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Living Arrangements of Mothers and Their Adult Children over the Life Course

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Abstract

Early in the last century, it was commonplace for elderly women to live with their adult children. Over time the prevalence of this type of living arrangement declined as incomes increased. In more recent decades, coresidence between adult children and their retirement age parents has become more common as children rely on parental support later into adulthood. We use panel data from the Panel Study of Income Dynamics to examine the living arrangements of older women and their adult children over the life course. We pay particular attention to the relationship between coresidence and indicators of parental and child needs. Our results suggest that for much of the life course, coresidence serves to benefit primarily the adult children rather than the older parent. We also highlight a little known phenomenon, that of children who never leave the parental home and remain coresident well into their later adult years.

KEYWORDS: Coresidence, living arrangements, family support, transfers

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1. Introduction

Throughout much of the last century, multigenerational households were common and coresidence with adult children was the norm for elderly unmarried women (McGarry and Schoeni 2000). Between 1940 and 1980, gains in income for the elderly from the expansion of Social Security and work-related retirement programs, along with demographic and normative changes, caused the share of elderly unmarried women living with children to fall from 60% to 20% and the share of individuals in the U.S. living in multigenerational households to decline from 25% to 12% (Costa 1999, McGarry and Schoeni 2000, Pew Research Center 2010, Ruggles 2007). Since 1980, however, the trend toward more independent living has stalled and the share of individuals living in multigenerational households has increased to over 16% in 2008 (Pew Research Center 2010).¹ This increase in multigenerational living has coincided with declines in financial stability for young adults and a lengthening of the period of transition to adulthood (Furstenberg et al. 2004). Moreover, there is growing evidence that transfers of time, money, and coresidence are increasingly flowing from parents to adult children (Choi 2003, Kahn et al. 2013).

Because most prior work on coresidence focuses either on the elderly or on young adult children, we still know little about how living arrangements evolve over the life course, the prevalence of living with adult children at earlier stages of parents' lives, and how the relationship between parents' living arrangements and the economic and health circumstances of children and parents varies throughout the life course. This paper fills this gap in the literature using data from the Panel Study of Income Dynamics (PSID). The PSID is ideal for this purpose as it has followed

¹ The number of multigenerational households further increased with the onset of the Great Recession (US Census Bureau 2014).

its initial respondents and their progeny for nearly 40 years, allowing us to trace living arrangements from the time when children are young adults through the time when their mothers grow old. Only long-term longitudinal data, such as PSID, can illustrate the contours of the dynamics of living arrangements over the life course. We use these data to make three contributions to the literature. First, we characterize the evolution of mothers' living arrangements from middle age onward and emphasize the dynamic nature of living arrangements over the life course. Second, we assess whether the "directions of dependence" between mothers and their adult children changes over the life course by examining the relationship between living arrangements and the economic, demographic, and health circumstances of each generation at older and younger ages. Finally, we give attention to a little-studied type of mother-(adult) child living arrangement, namely mothers living with children who never left home—a group that is only identifiable using a long panel like the PSID. We examine how this arrangement, previously identified in Choi (2003) and Crimmins and Ingegneri (1990), varies by the economic and health statuses of both generations.

2. Literature Review

Different literatures offer different perspectives about the benefits of coresidence between parents and their adult children. In the literature on aging, there is extensive evidence that characteristics indicative of parental need – including poor health, functional disabilities, and widowhood – are positively correlated with parents coresiding with their adult children (Ellwood and Kane 1990, Mutchler and Burr 1991, Crimmins and Ingegneri 1990, Schwartz et al. 1984, Soldo et al. 1990, Speare and Avery 1993, Wolf and Soldo 1988). This literature also suggests that improvements in the economic circumstances of older unmarried women have been important in allowing for independent living (Costa 1999, McGarry and Schoeni 2000) and that more resources for parents generally predict independent living (Mutchler and Burr 1991).

Much of the aging literature on coresidence with children focuses on mothers (Costa 1999, McGarry and Schoeni 2000, Wolf and Soldo 1988) or on the unmarried (Mutchler and Burr 1991). Unmarried people are more likely to live with children and mothers are more likely to become widowed and thus to coreside with children (Crimmins and Ingegneri 1990, Soldo, Wolf and Henretta 1999). We examine living arrangements at relatively young ages, so we do not restrict our sample to unmarried people but we do restrict our sample to mothers and trace their living arrangements over the life course.

Characteristics of children also influence mothers' living arrangements. Having an unmarried child is strongly positively related to coresidence, though this could be an indicator of either having a child that can provide care or of having a child that requires support (Aquilino 1990, Crimmins and Ingegneri 1990). There is a growing consensus that having a child with fewer economic resources increases the probability of coresidence (Choi 2003, Crimmins and Ingegneri 1990, Kahn et al. 2013, Speare and Avery 1993), although most studies are based solely on parental reports of child circumstances or on the economic circumstances of children among those households who coreside.

There is a largely separate literature on the living arrangements of adult children and their parents surrounding the younger generation's transition to adulthood. Most studies focus on the effect of the economic conditions of the child in determining these living arrangements. The evidence shows that increases in children's income (Aassve et al. 2001, Ermish 1999) and more favorable local economic conditions (Card and Lemieux 1997, Matsudaira 2010, Wiemers 2014a) are associated with a higher probability of young adult children living independently of their parents, while unemployment for children predicts moving back in with parents (Kaplan 2012, Kahn

et al. 2013, Wiemers 2014b). Somewhat surprisingly, several studies suggest that increases in parental income are associated with increases in coresidence (Ermisch 1999, Manacorda and Moretti 2006, Schwartz et al. 1984). The differences in the effect of parental income on coresidence in the literature on aging and that on the transition to adulthood may be the result of the sampling on younger adults versus parents and whether or not the sample includes both married and unmarried parents (Schwartz et al. 1984). Young adult children may benefit from living with their parents in more than just financial terms especially from the provision of care to their own children, i.e., the grandchildren of their parents (Wang and Marcotte 2007).

Finally, Crimmins and Ingegneri (1990) and Choi (2003) have noted the existence of a group of adult children who never leave the parental home. Below, we document the importance of this particular form of coresidence. Using the self-reported information on income and disability status of all adult children in the PSID, we are able to contrast the economic and health characteristics of the adult children who never leave the parental home with those who leave and later return to coreside with their mother and those who never coreside.

The existing literature considers parental coresidence with children during the transition to adulthood as largely separate from coresidence with children at older age. The differences in the relationship between parental income and coresidence which are negative in the aging literature and positive in the transition to adulthood literature suggest that the direction of dependence changes over the life-cycle. We link the literatures on aging and the transition to adulthood by describing the dynamics of living arrangements and its correlates over the life course emphasizing that the living arrangements of families are more dynamic than commonly understood.

3. Research Design

Data and Sample

Our study is based on a sample of older mothers drawn from the Panel Study of Income Dynamics (PSID). The PSID is a household based panel survey first fielded in 1968 at which time it was representative of the population of households in the United States.² The PSID has followed not just the original respondents but has added to its sample newly born (or adopted) children of those respondents. Importantly, these children, and the children in the original sample, are followed when they leave the parental home and establish their own household, allowing us to link data from mothers to that of their grown children over an extended period of time. In addition, the extremely long panel in the PSID provides an important advantage over other surveys, allowing us to observe living arrangements over the life cycle.³

The wave-to-wave response rate in the PSID is among the highest of any national survey in the world, with a rate of 95% - 98% in almost every wave since 1968 (Schoeni, Stafford, McGonagle, and Andreski, 2013). Weights are designed to correct for attrition and the PSID has been shown to be representative on a broad range of characteristics producing comparable estimates to the American Time Use Survey for time use behaviors, to the National Health Interview Survey for health status and health behaviors, and to the Current Population Survey for income (McGonagle et al., 2012).

The primary focus of our study is on the living arrangements of mothers and their adult children. We focus on mothers for three reasons: first, women are more likely to outlive their

² See McGonagle et al. (2012) for a thorough discussion of the aims, study design, sampling procedures, content and representativeness of PSID.

³ There are two plausible alternatives to the PSID: the Health and Retirement Study (HRS) and National Long Term Care Survey (NLTC). The HRS provides a much larger sample of elderly women, age 50 and older, with information reported on each of their children in each wave of the survey. However, neither the HRS nor NLTC interviews adult children.

husbands and coreside with children at older ages (Crimmins and Ingegneri 1990, Soldo, Wolf and Henretta 1999); second, women are more likely to coreside in three generation arrangements with children and grandchildren (Wang and Marcotte 2007); finally, women are more likely to have complete fertility information and accurate information on the economic and demographic circumstances of their children. The sample we draw from the PSID therefore consists of female PSID respondents who have at least one child who themselves is a PSID sample member. Because we want to examine living arrangements when these children are young adults and before their mothers need care, we limit our sample to mothers who are observed at age 58. We picked 58 as the youngest age at which most women would no longer have children under 18 living at home.⁴ We also require that we can follow these mothers to at least age of 65 so that we can follow them to an age at which they are likely to be retired and their children are grown. We require that the final observation be in the year 1984 or later because 1984 was the first year in which the PSID collected information on health status, a likely crucial determinant of living arrangements.⁵ This selection criterion has the effect of excluding from our sample those women from the very earliest birth cohorts who die before 1984 and those with sufficiently poor health that they die before age 65.

After imposing these selection criteria our sample contains 1,113 mothers who range in age from 65 to 97 between 1984 and 2007. We observe these women from age 58 until their most recent interview in the PSID. The sampling structure described above ensures that we have a minimum of seven years of panel data on *all* mothers (and their children), with an average number of survey interviews of 15 per respondent. All told we have 16,303 person–years of data.

⁴ We also explored a younger initial age but found that in going much earlier, most mothers still had children who were either younger than 18 or still in college.

⁵ Prior to 1984 there is also a problem with correctly identifying residence in a nursing home residence.

Measures

Our main variables of interest describe the living arrangements of the mother, characteristics of the mother and her household, and characteristics of her child(ren). To measure living arrangements, we categorize each mother at each interview as living in one of five mutually exclusive and exhaustive arrangements: (1) living alone or with their husbands, which we refer to as living “alone,” i.e., these women did not live with one of their children or anyone other than their husband; (2) living with children (with or without a husband) and the children left at some point since 1968 but are now living with their mother, referred to as “children left home”; (3) living with children (with or without a husband) and at least one child has never left the home, referred to as “child never left”;⁶ (4) living with “others” (with or without a husband present), including non-relatives and relatives – and importantly those living with grandchildren without the child present; and (5) living in a “nursing home.”⁷

The demographic characteristics of the mother that we include in our analysis are her age, current marital status, years of schooling, and race (whether she is black).⁸ We define two measures of annual income for mothers: *own income*, which is the annual income of the mother plus the income of her spouse, if she is married; *total household income*, which is the sum of own income plus the incomes of all individuals who are in the household in which the mother resides (including children); and *per capita household income*, which is just total household income divided by the total number of people residing in the household. We construct these measures of income at two

⁶ In determining whether or not a child has lived away from home we use all available data. The “child never left” designation is, in practice, an indicator of whether the mother in our sample lived with the child for our entire period of observation – from 1968 until the last time we observe her. The child may have left home prior to 1968 or may leave at some point in the future.

⁷ Living arrangements are determined from the family roster and are complete for all women in the sample.

⁸ The PSID sample contains few Asians or individuals of Hispanic ethnicity. We therefore do not separately tabulate these groups. Asians are included with whites as “non-black” and Hispanics are classified with their self-reported race.

points in each mother's life cycle: when the mother was age 58 and the age of the mother's most recent PSID interview.⁹ In our multivariate analysis we include Own Income of the mother in log form. The PSID has only limited health information so we use self-reported health for mothers measured as excellent, very good, good, fair or poor from which we create a dichotomous variable equal to one if the mother reports being in fair or poor health.^{10,11} We also have data on characteristics of children. These include the total number of children, the number of daughters, the number of grandchildren, and the mean age of children. In order to account for the economic circumstances of each mother's children, we compute the average years of schooling and average annual income of her children. In our multivariate analysis we use the log of the average annual income of children. We also measure the unemployment status of these children, based on their employment status in the PSID wave at which we measure their mother's living arrangements, and their disability status, counting a child as disabled if they report receiving SSI and are under age 65 or if they report disabled as their current employment status.

Analytic Strategy

We first use the panel structure of the PSID data to describe the evolution of living arrangements over the life course and to examine transitions between living arrangements for the mothers in our sample. We then classify each woman by the living arrangement in which we observe her in her final year in the sample and examine the correlates of living arrangements in univariate and

⁹ The PSID imputes missing values and missing components in income so that total household income is complete for all households in the sample.

¹⁰ From 1984-1992 and from 1996 onward self-reported health status is available only for household heads and their spouses. Self-reported health status is available for the entire PSID sample for just the years 1992-1996. In practice, this restriction is not limiting. However, ADL limitations, likely a better predictor of the ability to live independently are available for just the years 1992-1996 and for 2003 and on and is therefore of little help in our study which covers an extended period of time.

¹¹ Item non-response in the PSID is extremely low with few variables missing for more than 3-4% of cases (McGonagle et al. 2012).

multivariate analysis. In our multivariate analysis, we employ a multinomial logit specification, using our five-category living arrangement classification scheme. We characterize the living arrangement of older mothers as a function of her demographic characteristics (age, current marital status, race, schooling, number of children), economic resources (income), health status (poor health), and the characteristics of her children (mean age, income, disability status and unemployment). In order to provide information on the direction of dependence over the life course (i.e., who is likely to be helping whom with respect to shared living arrangements), we estimated separate regressions for mothers who were younger than age 70 at the time we measure their living arrangements and for those who are 70 years or older. In the under-age-70 regressions, we omit nursing home as an option in the MNL model due to sample size constraints. All of our analysis is intended as descriptive; we do not attempt to assess the causal links between living arrangements and the health or economic statuses of mothers or of her children.

4. Results and Discussion

Living Arrangements by Age

To obtain a sense of how living arrangements evolve, Figure 1 shows the distribution of living arrangements by mother's age. Consistent with other cross-sectional evidence, mothers living alone (including living with a spouse) comprise the largest part of the sample in each age group. The incidence of this living arrangement follows an inverse u-shape with age; the fraction living independently increases until about age 70 as children leave the nest and then decreases as women age and begin to need care themselves. The life cycle pattern in the fraction of women living with children is almost the mirror image of that for the fraction living alone. At the same time, we note that the incidence of mothers living with children is rarely less than 20%.

[Insert Figure 1 about here]

The fraction of women living with individuals other than their children or spouse remains relatively constant across ages. For many of these women, the other persons are grandchildren, with the child's parent living elsewhere. The prevalence of living with grandchildren varies significantly by race. Of the white mothers in our sample who are living with others, 47% are living with a grandchild (without the child present) compared to 76% of blacks (not shown).

Finally, the incidence of mothers living in a nursing home is negligible until the women in our sample reach much older ages.¹² In their late 70s and early 80s, the fraction of mothers living independently falls sharply. It is unfortunate that we do not have more observations at older ages to investigate this choice in greater detail.¹³ Other surveys such as the Health and Retirement Study may be more useful in this regard.

In Figure 2, we separate the two types of living with children – with children who never left home, and with children who left and returned (or with whom a parent began residing) and show the percentage of mothers in each living arrangement. We see, unsurprisingly, that the fraction living with children who never left declines monotonically over time. The greater prevalence of this arrangement at early ages is indicative of the “failure to launch” phenomenon. At age 58, 13% of mothers live with one or more child who has never left, but even at the oldest ages, approximately 7% of mothers are living with children who never left home. The prevalence of this living arrangement suggests that not all coresidential arrangements are the result of parents needing assistance in older ages, but rather that one of the parties has been consistently unable to live independently, or simply that coresidence is the preferred arrangement for this family. We also

¹² Note that the PSID measures only long term nursing home stays; therefore, we are not mistakenly counting someone as residing in a nursing home if there are only there for a recuperative stay.

¹³ Capturing nursing home use is also difficult in that many stays will be less than the time elapsed between interviews and many patients in nursing homes may not participate in the survey.

note that the large fraction of mothers at relatively young ages who are living with children who did leave but who returned provides suggestive evidence that the phenomenon of “boomerang children” existed long before the Great Recession. In contrast, the upturn in living with children who were previously independent around age 80 is more consistent with a care-giving role for children.

The life cycle trends displayed in Figures 1 and 2 demonstrate that coresidence with children is a complex phenomenon that may benefit parents and children differently over the life course. Moreover, living with children who never left home is a largely understudied phenomenon to which we devote more attention below.

Mothers’ Living Arrangements since Age 58

Examining changes in the prevalence of living arrangements by age is helpful for understanding trends but may mask substantial movement in and out of living arrangements for individuals. In this section, we examine transitions in living arrangements for mothers from age 58 until their last observation in the PSID. We report on the prevalence of alternative living arrangements over this part of the life course in Panel A of Table 1. We exclude from these tabulations the roughly 10% of mothers who always lived with children who never left, since, by definition, they do not change living arrangements.

[Insert Table 1 about here]

Among those living alone at the final observation, 39% of these women had, at some point since age 58, lived with a child who had previously left home. We imagine that coresidence with a child following a period of independence and ending with a return to independence is relatively unlikely to be due to the mother’s failing health and more likely a temporary arrangement for the benefit of the child. In the second column we see that of those living with children at the last

observation 80% were previously living alone, but a sizable fraction, 20%, had some previous experience living with others.

Importantly, among those in a nursing home in the final period, 49% lived with a child at some point. In these instances it may well be that the coresident arrangement benefited the mother and suggests a potential progression of care from informal family-based care to formal care. Yet it is worth noting that a previous period of coresidence is not universal.

In Panel B of Table 1 we examine the importance of various living arrangements in terms of the time spent in that state. For those living alone at the end of the sample period, 84% of their lives since age 58 were spent in that state, 9% with children following their children leaving home, 4% with children who had never left home, and 3% with others. Those living with children have spent nearly 40% of their time living alone and much of the remainder with children. Interestingly, those who end up in a nursing home spent relatively little time there, just 11% of the observation period, with far more time being spent alone.

Mothers' and Children's Characteristics by Living Arrangements

To learn more about what factors are correlated with living arrangements, we examine the characteristics of our sample at the last living arrangement in which mothers are observed. We begin by presenting the mean characteristics of our sample of mothers and their families in Table 2.

[Insert Table 2 about here]

Overall, we find that elderly mothers who are living alone when we last observe them appear to be better off than other mothers in virtually every dimension; they are more likely to be currently married, they are more educated, have higher household incomes, have children who have higher incomes, and are in better health. Differences between the groups by mothers' current

marital status are large. Mothers who live alone and those who live with children who have never left home are much more likely to be married than mothers who live with children who have left home or who live with others. All of the mothers in our small sample of nursing home residents are unmarried. Past work has repeatedly shown that living arrangements are strongly correlated with measures of income (McGarry and Schoeni 2000). Here we find that the mean Own Income of those living alone (or with a spouse) is \$50,000 per year, at least 50% greater than those living in any of the other types of arrangement, and nearly three times as large as those living with others. This same pattern of average incomes across living arrangements by and large holds if we use Total Household Income. Finally, the Per Capita Household Income of those living with children is nearly one-third smaller than that of those living alone. Because Own Income includes the income of the mother and her spouse, if present, differences in marital status may explain some of the differences in income between those living alone and those living with others or with children. We consider this in more depth in our multivariate analysis.

It is reasonable to presume that income and living arrangements are jointly determined. As noted above, we do not attempt to sort out the causal links between the two. But, as another perspective on the relationship between economic resources and living arrangements, we present measures of income earlier in the mother's life (age 58) with her living arrangements later in life. Using either Own Income or Total Household Income at age 58 lead to the same conclusions: individuals who are living alone at the oldest age for which we have data have significantly higher income not just at that point, but at age 58 as well, on average 16 years prior to our measure of living arrangements. The average Total Household Income at 58 for those eventually living alone is \$85,500 compared to \$59,000 for those with children and \$35,000 for those living with others.

This finding that the incomes of parents during their working years are correlated with living independently later in life is consistent with the other evidence (see for example, Smith (2007)) of a strong health/income gradient to the extent that being healthier and remaining independent at older ages and, themselves, positively related. Finally, our finding that those who eventually live in a nursing home have the lowest Own or Household Incomes at age 58 is also consistent with higher levels of economic attainment early in life and better health outcomes later in life.

The average income of children is significantly higher for those mothers who live alone than for those who live with children or with others. Their children have average household income of nearly \$106,000 compared to \$50,000 – \$60,000 for those living with children or others. The second highest average income is for the children of those mothers living in a nursing home. Coresidence is thus associated with lower income families overall.

Differences in mothers' living arrangements by their years of schooling follow the same pattern with those eventually living alone having the most schooling and those living with others or with children who never left, the lowest. Finally, there are large racial differences across the groups. Just 5% of those living alone and just 7% of those in a nursing home are black while over 20% of those with children or with others are black. Perhaps unsurprisingly, women living alone (or with their spouse) have the fewest number of children, consistent with both their higher apparent socioeconomic status and the lower potential of a coresident arrangement. Those living in a nursing home have the next fewest children, providing at least some suggestive evidence that children may “protect” one against institutionalization.

As to be expected for a sample of women whose average age is 76, many of them are in poor health in each category. However, there is a dramatic difference across groups: just 37% of those living alone are in poor health compared to approximately 50% of those living with children,

64% of those living with others and 72% of those in a nursing home.

Living Arrangements and Poverty

Previous studies of elderly parents have often focused on the relationship between living arrangements and poverty (Schwartz et al. 1984). In Table 3, we characterize the incidence of poverty by living arrangement in two ways. In column 2, we compare Own Income of the mother (and spouse) with the poverty line for a single person (or couple) household to define the incidence of poverty. In effect, this measure attempts to get at how the mother (and spouse, if present) would fare if she (or she and her spouse) relied solely on their own resources. Of course, for those living with children and/or others, there are potentially more resources in the household; at the same time, there are more people to feed, clothe and shelter. In column 3, we base the incidence of poverty on a comparison of the Total Household Income of the household in which the mother resides with the total number of people that reside with her. This latter strategy is based on the equivalence scales implicit in the calculation of the poverty line.

[Insert Table 3 about here]

Based solely on Own Income and the needs of mothers and spouses in column 2, we again see that those living alone are faring the best financially with 10.6% of the sample having income below the poverty line. The next best off group is those living with children who were previously independent, with a poverty rate of 18%, similar to the 19% for those living with children who never left. Approximately one third of those living with others or in a nursing home are poor based on own income and needs. Similar patterns exist for the probability of having income below two or three times the poverty line.

In column 3 of Table 3, we examine how taking account of the incomes provided by and needs of children and others that reside in mothers' households affect the incidence of poverty.

We find that coresidence improves the condition of our elderly mothers substantially. The poverty rate for those living with a child falls from 18% to 10%, a decline of 44%. For those living with children who never left, the decline is from 19% to 13% and for those with others, the decline is similar in percentage terms but the probability remains high at 25%. As we mentioned earlier, many of those living with others are grandparents living with their grandchildren so the additional income from such individuals is likely to be low. We cannot, however assert that those mothers in coresident arrangements experiencing income above the poverty line would have been impoverished had they not had the opportunity to coreside. They may have left work to help their daughter care for their grandchild, foregoing income from earnings and/or pension benefits or they may have transferred assets (and asset income) to a child in exchange for coresidence.

Multivariate Analyses of Living Arrangements

To investigate how differences in living arrangements vary by the demographic characteristics and socio-economic status of mothers and her children in more detail, we present results from multivariate analyses of the determinants of older mothers' living arrangements. In order to understand how the correlates of living arrangements change over the life course, Table 4 shows the mean marginal effects from the multinomial logit model for mothers under 70 and for mothers age 70 and over, respectively. In the discussion that follows, we pay particular attention to indicators of the “directions of dependence” between mothers and their adult children and how they vary by mother's age. In Supplemental Table 1, we stratify our sample by the current marital status of mothers and report mean marginal effects from the multinomial logit model for married and unmarried mothers.

[Insert Table 4 about here]

Measures of dependence or needs of the mother include income, marital status, and health.

We find that prior to age 70, an increase in parental income is associated with an increase in the probability of living with children who have left the parental home and a decrease in the probability of living alone. Being unmarried or in poor health is not correlated with living arrangements. In contrast, measures of neediness of children suggest that more needy children are more likely to coreside. In particular, increases in the average income of a mother's children increases the probability of her living alone and decreases the probability of all other living arrangements. Similarly, having an unemployed child decreases the probability of the mother living alone and increases the probability of living with a child who has previously left home. Consistent with Wolf and Soldo (1988), mothers with daughters and older children are also more likely to live alone. To summarize, prior to age 70, we find little evidence that coresidence between parents and children is correlated with needs of the mother, rather it is more highly correlated with measures of the needs of children.

For mothers over age 70, the correlates of parental need and potential dependence on their children change substantially. In particular, several measures of maternal needs are correlated with a decrease in the probability of independent living. Being unmarried is correlated with an increase in the probability of living with children who have previously left home and with a decrease in the probability of independent living. Increases in parental income are also associated with a decrease in the probability of living in a nursing home or with others but are not correlated with living with children or independently. Mothers in poor health are more likely to live in nursing homes and less likely to live independently. In later life, the correlates of child neediness also change. Mean income of children remains positively correlated with living independently and negatively correlated with living with children, but unemployment of children is no longer statistically significantly

correlated with living arrangements of mothers. However, having a child with a disability is correlated with increases in coresidence with children of all types suggesting that in more serious cases of child dependence, coresidence with mothers may be important.

Three interesting patterns emerge from the results. The first is that patterns of parental and child income, parental marital status, parental health and children's unemployment suggest that the direction of dependence may change as parents age. For mothers under age 70, higher income is negatively related to living alone and positively related to living with children and unemployed children are more likely to live with parents. However, for mothers 70 and over, those who are unmarried are less likely to live independently as are mothers in poor health. Unemployment of children does not correlate living with children at older ages nor does parental income. Taken together, these differences suggests that when mothers are relatively young, children return home if they need help and have parents who are able to support them. Conversely, at older ages coresidence is more strongly correlated with characteristics that indicate that mothers may need help including being unmarried or in poor health.

Breaking from the pattern of dependence by age noted above, there seems to be a group of children who continually rely on parents for support even at older ages. For mothers over 70, living with children is correlated with having a disabled child. The correlations between having a disabled child and living arrangements for mothers over 70 also differ by whether a child has previously left the home. In this age group, having a disabled child increases the probability of living with a child who never left home by 5.4 percentage points on a baseline probability of 7%. That is, having a disabled child increases the probability of living with a child who never left home by nearly 80%. Though the effect is also statistically significant for mothers living with one of their children who has returned to the parental home, it is not as large as for those who have remained coresident for

their entire lives. For older mothers, having a disabled child increases the probability of living with a child who left home by 7.4 percentage points on a baseline probability of 15%--an increase of about 50%.

Finally, differences between blacks and whites in which blacks are more likely to coreside with children and less likely to live independently are consistent across mother's age and are robust to the inclusion of socio-economic status and marital status.

5. Conclusion

In this paper we shed new light on the living arrangements of older mothers. There is a large literature examining living arrangements at a point in time as well as the changes in living arrangements across cohorts. What we provide is a more detailed look at the evolution of living arrangements over the life course focusing on coresidence of mothers and their adult children.

We identify three important insights. First, we show that living arrangements are quite dynamic. Over 50% of mothers who are observed living alone in their last year in the PSID have also lived with children since they were 58 years old. Similarly, 80% of those observed living with children who left home, have lived alone at some point since they were 58 years old. Indeed, women who live with children have only spent 60% of the time since they were 58 years old living with children.

Second, in contrast to the dynamic living arrangements that we highlight above, we show that an important fraction of coresident relationships, even for the oldest in our sample, are cases in which the adult child never left home. Using self-reported income and disability data, our work suggests that in these cases, it is the child who is receiving assistance from the parent rather than visa versa. This finding is in contrast to Choi (2003) who finds that children continuously coresiding with parents in the AHEAD cohort of the HRS were more highly educated than children who

moved in with parents to benefit the child and as well off as children who moved in with parents to benefit parents. The differences in our results may partially reflect changes in coresidence patterns over time in which coresidence has become increasingly likely to benefit children (Kahn et al. 2013), but also likely to reflect our inclusion of married women in our sample and the more accurate and self-reported measures of the needs of children including disability and income available in the PSID.

Finally, we find evidence that the direction of dependence seems to change over the life course. At younger ages, coresidence is temporary and likely serving to benefit the adult child, consistent with the concept of the boomerang child much discussed in the popular press. These insights fit into the growing literature that suggests that coresidence between parents and children is more likely to benefit the child through much of the life course. However, we also find evidence that many older mothers are able to avoid poverty by coresiding with children and that unmarried mothers and mothers in poor health are more likely to coreside with children.

Our work has some important limitations. Our sample of mothers in nursing homes is too small to explore in great depth. The dynamics of the living arrangements of mothers who end up in nursing homes is of particular interest because of the high cost associated with nursing home care. While the PSID has many advantages, the long panels that we use are not representative of recent immigrant groups because these groups were only added in more recent waves of the data. Given the large differences that we find between living arrangements for blacks and whites, further explorations of race and ethnic differences in the dynamics of living arrangements may be interesting avenues for further research. Most importantly, we do not attempt to estimate causal relationships and so our work is purely descriptive. Our results suggest that work taking a more structural approach to the evolution of living arrangements over the life cycle is a promising direction

of future research. Despite these limitations, our work highlights the importance of considering the dynamics of living arrangements over the life cycle when describing the correlates of living arrangements.

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Table 1: Propensity for and fraction of time in other living arrangements by final status

	Status at Final Observation			
	Alone	Children Left Home	Others	Nursing Home
<i>Panel A: Fraction who were ever previously observed as:</i>				
Alone	100.00	79.60	70.87	86.31
Child Left Home	39.47	100.00	48.37	49.22
Child Never Left	14.09	18.36	15.73	25.80
Others	12.07	19.49	100.00	17.72
Nursing Home	1.20	0.89	0.00	100.00
<i>Panel B: Fraction of time previously observed as:</i>				
Alone	83.94	37.69	35.77	63.16
Child Left Home	8.91	52.31	12.38	9.59
Child Never Left	4.18	5.61	2.83	12.04
Others	2.87	4.33	49.02	4.05
Nursing Home	0.08	0.03	0.00	11.14

Notes: Weighted by individual weights

Table 2. Selected Means by Women's Most Recent Living Arrangement

Means	Alone	Child Left Home	Child Never Left	Others	Nursing Home
Proportion	66.59	15.78	6.85	4.51	6.27
Mother's Age	74.59 (0.29)	74.21 (0.62)	74.11 (0.91)	73.42 (1.02)	83.28*** (0.93)
Unmarried	0.46 (0.02)	0.73*** (0.04)	0.49 (0.07)	0.68*** (0.08)	1.00*** (.)
Black	0.05 (0.008)	0.24*** (0.03)	0.19*** (0.04)	0.23*** (0.06)	0.07 (0.03)
Mother's Education (Years)	12.24 (0.12)	11.53*** (0.23)	10.95*** (0.38)	10.95*** (0.45)	11.32** (0.43)
Own Income ^a (1000\$)	50.15 (3.11)	35.23* (7.69)	31.75*** (3.19)	17.75*** (2.40)	21.11*** (2.83)
Total Household Income ^a (1000\$)	50.15 (3.11)	69.38** (8.95)	56.88 (4.45)	26.38*** (3.33)	21.11*** (2.83)
Per Capita Hshld. Income ^a (1000\$)	32.56 (1.97)	22.07*** (2.07)	18.86*** (1.75)	10.57*** (1.43)	21.11*** (2.83)
Own Income at Age 58 ^a (1000\$)	78.14 (5.17)	49.66*** (4.87)	54.30*** (6.11)	35.22*** (4.97)	54.03*** (6.11)
Total Hshld Income at 58 ^a (1000\$)	85.51 (5.38)	58.94*** (5.08)	77.19 (5.88)	43.21*** (5.89)	55.88*** (4.38)
Number of Children	3.40 (0.08)	3.98*** (0.18)	4.67*** (0.33)	4.22 (0.53)	3.71 (0.32)
Number of Grandchildren	4.66 (0.17)	4.92 (0.36)	4.69 (0.63)	5.82 (0.89)	4.13 (0.57)
Number of Daughters	1.67 (0.06)	1.90* (0.12)	2.13** (0.20)	1.77 (0.30)	1.73 (0.18)
Fraction of Daughters	0.49 (0.01)	0.49 (0.03)	0.44 (0.04)	0.41 (0.05)	0.44 (0.04)
Mean Age of Children	46.42 (0.29)	45.53 (0.66)	43.53 (1.07)	46.35 (1.34)	52.08*** (0.72)
Mean Kids Education (Years)	14.01 (0.08)	13.01*** (0.15)	12.84*** (0.23)	12.55*** (0.29)	13.77 (0.28)
Mean Kids Income (1000\$)	105.94 (5.24)	52.10*** (3.33)	61.35*** (12.83)	55.32*** (6.82)	100.25 (16.17)
Mother in Fair or Poor Health	0.37 (0.02)	0.54*** (0.04)	0.43 (0.06)	0.61*** (0.08)	0.72*** (0.06)
Has a Disabled Child	0.05 (0.009)	0.24*** (0.04)	0.21*** (0.05)	0.14 (0.06)	0.06 (0.03)
Has an Unemployed Child	0.07 (0.01)	0.17*** (0.03)	0.14 (0.04)	0.07 (0.04)	0.05 (0.03)
N=1113	637	243	109	58	66

Notes: Weighted using average individual weights. Standard deviations in parentheses underneath means. Tests for differences in means are all conducted relative to living alone. *significant at 10%, **significant at 5%, ***significant at 1% level.

^aThe definitions of the income measures are found in Section 3.

Table 3. Living Arrangements by Income Relative to the Poverty Line

Status at Last Observation	% Living below Poverty Line	
	Poverty Status based on Own Income	Poverty Status based on Total Household Income
Alone	10.58	10.58
Child Left Home	17.95	10.45
Child Never Left	19.00	12.63
Others	36.93	24.69
Nursing Home	32.85	32.85

Notes: Weighted using individual weights. We do not use poverty lines specific to the age distribution of household.

Table 4. Marginal Effects on Living Arrangements Stratified by Mother's Age

	Alone	Child Left Home	Child Never Left	Others	Nursing Home
<i>Marginal Effects Age < 70 (N=304)</i>					
Mother's Age	0.009 (0.017)	-0.031** (0.016)	0.019 (0.013)	0.001 (0.01)	
Unmarried	-0.071 (0.052)	0.059 (0.051)	0.033 (0.039)	-0.023 (0.031)	
Black	-0.143*** (0.054)	0.068 (0.051)	0.058 (0.040)	0.016 (0.031)	
Log of Own Income	-0.042** (0.021)	0.051** (0.024)	-0.007 (0.018)	-0.009 (0.01)	
Number of Children	-0.044*** (0.013)	0.028** (0.011)	0.021*** (0.008)	-0.004 (0.009)	
Number of Grandkids	0.006 (0.006)	0.001 (0.005)	-0.008* (0.004)	-0.0001 (0.004)	
Has a Daughter	0.126** (0.068)	-0.138** (0.064)	0.012 (0.057)	-0.001 (0.038)	
Mean Age Child	0.017*** (0.004)	-0.005 (0.005)	-0.016*** (0.003)	0.004 (0.003)	
Log Mean Income of Children	0.160*** (0.029)	-0.092*** (0.019)	-0.04*** (0.013)	-0.028*** (0.009)	
Mother in Poor Health	-0.034 (0.048)	0.030 (0.047)	-0.030 (0.038)	0.035 (0.03)	
Has a Disabled Child	-0.091 (0.069)	0.036 (0.048)	0.053 (0.043)	0.002 (0.035)	
Has an Unemployed Child	-0.139* (0.064)	0.154*** (0.052)	-0.032 (0.047)	0.016 (0.034)	
<i>Marginal Effects Age ≥ 70 (N=809)</i>					
Mother's Age	-0.007** (0.003)	0.001 (0.003)	0.002 (0.002)	-0.004* (0.002)	0.008*** (0.002)
Unmarried	-0.121*** (0.033)	0.154*** (0.038)	-0.027 (0.024)	0.011 (0.019)	-- --
Black	-0.127*** (0.037)	0.105*** (0.030)	0.036 (0.023)	0.008 (0.017)	-0.023 (0.023)
Log of Own Income	0.023 (0.016)	-0.003 (0.013)	0.016 (0.013)	-0.012*** (0.004)	-0.025*** (0.004)
Number of Children	-0.004 (0.009)	-0.002 (0.007)	0.004 (0.00)	0.001 (0.004)	0.0007 (0.004)
Number of Grandkids	-0.003 (0.004)	0.005 (0.003)	-0.004 (0.003)	0.003* (0.002)	-0.0008 (0.003)
Has a Daughter	0.046 (0.048)	-0.027 (0.043)	0.042 (0.037)	-0.035* (0.021)	-0.026 (0.024)
Mean Age Child	0.002 (0.003)	-0.001 (0.003)	-0.004** (0.002)	0.002 (0.002)	0.0007 (0.002)
Log Mean Income of Children	0.053*** (0.015)	-0.034*** (0.009)	-0.021*** (0.004)	-0.008** (0.004)	0.01 (0.009)
Mother in Poor Health	-0.059* (0.032)	0.002 (0.028)	0.012 (0.021)	0.005 (0.015)	0.039** (0.018)
Has a Disabled Child	-0.094* (0.052)	0.074** (0.036)	0.054** (0.024)	-0.015 (0.021)	-0.019 (0.034)
Has an Unemployed Child	-0.042 (0.051)	0.049 (0.036)	0.016 (0.026)	-0.039 (0.028)	0.016 (0.032)

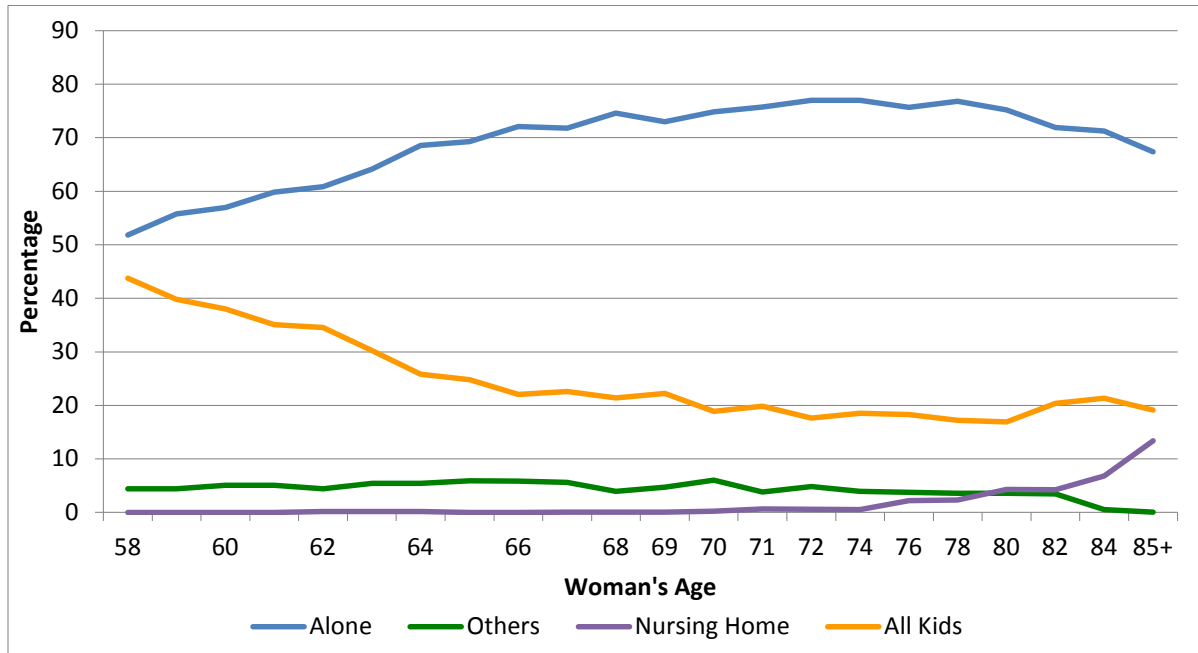
Notes: *significant at 10% **significant at 5% ***significant at 1% level.

Supplemental Table 1. Marginal Effects on Living Arrangements Stratified by Mother's Marital Status

	Alone	Child Left Home	Child Never Left	Others	Nursing Home
<i>Marginal Effects Unmarried (N=690)</i>					
Mother's Age	-0.006 (0.004)	-0.0005 (0.003)	0.002 (0.002)	-0.005** (0.002)	0.008*** (0.002)
Black	-0.120*** (0.04)	0.098*** (0.035)	0.051** (0.024)	0.016 (0.019)	-0.035 (0.026)
Log of Own Income	-0.003 (0.015)	0.009 (0.015)	-0.025 (0.016)	-0.009** (0.004)	-0.022*** (0.005)
Number of Children	-0.01 (0.01)	0.001 (0.001)	0.005 (0.005)	-0.005 (0.005)	-0.003 (0.006)
Number of Grandkids	0.001 (0.005)	0.001 (0.004)	-0.005* (0.003)	-0.004* (0.002)	-0.002 (0.003)
Has a Daughter	0.062 (0.056)	-0.055 (0.052)	0.038 (0.041)	-0.004 (0.027)	-0.040 (0.028)
Mean Age Child	0.002 (0.004)	0.0006 (0.003)	-0.006*** (0.002)	0.004** (0.002)	0.0006 (0.002)
Log Mean Income of Children	0.062*** (0.018)	-0.048*** (0.011)	-0.023*** (0.005)	-0.011** (0.005)	0.021* (0.012)
Mother in Poor Health	-0.071* (0.036)	0.024 (0.034)	-0.028 (0.024)	0.014 (0.019)	0.053** (0.022)
Has a Disabled Child	-0.082 (0.055)	0.042 (0.043)	0.051* (0.026)	-0.003 (0.023)	-0.009 (0.038)
Has an Unemployed Child	-0.058 (0.057)	0.102** (0.043)	-0.001 (0.029)	0.059* (0.035)	0.014 (0.038)
<i>Marginal Effects Married (N=423)</i>					
Mother's Age	0.002 (0.004)	-0.006 (0.004)	0.005* (0.003)	-0.002 (0.002)	
Black	-0.101** (0.049)	0.085** (0.036)	0.014 (0.034)	0.001 (0.022)	
Log of Own Income	0.026 (0.024)	0.001 (0.02)	0.0005 (0.018)	-0.026** (0.012)	
Number of Children	-0.015 (0.010)	-0.005 (0.008)	0.014** (0.007)	0.006 (0.005)	
Number of Grandkids	-0.007 (0.005)	0.01*** (0.003)	-0.004 (0.004)	0.001 (0.002)	
Has a Daughter	0.098* (0.053)	-0.07* (0.042)	0.028 (0.048)	-0.056** (0.026)	
Mean Age Child	0.014*** (0.004)	-0.009*** (0.003)	-0.007** (0.003)	0.001 (0.002)	
Log Mean Income of Children	0.069*** (0.019)	-0.035*** (0.011)	-0.026*** (0.009)	-0.007 (0.006)	
Mother in Poor Health	-0.016 (0.037)	0.034 (0.029)	-0.031 (0.027)	0.012 (0.019)	
Has a Disabled Child	-0.133** (0.057)	0.086** (0.038)	0.048 (0.024)	-0.002 (0.029)	
Has an Unemployed Child	-0.086 (0.055)	0.048 (0.039)	0.008 (0.039)	0.031 (0.025)	

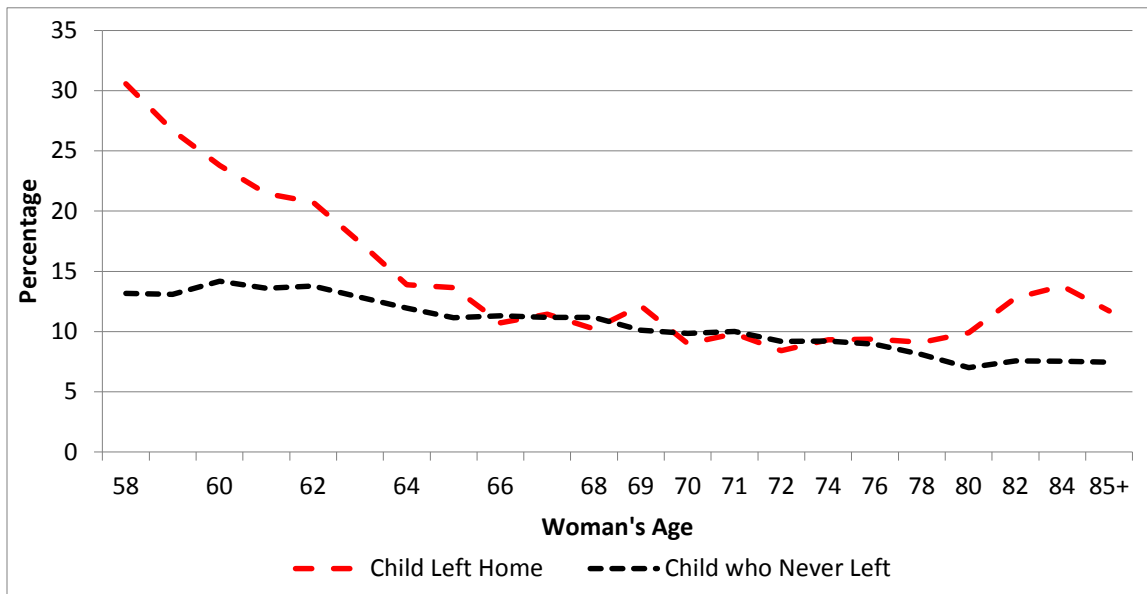
Notes: *significant at 10% **significant at 5% ***significant at 1% level.

Figures for “Living Arrangements of Mothers and Their Adult Children
over the Life Course”



Notes: Ages after 73 are combined in two year intervals. Weighted using 1968 family weights.

Figure 1. Living Arrangements of Women by Age



Notes: Ages after 73 are combined in two year intervals. Weighted using 1968 family weights.

Figure 2. Types of Living Arrangements with Children for Women by Age