

DO HOUSEHOLDS SAVE MORE WHEN THE KIDS LEAVE? TAKE TWO

BY ANDREW G. BIGGS, ANQI CHEN, AND ALICIA H. MUNNELL*

Introduction

Much of the disagreement over whether the United States faces a retirement savings crisis hinges on different assumptions on how household consumption changes once the kids leave home. “Optimal savings” studies, which assume that household consumption declines and savings increase when the kids leave, suggest that most people are saving optimally. On the other hand, studies based on the assumption of steady consumption over the working years conclude that many households will end up underprepared for retirement.

Researchers have tried to determine empirically which of these two theories better describes actual household behavior. Some have found that parents reduce consumption after their kids become independent, allowing them to save more for retirement. Others, however, have found that 401(k) savings do not increase. If households are both consuming less but not saving more after the kids leave, where are the resources going?

This *brief*, which is based on a recent study, examines three ways to reconcile these seemingly inconsistent results: 1) define savings more broadly: beyond 401(k)s, parents may be saving by paying down debt faster; 2) define consumption more broadly: beyond

survey definitions of consumption, parents may still be providing financial support to their grown children; and 3) define income more carefully: parents may be adjusting their labor supply and earnings.¹ The analysis explores each of these avenues using data from the *Health and Retirement Study* and the *Panel Study of Income Dynamics*.

The discussion proceeds as follows. The first section briefly summarizes the evidence to date. The second section describes the methodology and data for the current analysis. The third section presents the results. The final section concludes that parents do not increase savings after children leave but do reduce consumption and income. While the analysis does not completely resolve the apparent conflicting behaviors, understanding that a third dimension – changes in income – is at play can help inform future research on the topic.

Evidence to Date

The empirical evidence on consumption and saving when kids leave home is both limited and conflicted. The research started with studies looking at consump-

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tion patterns before and after the kids leave home. Rottke and Klos (2016), using German and Italian data, found that household spending declines after kids leave, but not enough to make up for parents' lower rate of saving when they were raising them. Coe and Webb (2010) used panel consumption data and found no evidence that households decrease consumption after children leave.² However, their study suffered from a small sample size. Using a larger panel consumption dataset from the *Panel Study of Income Dynamics* (PSID), Biggs (2019) found that parents decrease their consumption by 3.5 percent between ages 45-49 and 65-69, while non-parent households increase their consumption by 33.2 percent at the same ages. The question is whether parents and non-parents are similar enough that comparing the two provides a good indication of the impact of kids leaving.

Since it can be hard to get accurate measures of consumption over time, Dushi et al. (2015) estimated changes in savings. All income is either consumed, saved, or taxed. Therefore, holding income and taxes constant, if households are increasing their saving, they must be decreasing consumption. Using administrative linked W-2 data, the authors found that while households increased 401(k) contributions after children moved out, the increase was tiny compared to that implied by the optimal savings models.³ A limitation of this study is that it did not consider other ways that parents could save for retirement, such as paying down their mortgage.

Finally, the literature thus far has considered only changes in consumption or savings. Income itself, however, may also be changing, if parents opt for more leisure and less work after their children move out.

This analysis re-examines possible responses to kids leaving home: 1) using a broader saving measure that includes debt repayment; 2) using a broader measure of consumption that includes continued financial transfers to kids; and 3) considering the possibility that income itself changes as households opt for more leisure.

Methodology and Data

Our primary analysis uses the *Health and Retirement Study* (HRS), a panel survey of households over age 50 that has been administered every two years since 1992. The survey collects in-depth information on income, education, pension eligibility, and children's

residence and schooling. The analysis is based on data from the 1992-2018 waves, linked to administrative earnings and Social Security benefits data.

The first step is to define what it means for kids to leave home. We consider three definitions identifying financially dependent children. The first is having children who physically live at home, regardless of age. However, this first definition suffers from an important omission: children who have left the home but are residing at college. Since the purpose of identifying resident children is to provide a proxy for identifying households with financially dependent children, our second definition includes children who moved out of the household but are still in school. However, the second definition would include children who have moved out and become financially independent but then returned to school (e.g., graduate students). The third definition, therefore, excludes children in college if, in a prior interview, they were neither physically resident nor attending college, i.e., in the past they were likely to have been financially independent. Table 1 shows the distribution of households among categories by the various definitions of kids leaving home.

TABLE 1. NUMBER OF HOUSEHOLDS BY KIDS' RESIDENCE STATUS AND DEFINITION OF DEPENDENCY

	No kids	Independent			Total
		Always	Never	Become	
Definition 1	741	3,447	1,371	3,922	9,481
Definition 2	741	2,038	1,665	5,037	9,481
Definition 3	741	3,043	1,605	4,092	9,481

Source: Authors' calculations from *Health and Retirement Study* (HRS) (1992-2018).

Using the three definitions, the next step is to compare the behavior of households that still have resident children to households where the kids have left. The analysis uses a regression approach in which the dependent variable is the saving, consumption, or income outcome, and the independent variable of interest is whether the kids have left. To follow the behavior of each household over time, the equation also includes household fixed-effects (FEs), and controls for various socioeconomic and demographic characteristics. The equation also includes a time trend to control for the possibility that the

outcome variables are simply increasing or decreasing over time, but not necessarily due to the children leaving home. The equation is:

$$\text{Outcome} = f(\text{kids left, socioeconomic characteristics, demographic characteristics, FEs, trend})$$

One drawback with the HRS is that it focuses only on older households – what if younger households behave differently? Thus, in the full study we augment the HRS analysis with a similar one using the 1992-2017 panels of the *Panel Study of Income Dynamics* (PSID). Since the two surveys produce consistent results throughout, the following discussion concentrates on the findings from the HRS.

Results

As noted, the results to date show that – when kids leave home – consumption declines but saving does not increase. The first question is whether components of broader measures of saving or consumption may be changing. The second question is whether income changes when the kids leave home.

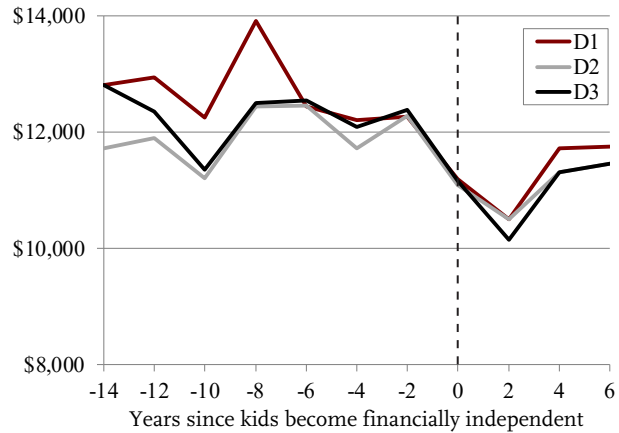
Expanding the Definition of Saving

Although parents do not appear to increase their 401(k) contributions, they could be increasing their total saving if they were paying off their mortgage or other debt. Looking at patterns across households – as opposed to following households over time – suggests that median mortgage payments among households with mortgages do not increase – but rather decline slightly – after the kids leave (see Figure 1).

But the figure shows changes *across* households and not changes *within* households over time. The fixed-effect results, which estimate changes in mortgage debt *within* households, show that – for all three definitions of financial independence – the coefficients of the “kids-leave” variable are not statistically significantly different from zero. That is, parents do not seem to be adjusting their mortgage payments after their children become independent.⁴

The HRS, however, is conducted only every two years, so looking only at mortgage payments may not capture ad-hoc payments to reduce mortgage balances. To address this possibility, we examine changes in mortgage debt before and after children leave. Looking at a simple plot of median change in mortgage

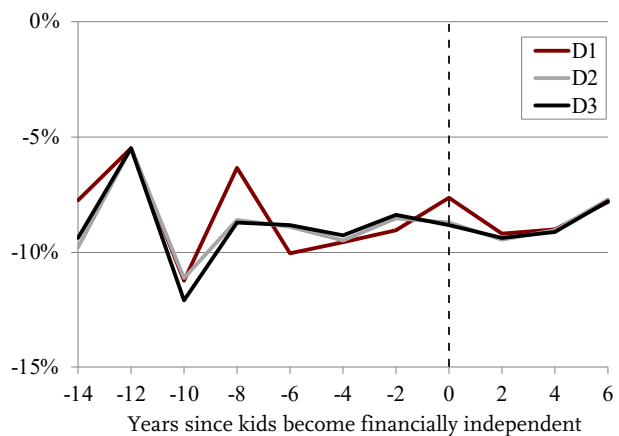
FIGURE 1. MEDIAN MORTGAGE PAYMENTS FOR HOUSEHOLDS WITH MORTGAGES, BY YEARS SINCE KIDS BECAME FINANCIALLY INDEPENDENT, IN 2018 DOLLARS



Source: Authors' calculations from HRS (1992-2018).

balance by year suggests that ad-hoc payments are generally not occurring – households are paying off their mortgage at the same rate regardless of whether children are dependent (see Figure 2). The fixed-effect estimates tell the same story.

FIGURE 2. AVERAGE PERCENTAGE CHANGE IN MORTGAGE DEBT, BY YEARS SINCE KIDS BECAME FINANCIALLY INDEPENDENT



Source: Authors' calculations from HRS (1992-2018).

Finally, even if households are not paying down mortgage debt, they could be paying down other forms of debt. Once again, the results do not support

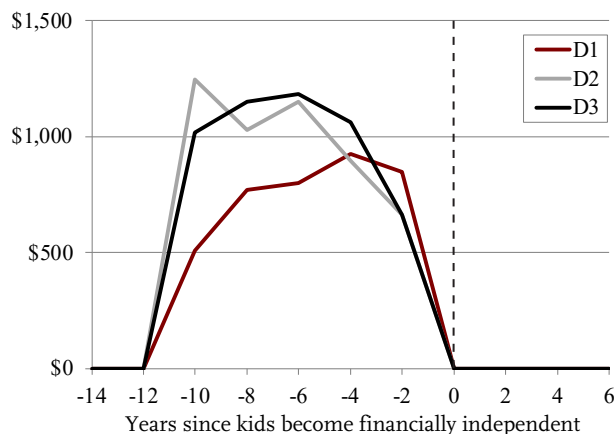
this notion. Non-mortgage debt among parent households does not change after kids become financially independent. The results are consistent across all three definitions of financial independence.

Therefore, combined with findings from prior literature, the results confirm that parents are not saving more once their kids become independent.

Expanding the Definition of Consumption

Another reason why consumption (narrowly defined) could decrease without saving increasing after children leave home is that parents may still give their kids money after they leave. Hence, studies using consumption surveys would miss any continued financial expenditures, such as parents helping with rent, paying off student debt, or providing a down payment for a house. While wealthier parents transfer the largest amounts, even the median transfer in the years leading up to financial independence can reach about \$1,000 (see Figure 3). Interestingly, median transfers seem to disappear after children become independent. The fixed-effect estimates are consistent with observed trends: financial transfers decrease by \$1,000 to \$2,000 a year, depending on the definition of financial independence. Hence, continued support to children does not appear to solve the apparent conflict between declining consumption (narrowly defined) and the lack of additional saving once children leave home.

FIGURE 3. MEDIAN NET FINANCIAL TRANSFERS FROM PARENTS TO KIDS, BY YEARS SINCE KIDS BECOME FINANCIALLY INDEPENDENT



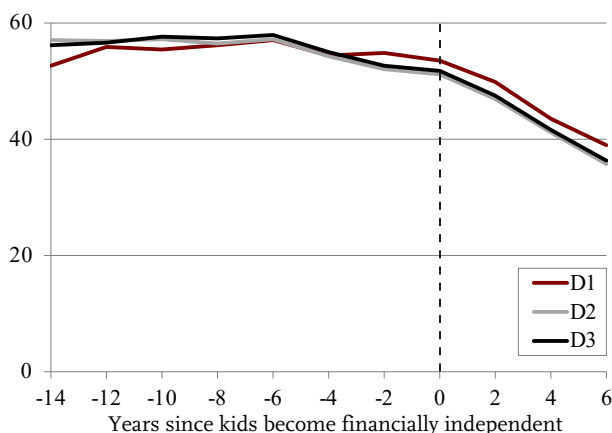
Source: Authors' calculations from HRS (1992-2018).

Hours Worked and Earnings

The only remaining option to square the circle – one that has not previously been explored in the literature – is that parents may opt for more leisure and less work after their kids leave. To examine this possibility, we look at both hours worked as well as total household income from administrative earnings data.

Trends in median total hours worked across households suggest that parents are opting for more leisure time by working and earning less after their children become independent (see Figure 4). This pattern is consistent under all definitions of financial independence.

FIGURE 4. AVERAGE TOTAL HOUSEHOLD HOURS WORKED, BY YEARS SINCE KIDS BECOME FINANCIALLY INDEPENDENT



Source: Authors' calculations from HRS (1992-2018).

The fixed-effect model shows that, *within* households, parents do in fact work one to two hours less per week, depending on the definition of financial independence. Total household income also declines, by about \$2,500 a year, either as a result of the reduction in hours or of shifting to a less demanding lower-paid job (see Table 2 on the next page). These results are all statistically significant. Median household pre-retirement income is \$61,900, so this reduction is equivalent to a 4-percent decline in income.⁵

The implications for savings of parents opting for more leisure are not obvious. A decline in income by itself would suggest lower savings, lower consumption, or a combination of the two. Our results, combined with prior literature, found no evidence of

TABLE 2. IMPACT OF KIDS LEAVING ON WEEKLY HOURS AND HOUSEHOLD INCOME

Definition of kids leaving	Impact of kids leaving on	
	Weekly hours	Household income
D1: Kids not at home	-1.0*	-\$2,483**
D2: Kids not at home and not in school	-1.4***	-2,165**
D3: Kids not at home and not continuously in school	-2.2***	-2,479**

Note: Significance is indicated at the 1-percent level (***), 5-percent level (**) and 10-percent level (*).

Source: Authors' calculations from HRS (1992-2018).

changes in parental savings but confirmed a decline in consumption (both narrowly and broadly defined). The effect of decreased income and decreased consumption on savings will depend on how much parents reduce consumption relative to income.

The results show that consumption relative to income decreases by 3 percent to 6 percent after kids leave. A decline in consumption relative to income should result in more assets and greater net worth. However, ratios of household net-worth-to-income do not increase, leaving the issue unresolved once again.

Conclusion

Whether parents adjust their consumption after their children leave home has important implications for understanding retirement income adequacy. Prior studies, using consumption data, have found that parents reduce consumption after their children become independent, allowing them to save more for retirement. Other studies, however, have found that savings for retirement do not increase. If households are both consuming less but not saving more after the children leave, where are the resources going?

This study examines three ways to square the circle. The first is recognizing that households can also save by paying down a mortgage or other debt. However, the results show no such effect after the children become independent. The second explanation is that parents may still be providing money to their children, and these transfers are not typically marked as consumption. Yet, the results do not support this explanation either – parents do not continue supporting children after they leave. Finally, the last explanation is that parents may opt for more leisure, which – with no increase in saving – would produce a decline in consumption. The results show that parents are in fact working less and earning about \$2,500 less per year after their children become independent.

The implications of lower earnings and lower consumption on retirement savings depend on how much parents reduce consumption relative to income. The results show that consumption relative to income decreases by 3 percent to 6 percent after children leave. However, this reduction in consumption does not translate into higher net worth. So, once again, the question of where do the resources go remains.

While the analysis does not completely resolve the apparent conflicting results, understanding that a third dimension – changes in income – is at play can help inform future research on the topic.

Endnotes

- 1 Biggs, Chen, and Munnell (2021).
- 2 The authors used HRS *Consumption and Activities Mail Survey* (CAMS) data.
- 3 This result is in line with Smith, Johnson, and Muller (2004), who found some evidence that life events can affect contributions to retirement accounts but the magnitude is generally small.
- 4 Households that have completed paying off their mortgage are not included in this fixed-effect equation and therefore are not biasing the results with zeros.
- 5 Biggs (2019) found a similar magnitude decline in consumption.

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