Sandwiched between Aging Parents and Boomerang Kids in Two Cohorts of American Women

Emily Wiemers
University of Massachusetts Boston

Suzanne Bianchi
University of California, Los Angeles

Abstract

In late middle age, individuals may face competing demands on their time and financial resources from elderly parents and young adult children. This study uses the Panel Study of Income Dynamics to examine changes over time and differences by race in the probability of having children and living parents for women age 50 to 64. We compare two cohorts: those born in the 1920s and 1930s and those born in the 1940s and 1950s. Within each cohort we examine differences between Blacks and Whites. We find that there has been a dramatic increase in the probability of having children and living parents. We find that while Whites are more likely to have children and living parents, Blacks with children and living parents may face a heavier burden of support--particularly in the form of co-residence—and are more likely to face this burden without a spouse.

Introduction

In the decades leading up to retirement, individuals may have obligations of support to multiple family members including adult children and grandchildren as well as aging parents and parents-in-law. In the aging literature, the majority of research has focused on care for parents (Coward and Dwyer, 1990; Dwyer and Coward, 1991; Wolf, Freedman, and Soldo, 1996; 1997; McGarry 1998; 2006) but care and support for adult children is actually more prevalent in late middle age (Kahn et al., 2011). Demands for care and support are unlikely to come from only one family member and individuals in late middle age are often sandwiched between the needs of their children and grandchildren and the needs of their parents.

Fertility, mortality and marriage trends have reshaped the potential for intergenerational demands over time. Trends toward later births, fewer births, and a delayed transition to adulthood alter the time required to fully launch one's offspring. Longer life expectancy

increases the chances that one will have surviving parents later in the life course. Marriage, which brings obligations to parents-in-law, is increasingly delayed or foregone altogether by some segments of the population. There has been some assessment of how these demographic trends may have affected the "sandwich generation" at a single point in time but there has been no assessment of change over time.

These demographic trends have not been experienced equally by individuals from different racial or socioeconomic groups. Individuals who are less educated, poorer, and who come from more economically deprived backgrounds have lower life expectancy. The differences in life expectancy have been increasing over time: The gap between the life expectancy of the least well-off and the most well-off has increased from 2.8 years in the early 1980s to 4.5 years in the late 1990s (Singh and Siahpush, 2006). Mortality and morbidity are higher for Blacks than Whites. Similarly, the differences by race in the age at first birth and the likelihood of marrying have been widening over time—with a much larger fraction of births outside marriage for Blacks than Whites (Wu, Bumpass, and Musick, 2001). Total fertility rates are still higher for Blacks than Whites but have been converging. Thus, the experience of "sandwich caregiving" likely occurs at earlier ages for non-Whites and the less well-educated. Because the potential for competing demands from parents and children are likely to occur at different ages for different groups, the actual demands from parents and children may differ substantially by socioeconomic status and race/ethnicity.

This study uses the Panel Study of Income Dynamics (PSID) to examine the potential for intergenerational demands for financial support and care on individuals in late middle age. We focus on women between the ages of 50 to 64. To assess change over time, we compare two cohorts: those born in the 1920s and 1930s and the Baby Boom cohort born in the 1940s and

1950s. We begin by examining the differences in the potential for intergenerational demands for support between cohorts.[1] Because of differences in the demographic trends over time by socioeconomic status and race, we further examine differences in the potential for being sandwiched between the needs of aging parents and young adult children separately for Blacks and Whites. Finally, we look at two types of actual support—co-residence and giving money to either parents or children—to determine whether the demands from children and/or parents have intensified in late middle age and to assess whether demands differ across racial groups. Racial groups differ greatly by socioeconomic status and so we examine racial differences with and without controls for educational attainment which we use as a marker for socioeconomic status.

The Changing Demography of Kin Availability and Need

Mortality. Between 1970 and 2007, life expectancy at birth increased from 71 to 78 years (Miniño et al. 2011). By 2008, women lived an average of 80.6 years and men 75.6 years (Miniño et al. 2011). Uhlenberg (1996) estimates that about 37 percent of 60 year olds had at least one living parent in 1980 compared with 44 percent of 60 year olds in 2000. Other things equal, as parents live longer, individuals in late middle age have an increased likelihood of having at least one parent who survives into old age when frailty and disability increase. Thus demands from older parents may be increasing over time. This prediction is complicated, however, by the fact that increases in life expectancy have been coupled with increases in later life health (Cutler, 2001). This increase in "healthy life expectancy" may lessen care demands from parents.

Racial differences in mortality remain substantial, with life expectancy for Blacks (73.7)

[1] Differences between cohorts are not separable from differences over time. The cohorts are the same age at the time in which they are examined but cohort trends and time trends are confounded. Because of this, time and cohort are often used interchangeably in the text.

about five years shorter, on average, than for Whites (78.4 years) (Miniño et al. 2011). Socioeconomic differences are also large, with those with more than a high school education living 4 to 5 years longer after middle age than those with less than a high school education (Brown et al. 2012). These differentials suggest that Whites, and the more highly educated, are at greater "risk" of later life care obligations to an aging parent than are Blacks or the less educated. Yet, the burden of care may be more severe for Blacks to the extent that illness and morbidity are higher among Black than White elderly.

Fertility. The effect of fertility trends on later life caregiving is even more difficult to predict than the effect of mortality trends because some changes increase the likelihood of having "needy" children later in life whereas other changes lessen this probability. Between 1970 and 2007, the TFR declined from 2.5 to about 2.1 children per woman (Martin et al. 2011). Other things equal, this should have decreased the demands on parents for care and support of children later in life. However, the timing of when women have their children has also undergone change, with the median age at first birth rising from 22 to 25 between 1960 and 2009. This suggests that more women may reach late middle age with younger children, increasing the likelihood that they still have dependent children – either children under age 18 in the home or older children who are not yet fully financially independent. Change due to the later timing of fertility is muted, however, by the fact that earlier cohorts had more children than later cohorts. Thus, the change in age at last birth may not be as dramatic as the change in age at first birth across cohorts. It is likely that the timing of last birth, more so than timing of the first birth, more often determines when the nest is truly empty.

Young adults today remain in their parents' households longer before striking out on their own than in the recent past (Furstenberg et al. 2004). Higher rates of college attendance have

extended the period of financial dependence on parents in more affluent families (Schoeni and Ross 2004) and young adults who do not go to college have great difficulty finding good jobs. The extent to which young adults take longer to settle into stable careers and family lives – and parents help finance their slow transition – have increased the demands placed on parents later in the life course.

When thinking about race and socioeconomic status, an important fertility difference is the earlier timing of births for Black mothers (and less educated mothers) compared with White mothers (and more highly educated mothers). Black women not only become mothers at younger ages than Whites (Martin et al. 2011), they also are more likely to have their births outside of marriage, with racial differences increasing across cohorts. White and more highly educated women tend to delay both marriage and having children. Hence, on average, the mean length of a generation is shorter for Blacks than Whites, with implications for the likelihood of being sandwiched at various ages.

Marriage. Marriage – as a formal link that ties families together - creates obligations to parents-in-law and increases the sets of older kin who may need assistance. Pierret (2006) shows that married women aged 43 to 54 in the late 1990s, had more living parents (or parents-in-law) than unmarried women. Whereas only 11 percent of married women had no parents, almost one-third of unmarried women had no living parents. The one factor that may dampen marital status differences, however, is that studies of frail elderly tend to find that unmarried daughters more often provide care than married daughters, presumably because they have fewer competing needs from children than do married daughters.

In considering racial differences in the likelihood of needing to provide care to elderly parents or parents-in-law, substantial variation in marital status across racial groups is a key

factor. Black women are much less likely to be married (or cohabiting) and are more likely to be single than White women. Racial and socioeconomic differences in marriage and marital disruption have grown larger over time (Cherlin 2009; Raley and Bumpass 2003). Marital disruption rates are higher for Blacks than for Whites, even after differences in education are taken into account (Raley and Bumpass 2003). If obligations to parents-in-law increase with the duration of marriage, Whites (and the highly educated) will more often face demands from parents-in-law as well as parents, on average, given differentials in marriage patterns. If the less educated are increasingly cohabiting rather than marrying (Cherlin 2009), bonds between individuals and their partner's parents may be weak. Compared to married couples, cohabiting couples are less likely to exchange household help with parents and also have less contact with parents (Eggebeen, 2005; Hogerbrugge and Dykstra, 2009).

Studies of Sandwich Care

Studies of sandwich caregiving are limited but one of the best descriptions is Pierret's (2006) analysis of the National Longitudinal Study – Young Women cohort. He estimates both the percentage of women are "at risk" of being sandwiched and, using various definitions, the percentage giving help to two generations simultaneously. If assistance to parents includes either co-residence, having a parent in a support facility, giving aid of $200 or more in the previous year, or providing 100 hours or more of assistance to parents and, at the same time, assistance to children includes co-residence, support for college, aid of $200 or more, or assistance of 100 or more hours, then 33 percent of women in their mid-forties to mid-fifties could be considered sandwiched caregivers in the late 1990s in the U.S.. If higher levels of assistance are used to define "sandwich caregiving", e.g., parental co-residence or providing aid of $1,000 or more, or help amounting to 500 hours or more combined with support for children that includes either co-

residence or support for college, or aid of $1,000 or more, or assistance of 500 hours or more, than a smaller 9 percent of women are classified as sandwiched between the needs of two generations.

Henretta, Grundy and Harris (2001) use the 1994 Health and Retirement Study (HRS) to estimate the percentage "at risk" of sandwich care for those aged 50 and over. Between 32 and 37 percent have both living children and at least one living parent, with higher estimates for more highly educated women than for women with less education. Grundy and Henretta (2006) combine financial and time assistance to estimate the percentage of women age 55 to 69 (in the 1998 HRS) who provide care to both generations. About 36 percent of married women and 27 percent of unmarried women are helping both parents and children simultaneously.

A handful of other studies focus on whether there are negative outcomes, in terms of health, for those they define as "sandwiched caregivers." These studies are not always careful about determining who is "at risk" of being sandwiched and vary in their comparison groups. Chassin et al. (2010) find that sandwiched caregivers engage in less healthy behaviors than others (e.g., more smoking, less seat belt usage, less exercise, less health conscious food shopping), suggesting that caregiving may reduce time for activities that enhance well-being or that the stress of caregiving puts one at risk of engaging in unhealthy behaviors (e.g., smoking). Other studies do not find detrimental effects of sandwich caregiving on well-being (Künemund (2006) for a German sample; Loomis and Booth (1995) for a U.S. sample, with Williams (2004) reporting mixed results for a Canadian sample).

To summarize, the existing literature is not extensive and is largely cross-sectional. Definitions of what constitutes sandwich caregiving vary across studies, making it difficult to compare findings. Some of the best studies have used nationally representative data to define

"sandwich care" and estimate its prevalence among women later in life, but only for one point in time or for one cohort. We build on these studies but look across cohorts and examine racial variation in the likelihood of facing demands from both children and elderly parents.

Data

The PSID is the premier dataset in the U.S. for studying intergenerational ties because of its genealogical design, its long life histories of linked family members, and its high wave-to-wave response rates. Begun in 1968, the study follows individuals whether or not they are living in the same dwelling as the original sample household or with the same people. All individuals in households recruited into the PSID in 1968 are said to have the PSID "gene." All individuals who are born to or adopted by someone with the PSID gene acquire the gene themselves and are followed and become members of the PSID sample for the rest of their lives. This design feature implies that the study provides, at each wave, data on a sample of extended families. Interviews were conducted annually until 1997 when PSID moved to an every other year schedule.

This paper uses data on two cohorts of women. The first cohort is age 50-64 in 1988 and was born between 1924 and 1938. The second cohort is age 50-64 in 2007 and was born between 1943 and 1957. These cohorts were chosen to exploit the extensive collection of information on parents and transfers of time and money collected in the 1988 wave of the PSID along with the less complete information collected on parents in the 2007 wave of the PSID. Our analysis requires information on the number and age of children and whether parents and parents-in-law are living. The children of the women in our sample are, in most cases, PSID sample members and are followed over time.[2] Using both information derived from PSID interviews and

[2] There are some women in the first cohort who have children who had already left the parental home by the time of the original 1968 PSID interview. These children are not sample members.

information from birth histories, we have consistent information about the number and year of birth of children for both cohorts in our sample. Consistent information on the parents and parents-in-law of the women in our sample is more problematic. For the first cohort, most parents are not PSID sample members and are not interviewed. Many individuals in the second cohort have at least one PSID sample parent. However, two special data collection efforts allow us to have consistent information about parents and parents-in-law. In 1988 a special supplement on time and money transfers was added to the data collection. This supplement also obtained several characteristics of parents and parents-in-law including whether they are currently living, their health status, and their marital status. In 2007, fewer questions were asked (including only a very limited set of transfer questions) but household heads and spouses were asked whether their parents were living. These special supplements allow us to have consistent information about whether parents and parents-in-law are alive for the women in both cohorts of our sample.

Table 1 shows a broad description of the first cohort of women in 1988 and the second cohort in 2007. The average age of the sample is similar across cohorts. They are on average between 56 and 57 years old. About 10 percent of the sample is Black. Educational attainment increases between cohorts with over 60 percent of women in the earlier cohort having only a high school degree or less versus less than 50 percent of the women in the later cohort. The average number of children declines across cohorts from over 3 to slightly over 2. The average number of children includes women who do not have any children. The age of the youngest child does not change substantially but the fraction of co-resident children decreases between 1988 and 2007 going from 34.91 percent to 28.72 percent of women living with at least one child. The average number of living parents and parents-in-law increases from 0.73 in 1988 to 1.12 in 2007

However, because information on children in this paper is derived from birth histories, having children who are not PSID sample members does not affect the analysis.

but the fraction of women who are living with at least one parent declines from 3.24 percent to 1.88 percent. Consistent with the change in educational attainment, the number of women who work either full- or part-time increases between cohorts. Just over half of the sample of women 50-64 works either full- or part-time in 1988 compared with over 70 percent of women in 2007. The two cohorts of women in the sample reflect the broad demographic changes that have occurred over the period. The women in the later cohort have fewer children and more living parents. They also have higher levels of educational attainment and a stronger attachment to the labor force.

Since the demographic characteristics and trends vary by race, we split the sample in each year into Blacks and Whites. Unfortunately, the PSID does not provide a large enough sample of either Latinos or Asians to allow for any meaningful analysis on these groups. Table 2 shows some of the characteristics related to intergenerational ties by race. In both 1988 and 2007, Blacks are more likely to live with parents and with children. They have a higher number of children on average and they have fewer living parents and parents-in-law. They have fewer living parents and in-laws partially because they are much less likely to be married. Over 70 percent of White women are married compared with less than 50 percent of Black women. There are also differences in the trends over time (or across cohorts). The gap in marriage between Blacks and Whites increases from Blacks being about 60 percent as likely to be married than Whites to Blacks being less than half as likely to be married than Whites. The differences in patterns of co-residence with parents and children between Blacks and Whites are relatively constant over time even though both groups are less likely to live with parents and children at the later time point.

Descriptive Analysis

We begin our analysis of the competing needs of older parents and younger children by examining the potential for being sandwiched between the needs of a younger and an older generation. Women only have the potential to be sandwiched if they have at least one child and one living parent. Table 3 shows the fraction of women with parents, children, and both. We measure having a living parent in two ways—having a living parent and having a living parent or parent-in-law. We include parents-in-law because obligations to older generations may come in the form of caring for an in-law. Table 3 shows that the fraction of women age 50-64 with children decreased slightly from 92 percent in 1988 to 87 percent 2007. However, the fraction of women with living parents increased from 39 percent in 1988 to 52 percent in 2007, an increase of 13 percentage points. If we include parents-in-law, the difference is similar but the levels are higher. The increase in the fraction of women with living parents has also increased the fraction of women with the potential for being sandwiched—the fraction of women who have both living parents and children has increased by 10 percentage points from 35 to 45 percent since 1988. If we include parents-in-law, 47 percent of women are potentially sandwiched caregivers in 1988, increasing to 58 percent in 2007.

Table 3 suggests that the potential for women being sandwiched between the needs of aging parents and adult children in the decade before retirement has increased quite dramatically between the two cohorts in our study. Because of the differences in demographic trends between Black and Whites outlined in Table 2, we examine the potential for being sandwiched separately by race in Table 4. Table 4 shows that in both 1988 and 2007, Whites are more likely to have surviving parents than Blacks. This Black/White gap in living parents is consistent with higher life expectancy for Whites. The gap between Blacks and Whites grows over time. The fraction of

Whites with at least one living parent grows by 13 percentage points between 1988 and 2007 while the fraction of Blacks with at least one living parent only grows by 4 percentage points. There are not large differences between Blacks and Whites in the likelihood of having children in 1988. However, the fraction of women without children increases for Whites between 1988 and 2007, while the fraction of women without children decreases slightly for Blacks over the same period. By 2007, Whites are 5 percentage points less likely to have children than Blacks. Despite being more likely to have children, Blacks are less likely to have the potential to be sandwiched than Whites. The Black/White gap is larger in each year when we include parents-in-law. However, despite the declines in the fraction of White women with children over time, the fraction of Whites with the potential for being sandwiched grows more rapidly than it does for Blacks. It increases over 10 percentage points for Whites compared with slightly over 6 percentage points for Blacks. Between the ages of 50 and 64, Blacks are less likely to have the potential to be sandwiched than Whites and the differences between Black and Whites in the potential for competing demands from children and parents seems to be increasing over time.

More White women in their fifties and early sixties have the potential to experience competing demands up and down the generations. However, comparing the probability of having living parents and children between Black and White women may obscure the differences in the magnitude of the potential dependency. To look at the differences between Black and White women who have children and living parents or parents-in-law[3], we first examine some basic characteristics of these women including the number of children, the number of parents, and their marital status. Table 5 shows the characteristics of women with parents and children in both 1988 and 2007 separately for Blacks and Whites. The biggest difference between the two groups

[3] In the text below when we refer to women who have children and living parents we are including those who have living in-laws but no living parents. We do this for expositional ease.

is that Black women who have both living parents and children are much less likely to be married than White women. In 1988, Black women are nearly 20 percentage points less likely to be married. This gap nearly doubles by 2007. The differences in marital status point to one reason that Black women are less likely to have the potential to be sandwiched than White women: Black women have fewer potential parents. Since so many fewer Black women are married, more Black women have a maximum of two parents who could be living compared to White women more of whom have a maximum of four parents (including in-laws). Although the difference between Blacks and Whites in the number of own parents is small and not statistically significant, the difference between number of parents and parent-in-law is relatively large and growing over time (across cohorts). Not only does being unmarried affect the probability of having living parents and children but it also affects the toll that support in two directions is likely to take. Women who are unmarried may find it much more difficult to cut back on work when they find themselves faced with competing demands, they also are not able to share the demands with a spouse.

Several other differences between Black and Whites who have living parents and children are present. In keeping with the demographic trend toward smaller generation gaps for Blacks, Blacks who with children and living parents tend to be younger than their White counterparts. On average Blacks are over a year younger than Whites. One surprising change between 1988 and 2007 is that while Black women who are sandwiched in 1988 have more children than their White counterparts, these differences are not present in 2007. The lack of a gap in the number of children between Black and White women who have living parents and children in 2007 is especially puzzling given the persistent Black/White gap in the number of children in the sample overall. There are also not significant differences in the mean age of the youngest child between

Blacks and Whites who have living parents and living children in either 1988 or in 2007—although there are differences in the distribution of age that we will highlight below. However, there are large differences in the age of parents. The average age of own parents is about four or five years older for Whites than for Blacks in both 1988 and 2007. Both Blacks and Whites have older parents on average in 2007 than in 1988 but the Black/White gap in parental age is persistent. If White women with parents and living children are themselves about one year older than Blacks, have parents who are on average four years older, and have a youngest child who is on average the same age, the average gap between generations is between one and two years longer for Whites with children and living parents than it is for Blacks.

Table 5 shows that there are substantial demographic differences between Blacks and Whites who have children and living parents or parents-in-law in terms of age, marital status, and the age of parents. Using information on employment, child age, and transfers we further examine the potential dependency of parents and children and the competing demands on women's time. Table 6 outlines differences in work patterns between Whites and Black who have the potential to face demands from multiple generations because they have children and living parents. Table 6 is not an attempt to examine whether women give up work in response to family demands, rather it merely provides insight into the experience of these women as they potentially juggle demands from work and from multiple generations of family. Table 6 shows the fraction of all women, White women, and Black women in three different work status groups in the 1988 and 2007 cohort. The work status is defined using the average number of hours worked per week in the main job. If the woman did not work for pay she is defined as not working, if she worked on average less than 35 hours per week she is defined as working part-time, if she worked on average 35 hours per week or more, she is defined as working full-time.

Table 6 shows that overall in 1988, 39.6 percent of all women with children and living parents did not work outside of the home, 17.5 percent worked part-time and 42.9 percent worked full-time. In Table 6, the rows sum to 100, that is all women are categorized into the three groups of work hours. The trends over time are very stark. The fraction of women with children and parents age 50-64 who are working full-time grew dramatically between 1988 and 2007 from 42.9 percent in 1988 to 55.4 percent in 2007. This rapid increase is consistent with the more general increases in female labor supply over the period. The fraction of women working part-time grew slightly—from 17.5 in 1988 to 22.1 in 2007—however the large increase in the fraction of women working full-time is largely offset by the dramatic decrease in the fraction of women reporting no work outside the home. The fraction of women who do not work outside the home declined from 39.6 percent in 1988 to 22.5 percent in 2007. The overall trends suggest that more women have the potential to be sandwiched in 2007 than in 1988 *and* that women who have the potential to provide for multiple generations are much more likely to be balancing these needs with demands from work outside the home.

While the overall trends over time in labor force attachment are quite dramatic, these trends were not experienced equally by Whites and Blacks. In 1988, Blacks were less likely than Whites to work full-time outside the home and more likely to report not working for pay. However, by 2007 the Black/White gap was reversed. Blacks were more likely to report working full-time, less likely to report working part-time, and equally likely to report not working outside the home. We have not explored the reasons for this large shift in Black/White differences in labor force attachment, although the labor force participation of single mothers increased in the latter 1990s and more Black than White women are single mothers. Also, rates of labor force participation for married mothers leveled off, even declined somewhat, beginning in the late

1990s. The Black/White differences in the work status of women with potential demands from multiple generations suggest that while fewer Blacks have the potential to be sandwiched between generations, those who do are more likely to combine family demands with full-time work.

Table 7 looks further at the potential differences in demands of individuals by examining children as one potential source of dependency. Table 7 shows the fraction of all women 50-64 with children and living parents whose youngest child is under 18, under 25, and the fraction who have at least one child living at home. Table 7 shows two obvious trends. The first is the trend toward delayed childbearing: The fraction of women with a child under 18 has increased for both Whites and Blacks—although in both periods it is higher for Whites. At the same time, the fraction of women with children under 25 has declined for both groups. This suggests that for some women, birth timing has changed in favor of later births—that is some women who would have had a child under 25 in 1988 now have children under 18. However, because women are having fewer births overall, for more women, their youngest child is over the age of 25. The second trend is the large differences in co-residence with children by race. The fraction of women with children and living parents who live with at least one child has actually declined between 1988 and 2007 but the difference between Whites and Blacks in the prevalence of co-residence has remained very large. In both periods, Blacks are much more likely to live with children than Whites. In 1988 they are nearly 20 percentage points more likely to live with at least one child while in 2007 they are over 10 percentage points more likely to live with at least one child. The Black/White gap in co-residence has declined between 1988 and 2007 but it remains persistent and large in magnitude. Even though Blacks are less likely to have living parents and living children than Whites, those that do find themselves with upward and

downward generational ties may have a larger burden of support, at least for the younger generation.

Finally, we examine the prevalence of actual support for parents and children in the form of transfers of money and co-residence.[4] Table 8 shows the fraction of women age 50-64 with parents and living children who report giving money transfers to, or who co-reside with, either parents or children. Measurements of transfers vary over time in the PSID. Transfers of money in 1988 are measured as part of a larger transfer module that specifically asks about transfers with parents (although not specifically about transfers with children) while transfers of money in 2007 are measured as part of a general question about money given to others in which neither children nor parents are specifically mentioned. Because of this discrepancy in the measurement of money transfers between 1988 and 2007, the rates of transfers are not comparable over time. Measurement of co-residence is consistent across years. Although transfers of money are not comparable over time, within year, transfers are comparable between Blacks and Whites. In Table 8, a women is counted as giving money transfers if she transfers money to parents, parents-in-law, or children and a women is counting as co-residing if she lives with a parent, a parent-in-law, or a child. In both 1988 and 2007, fewer Blacks transfer money to parents or children than Whites. In 1988, nearly 20 percent of White women report money transfers to either parents or children compared with 9 percent of Black women. The Black/White differences are smaller in 2007 with Blacks only 3 percentage points less likely to make money transfers to either parents or children. The racial difference in money transfers likely reflects socioeconomic differentials in which individuals with more education are more likely to engage in money transfers.

[4] Transfers of time are also measured in the 1988 Time and Money Transfer Module. However, because they are not measured in 2007, we do not report them here.

While Blacks are less likely to make money transfers, they are more likely to co-reside with either parents or children. We saw that Blacks were more likely than Whites to co-reside with children in Table 7. Table 8 shows that Blacks are also more likely to live with either a children or a parent. In 2007, nearly half of Black women 50-64 with children and living parents live with either a child or a parent compared to only one-third of White women. When we examine the probability of living with parents (with or without children present), in 1988 and 2007 we find that in 1988 over 10 percent of Blacks and 5 percent of Whites live with parents or in-laws while in 2007, 6 percent of Blacks and 2 percent of Whites live with parents or in-laws. We find that Blacks are twice as likely to live with parents than Whites but that over time living with parents has become less common for both groups. Table 7 and 8 along with our tabulations on living with parents show that Blacks are more likely to co-reside with parents and with children.

Multivariate Analysis

In describing the differences in the potential for being sandwiched and the context in which women with the potential for being sandwiched find themselves in terms of their age, work obligations, and transfer behavior over time and for Blacks and Whites, several general themes emerge. First, the potential for being sandwiched has increased quite dramatically over time for both Blacks and Whites. Second, among those who face the potential for being sandwiched between the needs of aging parents and young adult children in late middle age, Blacks are much less likely to be married than Whites. Third, women of both races with the potential to face demands from multiple generations are more likely to be working full-time in 2007 than in 1988. Finally, among women with children and living parents in both 2007 and 1988, Black women are more likely to co-reside with both parents and children and White

women are more likely to transfer money. These general themes are consistent with the larger demographic trends in life expectancy, birth timing, marriage differences between Blacks and Whites, and female labor force participation.

While illustrative, the descriptive analysis cannot distinguish between Black/White differences and differences by educational attainment. Furthermore, it cannot distinguish between differences in the underlying population in 1988 and 2007 and differences over time. In this section we explore (1) the probability of having children and living parents for all women, and (2) the probability of giving two types of transfers (money, and co-residence) for those women who have children and living parents, in a multivariate context.

Table 9 shows the results of a linear probability model where we regress the probability of having children and living parents on an individual's demographic characteristics estimated using OLS. In Table 9, women from 1988 and 2007 are combined and we include a dummy variable for the later year. Column (1) shows the results of the model estimated without work hours and column (2) shows the model estimated with work hours. Because work hours is likely endogenous—that is women may make difference decisions about work depending on their generational ties—we prefer the specification excluding work hours.

The coefficient estimates in Table 9 show that, as we would expect, women who are older are less likely to have children and living parents than women who are younger. The effect of age is estimated using age groups because parental mortality—the main driver of the effect of age—is likely non-linear in age. The effect sizes suggest that the effect of age is not linear. A women who is 55-59 is nine percentage points less likely to be sandwiched than a women who is age 50-54 but a women who is age 60-64 is about 30 percentage points less likely to be sandwiched. Women who have more children are more likely to have both living parents and

children. Each child raises this probability by about 4 percentage points. Married women are nearly 20 percentage points more likely to have children and living parents than unmarried women. Even after controlling for age, women who are in poor health are less likely to have children and living parents than women in excellent, good, or very good health. If there is an intergenerational correlation in health, women who are in poor health in late middle age may be less likely to have living parents. The time trend is large—about 11 percentage points. This is the effect of time after controlling for the changes in the number of children. This time trend is likely absorbing changes over time in life expectancy of parents and in birth timing.[5]

One of the concerns with the descriptive analysis is the correlation between race and socioeconomic status (proxied here by educational attainment) and race and marital status. While we saw large differences in the potential for being sandwiched by race—Blacks are less likely to have children and living parents—these differences may have been driven by socioeconomic differences or by differences in marriage rates. In Column (1) we estimate the effect of race on the probability of having children and living parents controlling for categories of educational attainment and for marital status. Even after controlling for socioeconomic status and marital status, Blacks are less likely to have children and living parents than Whites. These Black/White differences are likely driven by the differences in life expectancy of the parent generation.

The effect of race is similar in the specifications with and without work hours. However, the effect of educational attainment differs when we include and exclude work hours. In particular, individuals with at least some college are more likely to have children and living parents. However, after controlling for work hours, the size of the coefficient on the highest level

[5] We cannot include age of parents or age of children because we include people who do not have parents/children in the regression. Because of this exclusion, changes in age of children and parents across cohorts is absorbed by the time trend.

of educational attainment declines. Women with more education are more likely to work outside of the home. Similarly, the effect of poor health becomes smaller when we include employment as an explanatory variable likely because of the correlation between health and working.

The coefficient estimates in Table 9 confirm two of the themes of the descriptive analysis. First, the results suggest that having children and living parents is more common for women between 50 and 64 in 2007 than for women of the same age in 1988 even after we control for observable differences between the women in the two cohorts. The caveat is that in this analysis we have not controlled for age of the parent and child generation. In future work, we plan to use information on the birth year of parents—even for those individuals without living parents—to control for differences in parental age between generations and to restrict our analysis to individuals with at least one child so that we can explore the effect of the age of children. Second, the results in Table 9 show that the Black/White gap in the probability of having children and living parents is not driven by differences in socioeconomic status or in marital status. Even after controlling for educational attainment and marital status, Blacks are less likely to have children and living parents than Whites.

Blacks are less likely than Whites to have children and living parents in both 1988 and in 2007. However, this potential for being sandwiched does not necessarily imply actual obligations to parents and children. In order to understand actual obligations to parents and children, we examine transfers of money and co-residence. The descriptive analysis showed large differences in transfer behavior between Whites and Blacks. Whites are more likely to make transfers of money while Blacks are more likely to live with parents or children. However, both co-residence and transfers of money also differ by socioeconomic status. In order to disentangle the effect of race and socioeconomic status on transfers to children and parents by women in late middle age

we explore transfers in a multivariate framework. Table 10 shows the results of estimating two linear probability models on women with children and living parents age 50-64. Columns (1) and (2) show the results of estimating the probability of giving money to either parents or children and Column (3) and (4) show the results of estimating the probability of living with either parents or children. As in Table 9, we have included models with and without work hours. Because these models are restricted to individuals with parents and children, we can control for the age of parents and children.

Column (1) and (2) show that Blacks are less likely than Whites to make money transfers to children or parents even after controlling for numerous demographic characteristics. We see evidence that individuals with higher levels of education are more likely to make transfers of money—as we would expect if more highly educated individuals are able to substitute money transfers for in-kind transfers. Even after controlling for educational attainment, Blacks are less likely to transfer money to children and parents than Whites. Because of the measurement of transfers is less comprehensive in 2007 than in 1988, the coefficient on indicator for 2007 is also negative and statistically significant.

Tables 7 and 8 both indicate that Blacks are more likely to co-reside with children or parents than Whites. Columns (3) and (4) show the estimates of the probability of living with either parents or children on a variety of demographic characteristics. The results show that having younger children raises the probability of co-residence. In particular, increasing the age of the youngest child decreases the probability of living with either a child or parent by nearly 4 percentage points. Having older parents also increases the probability of co-residence—consistent with co-residing for caregiving purposes—although the effect of parental age is ten times smaller than the effect of child age on the probability of co-residing. Co-residence with

one's teenage or young adult children is far more common than co-residence with an elderly parent. Even after controlling for a variety of demographic characteristics, Blacks with children and living parents are over fifteen percentage points more likely to live with either parents or children than their White counterparts. This represents an increase of nearly 50 percent in the probability of co-residing.

Though the results on the probability of having children and living parents suggest that fewer Blacks have obligations to multiple generations as they enter late middle age, the results on co-residence show that Blacks who do find themselves with parents and children face a larger burden of support or care than their White counterparts.

Conclusions and Directions for Further Work

This paper explores the trends in the potential for obligations to multiple generations for women in late middle age both over time and by race. Through both descriptive and multivariate analysis we show that the prevalence of having older parents and young adult children for women in late middle age has increased substantially between 1988 and 2007. Further, we show that in both 1988 and 2007, Whites are more likely to be to have children and living parents than Blacks. Both of these stylized facts are related to the demographic trends we outline. Table 3 shows that the increase over time is driven by increases in the probability of having living parents—a product of changes in life expectancy over time. Changes in parental mortality are large enough to increase the likelihood of having children and living parents over time despite declines in fertility and increases in the number of women without any children. Black/White differences are persistent over time and seem to be driven, at least in part, by racial differences in marriage. The multivariate analysis shows that married women are much more likely to have children and living parents than unmarried women. However, even controlling for marital status,

Blacks are less likely than Whites to have children and living parents. It is possible that differences in life expectancy by race may explain the remaining Black/White gap in having children and elderly parents.

The paper also describes the context in which women who may face obligations to parents and children find themselves. In particular, we examine the age of children and parents, labor force attachment, and transfers to children and parents among women with children and living parents. These indicators shed light on the potential burden that having ties to multiple generations entails. We compare these characteristics across race and over time. In both a descriptive and a multivariate framework, we examine actual transfers of money and co-residence with children or parents. While we cannot examine difference in money transfers across time, we can examine differences by race at each point in time. Whites are more likely to make transfers of money to parents or children even after controlling for educational attainment. We also show that while Blacks are less likely to have children and living parents than Whites, those who do have ties up and down the generations are more likely to live with children or parents. Co-residence is likely a form of both a time and a financial transfer and our analysis shows that Blacks who have aging parents and adult children are 50 percent more likely to co-reside with either parents or children than Whites. In terms of trends over time in the burden of obligations, the descriptive analysis shows that women who have children and living parents in 2007 are more likely to work, are more likely to have younger children, and more likely to have older parents than their counterparts in 1988. These changes indicate that over time, women who find themselves between generations may face more obligations to both children and parents at the same time that they have increased their obligations in the workplace.

This work is descriptive in nature. Further analysis is necessary to examine what demographic trends are driving the changes in the potential for being sandwiched over time. In particular, we plan to add more information on parents and children to further disentangle effects of increasing life expectancy, marriage, and fertility on the increasing prevalence of the potential for demand from multiple generations over time. In addition, we have treated working as a descriptive variable that suggests obligations outside of the family. We are planning to expand the analysis to look more carefully at the effect of obligations to parents and children on labor force participation and hours using panel data analysis.

References

Brown DC, Hayward MD, Montez JK, Hummer RA, Chiu C-T, Hidajat MM. 2012. The significance of education for mortality compression in the United States. *Demography* 49:819–40

Chassin L., Macy J.T., Seo, D-C., Presson C.C., Sherman S.J. 2010, The association between membership in the *sandwich generation* and health behaviors: A longitudinal study, *Journal of Applied Developmental Psychology*, vol. 31, no. 1, pp. 38-46

Cherlin AJ. 2009. *The Marriage Go-Round: The State of Marriage and the Family in America Today*. New York: Knopf.

Coward, RT, Dwyer, JW. 1990. The Association of Gender, Sibling Network Composition, and Patterns of Parent Care by Adult Children. *Research on Aging* 12(2):158-181.

Cutler, D. 2001. Declining Disability among the Elderly. *Health Affairs* 20(6): 11-27.

Dwyer, JW and Coward, RT. 1991. A Multivariate Comparison of the Involvement of Adult Sons versus Daughters in the Care of Impaired Parents. *Journal of Gerontology: Social Sciences* 46:S259–S269.

Eggebeen DJ. 2005. Cohabitation and Exchanges of Support. *Social Forces* 83:1097-110

Fingerman, KL, Pitzer,LM, Chan,W, Birditt, K, Franks, MM, Zarit.S. 2010. Who gets what and why? Help middle-aged adults provide to parents and grown children. *Journals of Gerontology: Social Sciences* 66B (1, 2010): 87-98.

Furstenberg FF Jr., Rumbaut R, Settersten RA Jr. 2005. On the frontier of adulthood: emerging themes and new directions. In *On the Frontier of Adulthood: Theory, Research, and Public Policy*, ed. RA Settersten Jr., FF Furstenberg Jr., R Rumbaut, pp. 3-25. Chicago: Univ. of Chicago Press

Grundy E., Henretta, JC. 2006. Between Elderly Parents and Adult Children: A New Look at the Intergenerational Care Provided by the 'Sandwich Generation', *Ageing & Society*, vol. 26, no. 5, pp. 707-722

Henretta, JC, Grundy, E, Harris<s. 2001. Socioeconomic differences in having living parents and children: A U.S. – British comparison of middle-aged women. *Journal of Marriage and Family* 63: 852-867

Hogerbrugge, MJA, Dykstra,PA. 2009. The family Ties of Unmarried Cohabiting and Married Persons in the Netherlands. *Journal of Marriage and Family* 71, 135-145.

Kahn JR, McGill B, Bianchi SM. 2011. Help to family and friends: are there gender differences at older ages? *Journal of Marriage and Family.* 73:77–92

Kennedy S, Bumpass L. 2011. *Cohabitation and trends in structure and stability of children's family lives.* Paper presented at the annual meeting of the Population Association of America, Washington, DC, March 31-April 2

Künemund H. 2006). Changing Welfare state and the "Sandwich Generation": Increasing Burden for the Next Generation?, *International Journal of Ageing and Later Life*, vol.1(2), pp. 11-29

Loomis LS, Booth A. 1995), Multigenerational Caregiving and Well-being: The Myth of the Beleaguered Sandwich Generation. *Journal of Family Issues*; 16 (2), p.131-48

Martin JA, Hamilton BE, Ventura SJ, Osterman MJK, Kirmeyer S, Mathews TJ, Wilson EC. 2011. *Births: final data for 2009*. National Vital Statistics Reports, 60 (1). Hyattsville, MD: National Center for Health Statistics

McGarry, K. 1998. "Caring for the Elderly: The Role of Adult Children." In *Inquiries in the Economics of Aging*, edited by David A. Wise (133-163). Chicago: University of Chicago Press.

McGarry, K. 2006. Does Caregiving Affect Work: Evidence Based on Prior Labor Force Experience. Pp. 209-228 in David A. Wise and Naohiro Yashiro (eds.), *Health Care Issues in the United States and Japan*. Chicago: University of Chicago Press.

Miniño AM, Murphy SL, Xu J, Kochanek KD. 2011. *Deaths: Final Data for 2008.* National Vital Statistics Reports, 52 (10). Hyattsville, MD: National Center for Health Statistics.

Pierret CR. 2006. The "Sandwich Generation": Women Caring for Parents and Children. *Monthly Labor Review* September, 3-9

Raley RK, Bumpass, LL. 2003 The Topography of the Plateau in Divorce: Levels and Trends in Union Stability after 1980. *Demographic Research*. 8:246-58

Schoeni RF, Ross KE. 2005. Material Assistance Received from Families during the Transition to Adulthood. In *On the Frontier of Adulthood: Theory, Research, and Public Policy*, ed. RA Settersten Jr., FF Furstenberg Jr., R Rumbaut. Chicago: Univ. of Chicago Press

Singh, G, Siahpush, M. 2006. Widening Socioeconomic Inequalities in US Life Expectancy, 1980-2000. *International Journal of Epidemiology*, 35: 969-979.

Uhlenberg, P. 1996. Mortality Decline in the Twentieth Century and Supply of Kin Over the Life Course. *The Gerontologist*, 36(5): 681-685.

Williams C. 2004. The Sandwich Generation, *Perspectives on Labour and Income*, Winter 2004, v. 16(4), pp. 7-14

Wolf, DA, Soldo, B, Freedman, V. 1996. The Demography of Family Care for the Elderly. In T. Hareven (Ed.), *Aging and Generational Relations Over the Life Course : A Historical and Cross-Cultural Perspective,* (pp.115-138). Hawthorne, NY: Walter de Gruyter, Los Angeles, CA: Rand Corporation

Wolf, DA, Soldo, B, Freedman, V. 1997. The division of family labor: care for elderly parents. *Journal of Gerontology: Social Sciences* 52B: 102-109.

Wu, LL, Bumpass, LL, Musick, K. 2001. Historical and life course trajectories of nonmarital childbearing. In: Wu, L.L. and Wolfe, B. (eds.). *Out of wedlock*. New York: Russell Sage: 3-48.

Tables

Table 1. Mean Characteristics of Women, Age 50-64

	Mean Characteristics	
	1988	2007
Age	57.08	56.36
Educational Attainment		
Less than HS	29.31	12.40
HS Grad	34.21	35.55
Some College+	36.49	52.06
Black	13.29	10.10
Married	68.46	71.04
Poor Health	24.31	18.14
Number of Children	3.41	2.16
Has a Co-resident Child	34.91	28.72
Age Youngest Child (among those with a child)	27.18	27.73
Number of Parents or In-laws	0.73	1.12
Has a Co-resident Parent or In-law	3.24	1.88
Work Status		
Not Working	45.35	28.18
Part-time	17.39	19.70
Full-time	37.27	52.12
Sample Size	1,016	1,575

Notes: Weighted using individual weights.

Table 2. Mean Characteristics of Women, Age 50-64 by Race

	1988		2007	
	Black	White	Black	White
Married	46.32	72.44	36.8	74.91
Number of Children	4.14	3.30	2.58	2.11
Has a Co-resident Child	50.23	32.5	45.06	26.87
Number of Parents or In-laws	0.55	0.76	0.64	1.18
Has a Co-resident Parent or In-law	4.71	3.02	2.91	1.77
Sample Size	371	645	458	1,117

Notes: Weighted using individual weights.

Table 3. Percentage of Women, Age 50-64, with Surviving Parents and Children

	PSID	
	1988	2007
PARENTS		
At Least One Surviving Parent	38.6	52.1
At Least One Surviving Parent or Parent-in-Law	50.4	65.9
CHILDREN*		
At Least One Child	92.4	87.3
"SANDWICHED"		
At Least One Surviving Parent Plus Child	35.4	45.3
At Least One Surviving Parent or Parent-in-Law Plus Child	46.6	57.9
Sample Size	1,017	1,582

*At least one live birth

Notes: Weighted using individual weights. The fraction of individuals with living parents and children in the 1988 PSID matches that in the 1994 HRS and the 1988 NSFH very closely. The fraction of individuals with living parents in the 2007 PSID matches that in the 2011 SCA very closely.

Table 4. Change Over Time in Percentage of Women, Age 50-64, with Surviving Parents and Children by Race

	1988		2007	
	Black	White	Black	White
PARENTS				
At Least One Surviving Parent	35.5	39.0	41.6	54.0
At Least One Surviving Parent or Parent-in-Law	42.9	51.5	47.8	68.9
CHILDREN*				
At Least One Child	90.8	92.7	92.0	86.9
"SANDWICHED"				
At Least One Surviving Parent Plus Child	31.0	36.0	37.6	46.8
At Least One Surviving Parent or Parent-in-Law Plus Child	37.7	47.9	43.5	60.3
Sample Size	371	645	458	1,117

*At least one live birth

Table 5. Mean Characteristics of Women with Children and Living Parents, Age 50-64 by Race

	1988		2007	
	Black	White	Black	White
Married	64.61	82.53	46.39	83.57
Age	54.68	55.84	54.44	55.68
Number of Children	3.58	3.18	2.44	2.41
Mean Age of Youngest Child	26.44	26.33	27.56	26.79
Number of Own Parents	0.91	0.87	1.01	0.99
Number of Parents or In-laws	1.32	1.45	1.36	1.73
Mean Age of Own Parent	76.93	81.38	80.55	84.01
Sample Size	155	314	237	717

Notes: Weighted using individual weights. Within years, all means of Black/White differences are statistically significantly different from one another at 10% with the exception of number of own parents (1988 and 2007), number of children (2007), and age of youngest child (1988 and 2007).

Table 6. Work Status of Women with Children and Living Parents, Age 50-64 by Race

	Work Status		
	Not Working	Working Part-time	Working Full-time
1988			
All	39.60	17.51	42.89
White Women	39.09	17.48	43.43
Black Women	45.20	18.63	36.17
2007			
All	22.48	22.10	55.42
White Women	22.50	23.03	54.47
Black Women	22.26	10.68	67.07

Notes: Weighted using individual weights.

Table 7. Child Age and Co-residence of Women with Children and Living Parents, Age 50-64 by Race

	Child Age/Residence		
	Youngest Child Under 18	Youngest Child Under 25	At Least One Co-resident Child
1988			
All Women	7.49	47.69	38.81
White Women	7.58	47.04	36.38
Black Women	6.70	50.83	59.17
2007			
All Women	13.21	42.98	32.76
White Women	13.56	43.16	31.86
Black Women	8.76	40.71	44.13

Notes: Weighted using individual weights.

Table 8. Transfers to Children or Parents by Women with Children and Living Parents, Age 50-64 by Race

	Transfers	
	Any Money	Any Co-residence
1988		
All	19.37	41.36
White Women	20.63	38.93
Black Women	8.89	61.48
2007		
All	13.79	34.25
White Women	14.03	33.14
Black Women	10.83	48.03

Notes: Weighted using individual weights.

Table 9. Linear Probability Model of Having Children and Living Parents, Women Age 50-64

	(1)	(2)
Mean of Dependent Variable	*0.549*	
(s.e)	*(0.009)*	
Age 50-54	--	--
Age 55-59	-0.099	-0.092
	(0.021)***	(0.021)***
Age 60-64	-0.313	-0.291
	(0.025)***	(0.025)***
Number of live births	0.037	0.038
	(0.005)***	(0.005)***
Married or living with partner	0.202	0.210
	(0.021)***	(0.021)***
Poor Health	-0.061	-0.040
	(0.023)***	(0.023)*
Black	-0.074	-0.075
	(0.022)***	(0.022)***
Educ < HS	--	--
Educ HS Grad	0.038	0.028
	(0.026)	(0.026)
Educ Some College +	0.057	0.039
	(0.027)**	(0.027)
Year 2007	0.119	0.111
	(0.021)***	(0.021)***
Not Working for Pay		--
Working Part-Time		0.086
		(0.028)***
Working Full-Time		0.097
		(0.022)***
Constant	0.343	0.275
	(0.037)***	(0.040)***
Observations	2485	2485
R-squared	0.15	0.16

Notes: Standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%

Table 10. Linear Probability Model of Transfers for Women with Children and Living Parents, Age 50-64

	(1)	(2)	(3)	(4)
Dependent Variable	Any Money Transfers		Any Co-residence	
Mean of Dependent Variable	0.143		0.423	
(s.e)	(0.010)		(0.014)	
Age 50-54	--	--	--	--
Age 55-59	-0.016	-0.014	-0.034	-0.037
	(0.025)	(0.025)	(0.030)	(0.030)
Age 60-64	0.040	0.047	0.026	0.022
	(0.037)	(0.038)	(0.046)	(0.046)
Number of live births	0.003	0.003	0.009	0.009
	(0.007)	(0.007)	(0.008)	(0.008)
Age youngest child	0.002	0.002	-0.037	-0.037
	(0.002)	(0.002)	(0.002)***	(0.002)***
Number of living parents	0.002	0.001	-0.003	-0.003
	(0.015)	(0.015)	(0.018)	(0.018)
Age oldest parent	-0.001	-0.001	0.004	0.004
	(0.002)	(0.002)	(0.002)**	(0.002)**
Married or living with partner	-0.005	-0.003	-0.035	-0.037
	(0.027)	(0.027)	(0.033)	(0.033)
Poor Health	-0.026	-0.021	0.030	0.030
	(0.026)	(0.027)	(0.032)	(0.033)
Black	-0.060	-0.059	0.175	0.175
	(0.026)**	(0.026)**	(0.032)***	(0.032)***
Educ < HS	--	--	--	--
Educ HS Grad	0.047	0.045	0.018	0.021
	(0.031)	(0.031)	(0.038)	(0.038)
Educ Some College +	0.121	0.117	-0.049	-0.044
	(0.031)***	(0.031)***	(0.038)	(0.039)
Year 2007	-0.051	-0.052	-0.036	-0.037
	(0.025)**	(0.025)**	(0.030)	(0.031)
Not Working for Pay		--		--
Working Part-Time		0.011		0.005
		(0.031)		(0.038)
Working Full-Time		0.021		-0.011
		(0.025)		(0.031)
Constant	0.152	0.147	1.047	1.052
	(0.143)	(0.145)	(0.175)***	(0.178)***
Observations	1195	1195	1195	1195
R-squared	0.03	0.03	0.27	0.27

Notes: Standard errors in parentheses * significant at 10%; ** significant at 5%; *** significant at 1%