

Check for updates

# Boomerang children and parental retirement outcomes

Grant M. Seiter 1 · Mary J. Lopez<sup>2</sup> · Sita Nataraj Slavov<sup>3,4</sup>

Received: 26 April 2023 / Accepted: 4 April 2024  $\ensuremath{\mathbb{O}}$  The Author(s) 2024

# Abstract

As the share of U.S. adult children living with their parents increases, it is important to understand how children who "boomerang" back home impact their parents in their pre-retirement and post-retirement years. We use data from the Health and Retirement Study (HRS) to examine the effects of boomerang children on their parents' labor market expectations and choices, as well as on their wealth, health, and life satisfaction. Event study analysis suggests that boomerang children return home due to short-term instabilities, such as negative shocks to marriage, income, and employment. We find that boomerang children are associated with a small increase in their parents' subjective probability of working after age 65, and with a temporary increase in their parents' non-housing debt. However, in the aggregate, we find no clear evidence that boomerang children impact parents' current or future labor market choices, overall wealth, health, or life satisfaction. (We do find some evidence of an increase in hours worked among parents in the bottom wealth decile). One possible explanation for the lack of aggregate impact is that boomerang children contribute to household expenses. We find that boomerang events are associated with an increase in financial transfers from children to parents, particularly among parents in the bottom half of the wealth distribution.

Keywords boomerang children  $\cdot$  parental retirement readiness  $\cdot$  wealth  $\cdot$  health  $\cdot$  life satisfaction

JEL classification  $~D1 \cdot I1 \cdot I31 \cdot J1 \cdot J26$ 

Sita Nataraj Slavov sslavov@gmu.edu

<sup>&</sup>lt;sup>1</sup> Department of Economics, University of Virginia, P.O. Box 400182, Charlottesville, VA 22904-4182, USA

<sup>&</sup>lt;sup>2</sup> Department of Economics, Occidental College, 1600 Campus Road, Los Angeles, CA 90041, USA

<sup>&</sup>lt;sup>3</sup> Schar School of Policy and Government, George Mason University, 3351 Fairfax Drive, MS 3B1, Arlington, VA 22201, USA

<sup>&</sup>lt;sup>4</sup> National Bureau of Economic Research, 1050 Massachusetts Avenue Cambridge, MA 02138 Cambridge, USA

## **1** Introduction

The share of U.S. adult children living with their parents has increased since the 1960s. Figure 1 shows that in 2020, approximately one-third of children between ages 18 and 34 lived with their parents, with men and 18–24 year-olds, respectively, more likely to co-reside than women and 25–34 year-olds. Some coresident adult children never leave the parental home, while others, known as "boomerang children," return home after living independently. Moving back home can be a rational choice for adult children who encounter employment or income shocks, allowing them to smooth their consumption in the presence of borrowing constraints (Dettling and Hsu, 2018). With more than 70 percent of coresident adult children reporting knowing a friend or family member who recently moved back home, the economic benefits may also outweigh any costs associated with social stigma (Parker, 2012).

Prior research supports the hypothesis that financial shocks, particularly those exacerbated by borrowing constraints, increase the probability of an adult child returning home. For example, Matsudaira (2016) finds that a lack of employment, low wages, and high rental costs increase the number of adult children who move back home. Dettling and Hsu (2018) find that delinquency, a decrease in credit scores, and greater amounts of debt (particularly student loan debt) increase the probability of returning home and the duration of the stay. Kaplan (2012) shows that having the option to return home reduces the cost of job loss, especially for adult children from lower-income households whose parents cannot provide pecuniary transfers. The author also finds that returning home allows adult children to hold out for jobs with high earnings potential, which often take longer to find or pay lower initial wages. Aladangady et al. (2019) show that young adults who move back with their parents consume less and increase savings compared to those living independently, and Bentley and Bogan (2019) find that living with parents allows children to decrease general debt holdings. Finally, dissolution of relationships may also lead young adults to return home (Albertini et al., 2018). Moving back home after a divorce or separation may help relieve financial or childcare burdens.

The media and some financial organizations portray boomerang children as a monetary drain that jeopardizes parental retirement. The assumption is that parents



Fig. 1 Adult children living in the parental home, 1960–2020. *Notes:* This figure shows that the share of co-resident adult children in the U.S. has increased since the 1960s. **a** Disaggregates the share by sex and **b** by age (18–24 and 25–34). *Source:* U.S. Census Bureau Decennial Censuses, 1960 to 1980, and Current Population Survey Annual Social and Economic Supplements, 1990 to 2020. https://www.census.gov/data/tables/time-series/demo/families/adults.html

may need to delay retirement if they deplete their savings to support their coresident adult children.<sup>1</sup> However, to our knowledge, no prior academic research has examined the extent to which adult children returning home compromises parental retirement plans or well-being.<sup>2</sup> Some studies have examined the impact of children leaving home. For example, Biggs (2019) and Biggs et al. (2021) show that household consumption declines when children leave home. However, Dushi et al. (2021) find that parental saving in retirement accounts increases only slightly when children leave, and Biggs et al. (2021) find that parental net worth is unchanged. In terms of labor market behavior, Miller et al. (2018) and Biggs et al. (2021) find that parents reduce both expected and actual labor supply when an adult child leaves home. However, the effect of boomerang children may not simply be the opposite of departing children. While the timing of a child's departure may be relatively uncertain (Miller et al., 2018), the event itself is highly likely, whereas a child returning home is more likely to be an unanticipated event. Additionally, parents may be more likely to view the boomerang arrangement as temporary, lasting only until the child can get back on their feet.

There are several mechanisms through which boomerang children may impact parental retirement outcomes. First, adult children facing financial or relationship struggles can be a source of stress or conflict within the home (Tosi and Grundy, 2018). Second, Miller et al. (2018) show that parents provide significant support to coresident children, and that parental transfers decline by \$1,500 a year when one child leaves the parental home. Parents may therefore experience a negative financial shock if transfers resume when children return. Third, on the positive side, parents may find satisfaction in the return of their adult children (Casares and White, 2018). For example, boomerang children can alleviate empty nest syndrome, assist with household tasks, or allow parents to spend more time with their grandchildren. Finally, employed adult children can contribute to household expenses. The impact of a child returning home may depend on whether the event is transitory or longterm; a long-term stay extends any potential impact. Dettling and Hsu (2018) show that the duration of time that adult children spend with their parents increases with financial distress. Thus, boomerang children who remain at home for an extended period may have a disproportionately negative impact on their parents' finances. However, even a transitory boomerang event may have short- and long-term impacts on parental retirement outcomes.

In this paper, we examine the relationship between adult children returning home and parental retirement outcomes using data from the Health and Retirement Study

<sup>&</sup>lt;sup>1</sup> See https://www.aarp.org/home-family/friends-family/info-2017/how-to-manage-your-boomerang-children. html, https://www.tiaa.org/public/learn/prepare-unexpected/how-to-cope-when-adult-children-or-parents-movein, and https://www.forbes.com/sites/rcarson/2019/08/11/five-ways-to-keep-boomerang-children-from-ruiningyour-retirement/.

<sup>&</sup>lt;sup>2</sup> A large literature has examined other determinants of retirement, focusing on health status (McGarry, 2004), the availability of postretirement health insurance (Madrian, 1994; Gruber and Madrian, 1995; Blau and Gilleskie, 2001; Marton and Woodbury 2006, 2012; Robinson and Clark, 2010; Strumpf, 2010; Kapur and Rogowski, 2011; Nyce et al., 2013), quality of work (Siegrist et al., 2007), macroeconomic conditions that affect retirement wealth and job opportunities (Hurd and Reti, 2001; Kezdi and Sevak, 2004; Hurd et al., 2009; Coile and Levine, 2010; Goda et al., 2012; Gorodnichenko et al., 2013), and pension incentives (Coile and Gruber, 2007).

(HRS), a national longitudinal survey of individuals over the age of 50 and their spouses; the HRS also tracks children of respondents. Using a sample of 51–69-year-old parents, we estimate the relationship between the first observed boomerang event in the data—defined as an adult child under the age of 30 returning to the parental home without being a caregiver to the parents—and parental labor market status, wealth, health, life satisfaction, and transfers to and from their children. We also explore events in the child's life that may prompt a return to the parental home using data from the child-level panel. At both the parent and child levels, we examine the outcomes of interest before and after the first observed boomerang event. Event study analyses that disaggregate the post-boomerang period into two-year intervals further help us explore the dynamics of these relationships.

An important consideration is that boomerang events may not be exogenous. They could be associated with other shocks, such as labor market or family-specific shocks, that also affect parental retirement outcomes. We attempt to address this concern in our baseline model by controlling for age, individual fixed effects, and survey wave. We also specifically exclude children who return home to provide care to parents experiencing health shocks. Our event study analyses can further alert us to the possibility of pre-trends, which could suggest the presence of outside factors that are operating before the boomerang event. Additionally, our child-level regressions provide support for a causal narrative by showing the plausibly exogenous shocks in a child's life that drive boomerang events. As a robustness check, we also employ propensity score matching to select a control group that more closely resembles parents who experience a boomerang event. However, the caveat remains that while our results are consistent with the causal narrative, we cannot fully rule out the possibility that other time-varying, individual-specific shocks may be at work.

Our child-level analysis suggests that boomerang events are associated with negative shocks to a child's marriage, income, and employment. The event study analysis suggests that many of these shocks are temporary, and correspondingly, most boomerang events are short-lived. At the individual parent level, we find no clear, statistically significant association between boomerang events and parental health, probability of currently working, hours worked, or life satisfaction. However, we do find an increase in the self-reported probability of working fulltime after age 65. At the household level we find no impact of boomerang events on wealth, including housing wealth, retirement wealth, or financial wealth. However, we do find that boomerang children are associated with a temporary increase in non-housing debt. Overall, our results provide evidence that parents may expect to delay their retirement when children return home, but they do not appear to adjust their current labor market choices. While parental households do take on more non-housing debt, boomerang children contribute to household expenses. We find that boomerang events coincide with an increase in transfers from children to parents, which may help mitigate the additional debt that households take on.

The remainder of the paper proceeds as follows. Section 2 describes the HRS data used in the analysis and summarizes the characteristics of the parents and boomerang children in our sample. Section 3 presents the methodology, while Section 4 discusses the results of our analysis. Section 5 concludes.

# 2 Data and descriptive statistics

Our data are drawn from the Health and Retirement Study, a biennial national longitudinal survey of individuals over the age of 50 and their spouses or partners. The survey began in 1992 with an initial cohort aged 51-61 and their spouses (additional cohorts were added in subsequent waves), and interviews take place every two years. Couples are represented in the sample as two separate respondents.<sup>3</sup> We primarily rely on cleaned versions of the HRS data compiled by the RAND Center for the Study of Aging through wave 12 (2014). Data on HRS respondents' children are obtained from the RAND HRS Family Data (2014, version 1, "child-level file"), which contains information about all living children of each respondent, including their age and sex, their work and income, whether they live with the respondent, and whether they are a caregiver to the respondent.<sup>4</sup> All information on children is reported by the HRS respondent. We merge these data with the RAND HRS Longitudinal File (2018, version 1, "parent-level file"), which contains demographic, financial, employment, and health information on each HRS respondent. In addition to questions about labor market participation, the HRS asks respondents under the age of 65 who are currently working to self-report a subjective probability of working full time after age 65. We also merge in data on respondents' life satisfaction from the RAND HRS Fat Files (2006–2014).<sup>5</sup>

In the child-level file, we exclude children with RAND-identified longitudinal linkage problems, drop non-response waves, and keep all unique children between the ages of 18 and 29 (inclusive).<sup>6</sup> Children's total family income is reported inconsistently both within and across waves, with a continuous variable available for some children and a set of potentially overlapping brackets for others.<sup>7</sup> If a child has a continuous income variable available, we use that value. If a child's income is bracketed, we use the minimum value in the bracket.<sup>8</sup> The resident status of adult children is determined at the time of the HRS respondent's interview. Adult children

 $<sup>\</sup>frac{3}{3}$  Respondents are treated as a couple if they are married, partnered, or reside with another respondent in a wave-specific household. They are otherwise assumed to be single.

<sup>&</sup>lt;sup>4</sup> A respondent's child may be either a biological or a stepchild. However, only 5 percent of boomerang events in our sample involve stepchildren.

<sup>&</sup>lt;sup>5</sup> Although the RAND HRS Longitudinal File (2018, version 1) includes waves from 1992–2018, the RAND HRS Family Data (2014, version 1) only covers waves from 1992-2014. Thus, we use data from 1992–2014 for most of our analysis. Life satisfaction variables are only available from the RAND HRS Fat Files from 2006 onwards; thus, we use data from 2006-2014 for our analysis of parental life satisfaction.

<sup>&</sup>lt;sup>6</sup> RAND researchers identify potential longitudinal linkage problems by checking for changes over time in key information, e.g., sex, age, relationship and name. In the child-level file, a particular child will appear in two records if connected to a couple household, and both parents are respondents. We keep unique children by selecting the child record from the longest-lived respondent in a couple household. If both respondents are present throughout the data, we select the child record from the designated family respondent.

 $<sup>^7</sup>$  Total family income bracket ranges are different for Waves 1, 2 and 3 (1992–1996) as compared to bracket ranges in later waves. In wave 2H (1994) and wave 3 (1995 and 1996) continuous income is reported.

<sup>&</sup>lt;sup>8</sup> For example, a child with a bracketed income of \$35,000–70,000, and a child with a bracketed amount of \$35,000 or more, would both be assigned an income of \$35,000.

who are residing with parents at the time of the interview are categorized as "living" in the respondent's home (i.e., the parental home). Children reported as not residing in the parental home or away at institutions, such as schools, jails, rehabilitation centers, etc., or children that have missing resident status are categorized as "not living" in the respondent's home.<sup>9</sup> Boomerang events are identified based on changes in residency status across waves. We construct an indicator for "boomerang child," which takes on the value of 1 for a child between the ages of 18 and 29 who transitions between two non-missing waves from living outside the home of their HRS respondent parent(s), to living with an HRS respondent parent.<sup>10</sup> We further impose a restriction that boomerang children are not caregivers for the respondent during the wave in which they return home.<sup>11</sup>

Our final child sample contains 27,307 children aged 18–29 with 73,899 childwave observations. The steps of sample selection and observation counts for the child sample are shown in the top panel of Appendix Table 10. We observe 1630 boomerang children with 1679 individual boomerang events (1630 first boomerang events). Panel 1 of Appendix Table 11 shows the boomerang event observations by child and child-wave.

We collapse the number of boomerang children in the child sample at the parentwave level, merge them with the parent-level file, restrict our parent sample to waves in which the respondent is aged 51 to 69 with at least one child between the ages of 18 and 29, and drop non-response waves. The steps of sample selection and observation counts for the parent sample are shown in the bottom panel of Appendix Table 10.

The parent sample includes 2095 respondents who experience a boomerang event (see Panel 2 of Appendix Table 11). More than 80 percent of parents who experience a boomerang event are coupled. Divorced or separated parents who experience a boomerang event are disproportionately female (almost three quarters). It is worth noting that the number of affected parents is greater than the number of boomerang children because when a child returns to a dual-parent household, both parents

<sup>&</sup>lt;sup>9</sup> One concern that may arise is whether a college student returning home for the summer (a planned and time-limited event) may be mistakenly classified as a boomerang event. The HRS survey questions do not provide clarity on how parents would have reported these children. To address this potential challenge to our analysis, we specifically identity boomerang events that are reported during a summer interview (May-July). Out of these summer boomerang children, 150 are reported as being in school. These 150 boomerang children account for 11 percent of the full boomerang sample, and it is possible that they simply returned home for the summer break. However, of these 150 boomerang children, only 25 (2 percent of the boomerang sample) had a pre-boomerang wave status of "resident away" and returned home for only one wave. Thus, we suspect that, at most, 2 percent of the boomerang sample consists of children who are temporarily home for summer break.

<sup>&</sup>lt;sup>10</sup> For divorced parents or blended families, a boomerang event could represent a return to the home of any parent or stepparent in the HRS sample. If a parent's marriage ended before their entry into the HRS, their ex-spouse is not included in the sample. In this case, we would only observe a return to the HRS parent's home. For households entering the HRS as a married couple, or for individuals who get married after joining the HRS, the HRS tracks both spouses (even if a divorce subsequently occurs). Thus, a boomerang event could represent a return to either parent's home.

<sup>&</sup>lt;sup>11</sup> We define caregivers as co-resident children who are reported in the HRS Helper file (HP module) or assist the respondent with activities of daily living (ADLs) or instrumental activities of daily living (IADLs). ADLs include bathing, dressing, eating, getting in and out of bed, and walking across the room. IADLs include managing money, using the phone, and taking medications.

experience the event. In these dual-parent households, each parent enters the parentlevel file separately, resulting in two respondents representing the couple.

The main parental outcome variables include the respondents' self-reported subjective probability of working full time after age 65 (asked of respondents under age 65 who are currently working), an indicator for whether the respondent currently does any work for pay, the respondent's total weekly hours normally worked in their main and secondary jobs, the respondent's self-reported life satisfaction (with responses ranging from 1 to 7 and higher numbers indicating greater life satisfaction), the respondent's self-reported health status (ranging from 1 for excellent to 5 for poor), an index of the respondent's ever reported health conditions (out of a possible 8), and the respondent's depression score (the higher the score, the more negative the respondent's feelings).<sup>12,13,14,15</sup> Transfers between parents and children are obtained from the child-level file and summed across children. These transfer variables include both the frequency and monetary value of the transfers and are measured over the previous two years. The main outcome variables, as well as the transfer variables, are measured at the individual parent level. That is, in coupled households, each spouse is treated as a separate observation.

When looking at wealth outcomes, however, we perform our analysis at the household level, as most wealth variables in the HRS are measured at the household level and common to both members of a couple. In coupled households, one spouse is designated as the financial respondent and provides responses to any financial questions for both spouses. To construct a household-level dataset, we retain all single respondents and the financial respondent from coupled households. At the household level, we construct outcome variables for total wealth, primary housing wealth, secondary housing wealth, non-housing wealth, retirement wealth, other financial wealth, primary housing debt, secondary housing debt, other debt, and withdrawals from individual retirement accounts (IRAs). Primary and secondary housing wealth is the value of the primary and secondary residences. We derive non-

<sup>14</sup> Respondent's ever reported health conditions is the sum (out of eight) of indicators for whether a doctor has ever told the respondent, and the respondent reported that they had high blood pressure, diabetes, cancer, lung disease, heart disease, stroke, psychiatric problems, or arthritis.

 $<sup>^{12}</sup>$  We assume that respondents work zero hours in their main job if they have elsewhere indicated not working. We also assume zero hours in their second job if missing.

<sup>&</sup>lt;sup>13</sup> For respondent's life satisfaction, HRS respondents are asked to rate their agreement with the statement "I am satisfied with my life." In waves 9–12, the options are "strongly disagree" (1), "somewhat disagree" (2), "slightly disagree" (3), "neither agree nor disagree" (4), "slightly agree" (5), "somewhat agree" (6), and "strongly agree" (7). In wave 7, the scale is reversed (1 corresponds to "strongly agree" and 7 corresponds to "strongly agree") and the "somewhat agree"/"somewhat disagree" options are replaced with "agree"/ "disagree." In wave 8, the options range from "strongly disagree" (1) to "strongly agree (6) with no option to "neither agree nor disagree." We recode the wave 7 variable to make it consistent with waves 9–12 and transform the wave 8 variable to range from 1 to 7 by multiplying responses by 6/5 and subtracting 1/5. Our results are robust to transforming these health and life satisfaction measures into binary variables indicating poor or fair health and dissatisfaction with life, respectively. These results are available upon request.

<sup>&</sup>lt;sup>15</sup> Respondent's depression score is available beginning in wave 2 and is based on the Center for Epidemiologic Studies Depression (CESD) scale. The score is the sum of six "negative" sentiment indicators (feeling depression, that everything is an effort, that sleep is restless, feeling alone, feeling sad, and being unable to get going) minus two "positive" indicators (whether the respondent felt happy and enjoyed life all or most of the time).

housing wealth as the sum of the net value of real estate that does not include the primary residence, the net value of vehicles, and the net value of businesses owned. Retirement wealth includes total assets in IRAs and any balances in defined contribution accounts held by the respondent or their spouse from their current employer(s). Other financial wealth is derived by summing the net value of stocks, mutual funds, and investment trusts; the value of checking, savings, or money market accounts; the value of CDs, government savings bonds, and T-bills; the net value of bonds and bond funds; and the net value of all other savings. Primary and secondary housing debt is measured as the value of all mortgages, land contracts, and other home loans with reference to the primary or secondary residence. Other debt includes any non-housing debt such as credit card or medical debt, loans against life insurance policies, and loans from relatives. IRA withdrawals include any withdrawals made during the prior calendar year. Total wealth is derived by summing housing wealth (both primary and secondary), non-housing wealth, retirement wealth, and other financial wealth and netting out total housing and other debt.<sup>16</sup> All monetary amounts are adjusted to 2020 dollars using the Retroactive Research Series of the Consumer Price Index for All Urban Consumers (R-CPI-U-RS).

Table 1 shows summary statistics for all observations used in the analysis.<sup>17</sup> The top panel reports results from the child sample, indicating that the average age of children in the sample is approximately 25, and 25 percent of them live with their parents. Boomerang events are relatively rare, with only 5 percent of observations occurring after the event. About half of the children in the sample are women, and approximately one-third are married. The bottom panel reports summary statistics at both the individual- and household-levels from the parent sample, showing that parents have an average of 1.8 children between the ages of 18 and 29, with an average of 0.45 children living at home. Only 10 percent of observations in the parent sample occur after an observed boomerang event. It is important to note that both parents and children may experience other transitions, such as a child leaving home, which are not considered in this analysis. On average, parental households have close to half a million dollars in total wealth. Panel 2 also shows that transfers occur between parents and children. The average number of financial transfers that respondents receive from their children is 0.08, and the average total amount transferred is \$254 (including observations where no transfers occur, i.e., with values coded as zero). The average number of financial transfers from respondents to their children is 0.79. The average total amount of transfers from parents to children is \$6841, which likely includes the value of tuition and other college expenses.

To further examine the sample, Table 2 shows summary statistics for boomerang and non-boomerang children. Boomerang children are less likely to be married and working, and more likely to be attending school compared to non-boomerang children. They also have lower incomes, fewer children, and are younger. However,

<sup>&</sup>lt;sup>16</sup> The wealth and transfer variables include outliers, in part due to imputation of missing values by RAND. Our main results are robust to winsorizing by setting the top and bottom 1 percent of each variable equal to the 99<sup>th</sup> and 1<sup>st</sup> percentile, respectively. They are also robust to excluding observations with imputed values. Results are available upon request.

<sup>&</sup>lt;sup>17</sup> Summary statistics broken down by sex, as well as by pre- and post-boomerang periods (for those experiencing boomerang events) are available upon request.

Panel 1—Child sample					
Variable	Mean	Std. Dev.	Min	Мах	Individuals
Age	24.87	2.76	18.00	29.00	27,307
Female	0.49	0.50	0.00	1.00	27,302
Resides with Parents	0.25	0.36	0.00	1.00	27,307
Post Boomerang Event	0.05	0.14	0.00	0.83	27,307
Individual-Level Outcomes					
Married or Partnered	0.37	0.44	0.00	1.00	27,211
In School	0.23	0.33	0.00	1.00	26,471
Not Working	0.23	0.36	0.00	1.00	26,738
Working Part Time	0.15	0.27	0.00	1.00	26,738
Working Full Time	0.61	0.41	0.00	1.00	26,738
Total Family Income	\$22,187.63	\$23,563.96	\$0.00	\$824,038.10	23,002
Number of Children	0.69	1.11	0.00	12.00	26,841
Parent Provides Childcare	0.11	0.28	0.00	1.00	21,394
Panel 2—Parent sample					
Variable	Mean	Std. Dev.	Min	Max	Individuals/Households
Age	57.55	3.77	51.00	00.00	18,416
Female	0.51	0.50	0.00	1.00	18,416
Coupled Household	0.79	0.39	0.00	1.00	18,416
Number of Children	1.79	0.81	1.00	10.00	18,416
Number of Co-Resident Children	0.45	0.55	0.00	4.00	18,416
Post Boomerang Event	0.10	0.21	0.00	1.00	18,416
Individual-Level Outcomes					
P(Working Full Time After 65)	27.99	29.67	0.00	100.00	15,989
Working For Pay	0.65	0.42	0.00	1.00	18,386

Table 1 Summary statistics for all children and parents

Table 1 continued					
Panel 2—Parent sample					
Variable	Mean	Std. Dev.	Min	Мах	Individuals/Households
Total Weekly Hours Worked	27.15	20.65	0.00	168.00	18,358
Life Satisfaction	5.19	1.71	1.00	7.00	6052
Self-Reported Health	2.71	1.05	1.00	5.00	18,414
No. of Health Conditions	1.36	1.24	0.00	7.00	18,416
Depression Score	1.50	1.82	0.00	8.00	16,241
Transfers to Children (Total Amount)	\$6841.39	\$18,317.22	\$0.00	\$900,509.00	18,345
Transfers to Children (Total Number)	0.79	0.84	0.00	11.00	18,345
Transfers from Children (Total Amount)	\$253.86	\$1689.14	\$0.00	\$95,498.96	16,796
Transfers from Children (Total Number)	0.08	0.34	0.00	8.00	16,796
Household-Level Outcomes					
Total Wealth	\$481,482.70	\$1,871,491.00	-\$2,626,599.00	\$170,000,000.00	12,037
Value of Primary Housing	\$186,583.00	\$252,143.10	\$0.00	\$10,700,000.00	12,037
Value of Secondary Housing	\$28,577.69	\$351,048.40	\$0.00	\$35,700,000.00	11,923
Non-Housing Assets	\$136,473.00	\$598,702.50	\$0.00	\$23,500,000.00	12,037
Retirement Assets	\$89,132.95	\$238,285.30	\$0.00	\$8,732,332.00	12,037
Other Financial Assets	\$114,805.90	\$1,095,457.00	-\$7603.81	\$111,000,000.00	12,037
Primary Housing Debt	\$59,482.62	\$100,852.50	\$0.00	\$3,204,961.00	12,037
Secondary Housing Debt	\$4662.17	\$32,098.23	\$0.00	\$1,755,166.00	11,923
Other Debt	\$7900.99	\$38,996.04	\$0.00	\$2,982,214.00	12,037
IRA Withdrawals	\$1453.07	\$9,950.00	\$0.00	\$514,764.10	8240
<i>Notes:</i> This table shows summary statist	ics based on samples and	variables used in regression	ons. Panel 1 (top) reports res	sults for the child sample, and	1 Panel 2 (bottom) for the

parent sample. Standard deviations, minimums, and maximums are between values (i.e., they are calculated across individual-level means). Data are unweighted. See Section 2 for details

Source: Authors' calculations using data from the Health and Retirement Study

	(1) Non-Boon	nerang children		(2) Boomerang	children		Difference in	means
Variable	Mean	Std. Dev.	Individuals	Mean	Std. Dev.	Individuals	(1)–(2)	<i>p</i> value
Age	24.96	3.21	25,677	24.02	3.20	1630	0.94	0.00
Female	0.49	0.50	25,672	0.49	0.50	1630	0.00	0.60
Resides with Parents	0.23	0.42	25,677	0.44	0.50	1630	-0.21	0.00
Post Boomerang Event	0.00	0.00	25,677	0.54	0.50	1630	-0.54	0.00
Married or Partnered	0.39	0.49	25,581	0.24	0.42	1630	0.15	0.00
In School	0.22	0.42	24,845	0.30	0.46	1626	-0.08	0.00
Not Working	0.23	0.42	25,112	0.27	0.44	1626	-0.04	0.00
Working Part Time	0.15	0.36	25,112	0.20	0.40	1626	-0.05	0.00
Working Full Time	0.62	0.48	25,112	0.54	0.50	1626	0.09	0.00
Total Family Income	\$22,848.48	\$27,113.19	21,452	\$15,305.86	\$22,006.21	1550	\$7542.62	0.00
Number of Children	0.72	1.13	25,213	0.45	0.91	1628	0.26	0.00
Parent Provides Childcare	0.11	0.32	19,816	0.13	0.34	1578	-0.02	0.00

means). Data are unweighted. The differences between boomerang and non-boomerang children are relatively small, suggesting that unanticipated shocks may influence whether adult children return home or not. See Section 2 for details

Source: Authors' calculations using data from the Health and Retirement Study

these differences are relatively small, suggesting that unanticipated shocks may influence whether adult children return home or not. Appendix Table 12 illustrates some potential motivations for returning home, including changes in school status (interpreted as college status), marital status, and employment status. These results suggest that adult children may move home at the beginning and end of college, following divorce and marriage, and in response to job loss. Research suggests that returning home may be a rational strategy for adult children to better manage costs associated with marital dissolution or loss of employment and income, as well as to afford tuition, search for better employment, or save for a home (Kaplan, 2012; Aladangady et al., 2019; Bentley and Bogan, 2019).

Although boomerang children may have multiple reasons for returning home, Appendix Table 13 reveals that most who return home do not stay for long. Approximately two-thirds of boomerang children reside in the parental home for up to two waves (i.e., 4 years). The remaining children stay for more than 3 waves, with some children still at home up to 10 or 11 waves (i.e., 20+ years). Long-term boomerang children may have a greater impact on parental health and retirement compared to those who stay for shorter periods.

# 3 Methodology

Our main objective is to examine the impact of adult children returning home on parental work, wealth, health, and well-being. However, we start by exploring potential determinants of boomerang events by examining how children's marriage, in-school status, employment, income, number of children, and childcare change around the time of the boomerang event. To do this, we estimate the following regression:

$$y_{kt} = \alpha_1 \cdot post_{kt} + age_{kt} + \theta_k + \gamma_t + u_{kt} \tag{1}$$

where  $y_{kt}$  represents any of the dependent variables of interest (shown in the top panel of Table 1, excluding age, sex, or whether the respondent resides with parents) for child k in wave t. On the right-hand side,  $post_{kt}$  is a binary variable equal to 1 in all waves including and following the child's first boomerang event (transitioning from living independently in one observed wave to living with a parent in the next wave); it takes on a value of zero prior to the first boomerang event and in every wave for children who do not experience a boomerang event. We also include a set of agespecific intercepts,  $age_{kt}$ ; individual fixed effects,  $\theta_k$ , to capture observable and unobservable time-invariant factors; and a wave fixed effect,  $\gamma_t$ , to capture economywide shocks that affect all children or cross-wave differences in survey methodology (such as the inconsistencies in child income brackets).  $u_{kt}$  is a stochastic error term.

At the parent level, we estimate a similarly specified regression:

$$y_{it} = \beta_1 \cdot post_{it} + age_{it} + \lambda_i + \mu_t + \epsilon_{it}$$
(2)

In this equation,  $y_{it}$  represents any of the dependent variables of interest (shown in the bottom panel of Table 1, excluding age, sex, coupled status, number of children, number of coresident children, and the household-level outcomes) for respondent *i* in wave *t*; *post<sub>it</sub>* is an indicator that takes on a value of 1 in all waves including and

following the parent's first boomerang event (having at least one child between the ages of 18 and 29 who transitions from living independently in one observed wave to living at home in the next wave);  $age_{it}$  is a set of age-specific intercepts;  $\lambda_i$  is a fixed-effect for respondent *i* that captures the effect of observable and unobservable time-invariant factors;  $\mu_t$  is a wave fixed effect that captures any factors that affect all respondents in wave *t* in the same way, such as economy-wide shocks or variations in survey questions; and  $\epsilon_{it}$  is a stochastic error term.

The coefficient of interest,  $\beta_1$ , may not capture the causal effect of a boomerang event if boomerang events are endogenous. In Eq. (2) above, the individual fixed effects control for any individual-specific time-invariant factors that influence both the probability of boomerang events and the parental outcomes. These factors include time-invariant demographic and socio-economic characteristics (e.g., gender, race and ethnicity, education) as well as time-invariant unobservable characteristics like personality traits or values. The wave fixed effects control for any time-varying factors that affect all individuals in the same way. However, our results will be biased if there are individual-specific, time-varying factors that cause both boomerang events and the parental outcomes. For example, an unobservable family crisis or a local economic shock (that is not reflective of nationwide economic conditions) may influence boomerang events and lead to changes in the parental outcome variables. To address this concern, we examine the dynamics of the outcome variables around boomerang events. If we observe pre-trends in the outcome variables, it becomes less likely that the boomerang event is causing the outcome variable. We also perform a robustness check by estimating Eq. (2) with controls for any time-varying, observable factors that may be relevant, such as coupled status and region of residence (census division). Finally, we implement an additional robustness check by using a propensity score matching procedure to select a control group of parents with similar observable characteristics to those who experience boomerang events. Once the control group is selected, we estimate Eq. (2) on the matched sample.

To examine the dynamics around boomerang events at both parent and child levels, we estimate event study specifications of Eqs. (1) and (2) that disaggregate the periods before and after a boomerang event into individual waves. The event study version of (1) is

$$y_{kt} = \sum_{s=-T}^{T} \phi_s b_{k,t-s} + age_{kt} + \theta_k + \gamma_t + u_{kt}$$
(3)

where  $b_{kt}$  is an indicator that takes on a value of 1 if the first boomerang event occurs in wave t. It takes on a value of 0 otherwise (including for children who do not experience a boomerang event). Thus, the  $b_{k,t-s}$  terms included in the summation are lags and leads of the boomerang event (in our estimation, s ranges from T = 5 waves before to T = 5 waves after the event). The omitted category is s = -1, the wave immediately before the boomerang event, and  $b_{kt}$  is defined without regard to any prior or subsequent moves. For example, if a child living independently in wave 2 moves in with a parent between waves 2 and 3,  $b_{k3} = 1$ , and  $b_{kt} = 0$  for all other values of t. In wave 1, the two-wave lead,  $b_{k,t+2}$ , would be equal to 1 (the boomerang occurs in two periods), event so the equation above would be  $y_{k1} = \phi_{-2} + age_{k1} + \theta_k + \gamma_1 + u_{k1}$ ; in wave 2, the one-wave lead,  $b_{k,t+1}$ , would be

equal to 1, so the equation above would be  $y_{k2} = \phi_{-1} + age_{k2} + \theta_k + \gamma_2 + u_{k2}$ ; and so on. All other variables are defined in the same way as in Eq. (1).

The event study version of Eq. (2) is

$$y_{it} = \sum_{s=-T}^{T} \delta_s b_{it-s} + age_{it} + \lambda_i + \mu_t + \epsilon_{it}.$$
(4)

Analogous to Eq. (3),  $b_{it}$  is an indicator that takes on a value of 1 if the first boomerang event occurs in wave *t*. It takes on a value of 0 in other waves (including for parents who do not experience a boomerang event). Thus the  $b_{it-s}$  terms in the summation above are the lags and leads of  $b_{it}$  (with *s* ranging from T = 5 waves before to T = 5 waves after the event). Just as in Eq. (3), the event indicators are defined without regard to any prior or subsequent events. All other variables are defined in the same way as in Eq. (2).

To perform the robustness check using propensity score matching, we need to create a control group that shares similar characteristics with parents who experience boomerang events. To do this, we match each parent who experiences a boomerang event with a parent who never experiences such an event. We use the k-nearest (1-nearest) neighbor algorithm without replacement and only match boomerang-event parents and non-boomerang event parents who are included in our final sample. The matches are based on the individual's first-ever surveyed wave, even if that wave is excluded from the final sample (e.g., based on parent or child age). We estimate propensity scores using a logit regression that includes gender, age, race and ethnicity, years of education, region of residence (census division), the respondent's number of children, the respondent's number of children at home, coupled status, and religion. Once the control group is created, we check that the mean values of these variables for matched treated and matched untreated individuals are not significantly different (these results are available upon request). We then estimate Eq. (2) on the matched sample.

### 4 Results

#### 4.1 Main findings

Table 3 presents the results of the estimation of Eqs. (1) and (2). We apply the inverse hyperbolic sine (IHS) transformation to monetary variables (including income, transfer amounts, and wealth) to deal with skewness while retaining zero and negative values. The top panel reports coefficients for children and the bottom panel reports coefficients for parents.

Consistent with the literature discussed in the introduction, the results suggest that negative financial, employment, and marital shocks may motivate adult children to return home. The top panel shows that boomerang children are 14 percentage points less likely to be married, have 0.12 fewer children, and are 3 percentage points more likely to rely on their parent(s) for childcare after returning home. Boomerang children are also 5 percentage points less likely to be in school, which could indicate that they have returned home after college due to difficulties securing employment or

Table 3 Detern	inants of boomerang	events and imp	act on main indi	vidual-level parents	al outcomes			
Panel 1—Child san	ıple							
Variables	(1) Married or partnered	(2) In school	(3) Not working	(4) Working part time	(5) Working full time	(6) Total family income	(7) Number of children	(8) Parent provides childcare
Post Boomerang	$-0.143^{***}$ (0.00963)	-0.0518*** (0.0124)	-0.0248** (0.0121)	0.0322*** (0.0114)	-0.00736 (0.0132)	-0.973*** (0.181)	-0.124*** (0.0168)	0.0305*** (0.00871)
Observations R-Squared	73,500 0.163	65,463 0.166	69,884 0.044	69,884 0.040	69,884 0.109	41,728 0.218	<i>67,79</i> 0 0.159	56,006 0.022
Individuals	27,211	26,471	26,738	26,738	26,738	23,002	26,841	21,394
Panel 2-Parent sai	nple							
Variables		(1) P(Working full time after 65)	(2) Working for F	ay Total wee hours wor	(4) kly Life satisfac ked	(5) tion Self-reported health	(6) No. of health conditions	(7) Depression score
Post Boomerang		1.552* (0.820)	-0.00284 (0.00924)	0.337 (0.427)	-0.0943 (0.103)	0.0266 (0.0185)	0.00633 (0.0165)	0.0448 (0.0407)
Observations R-Squared		40,111 0.005	<i>5</i> 7,912 0.092	57,377 0.123	8613 0.014	58,065 0.031	58,092 0.338	47,860 0.006
Individuals		15,989	18,386	18,358	6052	18,414	18,416	16,241
<i>Notes</i> : This tabl Robust standard transformation is to return home.	e shows our main res errors in parenthesis. s applied to Panel 1, C Boomerang events ha	ults from the est . All regressions Column 6 (Total ave no statistical	imation of Eqs. include a set of Family Income). ly significant in	<ol> <li>and (2). Panel 1</li> <li>age-specific interce</li> <li>These results sugg</li> <li>pact on parental he</li> </ol>	(top) reports result: pts, individual fixed est that negative fina alth, life satisfaction	s for the child sample, effects, and wave fixe ncial, employment, an 1, or observed labor su	and Panel 2 (bottom) d effects. The inverse d marital shocks may upply. See Section 4.	for the parent sample. hyperbolic sine (IHS) motivate adult children I for details
$***p < 0.01, **_{l}$	$\gamma < 0.05, \ ^*p < 0.1$							

Source: Authors' calculations using data from the Health and Retirement Study

Variables	(1) Transfers to children (total amount)	(2) Transfers to children (total number)	(3) Transfers from children (total amount)	(4) Transfers from children (total number)
Post Boomerang	-0.0758	-0.0452*	0.131**	0.0164
	(0.101)	(0.0250)	(0.0518)	(0.0102)
Observations	57,101	57,101	50,174	50,174
R-Squared	0.033	0.029	0.003	0.004
Individuals	18,345	18,345	16,796	16,796

Table 4 Impact of boomerang events on individual-level intergenerational transfers

*Notes:* This table shows results from the estimation of Eq. (2) with transfers between parents and children as dependent variables. Robust standard errors in parenthesis. All regressions include a set of age-specific intercepts, individual fixed effects, and wave fixed effects. The inverse hyperbolic sine (IHS) transformation is applied to the transfer amount variables in Columns (1) and (3). We find an approximately 14 percent increase in the total amount transferred from children to parents following a boomerang event. See Section 4.1 for details

*Source:* Authors' calculations using data from the Health and Retirement Study \*\*p < 0.01, \*p < 0.05, \*p < 0.1

to hold out for jobs with high potential earnings (Kaplan, 2012). Furthermore, boomerang children have lower incomes, are 2 percentage points less likely to be not working, and are 3 percentage points more likely to be working part-time in the post boomerang period compared to before. These income and employment effects may reflect negative shocks to employment, such as unemployment or underemployment.

For parents of boomerang children, the bottom panel of Table 3 presents results examining the relationship between boomerang events and parental health, life satisfaction, and work. These results suggest that having adult children return home increases the subjective probability of working full-time after age 65 by 1.5 percentage points. Although this increase is significant at the 10 percent level, it represents only a 6 percent increase relative to the mean of the dependent variable (28 percent) shown in Table 1. Boomerang events have no statistically significant impact on parental health, life satisfaction, or observed labor supply.

These largely null results stand in contrast to those found in studies focusing on adult children leaving home (e.g., Biggs et al., 2021). To gain further insight into these differences, we examine the relationship between boomerang events and transfers across parents and children, as well as the relationship between boomerang events and several measures of parental household wealth. Notably, we find an increase in transfers from children to parents after a boomerang event. If we treat the IHS transformation as an approximation to the natural log (see Bellemare and Wichman, 2020), Table 4 shows an approximately 14 percent increase in the total amount transferred from children to parents following a boomerang event.<sup>18</sup> We find no statistically significant association between boomerang events and amounts transfered from parents to children.

<sup>&</sup>lt;sup>18</sup> The coefficient on the boomerang indicator is 0.131, suggesting that a discrete one-unit increase in the indicator is associated with a  $e^{0.131} - 1 = 0.140$ , or 14 percent, increase in the dependent variable.

To examine the impact of boomerang events on parental household wealth we reestimate Eq. (2) at the household level. In our analysis, households are identified as all individuals in single-respondent households as well as the financial respondents in couple households.<sup>19</sup> Table 5 shows that there is no statistically significant association between boomerang events and parental household wealth or IRA withdrawals, although the coefficients are imprecisely estimated. We do find that household other debt increases by a statistically significant 28 percent (just over \$2200 for a household with other debt equal to the sample mean in Table 1) following a boomerang event. This suggests that some parents may take on additional debt after a boomerang event, perhaps through assuming the debts of their adult children or as a result of heightened household expenditures.

These results are consistent with boomerang children using the option to move back home to smooth marital, employment, or income shocks. The decrease in the probability of being in school suggests that some boomerang events may reflect children returning home after attending college away from home. As these former students may now be employed, this is also consistent with the decline in the probability of not working. However, part-time work increases, consistent with boomerang events being driven by a failure to find or maintain full-time employment. The reason for the observed postboomerang decline in the number of children is unclear. It could reflect a post-divorce loss of stepchildren or a failure to report children who are not in the custody of the parent. The results for parents suggest that while boomerang children may increase anticipated work effort after age 65, there is no evidence that they affect parents' labor force participation, health, or life satisfaction. While households do take on additional non-housing debt, we do not find a statistically significant impact on total wealth. A possible explanation for the lack of impact on parental outcomes is that boomerang children contribute to household expenses, as evidenced by the increase in transfers from children to parents.

To illustrate the dynamics of boomerang events, Fig. 2 presents the results from the estimation of Eq. (3)—the event study for children—with an indicator for residing with parents as the dependent variable. The point estimates for each period show the probability of living with parents relative to the period immediately before the boomerang event. By construction, in the period immediately before the boomerang event (t = -1), no boomerang children live with their parents, and in the period immediately following the boomerang event, all boomerang children live with their parents 2 or 3 waves before the boomerang event, suggesting that their departure from the parental home was temporary and may reflect either college attendance or an attempt at living independently. Figure 2 also shows that following the boomerang children are still at home 4 waves out. These results suggest that leaving home may often not be a one-time, discrete event for many young adults. As they attempt to establish financial independence, adult children may alternate between living on their own and living with their parents.

Figures 3 and 4 present the results from the estimation of Eqs. (3) and (4)—the event study for children and parents, respectively—with the dependent variables shown in Table 3. Figure 3 shows the results for boomerang children. Consistent

<sup>&</sup>lt;sup>19</sup> In cases where there is no financial respondent, the family respondent is used.

	ŧ	ę	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		í,	Ś	ţ	.07	0	101
Variables	(I)	(7)	(3)	(4)	(c)	(q)	(S)	(8)	(6)	(10)
	Total	Value of	Value of	Non-	Retirement	Other	Primary	Secondary	Other debt	IRA
	wealth	primary	secondary	housing	assets	financial	housing	housing		withdrawals
		housing	housing	assets		assets	debt	debt		
Post	-0.106	0.0275	0.0146	0.0658	0.155	-0.0867	0.00447	0.0874	0.248*	-0.0627
Boomerang	(0.145)	(0.0983)	(0.113)	(0.0821)	(0.114)	(0.0878)	(0.134)	(0.0821)	(0.128)	(0.0933)
Observations	36,949	36,949	33,791	36,949	36,949	36,949	36,949	33,791	36,949	22,189
R-Squared	0.005	0.006	0.005	0.006	0.005	0.007	0.015	0.003	0.007	0.012
Households	12,037	12,037	11,923	12,037	12,037	12,037	12,037	11,923	12,037	8240
Notes: This tab	le shows result	s from the estima	tion of Eq. (2) w	vith narental hor	usehold-level weal	th components :	as denendent var	iahles. Rohust sta	andard errors in	narenthesis. All

*Notes:* I his table shows results from the estimation of Eq. (2) with parential nousenoid-level wealth components as dependent variables. Kooust standard errors in parentiests. All regressions include a set of age-specific intercepts, individual fixed effects, and wave fixed effects. The inverse hyperbolic sine (IHS) transformation is applied to all dependent variables. We find that household other debt increases by 28 percent following a boomerang event. See Section 4.1 for details

Source: Authors' calculations using data from the Health and Retirement Study

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1



**Fig. 2** Probability of residing with parents relative to period preceding boomerang event. *Notes:* This figure shows results from the estimation of Eq. (3) with an indicator for residing with parents as the dependent variable. Bars represent 95 percent confidence intervals. In the period immediately before the boomerang event (t = -1), no boomerang children live with their parents, and in the period immediately following the boomerang event, all boomerang children live with their parents. *Source:* Authors' calculations using data from the Health and Retirement Study

with the results presented in Table 3, it appears that boomerang children experience negative shocks to marital status, income, and employment at the same time they return to the parent's home. The shocks generally occur at the time of the boomerang event with no obvious pre-trends. The decline in income and the increase in the probability of part-time employment appear to be temporary, and even the decline in the probability of being married appears to reverse over time. Meanwhile, the probability of full-time employment increases. Figure 4 presents the results for the parents. It shows that the increase in the probability of working full time after age 65 occurs shortly after the boomerang event, with no obvious pre-trends, suggesting a causal role for the boomerang event. Figure 4 also suggests that there may be a minor worsening in self-reported health (less than 0.1 relative to the standard deviation of 1.05 reported in Table 1). However, looking at the other outcomes shown in Fig. 4, there does not seem to be any long-term impact of boomerang events on parental current labor market choices, life satisfaction, or health conditions. The lack of major long-term impacts on parents may reflect the transitory nature of boomerang events, as shown in Figs. 2 and 3. Consistent with the findings presented in Table 4, Fig. 5 shows that transfers from children to parents occur following the boomerang event rather than being part of a pre-trend. It also suggests that transfers from parents to children may decline a few waves after a boomerang event; a possible explanation may be that moving back home for a brief period allows boomerang children to leave the parental home on a sounder financial footing. Finally, Table 5 and Fig. 6 confirm that there is no long-term impact of boomerang events on household-level parental wealth. While Table 5 shows that other debt increases following a boomerang event, Fig. 6 shows that there is no statistically significant long-term impact. Overall, we find that, contrary to media reports, there is no clear evidence that boomerang children are depleting parental retirement accounts. Moreover, parents do not appear to be assuming financial responsibility for their children by transferring money to them. Instead, boomerang children appear to contribute to household expenses.



**Fig. 3** Children's outcomes relative to period preceding boomerang event. *Notes:* This figure shows results from the estimation of Eq. (3) with indicators for whether a child was married or partnered (**a**), in school (**b**), not working (**c**), working part time (**d**), or working full time (**e**); continuous variables for total family income (**f**) and number of children (**g**); and an indicator for whether a parent provides childcare (**h**) as dependent variables. Bars represent 95 percent confidence intervals. The inverse hyperbolic sine (IHS) transformation is applied to total family income (**f**). *Source:* Authors' calculations using data from the Health and Retirement Study

#### 4.2 Heterogeneity and robustness

We examine whether there are heterogeneous effects for parents based on their sex, age, coupled status, wealth, the period after the 2008 recession, the length of the boomerang spell, and their child's potential motivations for returning home. We do this by



**Fig. 4** Main individual parental outcomes relative to period preceding boomerang event. *Notes:* This figure shows results from the estimation of Eq. (4) with subjective probability of working full time after age 65 (**a**), an indicator for whether the respondent does any work for pay (**b**), total weekly hours worked (**c**), life satisfaction (**d**), self-reported health status (**e**), number of health conditions (**f**), and depression score (**g**) as dependent variables. Bars represent 95 percent confidence intervals. *Source:* Authors' calculations using data from the Health and Retirement Study

interacting the post-boomerang indicator in Eq. (2) with indicators for (1) being female, (2) being age 62 or older, (3) living in a coupled household, (4) being in the top half of the initial total household wealth distribution (in the respondent's first observed wave), (5) being in the bottom decile of the initial total household wealth distribution (in the respondent's first observed wave), (6) interview waves during and after 2008, (7) the



**Fig. 5** Individual intergenerational transfers relative to period preceding boomerang event. *Notes:* This figure shows results from the estimation of Eq. (4) with the total amount of transfers to children (**a**), the total number of transfers to children (**b**), the total amount of transfers from children (**c**), and the total number of transfers from children (**d**) as dependent variables. Bars represent 95 percent confidence intervals. The inverse hyperbolic sine (IHS) transformation is applied to the transfer amount variables in (**a**) and (**c**). *Source:* Authors' calculations using data from the Health and Retirement Study

duration of the boomerang event (2 waves or 3 or more waves), and (8) the accompanying event in the child's life as shown in Appendix Table 13.<sup>20</sup>

Differential impacts by gender may be plausible given findings from a 2022 Pew Research Center survey suggesting that women are more likely than men to say that young adults living with their parents is good for society (Fadevi and Horowitz, 2022). The survey results suggest that women may be more likely to have a positive perception of their adult children returning home and may be more likely to incur any costs associated with it. The impacts may also differ depending on parents' eligibility for Social Security, work capacity, and labor market prospects. The earliest eligibility age for Social Security retirement benefits is 62, and many individuals begin receiving benefits at that age. Social Security receipt may cushion the financial impact of a boomerang child, and it may reduce the perceived need to return to work. Moreover, individuals aged 62 and older are more likely to already be retired, making re-entry into the labor market more difficult. Therefore, parents 62 years and older might be differentially impacted relative to those under 62. Parents who live in a coupled household may have more resources to support the return of an adult child. Parents in the top half of the wealth distribution may be less negatively impacted by boomerang events as they are likely in a better position to absorb any costs associated with the event. In contrast, those in the bottom decile may

<sup>&</sup>lt;sup>20</sup> Appendix Table 12 shows changes in three life status variables (school/college status, marital status, and job status) between children's first boomerang wave and the previous wave. See the table notes for further details. The indicator variable constructed for the accompanying event in the child's life categorizes children as follows: (1) no change in status (reference category), (2) *only* leaving school, (3) *only* experiencing job loss, (4) *only* experiencing marital dissolution, or (5) experiencing other/multiple events.



**Fig. 6** Household parental wealth composition relative to period preceding boomerang event. *Notes:* This figure shows results from the estimation of Eq. (4) with total wealth (**a**), value of primary housing (**b**), value of secondary housing (**c**), non-housing assets (**d**), retirement assets (**e**), other financial assets (**f**), primary housing debt (**g**), secondary housing debt (**h**), other debt (**i**), and IRA withdrawals (**j**) as dependent variables. Bars represent 95 percent confidence intervals. The inverse hyperbolic sine (IHS) transformation is applied to all dependent variables. *Source:* Authors' calculations using data from the Health and Retirement Study

face greater difficulties in absorbing these costs. If more children returned home during the 2008 recession and its subsequent lengthy recovery, and if parents also lost significant wealth, we may observe a heavier burden on parents during the post-2008 period. Boomerang children who stay home for longer periods might also have a larger impact on parental wealth, health, and retirement relative to those who return home for shorter periods. Finally, the impact of a boomerang event may vary depending on the motivation behind the child's decision to return home. For example, children returning home due to financial and job losses might impose greater strains on parents relative to children returning home after college. Table 6 presents the results from estimating these specifications with the main outcomes in Table 3 as dependent variables. Additionally, Table 7 presents the results from estimating these specifications with the intergenerational transfer variables from Table 4 as dependent variables. Finally, Table 8 presents the householdlevel results with our measures of wealth from Table 5 as dependent variables.

The top section of Table 6 presents results by sex. The first row shows the coefficients on the post-boomerang indicator, while the second row shows the coefficients on its interaction with the indicator for being female. According to the results in Table 6, men work 1.5 fewer weekly hours in the post-boomerang period, while women increase their hours by -1.5 + 3.7 = 2.2 per week. Both changes are small relative to the sample mean of 27.2 h. There is a small post-boomerang decrease in life satisfaction (0.319 / 1.71 = 0.186 of a standard deviation) and a minor worsening of self-reported health (0.0627 / 1.05 = 0.059 of a standard deviation) for men but not for women. This difference may suggest that, consistent with the survey findings discussed earlier, women find the boomerang event to be a more positive experience (and worth increasing labor supply to support) than men do.

The second, third, fourth, fifth, and sixth sections of Table 6 present results by age, whether the respondent is part of a coupled household, wealth (top half and bottom decile of the initial total wealth distribution), and waves after the 2008 recession, respectively. Table 6 shows that single households (but not coupled households) may exhibit an increase in life satisfaction when adult children return home; a possible explanation may be that a boomerang child may reduce loneliness for single parent households. Table 6 also suggests that those in the bottom half of the wealth distribution work more hours upon experiencing a boomerang event, as do those in the bottom decile. Those in the self-reported probability of working full time after age 65 may be concentrated among the top half of the wealth distribution. The bottom panels of Table 6 show no significant differences (at the 5 percent level) across boomerang spells or types of boomerang events.

Table 7 shows heterogeneous effects on intergenerational transfers. The postboomerang increase in transfers from children to parents (i.e., boomerang children's contributions to parents' expenses) is concentrated among parents in the bottom half of the wealth distribution. The concentration of transfers from children to parents among parents in the bottom half of the wealth distribution may reflect the greater constraints faced by less wealthy households in accommodating the return of adult children. In other words, less wealthy parents may need returning children to contribute to household expenses. Short (1-wave) boomerang spells, but not long (3+wave), boomerang spells are associated with a decline in transfers from parents to children. Boomerang events associated with leaving school are also associated with a decrease in transfers from parents to children, possibly because parents are no longer paying tuition and other school expenses.

Table 6 Heterogeneous	effects of boomerar.	ig event on main indivi	idual-level parental out	comes			
Variables	(1)	(2)	(3)	(4)	(5)	(9)	(2)
	P(Working full time after 65)	Working for pay	Total weekly hours worked	Life satisfaction	Self-reported health	No. of health conditions	Depression score
Sex							
Post Boomerang	2.570**	-0.0180	$-1.510^{**}$	$-0.319^{**}$	0.0627**	0.0195	0.0456
	(1.141)	(0.0125)	(0.595)	(0.143)	(0.0265)	(0.0232)	(0.0543)
Post Boomerang x	-1.925	0.0306*	3.704***	$0.403^{**}$	$-0.0726^{**}$	-0.0264	-0.00149
Female	(1.549)	(0.0177)	(0.816)	(0.187)	(0.0353)	(0.0324)	(0.0771)
Age							
Post Boomerang	$1.641^{**}$	-0.00780	0.107	-0.109	0.0149	0.0144	0.0503
	(0.821)	(0.00916)	(0.433)	(0.114)	(0.0199)	(0.0159)	(0.0445)
Post Boomerang x	-0.520	0.0141	0.655	0.0485	0.0334	-0.0228	-0.0165
Age ≥ 62	(1.662)	(0.0156)	(0.709)	(0.152)	(0.0285)	(0.0266)	(0.0587)
Coupled Household							
Post Boomerang	1.311	0.00592	1.197	$0.371^{*}$	0.00403	-0.0148	-0.00797
	(1.630)	(0.0189)	(0.856)	(0.209)	(0.0378)	(0.0324)	(0.0893)
Post Boomerang x	0.293	-0.0115	-1.109	$-0.603^{***}$	0.0296	0.0270	0.0642
Coupled Household	(1.787)	(0.0204)	(0.933)	(0.219)	(0.0408)	(0.0348)	(0.0948)
Initial Wealth (Top and	Bottom Half)						
Post Boomerang	-0.751	-0.00786	$1.196^{**}$	-0.0110	0.00146	$0.0487^{**}$	0.0140
	(1.211)	(0.0125)	(0.568)	(0.162)	(0.0269)	(0.0233)	(0.0596)
Post Boomerang x	4.656***	0.0105	$-1.802^{**}$	-0.155	0.0526	$-0.0883^{***}$	0.0649
Top Half	(1.541)	(0.0178)	(0.825)	(0.192)	(0.0351)	(0.0322)	(0.0767)

Table 6 continued							
Variables	(1) P(Working full time after 65)	(2) Working for pay	(3) Total weekly hours worked	(4) Life satisfaction	(5) Self-reported health	(6) No. of health conditions	(7) Depression score
Initial Wealth (Bottom 1	Decile)						
Post Boomerang	1.501*	-0.00602	-0.107	-0.122	$0.0343^{*}$	-0.00204	0.0455
	(0.865)	(0.00960)	(0.445)	(0.103)	(0.0192)	(0.0174)	(0.0409)
Post Boomerang ×	0.522	0.0295	4.099***	0.252	-0.0711	0.0776	-0.00601
Bottom Decile	(2.421)	(0.0320)	(1.421)	(0.399)	(0.0632)	(0.0532)	(0.162)
Post-Recession							
Post Boomerang	1.768*	0.000871	0.202	-0.159	0.0171	0.0177	0.0476
	(0.905)	(0.00984)	(0.453)	(0.141)	(0.0209)	(0.0169)	(0.0474)
Post Boomerang ×	-0.637	-0.0121	0.572	0.0903	0.0382	-0.0463	-0.0121
Post 2008 Recession	(1.361)	(0.0175)	(0.778)	(0.147)	(0.0323)	(0.0305)	(0.0724)
Boomerang Spell Lengt	$\overline{h}$						
Post Boomerang	1.172	-0.00281	0.192	-0.262*	0.0362	0.000589	0.0470
	(1.207)	(0.0141)	(0.661)	(0.150)	(0.0279)	(0.0264)	(0.0588)
Post Boomerang x	0.627	0.0135	-0.138	0.147	-0.0379	0.00851	0.0106
2 Wave Spell	(1.890)	(0.0225)	(1.023)	(0.203)	(0.0442)	(0.0398)	(0.0899)
Post Boomerang x	0.661	-0.00957	0.504	0.532*	-0.000438	0.0102	-0.0147
3+ Wave Spell	(1.872)	(0.0208)	(0.973)	(0.272)	(0.0415)	(0.0387)	(0.0952)
Associated Life Event							
Post Boomerang	2.871	-0.00371	0.981	-0.0788	0.0129	0.0343	0.0692
	(1.830)	(0.0192)	(0.886)	(0.186)	(0.0354)	(0.0359)	(0.0868)

 $\stackrel{{}_{\scriptstyle{\frown}}}{\underline{\bigcirc}}$  Springer

G. M. Seiter et al.

ned
tin
con
õ
e

Table 6 continued							
Variables	(1) P(Working full time after 65)	(2) Working for pay	(3) Total weekly hours worked	(4) Life satisfaction	(5) Self-reported health	(6) No. of health conditions	(7) Depression score
Post Boomerang × Left School	-1.378 (3.596)	-0.0122 (0.0435)	-0.104 (1.963)	0.167 (0.329)	-0.0198 (0.0642)	-0.0328 (0.0740)	0.0532 (0.171)
Post Boomerang × Job Loss	(3.340)	0.00855 (0.0367)	-1.076 (1.749)	0.580 (0.380)	0.0293 (0.0835)	-0.0192 (0.0651)	0.0408 (0.170)
Post Boomerang × Marital Dissolution	3.715 (4.138)	0.0138 (0.0517)	1.739 (2.596)	0.00338 (0.391)	-0.181* (0.0966)	-0.00322 (0.0832)	-0.384* (0.225)
Post Boomerang × Other/Multiple Events	-1.661 (2.053)	0.00108 (0.0223)	-0.999 (1.027)	-0.185 (0.222)	0.0295 (0.0421)	-0.0400 (0.0415)	-0.0348 (0.0994)
Notes: This table show:	s results from the esti-	mation of Eq. (2), intera	acting the post boomerar	ng indicator with indi	cators for (1) being fen	iale, (2) being age 62 or	colder, (3) being in

a coupled household, (4) being in the top half of the initial total household wealth distribution (in the respondent's first observed wave), (5) being in the bottom decile of the initial wealth distribution, (6) interview waves during and after 2008, (7) the duration of the boomerang event (1, 2, or 3 or more waves), and (8) the associated event in the child's life. Dependent variables are the main parental outcomes shown in Table 3. Robust standard errors in parenthesis. All regressions include a set of age-specific intercepts, individual fixed effects, and wave fixed effects

See Section 4.2 for details

Source: Authors' calculations using data from the Health and Retirement Study

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1

Variables	(1)	(2)	(3)	(4)
	Transfers to children	Transfers to children	Transfers from children	Transfers from
	(amount)	(number)	(amount)	children (number)
Sex				
Post Boomerang	0.0978	-0.0262	0.0924	0.00935
0	(0.144)	(0.0370)	(0.0629)	(0.0126)
Post Boomerang ×	-0.347*	-0.0381	0.0754	0.0138
Female	(0.193)	(0.0483)	(0.0979)	(0.0186)
Age				
Post Boomerang	-0.0329	-0.0183	0.154***	0.0192*
	(0.106)	(0.0267)	(0.0568)	(0.0113)
Post Boomerang ×	-0.121	-0.0759 **	-0.0653	-0.00804
Age ≥ 62	(0.155)	(0.0379)	(0.0759)	(0.0193)
Coupled Household				
Post Boomerang	-0.178	-0.0343	0.0544	-0.00238
	(0.181)	(0.0455)	(0.127)	(0.0276)
Post Boomerang ×	0.129	-0.0144	0.0963	0.0237
Coupled Household	(0.200)	(0.0502)	(0.131)	(0.0279)
Initial Wealth (Top a	nd Bottom Half)			
Post Boomerang	0.0211	-0.0526	0.221***	0.0207
	(0.131)	(0.0325)	(0.0832)	(0.0165)
Post Boomerang $\times$	-0.202	0.0154	$-0.190^{**}$	-0.00894
Top Half	(0.194)	(0.0484)	(0.0959)	(0.0182)
Initial Wealth (Botton	n Decile)			
Post Boomerang	-0.0907	-0.0464*	0.131**	0.0151
	(0.108)	(0.0268)	(0.0521)	(0.0104)
Post Boomerang $\times$	0.138	0.0110	-0.00225	0.0114
Bottom Decile	(0.263)	(0.0639)	(0.202)	(0.0391)
Post-Recession				
Post Boomerang	-0.0583	-0.0230	0.0733	0.00683
	(0.111)	(0.0280)	(0.0573)	(0.0116)
Post Boomerang $\times$	-0.0567	-0.0796*	0.163*	0.0252*
Post 2008 Recession	(0.178)	(0.0417)	(0.0834)	(0.0153)
Boomerang Spell Len	egth			
Post Boomerang	-0.362**	-0.0809 **	0.161**	0.0205
	(0.160)	(0.0384)	(0.0736)	(0.0130)
Post Boomerang $\times 2$	0.366	0.0321	-0.0323	-0.00599
Wave Spell	(0.249)	(0.0616)	(0.116)	(0.0216)
Post Boomerang $\times$	0.549**	0.0780	-0.0652	-0.00760
3+ Wave Spell	(0.224)	(0.0558)	(0.119)	(0.0229)
Associated Life Event				
Post Boomerang	0.110	0.00139	0.225*	0.0194
	(0.209)	(0.0493)	(0.120)	(0.0241)
Post Boomerang $\times$	-0.930**	-0.219**	-0.365	-0.0679
Left School	(0.403)	(0.0953)	(0.230)	(0.0417)
Post Boomerang ×	0.340	0.155*	-0.248	-0.0360
Job Loss	(0.402)	(0.0907)	(0.259)	(0.0412)
	0.561	-0.0489	-0.108	-0.0793

 Table 7
 Heterogeneous effects of boomerang event on individual-level intergenerational transfers

Variables	(1) Transfers to children (amount)	(2) Transfers to children (number)	(3) Transfers from children (amount)	(4) Transfers from children (number)
Post Boomerang × Marital Dissolution	(0.616)	(0.147)	(0.335)	(0.0896)
Post Boomerang ×	-0.271	-0.0687	-0.0797	0.0109
Other/Multiple Events	(0.242)	(0.0584)	(0.131)	(0.0262)

#### Table 7 continued

*Notes:* This table shows results from the estimation of Eq. (2), interacting the post boomerang indicator with indicators for (1) being female, (2) being age 62 or older, (3) being in a coupled household, (4) being in the top half of the initial total household wealth distribution (in the respondent's first observed wave), (5) being in the bottom decile of the initial wealth distribution, (6) interview waves during and after 2008, (7) the duration of the boomerang event (1, 2, or 3 or more waves), and (8) the associated event in the child's life. Dependent variables are the individual-level intergenerational transfer outcomes shown in Table 4. Robust standard errors in parenthesis. All regressions include a set of age-specific intercepts, individual fixed effects, and wave fixed effects. The inverse hyperbolic sine (IHS) transformation is applied to the transfer amount variables in Columns (1) and (3)

See Section 4.2 for details

Source: Authors' calculations using data from the Health and Retirement Study

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1

Table 8 presents heterogeneous effects on household-level parental wealth composition. Single households, as well as households in the bottom half and bottom decile of the wealth distribution, appear to experience an increase in primary housing debt following a boomerang event. Households in the bottom half also experience an increase in the value of their primary residence; the same may occur for single households as well, although the coefficients are statistically insignificant. A possible explanation for this finding may be that single households and households with less wealth delay downsizing their homes due to boomerang events.

We perform several robustness checks on the main parental outcome regressions in Table 3 (panel 2). First, we add controls for coupled status and region of residence (census division) to Eq. (2). Second, we estimate Eq. (2) using propensity score matching, matching parents who experience boomerang events to parents with similar characteristics who do not. Finally, we consider the possibility that boomerang events occur during survey waves in which a parent did not respond. This omission may bias our results if households that skip waves are systematically different from households that do not. To address this concern, we re-estimate Eq. (2) using a sub-sample of HRS parents who do not skip waves between their first and last interviews in the sample.

Table 9 presents the results of our robustness checks: including the additional controls (top panel), using the propensity score matching approach (middle panel), and using the subsample of parents who do not skip interviews (bottom panel). The results align closely with those in Table 3. Although the impact on work expectations is no longer significant when using propensity score matching, the magnitude of the coefficient is similar. These checks suggest that our results are robust to adding time-varying controls and that our findings are not driven by differential tendencies to skip waves nor imbalances in observable individual characteristics between parents with and without boomerang kids.

Iable o Ileielogelleous ellect		ug event on n	nnschold-level	рающая меани	combosinion					
Variables	(1)	(2)	(3)	(4)	(5)	(9)	(1)	(8)	(6)	(10)
	Total wealth	Value of primary housing	Value of secondary housing	Non-housing assets	Retirement assets	Other financial assets	Primary housing debt	Secondary housing debt	Other debt	IRA withdrawals
Household Financial Respond	ent Age									
Post Boomerang	-0.146	-0.00261	0.0354	0.0340	0.102	-0.0400	-0.0546	0.114	0.240*	-0.0609
	(0.159)	(0.104)	(0.126)	(0.0886)	(0.126)	(0.0934)	(0.141)	(0.0898)	(0.141)	(0.0913)
Post Boomerang x	0.113	0.0843	-0.0562	0.0889	0.150	-0.130	0.165	-0.0728	0.0217	-0.00592
Age ≥ 62	(0.211)	(0.157)	(0.185)	(0.113)	(0.171)	(0.131)	(0.219)	(0.120)	(0.195)	(0.157)
Coupled Household										
Post Boomerang	-0.176	0.270	-0.162	0.0612	-0.198	-0.000176	$0.364^{*}$	0.0175	0.349*	-0.101
	(0.273)	(0.186)	(0.159)	(0.163)	(0.175)	(0.152)	(0.205)	(0.109)	(0.194)	(0.116)
Post Boomerang x	0.112	-0.341	0.264	0.0160	$0.520^{**}$	-0.124	$-0.513^{**}$	0.104	-0.146	0.0599
Coupled Houeshold	(0.297)	(0.208)	(0.205)	(0.176)	(0.214)	(0.173)	(0.252)	(0.139)	(0.230)	(0.153)
Initial Wealth (Top Half)										
Post Boomerang	0.0199	$0.307^{**}$	0.0126	0.0553	0.206	-0.0321	$0.374^{**}$	0.177 **	0.271	-0.159
	(0.242)	(0.151)	(0.114)	(0.126)	(0.144)	(0.124)	(0.174)	(0.0767)	(0.165)	(0.102)
Post Boomerang x	-0.282	$-0.629^{***}$	0.00448	0.0237	-0.115	-0.123	$-0.831^{***}$	-0.200	-0.0513	0.231
Top Half	(0.253)	(0.175)	(0.229)	(0.150)	(0.217)	(0.163)	(0.254)	(0.168)	(0.243)	(0.188)
Initial Wealth (Bottom Decile)										
Post Boomerang	$-0.625^{***}$	-0.0655	0.0213	0.000347	0.177	-0.136	-0.0825	0.0880	$0.301^{**}$	-0.0371
	(0.131)	(0.0975)	(0.126)	(0.0840)	(0.125)	(0.0926)	(0.144)	(0.0930)	(0.138)	(0.106)
Post Boomerang x	3.976***	$0.712^{*}$	-0.0509	0.501*	-0.168	0.377	0.665**	-0.00439	-0.406	-0.179
Bottom Decile	(0.645)	(0.379)	(0.181)	(0.288)	(0.242)	(0.258)	(0.339)	(0.108)	(0.341)	(0.132)

Table 8 Heterogeneous effects of boomerang event on household-level parental wealth composition

Table 8 continued										
Variables	(1)	(2)	(3)	(4)	(5)	(9)	(2)	(8)	(6)	(10)
	Total wealth	Value of primary housing	Value of secondary housing	Non-housing assets	Retirement assets	Other financial assets	Primary housing debt	Secondary housing debt	Other debt	IRA withdrawals
Post-Recession										
Post Boomerang	-0.231	0.0312	0.0416	0.0133	0.110	-0.0496	-0.0227	0.0859	0.216	-0.101
	(0.152)	(0.103)	(0.121)	(0.0883)	(0.125)	(0.0965)	(0.142)	(0.0850)	(0.143)	(0.104)
Post Boomerang × Post 2008	0.432	-0.0359	-0.0885	0.158	0.156	-0.142	0.0892	0.00233	0.108	0.0687
Recession	(0.273)	(0.167)	(0.202)	(0.157)	(0.199)	(0.160)	(0.239)	(0.134)	(0.236)	(0.144)
Boomerang Spell Length										
Post Boomerang	0.0744	-0.0151	-0.0899	0.0793	$0.318^{*}$	-0.0199	0.0534	0.0575	0.163	-0.0761
	(0.236)	(0.154)	(0.157)	(0.123)	(0.165)	(0.136)	(0.206)	(0.104)	(0.202)	(0.129)
Post Boomerang x 2 Wave	-0.499	-0.0289	0.0176	-0.241	-0.345	-0.158	0.0271	-0.137	-0.137	-0.146
Spell	(0.362)	(0.229)	(0.243)	(0.209)	(0.262)	(0.208)	(0.312)	(0.176)	(0.310)	(0.182)
Post Boomerang x 3+ Wave	-0.151	0.139	0.291	0.132	-0.210	-0.0755	-0.156	0.192	0.334	0.219
Spell	(0.316)	(0.221)	(0.269)	(0.175)	(0.252)	(0.194)	(0.304)	(0.196)	(0.279)	(0.248)
Associated Life Event										
Post Boomerang	-0.286	0.109	-0.0904	-0.108	-0.126	-0.160	-0.0194	0.211	$0.505^{**}$	-0.279*
	(0.284)	(0.239)	(0.171)	(0.193)	(0.221)	(0.173)	(0.284)	(0.145)	(0.254)	(0.158)
Post Boomerang × Left	0.480	-0.249	-0.129	0.173	0.687	0.0764	-0.272	-0.371	-0.378	$0.886^{**}$
School	(0.583)	(0.367)	(0.473)	(0.337)	(0.507)	(0.355)	(0.576)	(0.330)	(0.497)	(0.398)
Post Boomerang x Job Loss	0.800	0.0656	0.174	0.382	-0.153	0.232	0.506	-0.405	-0.433	0.332
	(0.601)	(0.361)	(0.331)	(0.356)	(0.384)	(0.383)	(0.464)	(0.278)	(0.510)	(0.281)
Post Boomerang × Marital	1.272	0.802	0.437	0.555	$0.963^{*}$	-0.157	0.343	-0.398	-0.820	-0.0653
Dissolution	(0.834)	(0.735)	(0.437)	(0.506)	(0.555)	(0.364)	(1.035)	(0.256)	(0.789)	(0.531)

Variables	(1)	(2)	(3)	(4)	(5)	(9)	(2)	(8)	(6)	(10)
	Total	Value of	Value of	Non-housing	Retirement	Other	Primary	Secondary	Other	IRA
	wealth	primary housing	secondary housing	assets	assets	financial assets	housing debt	housing debt	debt	withdrawals
Post Boomerang × Other/	0.0913	-0.156	0.149	0.197	0.361	0.0941	-0.00842	-0.0952	-0.293	0.222
Multiple Events	(0.335)	(0.262)	(0.235)	(0.214)	(0.260)	(0.203)	(0.325)	(0.183)	(0.297)	(0.200)
<i>Notes</i> : This table shows resul	ts from the es	stimation of Eq	I. (2), interacting	the post boomer	rang indicator	with indicate	rrs (1) being age 6	2 or older (househ	old financia	l respondent),
(z) comg a coupied measured		une top num e	a and after 2009	(6) the duration	monorment in		1 7 or 2 or more	vu wave, (T) vu	ng mu une co	d arrant in the

the initial wealth distribution. (5) interview waves during and after 2008, (6) the duration of the boomerang event (1, 2, or 3 or more waves), and (7) the associated event in the child's life. Dependent variables are the parental wealth outcomes shown in Table 5. Robust standard errors in parenthesis. All regressions include a set of age-specific intercepts, individual fixed effects, and wave fixed effects. The inverse hyperbolic sine (IHS) transformation is applied to all dependent variables

See Section 4.2 for details

Source: Authors' calculations using data from the Health and Retirement Study

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1

Table 9 Additions	il robustness checks						
Panel 1-Addition	al controls for coupled status	and region					
Variables	<ol> <li>(1)</li> <li>P(Working full time after</li> <li>65)</li> </ol>	(2) Working for pay	(3) Total weekly hours worked	(4) Life satisfaction	(5) Self-reported health	(6) No. of health conditions	(7) Depression score
Post Boomerang Observations R-Squared	1.510* (0.818) 40,089 0.007	-0.00346 (0.00920) 57,872 0.093	0.328 (0.426) 57,337 0.124	-0.0921 (0.103) 8605 0.017	0.0249 (0.0186) 58,025 0.032	0.00638 (0.0166) 58,052 0.339	0.0400 (0.0405) 47,825 0.010
Individuals Panel 2-Propensit	15,983 ty score matching	18,380	18,352	6044	18,408	18,410	16,235
Variables	(1) P(Working full time after 65)	(2) Working for pay	(3) Total weekly hours worked	(4) Life satisfaction	(5) Self-reported health	(6) No. of health conditions	(7) Depression score
Post Boomerang	1.345 (0.939)	-0.00570 (0.0103)	0.129 (0.488)	-0.0224 (0.123)	-0.00924 (0.0213)	0.0413** (0.0178)	0.0639 (0.0465)
Observations R-Squared	11,540 0.010	16,311 0.099	16,133 0.126	2542 0.017	16,335 0.048	16,342 0.342	13,930 0.009
Individuals	3832	4145	4140	1640	4148	4148	3886

Panel 3-Parents	with no skipped waves						
Variables	<ul><li>(1)</li><li>P(Working full time after</li><li>65)</li></ul>	(2) Working for pay	(3) Total weekly hours worked	(4) Life satisfaction	(5) Self-reported health	(6) No. of health conditions	(7) Depression score
Post Boomerang	1.937** (0.822)	7.94e-05 (0.00933)	0.466 (0.432)	-0.0918 (0.104)	0.0288 (0.0188)	0.00483 (0.0166)	0.0383 (0.0410)
Observations R-Squared	39,378 0.006	56,096 0.086	55,585 0 119	8360 0.014	56,243 0.029	56,266 0 333	46,363 0.006
Individuals	15,923	18,379	18,343	5872	18,413	18,416	16,062
Notes: This table :	shows results from the estimat	ion of Eq. (2) with	the main parental outcomes s	shown in Table 3 a	is dependent variab	les. Panel 1 (top) inclu	ides controls for

coupled status and region of residence, Panel 2 (middle) uses a propensity score matched sample, and Panel 3 (bottom) uses a sub-sample of HRS parents who do not skip waves between their first and last interviews in the sample. Robust standard errors in parenthesis. These results align closely with those in Table 3 See Section 4.2 for details

Source: Authors' calculations using data from the Health and Retirement Study

 $^{***}p < 0.01, ^{**}p < 0.05, ^{*}p < 0.1$ 

# 5 Conclusion

When the COVID-19 pandemic began, many adult children moved back in with their parents, and some reports suggest that a large share of these boomerang children are still living at home.<sup>21</sup> While the media and popular movies (like the 2006 romantic comedy "Failure to Launch") sometimes portray adult children who live at home as exploiting their parents' resources by overstaying their welcome, we find no clear and economically significant evidence that boomerang children affect their parents' financial status, labor market outcomes, health, or life satisfaction. We show that there are real income and marital shocks that drive some children to return home and that the return home is often transitory. Thus, adult children appear to use returning to their parents' home as insurance. Fathers exhibit a decrease in labor supply and only small decreases in life satisfaction and self-reported health. Mothers, on the other hand, do not experience any decline in well-being or health. As returning to the parental home continues to become more common, reducing the stigma associated with this living arrangement, our results can help inform both policy makers and parents about the impact that a boomerang child could have on their retirement and well-being.

Acknowledgements We thank Anna Hammersmith, Mike Zabek, two anonymous referees, and the attendees of both the 2023 Population Association of America Annual Meeting and 2023 Association for Public Policy Analysis and Management Fall Research Conference for their valuable comments and suggestions.

Author contributions All authors contributed to the research design, data analysis, and writing.

#### Compliance with ethical standards

**Conflict of interest** Grant M. Seiter: I have nothing to disclose. Mary J. Lopez: I have nothing to disclose. Sita Nataraj Slavov: In addition to my compensation from George Mason University, I have received significant financial support the past three years from the following organizations: 1) The Alfred P. Sloan Foundation through the National Bureau of Economic Research, Stanford University, and George Mason University; 2) The American Enterprise Institute; 3) The TIAA Institute through George Mason University; 4) The Peter G. Peterson Foundation.

**Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit http://creativecommons.org/licenses/by/4.0/.

<sup>&</sup>lt;sup>21</sup> See https://www.cnbc.com/2022/09/06/many-pandemic-boomerang-kids-still-live-with-mom-and-dad. html.

# **6 Appendix Tables**

Tables 10-13

Table	10	Sample	selection
-------	----	--------	-----------

Panel 1—Child sample	Individuals	Person-wave observations
Initial count from RAND HRS data file (waves 1–12)	128,908	1,546,896
Drop if longitudinal linkage problems	127,127	1,525,524
Drop no-response/dead waves	127,127	817,473
Keep unique child records	77,821	532,725
Keep children age [18–29]	27,307	73,899
Panel 2—Parent sample	Individuals	Person-wave observations
Initial count from RAND HRS data file (waves 1–12)	42,233	506,796
Drop no-response/dead waves	37,494	226,562
Keep respondents age [51–69] with children age [18–29]	18,416	58,092

*Notes:* This table shows the steps of sample selection and observation counts for samples used in regressions. Panel 1 (top) reports results for the child sample, and Panel 2 (bottom) for the parent sample. Data are unweighted. See Section 2 for details

Source: Authors' calculations using data from the Health and Retirement Study

Panel 1—Child sample	Individuals	Person-wave observations
All boomerang events	1630	1679
First boomerang event	1630	1630
Post first boomerang event (including event)	1630	3814
Pre first boomerang event	1630	3195
Panel 2—Parent sample	Individuals	Person-wave observations
All boomerang events	2095	2311
All boomerang events First boomerang event	2095 2095	2311 2095
All boomerang events First boomerang event Coupled household	2095 2095 1709	2311 2095 1709
All boomerang events First boomerang event Coupled household Divorced or separated, women	2095 2095 1709 194	2311 2095 1709 194
All boomerang events First boomerang event Coupled household Divorced or separated, women Divorced or separated, men	2095 2095 1709 194 69	2311 2095 1709 194 69
All boomerang events First boomerang event Coupled household Divorced or separated, women Divorced or separated, men Post first boomerang event (including event)	2095 2095 1709 194 69 2095	2311 2095 1709 194 69 5837

 Table 11
 Boomerang event observations

*Notes:* This table shows boomerang event observations by individuals and person-wave observations for samples used in regressions. Panel 1 (top) reports results for the child sample, and Panel 2 (bottom) for the parent sample. Data are unweighted. See Section 2 for details

Source: Authors' calculations using data from the Health and Retirement Study

Life changes		Frequency
School Status	Left college	296
	Began college	86
	No change in college status	845
	Total	1227
Marital Status	No longer married	113
	Became married	43
	No change in marital status	1071
	Total	1227
Job Status	Job loss	230
	Job gain	356
	No change in job status	641
	Total	1227
Experienced Multiple Status Changes		516
No Change to Any Status		405

Table 12 Life changes associated with returning home

*Notes:* This table shows changes in three life status variables (school/college status, marital status, and job status) between children's first boomerang wave and the previous wave. "No longer married" includes individuals who are divorced, separated, widowed, or have other marital statuses. "Became married" includes individuals who became partnered. The table only includes observations for which there is no missing data for all the three status variables (1,227 observations). Children who experienced multiple status changes (516) are counted in each relevant status change row. For example, a child who both left college and became employed would be counted in the 296 individuals who left college, the 356 who gained employment, and the 516 who experienced multiple status changes. Data are unweighted. See Section 2 for details

Source: Authors' calculations using data from the Health and Retirement Study

Waves	Frequency
1	692
2	406
3	119
4	66
5	50
6	46
7	51
8	57
9	44
10	55
11	44
Total First Boomerang Events	1630

*Notes:* This table displays the length of stay (tenure) between a child's first boomerang event wave and the wave in which they move out of their parental home (or the last wave observed in the sample for those who do not move out). Data are unweighted. See Section 2 for details

Source: Authors' calculations using data from the Health and Retirement Study

Table 13Tenure of firstboomerang spells

# References

- Aladangady, A., Feiveson, L., & Paciorek. A. (2019). Living at home ain't such a drag (on spending): young adults' spending in and out of their parents' home. Board of Governors of the Federal Reserve System FEDS Notes, Washington, DC.
- Albertini, M., Gahler, M., & Harkonen, J. (2018). Moving Back to 'Mamma'? Divorce, intergenerational coresidence, and latent family solidarity in Sweden. *Population, Space, and Place*, 24(6), e2142.
- Bellemare, M. F., & Wichman, C. J. (2020). Elasticities and the inverse hyperbolic sine transformation. Oxford Bulletin of Economics and Statistics, 82(1), 50–61.
- Bentley, M. J., & Bogan, V. L. (2019). Boomerang bias: examining the effect of parental coresidence on millennial financial behavior. *Financial Planning Review*, 2(1), e1034.
- Biggs, A. G. (2019). How do children affect the need to save for retirement? American Enterprise Institute Economics Working Paper 2019-23.
- Biggs, A. Chen, G., A., & Munnell. A. H. (2021). How do households adjust their earnings, savings, and consumption after children leave? Center for Retirement Research, Boston College Working Paper 2021-20.
- Blau, D. M., & Gilleskie, D. B. (2001). Retiree health insurance and the labor force behavior of older men in the 1990s. *The Review of Economics and Statistics*, 83(1), 64–80.
- Casares, D. R., & White, C. C. (2018). The phenomenological experience of parents who live with a boomerang child. *The American Journal of Family Therapy*, 46(3), 227–243.
- Coile, C., & Gruber, J. (2007). Future Social security entitlements and the retirement decision. *The Review of Economics and Statistics*, 89(2), 234–246.
- Coile, C. C., & Levine, P. B. (2010). Recessions, Reeling Markets, and Retiree Well-Being. National Bureau of Economic Research Working Paper 16066.
- Dettling, L. J., & Hsu, J. W. (2018). Returning to the nest: debt and parental co-residence among young adults. *Labour Economics*, 54, 225–236.
- Dushi, I., Munnell, A. H., Sanzenbacher, G. T., Webb, A., & Chen, A. (2021). Do households increase their savings when the kids leave home? *The Journal of Retirement*, 9(2), 21–35.
- Fadeyi, D., & Horowitz, J. M. (2022). Americans More Likely to Say It's a Bad Thing Than a Good Thing That More Young Adults Live With Their Parents Pew Research Center, August. Accessed at https:// www.pewresearch.org/short-reads/2022/08/24/americans-more-likely-to-say-its-a-bad-thing-than-agood-thing-that-more-young-adults-live-with-their-parents/.
- Goda, G. S., Shoven, J. B., & Slavov, S. N. (2012). Does stock market performance influence retirement intentions? *The Journal of Human Resources*, 47(4), 1055–1081.
- Gorodnichenko, Y., Song, J., & Stolyarov, D. (2013). Macroeconomic Determinants of Retirement Timing. National Bureau of Economic Research Working Paper 19638.
- Gruber, J., & Madrian, B. C. (1995). Health-insurance availability and the retirement decision. *The American Economic Review*, 85(4), 938–948.
- Health and Retirement Study, RAND Family Data 2014 (V1) public use dataset. Produced and distributed by the University of Michigan with funding from the National Institute on Aging (grant number NIA U01AG009740). Ann Arbor, MI, 2018.
- Health and Retirement Study, RAND HRS FAT Files public use datasets. Produced and distributed by the University of Michigan with funding from the National Institute on Aging (grant number NIA U01AG009740). Ann Arbor, MI, 2017-2021.
- Health and Retirement Study, RAND HRS Longitudinal File 2018 (V1) public use dataset. Produced and distributed by the University of Michigan with funding from the National Institute on Aging (grant number NIA U01AG009740). Ann Arbor, MI, 2021.
- Hurd, M. D., & Reti, M. (2001). The effects of large capital gains on work and consumption: evidence from four waves of the HRS. Santa Monica, CA: RAND Corporation.
- Hurd, M. D., Reti, M., Rohwedder, S., & Coile, C. (2009). Developments in the Economics of Aging, ed. D. A. Wise, Chapter The Effect of Large Capital Gains or Losses on Retirement, 127–172. University of Chicago Press.
- Kaplan, G. (2012). Moving back home: insurance against labor market risk. *Journal of Political Economy*, 120(3), 446–512.
- Kapur, K., & Rogowski, J. (2011). How does health insurance affect the retirement behavior of women? INQUIRY: The Journal of Health Care Organization, Provision, and Financing, 48(1), 51–67.

- Kezdi, G., & Sevak, P. (2004). Economic Adjustment of Recent Retirees to Adverse Wealth Shocks. Michigan Retirement Research Center Working Paper 2004-075. Ann Arbor: University of Michigan.
- Madrian, B. C. (1994). The effect of health insurance on retirement. Brookings Papers on Economic Activity, 1994(1), 181–252.
- Marton, J., & Woodbury, S. A. (2006). Retiree health benefits and retirement. Employment Research, 13(4), 5–6.
- Marton, J., & Woodbury, S. A. (2012). Retiree Health Benefits as Deferred Compensation: Evidence from the Health and Retirement Study. Upjohn Institute Working Paper 12-182, Kalamazoo, MI.
- Matsudaira, J. D. (2016). Economic conditions and the living arrangements of young adults: 1960 to 2011. *Journal of Population Economics*, 29(1), 167–195.
- McGarry, K. (2004). Health and retirement: do changes in health affect retirement expectations? The Journal of Human Resources, 39(3), 624–648.
- Miller, M., Tamborini, C. R., & Reznik, G. L. (2018). Parental retirement timing: the role of unanticipated events in the lives of adult children. *Journal of Population Economics*, 31(3), 747–781.
- Nyce, S., Schieber, S. J., Shoven, J. B., Slavov, S. N., & Wise, D. A. (2013). Does retiree health insurance encourage early retirement? *Journal of Public Economics*, 104, 40–51.
- Parker, K. (2012). The Boomerang Generation: Feeling OK about Living with Mom and Dad. Pew Research Center Report, Washington, DC.
- Robinson, C., & Clark, R. (2010). Retiree health insurance and disengagement from a career job. *Journal of Labor Research*, 31(3), 247–262.
- Siegrist, J., Wahrendorf, M., von dem Knesebeck, O., Jürges, H., & Börsch-Supan, A. (2007). Quality of work, well-being, and intended early retirement of older employees—baseline results from the SHARE study. *European Journal of Public Health*, 17(1), 62–68.
- Strumpf, E. (2010). Employer-sponsored health insurance for early retirees: impacts on retirement, health, and health care. *International Journal of Health Care Finance and Economics*, 10(2), 105–147.
- Tosi, M., & Grundy, E. (2018). Returns home by children and changes in parents' well-being in Europe. Social Science & Medicine, 200, 99–106.

**Publisher's note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.