longer distances. Moreover, our results suggest that care needs are an important motivation for this negative relationship, as households with existing or new ADL difficulties are even more sensitive to child proximity, all else equal. The negative relationship holds for both homeowners and renters and is stronger for renters than for homeowners in absolute terms, though not in percentage terms given renters' higher underlying mobility rate. The relationship also persists through the baby boomer cohort, a generation that has substantially higher rates of older parent and adult child co-residence than earlier generations.²⁴ This suggests a continued importance of adult child proximity in driving

²⁴ There is a large literature documenting the increasing trend in younger adults living with their parents. For example, see Matsudaira (2016).

mobility trends in the future, even if the sensitivity to having children nearby weakens relative to earlier generations.

Our findings have important implications for policymakers. The enormous fiscal cost of institutional long-term care has led to a public policy focus on enabling older households to remain in the community for as long as possible (Doty, 2000). Such a strategy requires consideration of the location and types of services and amenities offered for older households. Local social networks, including the proximity of adult children, are important predictors for local communities seeking to understand the propensity of older adults to remain close by. The popular media in particular has emphasized the importance of the presence of children and grandchildren in attracting or retaining older adults in certain metropolitan areas, most notably reflected in Zonda's 'baby chaser' annual metropolitan index rankings.²⁵

One important challenge for older adults who want to remain in their community is caregiving. We find that older households with ADL difficulties and those receiving assistance from their adult children are even more sensitive to the proximity of children. The care needs of these seniors will continue to grow in the coming decades due to the aging of the baby boomer cohort, the higher share of single households, and the smaller size of the potential caregiving cohort following them. Projected increases in life expectancy may also lengthen caregiving demands.²⁶

A related key challenge for older adults hoping to successfully age within a community is the need for aging-appropriate and diverse housing. The share of people reporting mobility

²⁵ This index ranks metropolitan areas based on long-term migration trends for millennials and baby boomers, motivated by market research that finds many baby boomers want to retire near their children and grandchildren; see: https://www.builderonline.com/data-analysis/baby-chasers-the-migration-trend-that-is-not-going-away_o

²⁶ Projections by the Census Bureau (Medina et al, 2020) show life expectancy continuing to increase, reaching 87.3 years for females and 83.9 years for males in 2060.

impairments rises dramatically with age (He and Larsen, 2014) but only a tiny fraction of the U.S. residential housing stock is accessible (Chan and Ellen, 2017). As areas grow to accommodate demand among younger households, they should facilitate the expansion of diverse housing options that are suitable for older adults as well; for example, by removing zoning restrictions against multifamily buildings and accessory dwelling units. More housing options will allow older adults and their children to remain in the same communities. There are also opportunities to improve local amenities such as health care and social services, social support, transportation, and local economic development (Haas et al, 2006). Resources offering strategies for promoting successful and healthy aging, such as those from AARP and the World Health Organization, generally emphasize the importance of walkable streets and transportation options besides driving, proximity to a wide range of amenities such as health care and general retail services, and importantly, social networks through family, friends, and community institutions.²⁷ Enhancing these types of infrastructure and amenities will help communities accommodate older adults as they age in place near their children.

²⁷ For example, Kan et al (2020), Kihl et al (2005), World Health Organization (2007), and Lynott et al (2009). Although there are clear limitations in establishing causality, many characteristics of age-friendly communities are correlated with better health outcomes for residents (Kerr et al, 2011).

References

- Banks, J., R. Blundell, Z. Oldfield and J.P. Smith (2010) "Housing price volatility and downsizing in later life" *Research findings in the economics of aging* (pp. 337-379). University of Chicago Press.
- Banks, J., R. Blundell, Z. Oldfield and J.P. Smith (2012) "Housing mobility and downsizing at older ages in Britain and the USA" *Economica* 79(313): 1-26.
- Banzhaf, H. Spencer, Ryan Mickey, and Carlianne Patrick (2021) "Age-Based Property Tax Exemptions" *Journal of Urban Economics* 121.
- Barrett, Linda (2014) "Home and Community Preferences of the 45+ Population" AARP Research Center Report.
- Barrow, Lisa (2002) "School choice through relocation: evidence from the Washington, D.C. area" *Journal of Public Economics* 86(2): 155-189.
- Begley, Jaclene and Sewin Chan (2018) "The Effect of Housing Wealth Shocks on Work and Retirement Decisions" *Regional Science and Urban Economics* 73.
- Bradley, Don E. (2011) "Litwak and Longino's Developmental Model of Later-Life Migration:
 Evidence From the American Community Survey, 2005–2007" *Journal of Applied Gerontology* 30(2): 141-158.
- Bradley, Don E., and Charles F. Longino (2009) "Geographic mobility and aging in place" In Uhlenberg P. (eds), *International handbook of population aging*, Springer Netherlands, 319-339.
- Büchel, Konstantin, Maximilian V. Ehrlich, Diego Puga and Elisabet Viladecans-Marsal (2020)
 "Calling from the outside: The role of networks in residential mobility" *Journal of Urban Economics* 119.

Calvo, E., K. Haverstick and N.A. Zhivan (2009) "Determinants and consequences of moving

decisions for older Americans" for the 11th Annual Joint Conference of the Retirement Research Consortium Centre for Retirement Research at Boston College.

- Chan, Sewin and Ingrid Gould Ellen (2017) "Housing for an Aging Population" *Housing Policy* Debate 27(2).
- Chen, Anqi, Alicia H. Munnell, and Geoffrey T. Sanzenbacher (2018) "How much income do retirees actually have? Evaluating the evidence from five national datasets" Center for Retirement Research at Boston College Working Paper 2018-14.
- Choi, N. G. (1996) "Older persons who move: Reasons and health consequences" *Journal of Applied Gerontology 15*(3): 325-344.
- Choi, H., R.F. Schoeni, K.M. Langa and M.M. Heisler (2014) "Older adults' residential proximity to their children: changes after cardiovascular events" *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 70(6): 995-1004.
- Choi HwaJung, Robert F. Schoeni, Kenneth M. Langa and Michele M. Heisler (2015) "Spouse and Child Availability for Newly Disabled Older Adults: Socioeconomic Differences and Potential Role of Residential Proximity" *Journals of Gerontology Series B: Psychological Sciences and Social Sciences* 70(3): 462-9.
- Choi, HwaJung, Robert F. Schoeni, Emily E. Wiemers, V. Joseph Hotz and Judith A. Seltzer
 (2020) "Spatial distance between parents and adult children in the United States" *Journal* of Marriage and Family 82(2): 822-840.
- Choi, H., Schoeni, R., Xu, H., Reyes, A., & Thomas, D. (2021). Proximity to mother over the life course in the United States. *Demographic Research*, *45*, 769-806.
- Compton, Janice and Robert A. Pollak (2014) "Family proximity, childcare, and women's labor force attachment" *Journal of Urban Economics* 79: 72-90.

- Cuba, L., and D.M. Hummon (1993) "A place to call home: Identification with dwelling, community, and region" *The sociological quarterly* 34(1): 111-131.
- Doty, Pamela (2000) "Cost-effectiveness of home and community-based long-term care services" U.S. Department of Health and Human Services, Assistant Secretary for Planning and Evaluation, Office of Disability, Aging and Long-Term Care Policy.
 https://aspe.hhs.gov/reports/cost-effectiveness-home-community-based-long-term-care-services
- Engelhardt, Gary V. (2008) "Social security and elderly homeownership" *Journal of Urban Economics* 63(1): 280-305.
- Engelhardt, Gary V. and Nadia Greenhalgh-Stanley (2010) "Home health care and the housing and living arrangements of the elderly" *Journal of Urban Economics* 67: 226-338.
- Frey, William (2010) "Baby Boomers and the New Demographics of America's Seniors" Journal of the American Society on Aging 34(3).
- Farnham, M., and P. Sevak (2006) "State fiscal institutions and empty-nest migration: Are Tiebout voters hobbled?" *Journal of Public Economics* 90(3): 407-427.
- Goodman, Laurie and Jun Zhu (2021) "The Future of Headship and Homeownership" Urban Institute Research Report.
- Goodstein, Ryan M. (2016) "Boomeranged! The Effect of Coresiding Adult Children on Housing Transitions among Older Homeowners" FDIC Division of Depositor & Consumer Protection Working Paper No. 2016-02. https://ssrn.com/abstract=2826064
- Haas, W. H., D.E. Bradley, C.F. Longino, E.P. Stoller and W.J. Serow (2006) "In retirement migration, who counts? A methodological question with economic policy implications" *The Gerontologist* 46(6): 815-820.

- He, W. and L.J. Larsen (2014) "Older Americans With a Disability: 2008–2012" US Census Bureau, American Community Survey Reports, Washington, DC: US Government Printing Office.
- Kan, Har Ye, Ann Forsyth, and Jennifer Molinsky (2020) "Measuring the built environment for aging in place: A review of neighborhood audit tools" *Journal of Planning Literature* 35(2): 180-194.
- Kerr, J., D. Rosenberg and L. Frank (2012). The role of the built environment in healthy aging community design, physical activity, and health among older adults. *Journal of Planning Literature* 27(1): 43-60.
- Kihl, M., D. Brennan, N. Gabhawala, J. List and P. Mittal (2005) *Livable communities: An evaluation guide*. Washington, DC: AARP Public Policy Institute.
- Koşar, Gizem, Tyler Ransom and Wilbert van der Klaauw (2020) "Understanding Migration Aversion Using Elicited Counterfactual Choice Probabilities" Federal Reserve Bank of New York Staff Report No. 883.
- Lee, K.O. and G. Painter (2014) "Housing Tenure Transitions of Older Households: What is the Role of Child Proximity?" *Real Estate Economics* 42(1): 109-152.
- Lin, Ge and Peter A. Rogerson (1995) "Elderly Parents and the Geographic Availability of Their Adult Children" *Research on Aging* 17(3): 303-331.
- Litwak, E. and C.F. Longino (1987) "Migration patterns among the elderly: A developmental perspective" *The Gerontologist* 27(3): 266-272.
- Longino Jr, Charles F., Don E. Bradley, Eleanor P. Stoller and William H. Haas 3rd (2008) "Predictors of non-local moves among older adults: A prospective study" *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences* 63(1): S7-S14.

- Lynott, Jana, Amanda Taylor, Hannah Twaddell, Jessica Haase, Kristin Nelson, Jared Ulmer, Barbara McCann and Edward R. Stollof (2009) *Planning Complete Streets for An Aging America*. AARP Public Policy Institute, Report no. 2009-02.
- Marois, Guillaume, Sébastien Lord and Catherine Morency (2019) "A mixed logit model analysis of residential choices of the young-elderly in the Montreal metropolitan area" *Journal of Housing Economics* 44: 141-149
- Matsudaira, Jordan D. (2016) "Economic conditions and the living arrangements of young adults: 1960 to 2011" *Journal of Population Economics* 29(1), 167–195.
- Medina, Lauren, Shannon Sabo, and Jonathan Vespa (2020) "Living Longer: Historical and Projected Life Expectancy in the United States, 1960 to 2060" U.S. Census Bureau, Current Population Reports P25-1145

https://www.census.gov/library/publications/2020/demo/p25-1145.html

- Munnell, Alicia H., Abigail N. Walters, Anek Belbase and Wenliang Hou (2020) "Are homeownership patterns stable enough to tap home equity?" *Journal of the Economics of Ageing* 17.
- Murray, Tim (2019) "Do potential future health shocks keep older Americans from using their housing equity?" MPRA Working Paper.
- Painter, G. and K. Lee (2009) "Housing tenure transitions of older households: Life cycle, demographic, and familial factors" *Regional Science and Urban Economics* 39(6):749-760.
- Schoeni, R. F., Cho, T. C., & Choi, H. (2022). Close enough? Adult child-to-parent caregiving and residential proximity. *Social Science & Medicine*, *292*, 114627.

Shan, Hui (2010) "Property taxes and elderly mobility" Journal of Urban Economics 67(2):194-

205.

- Silverstein, Merril (1995) "Stability and Change in Temporal Distance between the Elderly and Their Children" *Demography* 32(1): 29-45.
- Silverstein, Merril and Joseph J. Angelelli (1998) "Older Parents' Expectations of Moving Closer to Their Children" *Journal of Gerontology: Social Sciences* 53B(3): S153-S163.
- Spillman, Brenda C., Eva H. Allen, and Melissa Favreault (2021) "Informal Caregiver Supply and Demographic Changes: Review of the Literature" *Office of the Assistant Secretary for Planning and Evaluation Report.*
- Spring, A., E. Ackert, K. Crowder and S.J. South (2017) "Influence of proximity to kin on residential mobility and destination choice: Examining local movers in metropolitan areas" *Demography* 54(4):1277-1304.
- van der Pers, M., E.U. Kibele and C.H. Mulder (2015) "Intergenerational proximity and the residential relocation of older people to care institutions and elsewhere" *Ageing & Society* 35(7):1429-1456.
- Venti, Steven F. and David A. Wise (2004) "Aging and housing equity: Another look" *Perspectives on the Economics of Aging*. University of Chicago Press, 127-180.
- World Health Organization (2007). *Global age-friendly cities: A guide*. World Health Organization.
- Zhang, Y., M. Engelman and E.M. Agree (2013) "Moving considerations: A longitudinal analysis of parent–child residential proximity for older Americans" *Research on Aging* 35(6): 663-687.
- Zhu, Linna and Gary Painter (2019) "Housing Tenure Transitions Among Older Households: the Role of Financial Precarity and Health" USC Working Paper.

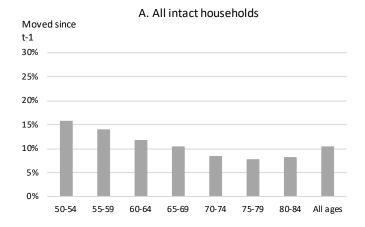
Sample:	Intact households	Female	Male
Age:			
Age 50-59	20%	27%	21%
Age 60-64	17%	19%	17%
Age 65-69	20%	20%	21%
Age 70-74	22%	19%	21%
Age 75-79	16%	12%	15%
Age 80-84	6%	3%	5%
Marital Status:			
Married or partnered	54%	61%	85%
Single female	36%	39%	
Single male	9%		15%
Race and ethnicity:			
, White	62%	63%	67%
Black	19%	19%	14%
Hispanic	7%	7%	8%
Other race	11%	11%	11%
Education attainment:		/*	
Less than high school	11%	13%	12%
High school graduate	36%	35%	31%
Some college	29%	28%	27%
College graduate	24%	25%	31%
Total net wealth (mean)	\$411,206	\$420,007	\$537,136
Homeowner	78%	79%	86%
Household income (mean)	\$61,097	\$60,038	\$78,439
Not retired	38%	38%	43%
Plan to retire in next 2 years	6%	6%	7%
ADL difficulties:	070	070	770
None	81%	80%	80%
1 ADL	10%	10%	11%
2 ADLs	4%	5%	4%
3+ADLs	5%	5%	4 % 5%
Both members of a couple have ADL difficulties	9%	9%	4%
More than one adult child (age 25+)	86%	87%	88%
Young adult child (age 19-24) not at home	6%	5%	7%
Young adult child (age 19-24) living at home	5%	5%	6%
Urban-rural:		450/	4.40/
Large metropolitan area (pop 1M+)	45%	45%	44%
Mid-size metropolitan area (pop 250K-1M)	20%	20%	21%
Rural or small metropolitan area	34%	34%	35%
Population density in zip code, '000/sq mi	3.09	3.04	2.63
Median monthly rent in zip code	\$669	\$671	\$678
Median housing value in zip code	\$147,825	\$148,242	\$151,912
Has an adult child helper	9%	9%	6%

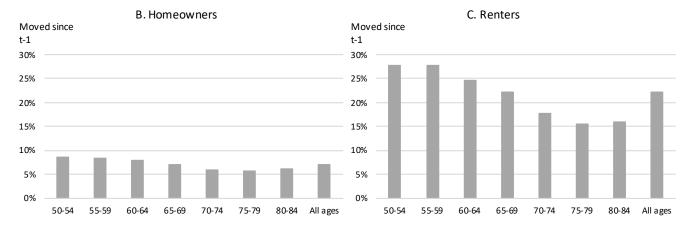
Exhibit 1: Descriptive Statistics for Households and Individuals with Adult Children

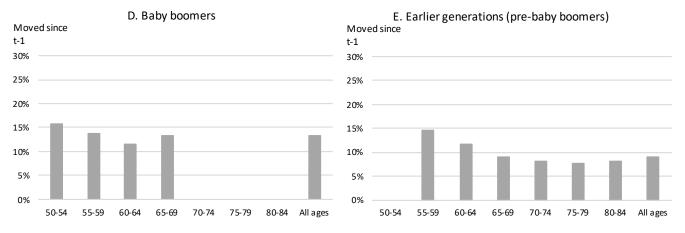
Sample:	Intact households	Female	Male
Life events since wave t-1:			
Married or partnered		1%	1%
Divorced or separated		4%	3%
Widowed		3%	2%
Retirement transition	17%	17%	20%
New ADL difficulties	14%	14%	14%
Young adult child (age 19-24) left home	3%	3%	3%
Number of observations	35,044	33,049	23,166

Note: Health and Retirement Study, 2004-2014, biennial household- and individual-wave observations with at least one adult child aged 25+. See text for additional sample selection criteria. The table shows the percentage of observations with the row characteristic, unless otherwise noted. Lagged values (t-1) are shown for variables that only enter as lags in subsequent models. Italics refer to the reference category in subsequent models.

Exhibit 2: Residential Mobility by Age







Note: Health and Retirement Study, 2004-2014, biennial household-wave observations with at least one adult child aged 25+. See text for additional sample selection criteria. Graph shows the share of households that moved any distance since t-1, by age.

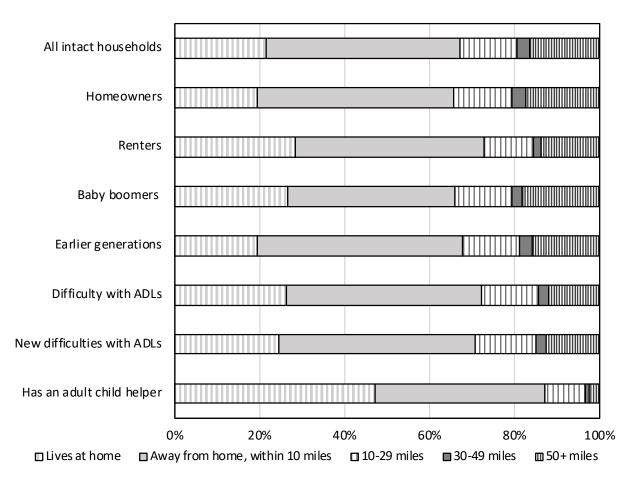


Exhibit 3: Distribution of Adult Child Proximity

Note: Health and Retirement Study, 2004-2014, biennial household-wave observations with at least one adult child aged 25+. See text for additional sample selection criteria. Graph shows the distribution of distance to the nearest adult child in t-1.

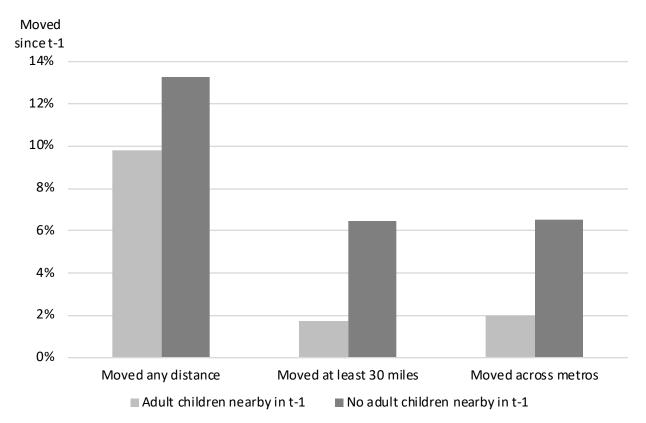


Exhibit 4: Residential Mobility by Whether Adult Children Live Within 50 Miles in t-1, for Various Definitions of Mobility

Note: Health and Retirement Study, 2004-2014, biennial household-wave observations with at least one adult child aged 25+. See text for additional sample selection criteria. The graph shows the share of households that moved any distance, at least 30 miles, or across metros since wave t-1, by whether the household had adult children living within 50 miles (including at home) in t-1.

	1	2	3	4	5	6	7	8	9		
Sample:	Intact households										
Probability of moving:					10.4%						
Dependent variable:	Moved any	Moved at least	Moved across	Moved any	Moved at least	Moved across	Moved any	Moved at least	Moved across		
	distance	30 miles	metros	distance	30 miles	metros	distance	30 miles	metros		
Proximity of closest adult child aged 25	+										
(reference group: 50+ miles):											
Lives at home	-0.02280**	-0.04164**	-0.04061**	-0.03015**	-0.03871**	-0.03722**	-0.03037**	-0.03878**	-0.03727**		
	(0.00628)	(0.00387)	(0.00395)	(0.00624)	(0.00408)	(0.00416)	(0.00624)	(0.00407)	(0.00415)		
Away from home, within 10 miles	-0.04037**	-0.05020**	-0.04979**	-0.03405**	-0.04556**	-0.04464**	-0.03440**	-0.04572**	-0.04480**		
	(0.00541)	(0.00351)	(0.00358)	(0.00539)	(0.00364)	(0.00370)	(0.00539)	(0.00363)	(0.00369)		
10-29 miles	-0.02940**	-0.04608**	-0.04166**	-0.02341**	-0.04211**	-0.03706**	-0.02370**	-0.04213**	-0.03705**		
	(0.00676)	(0.00390)	(0.00409)	(0.00659)	(0.00396)	(0.00413)	(0.00659)	(0.00395)	(0.00412)		
30-49 miles	-0.05346**	-0.03408**	-0.03762**	-0.03700**	-0.02959**	-0.03298**	-0.03646**	-0.02919**	-0.03254**		
	(0.00984)	(0.00624)	(0.00609)	(0.00976)	(0.00624)	(0.00610)	(0.00975)	(0.00622)	(0.00608)		
Additional explanatory variables											
Measured at wave t-1				Y	Y	Y	Y	Y	Y		
Since wave t-1							Y	Y	Y		
State fixed effects				Y	Y	Y	Y	Y	Y		
Year fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y		
No. of household-wave observations	35,044	33,334	33,334	35,044	33,334	33,334	35,044	33,334	33,334		
R-squared	0.00340	0.01376	0.01210	0.06465	0.03239	0.03128	0.06731	0.03621	0.03540		

Exhibit 5: Adult Child Proximity and the Residential Mobility of Intact Households

Note: Health and Retirement Study, 2004-2014. Sample as described in the text. The table shows coefficients from linear probability models with standard errors clustered by household. +p<0.10, *p<0.05, **p<0.01. All explanatory variables are lagged except those noted as since t-1. Additional explanatory variables measured at t-1 include: categoric variables for age, marital status, race and ethnicity, education attainment, ADL difficulties, and metropolitan size; indicators for foreign born, partner age gap of 5+ years, negative wealth, homeowner, retirement status, plan to retire in next two years, more than one adult child, young adult child (age 19-24) not at home and young adult child living at home; log total net wealth and log household income; population density, median rent and median housing value in the zip code; and flags for missing values of explanatory variables. Additional explanatory variables since t-1 include: transition to more retirement, new ADL difficulties, and young adult child left home. Full models are shown in the Appendix.

	1	2	3	4	5	6	
Sample:		Females		Males			
Probability of moving:		10.7%			9.8%		
Dependent variable:	Moved any	Moved at least	Moved across	Moved any	Moved at least	Moved across	
	distance	30 miles	metros	distance	30 miles	metros	
Proximity of closest adult child aged 25	+						
(reference group: 50+ miles):							
Lives at home	-0.03161**	-0.04090**	-0.03822**	-0.03002**	-0.03427**	-0.03298**	
	(0.00656)	(0.00436)	(0.00443)	(0.00735)	(0.00465)	(0.00477)	
Away from home, within 10 miles	-0.03473**	-0.04950**	-0.04752**	-0.02743**	-0.04074**	-0.03967**	
	(0.00566)	(0.00396)	(0.00401)	(0.00618)	(0.00405)	(0.00412)	
10-29 miles	-0.02168**	-0.04500**	-0.03964**	-0.02304**	-0.03757**	-0.03140**	
	(0.00691)	(0.00430)	(0.00446)	(0.00746)	(0.00440)	(0.00464)	
30-49 miles	-0.03443**	-0.02921**	-0.03158**	-0.01672	-0.02296**	-0.02722**	
	(0.01043)	(0.00698)	(0.00685)	(0.01176)	(0.00723)	(0.00707)	
Additional explanatory variables							
Measured at wave t-1	Y	Y	Y	Y	Y	Y	
Since wave <i>t-1</i>	Y	Y	Y	Y	Y	Y	
State fixed effects	Y	Y	Y	Y	Y	Y	
Year fixed effects	Y	Y	Y	Y	Y	Y	
No. of individual-wave observations	33,049	31,500	31,500	23,166	22,128	22,128	
R-squared	0.07872	0.04269	0.04238	0.08284	0.04019	0.04013	

Exhibit 6: Adult Child Proximity and the Residential Mobility of Females and Males

Note: Health and Retirement Study, 2004-2014. Samples as described in the text. The table shows coefficients from linear probability models with standard errors clustered by individual. +p<0.10, *p<0.05, **p<0.01. All explanatory variables are lagged except those noted as since t-1. Additional explanatory variables measured at t-1 include: categoric variables for age, marital status, race and ethnicity, education attainment, ADL difficulties, and metropolitan size; indicators for foreign born, partner age gap of 5+ years, negative wealth, homeowner, retirement status, plan to retire in next two years, more than one adult child, young adult child (age 19-24) not at home and young adult child living at home; log total net wealth and log household income; population density, median rent and median housing value in the zip code; and flags for missing values of explanatory variables. Additional explanatory variables since t-1 include: transition to more retirement, new ADL difficulties, and young adult child left home. Full models are shown in the Appendix.

	1	2	3	4	5	6	
Sample:		Homeowners		Renters			
Probability of moving:		7.0%			22.3%		
Dependent variable:	Moved any	Moved at least	Moved across	Moved any	Moved at least	Moved across	
	distance	30 miles	metros	distance	30 miles	metros	
Proximity of closest adult child aged 25	+						
(reference group: 50+ miles):							
Lives at home	-0.04059**	-0.03706**	-0.03647**	-0.01686	-0.06330**	-0.05731**	
	(0.00594)	(0.00398)	(0.00404)	(0.01809)	(0.01214)	(0.01239)	
Away from home, within 10 miles	-0.03210**	-0.03907**	-0.03869**	-0.05010**	-0.08034**	-0.07621**	
	(0.00537)	(0.00370)	(0.00375)	(0.01649)	(0.01091)	(0.01113)	
10-29 miles	-0.02192**	-0.03388**	-0.03043**	-0.04142*	-0.08455**	-0.07236**	
	(0.00656)	(0.00403)	(0.00419)	(0.02056)	(0.01168)	(0.01230)	
30-49 miles	-0.03316**	-0.02475**	-0.02960**	-0.05603	-0.04816*	-0.04048+	
	(0.00973)	(0.00620)	(0.00593)	(0.03598)	(0.02266)	(0.02352)	
Additional explanatory variables							
Measured at wave t-1	Y	Y	Y	Y	Y	Y	
Since wave t-1	Y	Y	Y	Y	Y	Y	
State fixed effects	Y	Y	Y	Y	Y	Y	
Year fixed effects	Y	Y	Y	Y	Y	Y	
No. of household-wave observations	27,281	26,218	26,218	7,763	7,116	7,116	
R-squared	0.02434	0.02951	0.02887	0.05448	0.06473	0.06040	

Exhibit 7: Adult Child Proximity and Residential Mobility of Intact Households by Homeownership

Note: Health and Retirement Study, 2004-2014. Samples as described in the text. The table shows coefficients from linear probability models with standard errors clustered by household. +p<0.10, *p<0.05, **p<0.01. All explanatory variables are lagged except those noted as since t-1. Additional explanatory variables measured at t-1 include: categoric variables for age, marital status, race and ethnicity, education attainment, ADL difficulties, and metropolitan size; indicators for foreign born, partner age gap of 5+ years, negative wealth, retirement status, plan to retire in next two years, more than one adult child, young adult child (age 19-24) not at home and young adult child living at home; log total net wealth and log household income; population density, median rent and median housing value in the zip code; and flags for missing values of explanatory variables. Additional explanatory variables since t-1 include: transition to more retirement, new ADL difficulties, and young adult child left home. Full models are shown in the Appendix.

	1	2	3	4	5	6		
Sample:		Baby boomers		Earlier generations				
Probability of moving:		13.4%			9.1%			
Dependent variable:	Moved any	Moved at least	Moved across	Moved any	Moved at least	Moved across		
	distance	30 miles	metros	distance	30 miles	metros		
Proximity of closest adult child aged 25	+							
(reference group: 50+ miles):								
Lives at home	-0.02234+	-0.02950**	-0.02383**	-0.03337**	-0.04272**	-0.04278**		
	(0.01142)	(0.00725)	(0.00763)	(0.00741)	(0.00492)	(0.00495)		
Away from home, within 10 miles	-0.03553**	-0.03743**	-0.03682**	-0.03358**	-0.04881**	-0.04784**		
	(0.01033)	(0.00672)	(0.00695)	(0.00630)	(0.00433)	(0.00436)		
10-29 miles	-0.02478+	-0.03951**	-0.03424**	-0.02375**	-0.04331**	-0.03813**		
	(0.01281)	(0.00694)	(0.00734)	(0.00765)	(0.00479)	(0.00496)		
30-49 miles	-0.04637*	-0.02702*	-0.02835*	-0.03493**	-0.03145**	-0.03557**		
	(0.01849)	(0.01190)	(0.01189)	(0.01145)	(0.00733)	(0.00711)		
Additional explanatory variables								
Measured at wave t-1	Y	Y	Y	Y	Y	Y		
Since wave t-1	Y	Y	Y	Y	Y	Y		
State fixed effects	Y	Y	Y	Y	Y	Y		
Year fixed effects	Y	Y	Y	Y	Y	Y		
No. of household-wave observations	10,393	9,023	9,023	24,651	24,311	24,311		
R-squared	0.09768	0.05813	0.06132	0.05163	0.03382	0.03180		

Exhibit 8: Adult Child Proximity and Residential Mobility of Intact Households by Generational Cohort

Note: Health and Retirement Study, 2004-2014. Samples as described in the text. The table shows coefficients from linear probability models with standard errors clustered by household. +p<0.10, *p<0.05, **p<0.01. All explanatory variables are lagged except those noted as since t-1. Additional explanatory variables measured at t-1 include: categoric variables for age, marital status, race and ethnicity, education attainment, ADL difficulties, and metropolitan size; indicators for foreign born, partner age gap of 5+ years, negative wealth, homeowner, retirement status, plan to retire in next two years, more than one adult child, young adult child (age 19-24) not at home and young adult child living at home; log total net wealth and log household income; population density, median rent and median housing value in the zip code; and flags for missing values of explanatory variables. Additional explanatory variables since t-1 include: transition to more retirement, new ADL difficulties, and young adult child left home. Full models are shown in the Appendix.

	1	2	3	4	5	6	7	8	9
Sample:					Intact Househol	ds			
Probability of moving:					10.4%				
Dependent variable:	Moved any	Moved at least		Moved any	Moved at least		Moved any		Moved across
	distance	30 miles	metros	distance	30 miles	metros	distance	30 miles	metros
Interaction variable	Has	ADL difficulties	n t-1	New	ADL difficulties si	nce t-1	Has an	adult child help	er in t-1
Interaction variable=1 X									
Proximity of closest adult child aged 25	5+								
(reference group: 50+ miles):									
Lives at home	-0.04563**	-0.04981**	-0.05031**	-0.03194+	-0.05134**	-0.04764**	-0.02190+	-0.04791**	-0.04379**
	(0.01459)	(0.01025)	(0.01058)	(0.01770)	(0.01183)	(0.01192)	(0.01273)	(0.00611)	(0.00649)
Away from home, within 10 miles	-0.03549**	-0.05319**	-0.05542**	-0.03824*	-0.05189**	-0.05013**	-0.02051	-0.05024**	-0.04754**
	(0.01350)	(0.00958)	(0.00990)	(0.01609)	(0.01128)	(0.01128)	(0.01271)	(0.00579)	(0.00624)
10-29 miles	-0.04253**	-0.04702**	-0.04574**	-0.02394	-0.04969**	-0.04007**	-0.01842	-0.01960	-0.02127
	(0.01556)	(0.01061)	(0.01110)	(0.01942)	(0.01199)	(0.01251)	(0.02363)	(0.01477)	(0.01478)
30-49 miles	-0.02907	-0.01568	-0.02593	-0.01710	-0.03626+	-0.03499+	-0.00492	0.03235	-0.01421
	(0.02744)	(0.01974)	(0.01891)	(0.03622)	(0.02022)	(0.02033)	(0.08320)	(0.06336)	(0.04439)
Interaction variable=0 X									
Proximity of closest adult child aged 25	5+								
(reference group: 50+ miles):									
Lives at home	-0.02665**	-0.03637**	-0.03463**	-0.03018**	-0.03691**	-0.03569**	-0.03111**	-0.03727**	-0.03621**
	(0.00678)	(0.00436)	(0.00444)	(0.00651)	(0.00423)	(0.00433)	(0.00644)	(0.00414)	(0.00422)
Away from home, within 10 miles	-0.03462**	-0.04444**	-0.04297**	-0.03384**	-0.04504**	-0.04418**	-0.03418**	-0.04549**	-0.04467**
	(0.00577)	(0.00386)	(0.00392)	(0.00561)	(0.00378)	(0.00385)	(0.00547)	(0.00364)	(0.00369)
10-29 miles	-0.01972**	-0.04147**	-0.03569**	-0.02375**	-0.04122**	-0.03682**	-0.02331**	-0.04327**	-0.03786**
	(0.00719)	(0.00420)	(0.00440)	(0.00692)	(0.00416)	(0.00434)	(0.00667)	(0.00392)	(0.00411)
30-49 miles	-0.03787**	-0.03174**	-0.03389**	-0.03887**	-0.02835**	-0.03226**	-0.03730**	-0.03052**	-0.03294**
	(0.01022)	(0.00636)	(0.00626)	(0.00985)	(0.00648)	(0.00633)	(0.00976)	(0.00616)	(0.00610)
Additional explanatory variables									
Measured at wave <i>t-1</i>	Y	Y	Y	Y	Y	Y	Y	Y	Y
Since wave <i>t-1</i>	Y	Y	Y	Y	Y	Y	Y	Y	Y
State fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year fixed effects	Ŷ	Y	Ŷ	Ŷ	Ŷ	Ŷ	Ŷ	Ŷ	Ŷ
No. of household-wave observations	35,044	33,334	33,334	35,044	33,334	33,334	33,683	33,334	33,334
R-squared	0.06747	0.03640	0.03557	0.06733	0.03630	0.03546	0.06664	0.03658	0.03553

Exhibit 9: Adult Child Proximity and Residential Mobility of Intact Households by Variation in Care Needs

Note: Health and Retirement Study, 2004-2014. Sample as described in the text. The table shows coefficients from linear probability models with standard errors clustered by household. +p<0.10, *p<0.05, **p<0.01. All explanatory variables are lagged except those noted as since t-1. Additional explanatory variables measured at t-1 include: categoric variables for age, marital status, race and ethnicity, education attainment, ADL difficulties, and metropolitan size; indicators for foreign born, partner age gap of 5+ years, negative wealth, homeowner, retirement status, plan to retire in next two years, more than one adult child, young adult child (age 19-24) not at home and young adult child living at home; log total net wealth and log household income; population density, median rent and median housing value in the zip code; and flags for missing values of explanatory variables. Additional explanatory variables since t-1 include: transition to more retirement, new ADL difficulties, and young adult child left home. Full models are shown in the Appendix.