



The Long Arm of Parental Advantage: Socio-Economic Background and Parental Wealth Transfers over Adult Children's Life Courses

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No. 2018-05
February 2018



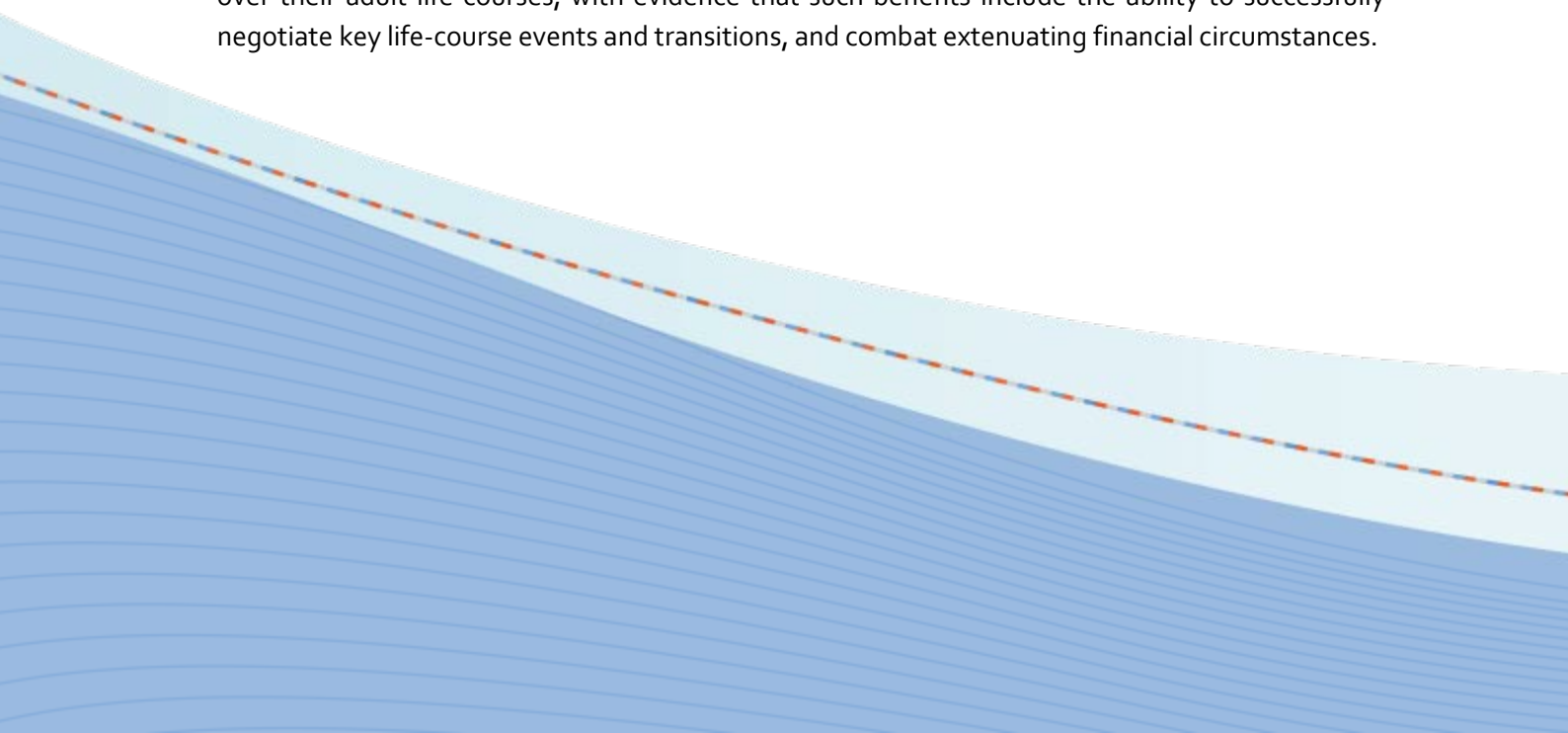
NON-TECHNICAL SUMMARY

A wealth of social science scholarship has established that better-off parents make greater investments in their children while they are growing up, contributing to social inequalities in child development and outcomes. Yet we know comparatively little about whether or not, and if so how, better-off parents continue advantaging their children when they become adult. While comparatively fewer studies have focused on this life stage, we know from previous studies that parental wealth transfers are an important means through which parents help their grown-up children.

In this paper, we evaluate differences by socio-economic background (SEB) in wealth transfers (i.e. cash gifts) from parents to adult children (age 18 to 40 years) in contemporary Australia, using 15 years of high-quality, nationally-representative household panel data. Substantively, we advance the field by applying a life-course approach to gain novel insights into how differences in parental wealth transfers by SEB evolve over children's life courses and whether they are contingent on major life-course events (e.g. getting married, having children, buying a house, or experiencing financial strain). Methodologically, we exploit the panel data to implement a more sophisticated and fit-for-purpose analytic approach than that deployed in previous studies.

We find that, on average, children from higher-SEB families are 83% more likely to receive money than children from low-SEB families. In addition, children from higher-SEB families received 79% more money than children from low-SEB families when a transfer was received. The prevalence of parental wealth transfers and their amounts were found to be consistently higher for higher-SEB children than for low-SEB children over their complete adult life courses. In addition, we find that adult children from higher-SEB families receive comparatively more financial support from their parents when they got married, purchased a home, studied full time, and faced material deprivation or financial worsening. The cumulative advantage in parental wealth transfers of being born in a higher-SEB family amounts to approximately AU\$14,000 between ages 18 and 40.

Our findings demonstrate that the transmission of parental advantage from parents to their offspring does not end as children become adults or leave the parental nest. Instead, children from advantaged families disproportionately enjoy the benefits conferred by parental wealth transfers over their adult life courses, with evidence that such benefits include the ability to successfully negotiate key life-course events and transitions, and combat extenuating financial circumstances.



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ACKNOWLEDGEMENTS: This work was supported by the Australian Research Council Centre of Excellence for Children and Families over the Life Course (project number CE140100027). The views expressed herein are those of the authors and are not necessarily those of the Australian Research Council. This paper uses unit record data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey. The HILDA Project was initiated and is funded by the Australian Government Department of Social Services (DSS) and is managed by the Melbourne Institute of Applied Economic and Social Research (Melbourne Institute). The findings and views reported in this paper, however, are those of the author and should not be attributed to either DSS or the Melbourne Institute.

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Abstract

A wealth of social science scholarship has established that better-off parents make greater investments in their children, contributing to social inequalities in child development and outcomes. Yet we know comparatively little about whether or not, and if so how, better-off parents continue advantaging their adult children. In this paper we leverage 15 years of high-quality Australian panel data (n=87,196 observations; 16,628 individuals) to systematically examine how socio-economic background, measured by parental socio-economic status, relates to the probability and amount of wealth transfers from parents to children. We provide novel insights into how transfer patterns evolve over the adult life course, are contingent on major life-course events, transitions and stages, and differ by socio-economic background. We also contribute methodologically by estimating random-effect Heckman selection models which combine the advantages of both panel regression and sample-selection models.

Keywords: parental wealth transfers; socio-economic background; life course; intergenerational mobility; Australia

1 Background

When given the chance, privileged parents strive to transfer their privilege onto their children (Fishkin, 2013). There are however long-running and ongoing debates about when and how this process occurs, i.e. the mechanisms through which advantaged parents advantage their children, and their timing (Brooks-Gunn & Duncan, 1997; Waldfogel, 2013). The bulk of the literature focuses on children's early life courses. During childhood, high-status parents spend comparatively more economic resources on material goods that stimulate children's cognitive and socio-emotional development and keep children in good health –e.g. access to good schools, extracurricular activities or health care (see Crosnoe & Muller, 2014; Hao & Yeung, 2015; Nilsen et al., 2010). Parents also advantage their offspring by making use of their comparatively high non-material resources, such as their more advanced cultural and social capital –e.g. by exerting optimal parenting practices and socialising their children into hegemonic cultural values (see Lareau, 2003). Later in life, high-status parents can also afford to enrol their children in top universities, support them through their studies, and use their more developed social networks to aid them in their search for a first job (Hardaway & McLoyd, 2009). The advantages attained during childhood, adolescence and early adulthood position the children of high-status parents for success in subsequent life-course stages, setting the stage for the intergenerational reproduction of socio-economic status (SES).

The mechanisms used by high-SES parents to transfer their advantage to their children do not end when their offspring reach adulthood. While comparatively fewer studies have focused on this life stage, parents support their adult children by, for example, providing help and support in childrearing, aiding with setting up businesses, buffering against losses in risky investments, or helping with buying property (Benton & Keister, 2017; Fishkin, 2013; Spilerman & Wolff, 2012). A large and long-standing body of literature has focused on characterising the motivations and extent of parental wealth transfers to their children. Although this body of work has largely neglected issues of social stratification (Spilerman & Wolff, 2012), there is incipient evidence that such transfers enable privileged parents to facilitate their adult children's status-attainment process: parents with higher income, wealth, education and occupational standing are more likely to transfer money to their children, and to transfer greater amounts (Albertini & Kohli, 2013; Albertini & Radl, 2012; Brandt & Deindl, 2013; Cooney & Uhlenberg, 1992;

Spilerman & Wolff, 2012). Yet studies in this field have rarely gone beyond establishing the main effects of socio-economic background (SEB), as measured as parental SES. Very few studies have considered how parental wealth transfers evolve over their adult children's life courses, and none has compared this process for low- and high-SES children. This is a significant omission, as the associated knowledge can shed light over the ways in which parental transfers benefit their adult children, the points in the life-course in which they do so, and how adults benefit from having better-off parents.

In this paper, we evaluate differences by SEB in wealth transfers from parents to adult children in contemporary Australia, using 15 years of high-quality, nationally-representative panel data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey. We first examine the main effect of SEB on the likelihood and magnitude of wealth transfers from parents to adult children, using a variety of indicators of parental SES and a high-quality measure of wealth transfers. We then provide novel evidence on how parental wealth transfers evolve over children's adult life courses, how such transfers are structured around key life-course events, transitions and experiences, and whether there are any differences in such transfers by SEB. Substantively, we advance the field by applying a life-course approach to gain novel insights into how differences in parental wealth transfers by SEB evolve over children's life courses and whether they are contingent on major life-course events (e.g. getting married, having children, buying a house, or experiencing financial strain). Methodologically, we exploit the panel data, using random-effect selection models to implement a more sophisticated and fit-for-purpose analytic approach than those deployed in previous studies.

2 Family background, parental investments & parental wealth transfers

Childbearing and rearing constitute one of the most important functions of the family (Becker, 1981). Children are highly valued 'collective goods' and generate utility to parents (Weiss & Willis, 1985), and so parents make long-term investments in their children (Lundberg & Pollak, 2013). Parental investments pertain to multiple domains, such as health and nutrition, education and learning, and acquisition of non-cognitive skills, social networks and social capital (Cheadle, 2009; Kornrich & Furstenberg, 2013; Lareau, 2003). When given the chance, parents strive to advantage their offspring over other children in a variety of ways, e.g. through the aforementioned investment types,

along with information provision, day-to-day role modelling and active parental engagement (Erola, Jalonen & Lehti, 2016; Fishkin, 2013). Given differences in the resources available to them, high-SES parents invest substantially more in their children, in both quantity and quality, than low-SES parents –see examples for diet and nutrition (Nilsen et al., 2010), extracurricular activities and tuition (Hao & Yeung, 2015), computer and learning equipment (Escarce, 2003) and enrolment in better schools and universities (Crosnoe & Muller, 2014). They also use their capital to afford them better early career opportunities (Hardaway & McLoyd, 2009). As a result, parental advantage often translates into adult child advantage, giving rise to moderate-to-high intergenerational correlations in –amongst others– educational attainment, labour-market outcomes and wealth accumulation (Ermisch, Jantti & Smeeding, 2012).

Comparatively less is known about how parents continue advantaging their offspring after they become adults and/or leave the parental home. Generally, the literature suggests that parents remain as important support sources to children during adulthood, with parental wealth transfers constituting an important form of parental investments during this life-course stage, or set of stages (Cooney & Uhlenberg, 1992). Parental wealth transfers provide direct financial means to alleviate liquidity constraints and improve financial conditions amongst receiving adult children (Spilerman & Wolff, 2012; McGarry, 2016). Such transfers reflect both the altruistic goal of assisting children’s needs (Berry, 2008; McGarry, 1999) and the strategic exchange of rewarding children who may reciprocate through, for example, more frequent contact and informal care (Norton & Van Houtven, 2006; Cox & Rank, 1992).

Theoretically, the probability and amount of parental wealth transfers should vary by SEB. On the one hand, high-SES parents are more likely to transfer and transfer more simply because they have the capacity to do so –they are financially better-off than low-SES parents (Fingerman et al., 2009; Smeeding, 2016). Faced with financial constraints, low-SES parents may instead provide more practical, non-monetary help and support, e.g. allowing children to co-reside or providing care for grandchildren (Berry, 2006). From this perspective, the probability and amount of parental wealth transfers should be higher for high-SEB adult children, compared to low-SEB adult children. This is consistent with the “status reproduction” thesis, which poses that high-SES parents provide more assistance to their children to facilitate the transmission of socio-economic advantage and

reduce the risk of downward social mobility (Albertini & Radl, 2012). Alternatively, low-SES parents may have higher marginal utility in transferring wealth to their adult children if transfers are motivated by altruism: low-SES children may have accumulated less capital and face greater financial needs than high-SES children (Albertini & Radl, 2012). From this perspective, the probability and amount of parental wealth transfers should be higher for low-SES adult children, compared to high-SES adult children.

Most empirical research on parental wealth transfers has nevertheless focused on how child characteristics (such as education, income and employment status) relate to the probability and amount of parental wealth transfers. Fewer studies have paid attention to the influence of family background, and those which did treated family background variables as controls –with the analytic focus being elsewhere. For example, Brandt and Deindl (2013) controlled for parental education and parental marital status when examining the effect of social policies on parental wealth transfers, whereas Kohli (1999) controlled for parental income, wealth and education when studying the interactions between public pensions and private transfers. Scrutinizing these findings, a positive relationship between parental SES and wealth transfers can be inferred: higher levels of parental income, wealth, education and occupational status were associated with increases in the prevalence and amount of wealth transfers to adult children (Albertini & Kohli, 2013; Brandt & Deindl, 2013; Cooney & Uhlenberg, 1992; Hochguertel & Ohlsson, 2009; Jayakody, 1998). Parents who remain married were also found to transfer more money to their children than other parents (Brandt & Deindl, 2013; Cooney & Uhlenberg, 1992).

We extend this body of evidence by considering the main effects of SES on parental wealth transfers using a comprehensive set of indicators of parental SES and, as we elaborate in the next section, by taking a life-course approach to examining such transfers.

3 A life-course perspective on parental wealth transfers

The life-course approach is an overarching theoretical paradigm which conceptualizes individuals' lives as trajectories of states linked through events and transitions in parallel life domains (such as work and family) that unfold over time (Elder, 1985). Two important concepts in life-course theory are those of life-course events and

transitions, whereby life-course events are “*significant events occurring across the life span that mark transitions from one life cycle stage [...] to another*” (Alwin, 2012: 208). Key life-course events and transitions (such as entry to parenthood, marriage or becoming a home owner) are often accompanied by major changes in individuals’ roles, responsibilities and statuses, and can be stressful and demanding (Pearlin, 2010). Hence, personal resources and support from others can be important in helping individuals successfully transition across certain life-course stages. This is consistent with the life-course principle of ‘linked lives’ (Alwin, 2012), which poses that people’s lives are tightly intertwined with those of others around them: changes in a person’s circumstances can trigger behaviours and responsibilities for others.

In the context of parental wealth transfers, we argue that the availability of financial support from parents can be a major factor prompting individuals to decide to undertake major life-course transitions that require financial investments or buffers (such as buying a home, or having a child). We therefore predict that parental wealth transfers will be tied to adult children’s experiences of key life-course events and transitions. Parental financial support in this context can happen contemporaneously to events and transitions, or in anticipation of them (Leopold & Schneider, 2011). Similarly, the importance of parents as sources of financial support will be heightened when adult children undergo life-course experiences of financial need and strain, e.g. income poverty or material deprivation. Under these circumstances, parental solidarity through financial help can aid children with improving their living standards (see Spilerman & Wolff, 2012). As previously discussed, it remains theoretically and empirically unclear whether or not these processes operate differently in low- and high-SEB families.

Research adopting a life-course perspective to investigate parental wealth transfers is surprisingly lacking. In a pioneer study, Cooney and Uhlenberg (1992) used US data to examine the prevalence of various forms of parental support over children’s life courses (ages 20 to 64), finding a non-monotonic decline in the probability of receiving parental wealth transfers as children age. In Germany, Leopold and Schneider (2011) examined large transfer patterns upon three children’s life events (marriage, divorce and childbirth). Their findings indicated that parental transfers involving large amounts were more likely to take place in the years of marriage and divorce, but not at childbirth –partially suggesting that parental wealth transfers respond to children’s

economic needs. Bhaumik (2006), however, found that adult children in Germany were more likely to receive parental wealth transfers, and to receive more money, when they got married, moved in with a partner, or became parents. These results accord with qualitative findings by Ploeg and colleagues in (2004) Canada, who reported that financial assistance from parents to children coincided with important life events and difficult transitions (such as forming families, beginning careers and union dissolution). Using French data, Spilerman and Wolff (2012) found that the probability of transitioning into homeownership was comparatively higher for married couples with wealthier parents, and that wealthier parents helped their children with home deposits, affording higher-value homes, and ensuring that they did not reduce their non-housing consumption upon buying a home.

In addition to the methodological and contextual contributions described in subsequent sections, we add to this sparse body of evidence by (i) considering a larger number of life-course events, transitions and experiences as potential triggers of parental wealth transfers –including the experience of income poverty and material deprivation (as called for by Leopold & Schneider, 2011: 613); (ii) studying both the probability of receiving parental wealth transfers and the amount of such transfers (the reviewed life-course literature analysed chiefly the probability of transfers, but not their amount); (iii) carefully considering the functional forms of the age gradients for the probability and amount of parental wealth transfers; and (iv) most importantly, systematically comparing the life-course patterns of transfers by SEB.

4 The Australian case: Institutional context and international experience

Scholarship on parental wealth transfers is largely restricted to the US and a handful of European countries. Studying parental wealth transfers and the role of family background in the Australian context expands case-generalizability because of distinctive features of Australia's social welfare system. Like the US or the UK, Australia has been categorized as a Liberal welfare-state regime: government intervention is basic and needs-based, and responsibility for individual social and economic wellbeing relies primarily on individuals and their families (Esping-Andersen, 2013). Parental financial assistance takes a more "voluntary" nature and is less intense in countries with higher social expenditure and generous welfare spending, compared to less generous welfare

states (Brandt & Deindl, 2013). Hence, according to standard views of the Australian welfare state, we would expect parental wealth transfers to be more prevalent and larger in Australia than in more generous welfare-state regimes, such as the social-democratic regime of the Nordic countries. However, the targeting and income testing of Australian welfare benefits also means that the Australian tax and transfer system is among the most progressive and effective at offsetting inequality in the OECD (Whiteford, 2015), which could lower the probability and size of transfers.

Taxation of gifts and inheritances can impact parental wealth transfers in complex ways, depending on whether it is high or low, applied in conjunction with inheritances, or applied cumulatively compared to individual transactions (see e.g. Nordblom & Ohlsson, 2006; Kopczuk, 2013). Importantly, when the tax rate is high, parents are less likely to give, and give smaller gifts, to children, and less inclined to choose the timing of transfers based on children's needs and benefits, in an effort to avoid or minimise tax. However, Australia is one of few OECD countries with no tax on gifts and inheritances, being one of the first countries to abolish these in the early 1980s (Duff, 2005). The Australian "no tax on transfers" policy over the past 40 years provides an internationally unique context to study the patterns of parental wealth transfers. Under Australian law, donors can optimise the timing and allocation of transfers without constraints imposed by taxation, unlike in tax-levying countries in Europe and the US –with implications for the effect of SEB on the probability and amount of parental wealth transfers.

Yet Australian scholarship on parental wealth transfers is very limited. Sappideen (2008) and Barrett et al. (2015) provided some evidence of the motivation, incidence and magnitude of parental wealth transfers in Australia, but their prime focus were the baby boomer generation and homeownership respectively. Neither of these studies examined the role of family background. Cobb-Clark and Gørgens (2012) compared parental wealth transfers received by young adults (18-20 years old) from Australian families with and without a history of government income-support receipt, finding that those with a family history of government support received significantly lower amounts. Their work, however, only explored parental wealth transfers at children's young adulthood, and a single indicator of SEB. A further contribution of our study is thus to provide new, systematic evidence on parental wealth transfers in Australia, which for the

aforementioned reasons poses an interesting case study and can be used a new comparator in subsequent research.

5 Data

5.1 Dataset and sample

We use 15 waves of pane data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey, a nationally-representative longitudinal survey initiated in 2001 with 13,969 respondents from 7,682 households. Data were collected primarily via face-to-face interviews and self-complete questionnaires with in-scope respondents aged 15 years and over residing in private dwellings. Since then, interviews have been conducted annually. New individuals can join the panel if they live in participating households and turn 15 years of age, or if they begin a relationship or have a child with an original sample member. The HILDA Survey has relatively high wave-on-wave response rates ranging from 86.9% in wave two to 97.0% in wave 15. For further details, see Summerfield et al. (2016).

Our initial sample includes 217,916 person-year observations from 29,685 individuals with valid information on parental wealth transfers, of which 12,735 observations from 5,959 individuals involve a non-zero transfer amount. We restrict this sample to respondents aged 18 to 40, as older respondents are less likely to have parents who are still alive and are more likely to be gift givers (Albertini, Kohli & Vogel, 2007), and the probability of receiving parental wealth transfers approaches zero at around age 40.¹ Our final analytical sample consists of 87,854 observations from 16,723 individuals. Among them, 3,873 individuals reported having received parental wealth transfers over the survey window, in a total of 7,274 observations. Of these, 3,795 individuals (7,059 observations) provided the amount of parental wealth transfers received.

5.2 Dependent variables

Data on parental wealth transfers in the HILDA Survey were collected via a two-part survey question. The first part of the question asked respondents whether they had

¹ Analyses restricting the sample to respondents aged 18-50 yielded similar results.

received any money from different sources (e.g. superannuation, life insurance or severance payments) during the last financial year, with one category being 'parents'.² The second part of the question asked about the total amount received from each nominated source. Our parental wealth transfer data comes from responses related to the category 'parents'. We adjust this amount for inflation to 2015 prices using the Consumer Price Index and, due to the severe right-skewness of the variable's distribution, we apply a natural logarithmic transformation.³

5.3 Family socioeconomic background variables

Our key independent variables capture different dimensions of parental SES that approximate adult children's SEB. The HILDA Survey collects a wide range of retrospective parental background information, most of which pertains to when the respondents were 14 years of age. We peruse this to construct six separate measures:

- *Parental employment status.* The HILDA Survey collects information on paternal and maternal employment status via separate questions worded: "*Thinking back to when you were 14 years old, did your father(mother) work in a job, business or farm?*". We combine this information to derive a categorical variable indicating the number of employed parents when the respondent was age 14 (0, 1 or 2).
- *Parental education.* The HILDA Survey also collects information on father's and mother's highest educational qualifications. Using this information, we first create two dummy variables indicating whether the father and mother had a university

² If the respondent lived with his/her parents, the interviewer was instructed to prompt the respondent to include any money received as 'pocket money' or as an allowance.

³ The HILDA Survey information on parental wealth transfers has advantages relative to that collected in other major surveys, such as the Panel Study of Income Dynamics (PSID). First, it clearly identifies transfers from parents to children, whereas other surveys such as the PSID do not distinguish who in the family is the transfer receiver (Jayakody, 1998: 514). In the latter scenario, it is for example not possible to separate transfers from parents and parents in law. Second, transfer amounts in the HILDA Survey are recorded in dollar terms rather than in bands, and are not left-censored at a threshold –compared to, for example, the PSID, where amounts were banded and only recorded when they exceeded US\$100 (Jayakody, 1998: 515). This minimises information loss, and improves statistical accuracy and efficiency.

degree, and then combine these into a categorical variable capturing the number of parents with university degrees (0, 1 or 2).

- *Parental occupation.* HILDA Survey respondents were asked to write down the title and the main tasks/duties of their father's and mother's occupations when respondents were 14 years of age, and this information was then coded to the *2006 Australian and New Zealand Standard Classification of Occupations*. We use the father's and mother's occupational codes to create variables indicating whether each parent worked in a managerial/professional occupation, and then create a categorical variable indicating the number of parents in managerial/professional occupations (0, 1 or 2).
- *Parental occupational status.* Measures of paternal and maternal occupational status when the respondent was age 14 based on the *Australian Socioeconomic Index 2006* (McMillan, Beavis & Jones, 2009) are available in the HILDA Survey. Scores in this classification range from 0 (lowest status) to 100 (highest status). We create a continuous variable that captures the mean occupational status of the respondent's father and mother. If only one parent has an occupation, the score of this occupation is used to represent parental occupational status.⁴
- *Parental union history.* Using answers to a question asking "*Did your mother and father ever get divorced or separate?*", we create a dichotomous variable indicating whether the respondent's parents ever got divorced or separated.
- *Father's long-term unemployment history.* This is a dichotomous variable indicating whether or not the respondent's father was ever unemployed for a total of 6 months or more while the respondent was growing up. Unfortunately, there is no analogous question on the unemployment history of the mother.

In the main analyses, we use parental occupation as the measure of SEB. This is because parental occupation is a better proxy for parental income than parental education

⁴ Several of these parental SES variables (as well as variables capturing life-course events, transitions and stages in the next section) include an additional category for missing values (see Table 1).

(Leigh, 2007). Low-SEB families are families in which neither parent is in a managerial/professional occupation, while high-SEB families are those in which at least one parent is in a managerial/professional occupation.

5.4 Adult children's key life-course events, transitions & experiences

We assess patterns of parental wealth transfers by family background at several different adult children's life-course events, transitions and experiences. These include circumstances that have been examined, to some degree, in cognate studies –such as childbirth, marriage and university enrolment (Cooney & Uhlenberg, 1992; Leopold & Schneider, 2011), as well as circumstances which have not yet been considered –such as experiencing adverse financial circumstances and entering house ownership. Exploiting the panel structure of the HILDA Survey data, we derive the following variables:

- *Marriage*. This is a dummy variable coded to one if the respondent's marital status changes to 'married' from some other status (never married, cohabiting, divorced, separated, widowed) between years $t-1$ and t .
- *Childbirth*. This is a dummy variable denoting an increase between years $t-1$ and t in the total number of children the respondent ever had.
- *Entering homeownership*. We create a dummy variable taking the value one if the respondent becomes a home owner between years $t-1$ and t .
- *Being a full-time student*. This is a dummy variable taking the value one if the respondent is engaged in full-time studies at the time of interview.
- *Income poverty*. Respondents are considered to be income poor if their equivalised gross annual household income is below 60% of the sample median.
- *Material deprivation*. This is a dummy variable coded to one if respondents reported experiencing any of the following circumstances in the past 12 months because of a shortage of money: (i) could not pay electricity, gas or telephone bills on time, (ii) could not pay the mortgage or rent on time, (iii) pawned or sold something, (iv) went

without meals, (v) was unable to heat home, (vi) asked for financial help from friends or family, or (vii) asked for help from welfare/community organisations.

- *Financial worsening.* This is a dummy variable taking the value one if the respondent reports having experienced a major worsening in his/her financial situation over the past 12 months.

We also construct lags of the dummy variables for the life events/transitions of childbirth, marriage and homeownership indicating whether the event was observed to occur between time $t-2$ and time $t-1$. These are used to capture parental wealth transfers made in anticipation of a foreseeable event.

5.5 Control variables

In multivariate models, we control for a set of adult child characteristics that may act as confounders. These include respondents' gender, age, marital status (partnered; divorced, separate or widowed; never partnered), employment status (employed; unemployed; not in the labour force), country of birth (Australia; main English-speaking country; other country), presence of a long-term health condition, OECD-equivalised household income (expressed in AU\$10,000s and adjusted for inflation to 2015 prices using annual Consumer Price Index rates), number of dependent children, number of siblings, number of co-residing parents (0, 1 or 2), and survey wave (1-15).

Descriptive statistics for all analytic variables are shown in Table 1. Descriptive statistics on adult children's demographic characteristics by parental SEB are shown in Table A2 in the Appendix.

Table 1 Summary statistics for analytical variables

	Mean/%	SD	Obs.
<u>Parental wealth transfers</u>			
Transfer amount	7,214.6	27,032	7,059
Transfer probability	8.3		87,854
<u>Adult child characteristics</u>			
Female			
No	47.9		87,854
Yes	52.1		87,854
Age	28.9	6.7	87,854

University degree			
No	75.1		87,827
Yes	24.9		87,827
Marital status			
Partnered	58.6		87,838
Divorced, separate or widowed	3.9		87,838
Never partnered	37.5		87,838
Employment status			
Employed	78.1		87,854
Unemployed	5.4		87,854
Not in the labour force	16.5		87,854
Ethno-migrant group			
Born in Australia	83.7		87,827
Main English Speaking countries	6.1		87,827
Other countries	10.2		87,827
Disability			
No	85.2		87,834
Yes	14.8		87,834
OECD equivalised household income in 10,000s	5.6	3.9	87,854
# dependent children	0.8	1.2	87,854
# siblings	2.4	1.7	87,249
# co-residing parents			
0	79.9		87,854
1	6.0		87,854
2	14.1		87,854
Survey wave	8.5	4.4	87,854
<u>Socio-economic background</u>			
# parents employed			
0	4.8		87,854
1	32.8		87,854
2	54.1		87,854
Missing	8.3		87,854
# parents with university degrees			
0	60.8		87,854
1	15.8		87,854
2	8.4		87,854
Missing	15.0		87,854
# parents in managerial/professional occupations			
0	32.4		87,854
1	25.4		87,854
2	15.4		87,854
Missing	26.8		87,854
Parental mean occupational status	46.7	20.8	83,880
Parental union history			
Divorced/separated	10.5		87,854
Did not divorce or separate	64.7		87,854
Missing	24.8		87,854
Father ever unemployed over 6 months			

Yes	14.5	87,854
No	74.9	87,854
Missing	10.6	87,854
<u>Children's life-course events, transitions & experiences</u>		
Getting married		
No	97.1	87,854
Yes	2.9	87,854
Getting married: year before		
No	97.0	87,854
Yes	3.0	87,854
Having children		
No	92.8	87,854
Yes	7.2	87,854
Having children: year before		
No	92.7	87,854
Yes	7.3	87,854
Buying a property		
No	95.3	87,854
Yes	4.7	87,854
Buying a property: year before		
No	95.3	87,854
Yes	4.7	87,854
Being a full-time student		
No	87.8	87,854
Yes	12.2	87,854
Missing	<0.01	87,854
Income poverty		
No	84.1	87,854
Yes	15.9	87,854
Material deprivation		
No	53.5	87,854
Yes	26.1	87,854
Missing	20.4	87,854
Financial worsening		
No	76.9	87,854
Yes	2.4	87,854
Missing	20.7	87,854

Notes: HILDA Survey, 2001-2015. Parental employment status and occupation relate to when the respondent was 14 years of age.

6 Estimation method

Most previous studies of the correlates of parental wealth transfers are cross-sectional. These generally use logistic regression to model the probability of receiving a transfer and, separately, OLS (or Tobit) regression to model transfer amounts. This

assumes that the two processes are independent, which is an unrealistic assumption. First, it is likely that children who receive parental wealth transfers come from families with observed and unobserved traits that make them also more likely to send larger amounts of money. Therefore, unobserved heterogeneity pertaining to the effects of various family environment variables may be correlated with both the probability and the amount of transfers, and failure to capture this correlation may lead to estimation bias (Berry, 2006). Second, only children who receive parental wealth transfers report the amount of transfers received. That is, the amount of parental wealth transfers is contingent on having received a transfer. Therefore, modelling the amount of parental wealth transfers without taking into account the probability of receiving transfers results in estimates that do not apply to the complete population, but only to the population of individuals who receive payments.

To overcome these issues, we estimate selection models that jointly model the probability and amount of transfers (Heckman, 1979), as previously done in this field by Berry (2006). In addition, we expand this approach by exploiting the panel structure of the HILDA Survey to further account for unobserved effects.⁵ Specifically, we add random effects to the two equations in the models, thereby capturing the nested structure of the data (multiple observations nested within individuals) and improving our ability to account for person-specific unobserved effects (Wooldridge, 2010). This approach, a random-effect (Heckman) selection model, combines the advantages of both panel regression models and selection models. This take the form:

$$y_{it}^* = \mathbf{Z}_{it}\boldsymbol{\gamma} + v_i + e_{it} > 0 \quad (1)$$

$$\ln(G_{it}) |_{D_{it}=1} = \mathbf{X}_{it}\boldsymbol{\beta} + u_i + \varepsilon_{it}, \text{ and missing otherwise} \quad (2)$$

where D_{it} is the binary outcome capturing whether parental transfers were received by individual i at wave t ; y_{it}^* is the latent continuous variable that determines the outcome D_{it} ; $\ln(G_{it})$ is the logarithmic transformation of the transfer amount G_{it} ; \mathbf{Z}_{it} and \mathbf{X}_{it} are vectors of explanatory variables and $\boldsymbol{\gamma}$ and $\boldsymbol{\beta}$ the respective vectors of

⁵ When panel data have been used in the analysis of parental transfers (Berry, 2008; Rosenzweig and Wolpin, 1993), the probability and amounts of transfers were estimated separately, which as explained before is problematic.

parameter estimates; v_i and u_i are random intercepts (or random effects); and e_{it} and ε_{it} are the usual error terms. Equations (1) and (2) need to be estimated jointly.⁶ The γ coefficients in Equation (1) can be interpreted as the change in the log of odds of receiving over not receiving parental wealth transfers associated with a one-unit increase in Z_{it} . In reporting our results, we express these as odds ratios (ORs). The β coefficients in Equation (2) can be interpreted as the percentage change in the amount of parental wealth transfers associated with a one-unit increase in X_{it} .

7 Empirical evidence

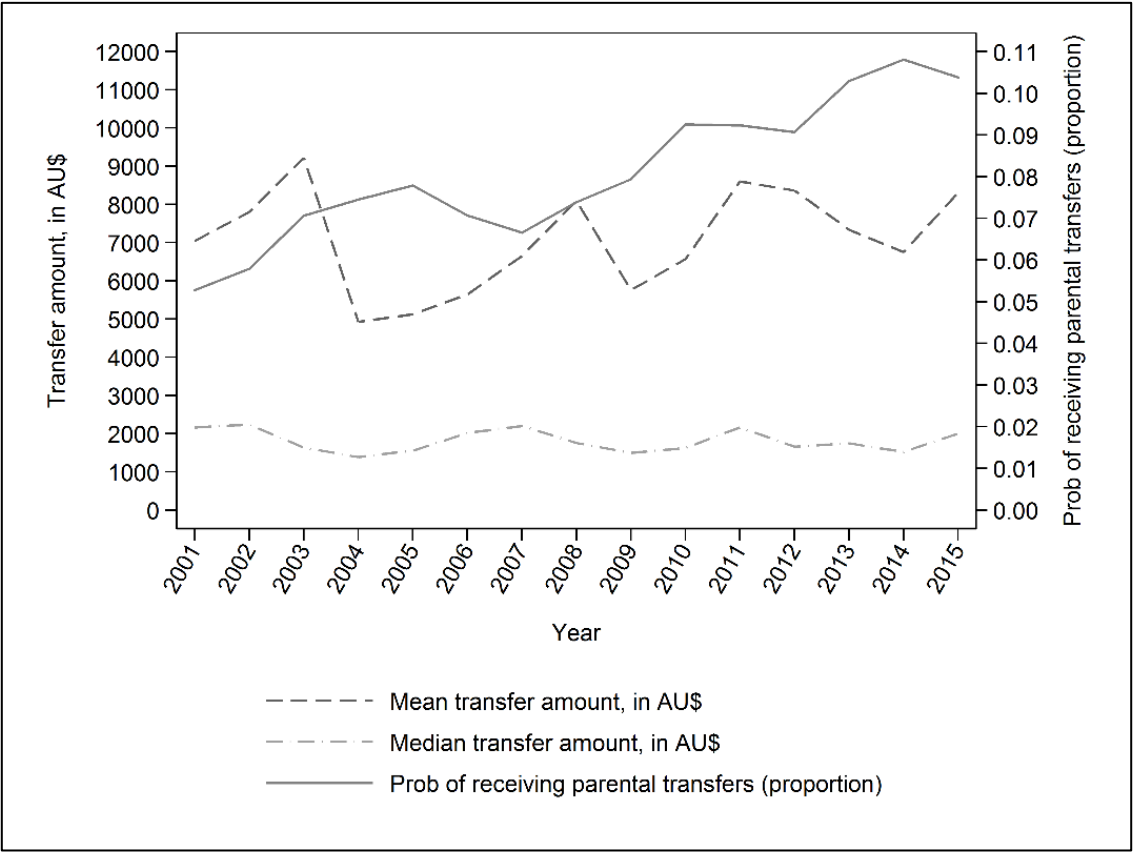
7.1 Socio-economic background and parental wealth transfers

Figure 1 shows the unconditional probabilities and the (untransformed) mean and median amounts of parental wealth transfers to adult children (age 18-40) over the 15-year observation window. Between 2001 and 2015, the mean probability of receiving a parental transfer was 8.3%, with some evidence of an overall increase over time – 5.3% of adult children received transfers in 2001, compared to 10.4% in 2015. The mean amount of parental wealth transfers was \$7,215 over the observation window, and was highly volatile over time (ranging from \$4,926 in 2004 to \$9,222 in 2003). However, the variable’s median remained steady at around \$2,000 – suggesting that both the magnitude and volatility of the mean are driven by outliers.

Disaggregating the sample by SEB reveals clear disparities in the probability and amount of parental wealth transfers (Figure 2). Adult children from low-SEB families were less likely to receive parental wealth transfers than those from medium/high SEB families (6% compared to 11%), and also received less money on average (low SEB: mean=\$4,789; median=\$1,224; medium/high SEB: mean=\$8,596; median=\$2,044).

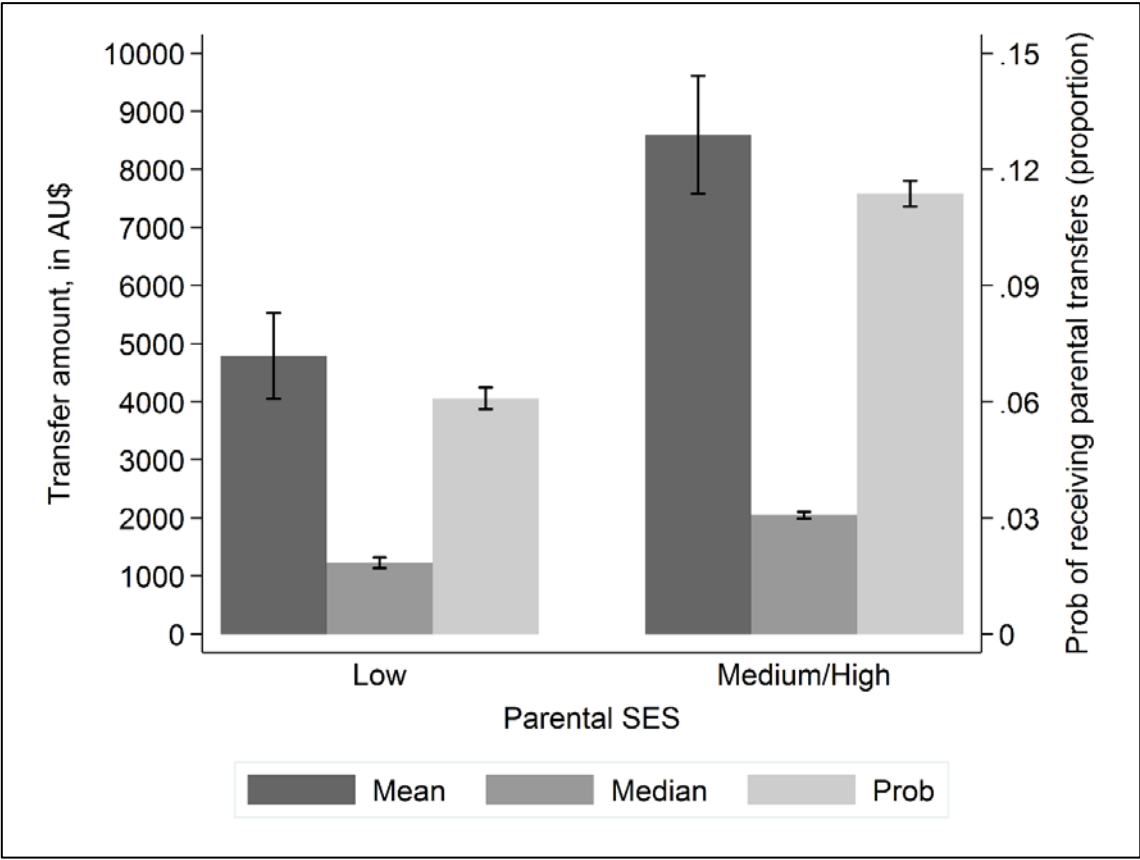
⁶ In practice, we accomplish this by recasting the two equations in the Heckman selection model into a generalised structural equation model (GSEM) using Stata 14’s `gsem` routine, which enables us to add random effects at the individual level. The γ coefficients need to be transformed from the corresponding GSEM coefficients γ^* as follows: $\gamma = \gamma^* / \sqrt{\sigma^{2*} + \tilde{\sigma}^{2*} + 1}$, where σ^{2*} is the error variance in the transfer probability model and $\tilde{\sigma}^{2*}$ is the variance of the random effects.

Figure 1 Probability and amount of parental wealth transfers, by survey year



Notes: HILDA Survey, 2001-2015. Mean and median transfer amounts do not include zero transfers. Amounts expressed in 2015 dollars.

Figure 2 Probability and amount of parental wealth transfers, by socio-economic background



Notes: HILDA Survey, 2001-2015. 95% confidence intervals in brackets. Mean and median transfer amounts do not include zero transfers. Amounts expressed in 2015 dollars.

To examine the main effect of SEB on the probability and amount of receiving parental wealth transfers net of confounding, we fitted a series of random-effect selection models controlling for an encompassing set of child characteristics (Table 2). Full model output can be found in Table A4 in the Appendices. In a first set of analyses, we tested the effect of different parental characteristics that serve as proxies of parental SES and adult children’s SEB. These enter the models one at a time, to avoid collinearity. Adult children were significantly more likely to receive parental wealth transfers if they came from intact families (OR=1.16, $p<0.001$) or had employed parents (OR_{one}=1.34, OR_{both}=1.48, $p<0.001$), a continuously employed father (OR=1.22, $p<0.001$), University-educated parents (OR_{one}=1.30, OR_{both}=1.63, $p<0.001$), and parents who worked in managerial/professional (OR_{one}=1.25, OR_{both}=1.58, $p<0.001$) or high-status (OR=1.01, $p<0.001$) occupations –

compared to their less advantaged peers and all else being equal. Similarly, the amount of parental transfers received by adult children was comparatively higher, *ceteris paribus*, if they came from intact families ($\beta=0.24$, $p<0.01$), had employed parents ($\beta_{\text{one}}=0.47$, $\beta_{\text{both}}=0.50$, $p<0.01$), had a continuously employed father ($\beta=0.36$, $p<0.001$), had University-educated parents ($\beta_{\text{one}}=0.21$, $\beta_{\text{both}}=0.43$, $p<0.001$), had parents who worked in managerial/professional occupations ($\beta_{\text{one}}=0.22$, $\beta_{\text{both}}=0.53$, $p<0.001$), or had parents who worked in high-status occupations ($\beta=0.01$, $p<0.001$).

Table 2 Random-effect Heckman selection models of the effect of socio-economic background on parental wealth transfers

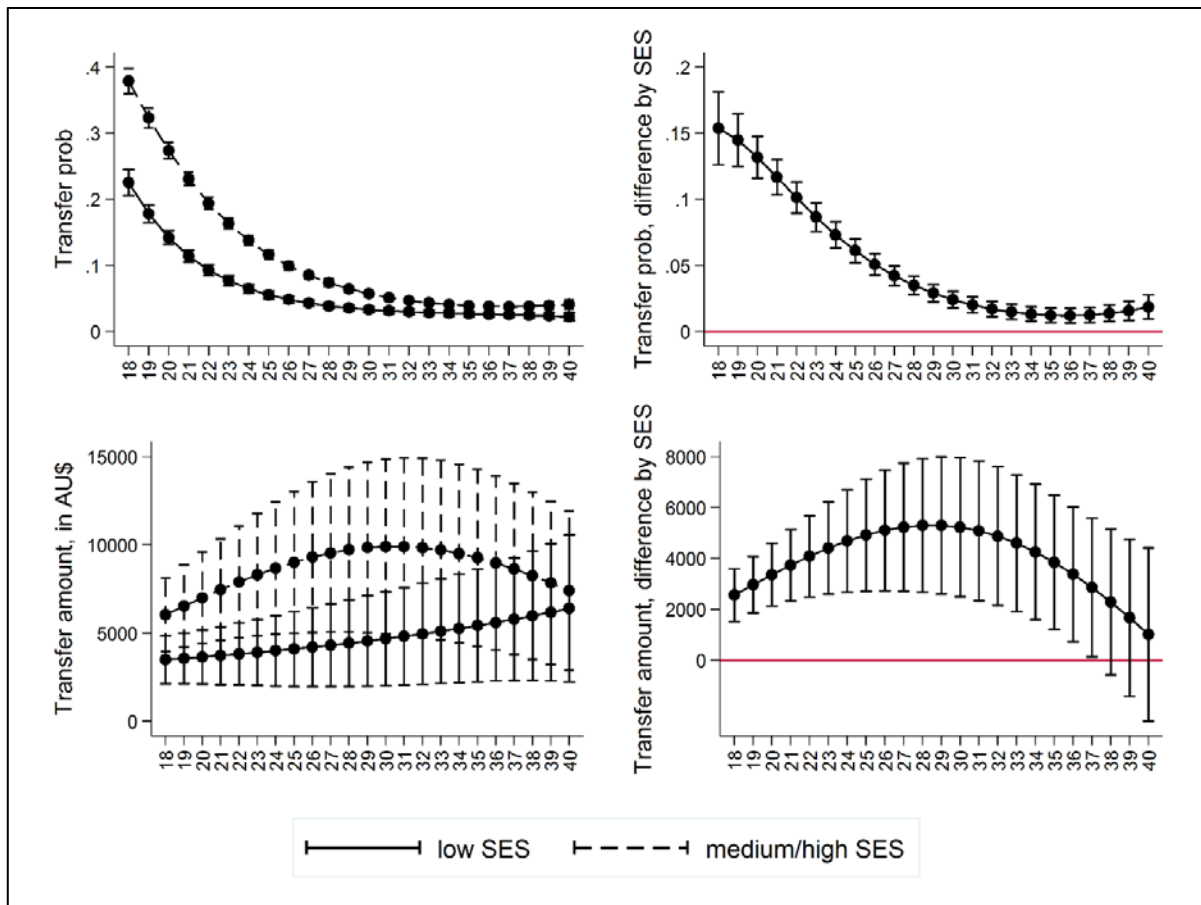
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	S (OR)	A (β)	S (OR)	A (β)	S (OR)	A (β)	S (OR)	A (β)	S (OR)	A (β)	S (OR)	A (β)
# parents employed												
0 (<i>reference</i>)												
1	1.34***	0.47**										
2	1.48***	0.50**										
# parents with university degree												
0 (<i>reference</i>)												
1			1.30***	0.21***								
2			1.63***	0.43***								
# parents in managerial/professional occupation												
0 (<i>reference</i>)												
1					1.25***	0.22***						
2					1.58***	0.53***						
Parental mean occupational status							1.01***	0.01***				
Parents ever divorced/separated												
Yes (<i>reference</i>)												
No	1.15***	0.23**	1.15***	0.22*	1.16***	0.23**	1.13***	0.21*	1.16***	0.24**	1.14***	0.21*
Father ever unemployed over 6 months												
Yes (<i>reference</i>)												
No											1.22***	0.36***
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
N (<i>observations</i>)	87,196	87,196	87,196	87,196	87,196	87,196	83,677	83,677	87,196	87,196	87,196	87,196
N (<i>individuals</i>)	16,628	16,628	16,628	16,628	16,628	16,628	15,967	15,967	16,628	16,628	16,628	16,628
AIC / BIC	62,634 / 63,094		62,380 / 62,839		62,334 / 62,794		60,125 / 60,545		62,715 / 63,118		62,602 / 63,043	

Notes: HILDA Survey, 2001-2015. S: selection equation. A: amount equation. OR: odds ratios. β : Unstandardized beta coefficients. Control variables in all models include respondent's gender, age, marital status, employment status, country of birth, disability, OECD-equivalised household income, # dependent children, # siblings, # co-residing parents, and survey wave. Parental employment status and occupation relate to when the respondent was 14 years of age. The coefficients on the dummy variables capturing missing information are omitted for readability. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

7.2 Life-course patterns of parental wealth transfers during adulthood

Having established that high SEB was strongly and positively associated with the probability and amount of parental wealth transfers, we subsequently examined how parental wealth transfers evolved over individuals' adult life courses, and whether the patterns differed by SEB. To accomplish this, we modelled the probability and amount of parental wealth transfers as a function of children's ages. Here, biographical age acts as a *proxy* for life-course experience (Clausen, 1986), i.e. as a marker of compounds of normative circumstances that may trigger parental financial assistance. We allowed the functional form of the age effect to differ in the probability and amount equations, and for low- and medium/high-SEB individuals. This was accomplished by using polynomial terms of age (up to cubic) interacted with the different categories of the SEB variable. The best functional form for the age effect for the low-SEB sample is cubic in the selection equation and quadratic in the amount equation. For the medium/high-SEB sample, it is quadratic in both the selection and amount equations. Results are reported as in Figure 3 as marginal effects (predicted probabilities for the probability equation) with random effects held at zero. Model coefficients are reported in Table A3 in the Appendices. These analyses were performed on base models without covariates, as confounding is not of concern here, and the age estimates are meant as 'catch-all' parameters. Results from models adding the full set of covariates (shown in Figure A1 in the Appendix) are very similar, suggesting that the age effects are not driven by adult child characteristics.

Figure 3 Life-course patterns of parental wealth transfers, by socio-economic background



Notes: HILDA Survey, 2001-2015. 95% confidence intervals are reported. Age polynomials and their interactions with SEB are included in the models. The graphs in the first row are marginal effects of the probability of receiving parental transfers, and the graphs in the second row are marginal effects of the amount of parental transfers received. Random-effects are held at zero. The best functional forms of the age effect are fitted for both the low- and the medium/high-SEB groups: for the low-SEB group, the best functional forms of the age effect are cubic in the selection equation and quadratic in the amount equation. For the medium/high-SEB group, the best functional forms of the age effect are quadratic in both the selection and amount equations.

We found some similarities as well as some differences in the life-course patterns of parental wealth transfers by parental SEB. For both low- and medium/high-SEB individuals, the probability of receiving parental wealth transfers decreased with age (top-left panel). As an illustration, children from medium/high-SEB families were 7 times more likely to receive parental wealth transfers before 20 than after 35, and children from low-SEB families were 6 times more likely. This is consistent with findings in Cooney and Uhlenberg (1992) for the US, who reported that adult children aged 30 and above were 3%-10% less likely to receive parental wealth transfers than those in their late 20s. By age 28, predicted probabilities for both

groups flattened, and remained low until age 40 –when they were close to zero. This may reflect that, at around that age, children obtain more secure employment and financial stability, or have already undergone key life-course events, transitions and experiences that trigger parental transfers, such as marriage and first-time parenthood (see next section). The predicted probability of transfers was consistently higher for the medium/high-SEB group than the low-SEB group over the entire observation window, with the gap being greatest in the earlier ages and closing progressively (top-left panel).

Concerning transfer amounts (bottom-left panel), we observed dissimilar trends by SEB: a slight increase in the low-SEB group, and a concave shape for the high-SEB group. Yet high-SEB children received more money over their adult life courses (ages 18-40) than their low-SEB counterparts, with the ‘gap’ being greatest in the late 20s and early 30s (bottom-right panel). The latter may coincide with a life-course stage characterised by a high frequency of important demographic life-course events and transitions (such as marriage and parenthood) that may act as triggers for parental financial assistance. We consider this possibility in the next section.

7.3 Parental wealth transfers at adult children’s life-course events, transitions & experiences

We then move to examine whether and how key life-course events, transitions and experiences can act as triggers for parental wealth transfers, and whether low- and high-SES parents respond differently to their adult children’s circumstances. We considered three major life events/transitions (childbirth, marriage, entering homeownership) and four potentially stressful life-course experiences (being a full-time student, financial worsening, material deprivation, and income poverty). Results are shown in Table 3.

Against expectations, having children had no significant effect on the likelihood and magnitude of parental wealth transfers for neither low nor medium/high-SEB families ($p>0.05$). This finding is consistent with results for Germany reported in Leopold and Schneider (2011), who also failed to find an association between childbirth and increased chance of receiving large parental monetary transfers. One possible explanation is that parents may be more likely to support their children when these children enter parenthood by being available to provide childcare or help with household tasks or by directly purchasing required items (e.g., prams, cradles, car seats, etc.), rather than making direct monetary transfers. However, both

our findings and those in Leopold & Schneider (2011) differ to those reported by Bhaumik (2006), who found childbirth to increase the probability and amount of parental wealth transfers using data from the 1996 wave of the German Socio-Economic Panel.

Parental wealth transfers were however significantly more prevalent for both SEB groups when their children get married; in the year of marriage the odds were higher for low-SEB (OR=1.21, $p<0.05$) and medium/high-SEB (OR=1.23, $p<0.001$) individuals, and in the year before marriage they were higher for the medium/high-SEB group (OR=1.13, $p<0.05$). Low-SEB children received 57% more money in the year before marriage than in other years, *ceteris paribus* ($\beta=0.57$, $p<0.05$), and 81% more in the year of marriage ($\beta=0.81$, $p<0.001$). Likewise, medium/high-SEB children received 35% more money in the year before marriage ($\beta=0.35$, $p<0.01$), and 90% more in the year of marriage ($\beta=0.90$, $p<0.001$).

Being a full-time student was associated with higher odds of receiving parental wealth transfers for children in both SEB groups (OR_{low}=1.45, OR_{medium/high}=1.45, $p<0.001$), and with 41% more parental wealth transfers in low-SEB families as well as 33% more parental wealth transfers in medium/high-SEB families ($p<0.001$). Material deprivation also significantly raised the odds of receiving parental wealth transfers for both SEB groups (OR_{low}=1.22, OR_{medium/high}=1.27, $p<0.001$), but had no significant effect on transfer amounts. Similar to childbirth, income poverty had no effect on neither the probability nor the amount of parental wealth transfers.

The patterns of parental wealth transfers diverged most notably by SEB when it came to entering homeownership and financial worsening: parental transfers to medium/high-SEB children were more likely and involved more money than parental transfers to low-SEB children. While becoming a home owner had no effect on the probability or amount of parental wealth transfers for low-SEB children, the effects were significant in the purchase year for medium/high-SEB children (OR=1.14, $p<0.01$; $\beta=0.80$, $p<0.001$). This suggests that medium/high-SEB parents help their children with large expenditures, such as entering a mortgage. In addition, when children from medium/high-SEB families experienced financial worsening, they were more likely to receive parental wealth transfers (OR=1.22, $p<0.001$), which was not the case for children from low-SEB families.

Table 3 Random-effect Heckman selection models of the effect of children’s key life-course events, transitions and experiences on parental wealth transfers, by SEB

	Low SEB		Medium/high SEB	
	S (OR)	A (β)	S (OR)	A (β)
Panel 1				
Getting married	1.21*	0.81***	1.23***	0.90***
Getting married: year before	0.99	0.57*	1.13*	0.35**
Panel 2				
Childbirth	0.92	-0.03	0.99	0.09
Childbirth: year before	0.92	-0.35	0.98	-0.02
Panel 3				
Buying a property	1.11	0.29	1.14**	0.80***
Buying a property: year before	1.03	0.35	1.01	-0.03
Panel 4				
Being a full-time student	1.45***	0.41***	1.45***	0.33***
Panel 5				
Income poverty	1.00	0.07	1.04	-0.05
Panel 6				
Material deprivation ^a	1.22***	0.06	1.27***	0.07
Panel 7				
Financial worsening ^a	1.08	0.25	1.22***	0.05
Controls	Y	Y	Y	Y
<i>N (observations)</i>	28,387	28,387	35,811	35,811
<i>N (individuals)</i>	5,534	5,534	6,833	6,833

Notes: HILDA Survey, 2001-2015. S: selection equation. A: amount equation. OR: odds ratios. β : Unstandardized beta coefficients. Each panel represents a separate set of two models by SEB. Control variables in all models include respondent’s gender, age, marital status, employment status, country of birth, disability, OECD-equivalised household income, # dependent children, # siblings, # co-residing parents, and survey wave. ^a The coefficients on the dummy variables capturing missing information are omitted for readability. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

8 Discussion and conclusion

In this paper we have used rich, nationally-representative Australian panel data and random-effect selection models to provide one of the first systematic accounts of the influence of parental SES (or self’s SEB) on the probability and amount of parental wealth transfers, and the first to use a life-course approach to examine transfer patterns over adult children’s life courses and at key life-course events, transitions and experiences. Our results pertain to a country context, Australia, characterised by a Liberal welfare regime with low levels of Government support but effective income redistribution, and no tax on gifts and inheritances.

Descriptively, we found evidence of an overall increase in the probability of receiving parental wealth transfers between 2001 (5%) and 2015 (10%), with the pooled mean of such transfers oscillating between AU\$5,000 and AU\$9,000 and the median amount remaining stable at around AU\$2,000. The latter is equivalent to approximately 16% of the median Australian annual labour income for our sample of 18-40 year olds over the 2001-2015 period (AU\$12,307), or approximately 10% of median income for those in employment (AU\$20,000). While dissimilarity in data, methods and sample composition precludes direct comparisons, these figures are 'within the ballpark' of those reported for annual parental wealth transfers in previous US research –e.g. \$6,460 in Cox and Rank (1992) (1988 data), \$3,634 in Berry (2008) (1994 data), \$2,409-\$5,401 in Hochguertel and Ohlsson (2009) (1992-2002 data), \$1,995 in Jayakody (1998) (1988 data), and \$4,524 in McGarry (2016) (1992-2008 data).

Parental wealth transfers in our Australian data are substantial in both prevalence and magnitude, and seem to be on the rise; stressing their importance as the subject of research, and of probing into their distribution by socio-economic background. Concerning the latter, descriptive results revealed that, on average, children from medium/high-SEB families (as measured by parental occupation) were 83% more likely to receive money (11% compared to 6%), and received 79%/67% more mean/median money when they did, than their low-SEB peers (medium/high SEB: mean=AU\$8,596, median=AU\$2,044; low SEB: mean=AU\$4,789, median=AU\$1,224). These results are qualitatively similar to findings from previous studies which considered some SEB measure. For instance, Albertini and Radl (2012) found substantial differences by occupation-defined social class in the amount of parental wealth transfers in 11 European countries: upper service-class parents made the largest transfers (mean=€5,396), whereas parents from low-skilled manual classes made the smallest transfers (mean=€1,970). Similarly, results in Jayakody (1998) for the US indicated that children with low-income parents were less likely to receive money, and received less money, than children with high-income parent. In Norway, Boserup, Kopczuk and Kreiner (2016) reported that parental wealth transfers accounted for about half of the wealth of young adults, but over 90% of the wealth of children from wealthier families. Multivariate results from random-effect selection models replicated this pattern of results, ruling out that this emerged due to confounding. They also confirmed that the direction and magnitude of the parental SES effect applied to each of the alternative measures of parental SES that we used to capture adult children's SEB: parental employment status, education and occupational standing, no history of paternal long-term unemployment, and no history of family breakdown. Thus, it is clear from these findings that

parental wealth transfers are a mechanism whereby better-off parents continue advantaging their children once they have left the nest and become adults (Spilerman & Wolff, 2012). As Albertini and Radl (2012: 119) put it, parental financial assistance acts as a “status-reproducing device”.

Guided by the life-course perspective, our analyses extended the evidence base by systematically examining how the probability and amount of parental wealth transfers transformed over the adult life course, and whether this occurred differently for low- and high-SEB individuals. The prevalence of transfers and their amounts were both consistently higher for the medium/high-SEB group than the low-SEB group over the complete observation window (18 to 40 years). This resonates with early findings by Cooney and Uhlenberg (1992) for the US, and stresses the importance of appropriately specifying child age when modelling parental wealth transfers. The gap in the likelihood of receiving parental wealth transfers was highest at age 18 (15%) and narrowed as children aged, while the gap in the amount of parental wealth transfers exhibited an inverse “U” shape with respect to children’s age, with a peak at age 28 (AU\$5,295). Altogether, these results suggest that high-SES parents continue advantaging their children over low-SES parents via money transfers until children are in their late 30s to early 40s. Perusing the predicted probabilities and mean amounts of parental wealth transfers over ages 18 to 40 for high and low SEB respondents, we estimate that the cumulative gain of being born in a high SES family amounts to AU\$14,710.

Another contribution of our study inspired by life-course theory was to consider whether and how parental wealth transfers were concomitant with adult children’s life-course events, transitions and experiences, and whether any associations are different by parental SES. Of the measures considered, getting married, buying a property, being a full-time student, financial worsening and material deprivation were found to be associated with increases in either the probability or amount of parental wealth transfers for at least one of the groups, suggesting that these circumstances can in fact trigger parental financial help. This pattern of results is consistent with the sparse literature examining the effects of life-course events on parental wealth transfers in Canada, France, Germany and the US (Bhaumik, 2006; Cooney & Uhlenberg, 1992; Leopold & Schneider, 2011; Ploeg et al., 2004; Spilerman & Wolff, 2012). Considering the role of SEB, we find that adult children from higher SEB are disproportionately aided financially by their parents when they get married, purchase a home, study full time, and face material deprivation or financial worsening. The largest gifts were associated with marriage (the raw mean and median for the pooled sample were AU\$26,275 and AU\$6,375,

respectively), and the most prevalent gifts with being a full-time student (the largest odds ratios of 1.45 for both low and medium/high SEB across all models of life-course events). Without more information it is difficult to know why marriage occasions such large gifts, whether to assist with the costs of getting married, help household finance consumption, establish savings, or some other reason. New qualitative studies could aid ascertaining this. The high probability of gifts to adult children in full-time education probably reflects their dependent financial status and limited earnings while studying. Theoretically, these findings highlight the usefulness of taking a life-course approach to the study of parental wealth transfers, drawing attention to age gradients in the probability and amount of transfers, as well as to the importance of life-course events, transitions and experiences as transfer triggers. They also suggest that parental wealth transfers are, to some extent, motivated by children's economic needs and altruistic motives.

Notwithstanding our theoretical and methodological contributions, some study limitations must be acknowledged. These point to avenues for further research. First, we lack information on parental income or wealth, which are arguably better or at least additional measures of parental SEB. Future studies in the field ought to leverage this information to complement our findings. Second, the HILDA Survey data on family background consist of retrospective reports of parental characteristics made by respondents, and these are susceptible to measurement error (Batty et al., 2005). Additionally, the majority of our data only captures parental SES when respondents were age 14, and parental socio-economic standing may have shifted somewhat by the time at which we observe parental wealth transfers to adult children. Hence, our results need to be interpreted with care. Future research could use other data sources that directly observe parental characteristics in the years in which parental wealth transfers are made. Third, we lack information on parental age, health or death, which may have introduced some error in the estimation of our coefficients of interest, plus we have no robust measures of intergenerational relations (e.g. parent-child geographic proximity and frequency of interaction), which prevents us from testing hypotheses concerning reciprocity (Cox & Rank, 1992). These remain issues to be addressed in subsequent studies, should data with the requisite properties become available.

Despite these *caveats*, our findings have important implications for policy and practice. They add to a body of knowledge demonstrating that the transmission of parental advantage from parents to their offspring does not end as children become adults or leave the parental nest. Instead, children from advantaged families disproportionately enjoy the benefits conferred by parental wealth transfers over their adult life courses, with some evidence that

such benefits include the ability to successfully negotiate key life-course events and transitions, and combat extenuating financial circumstances. An important implication of these findings is that compensatory policies that aim at reducing socio-economic inequalities in society should not be restricted to the early life course. This is not to say that early intervention policies that reduce the accumulation of early (dis)advantage (e.g. medical or school support) are misguided, but that an encompassing approach to combating entrenched disadvantage should not be myopic to how richer parents continue advantaging their children in their later life courses. Parental advantage is far reaching.

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Appendix

Table A1 Descriptive statistics on the demographic characteristics of adult children, by socio-economic background

	SEB		
	Low	Medium/High	Missing
<u>Outcome variables</u>			
Transfer amount	4,789 (15,449)	8,596 (32,607)	6,215 (19,228)
Transfer probability	6.1	11.4	6.2
<u>Demographic characteristics</u>			
Female			
No	47.1	47.4	49.6
Yes	52.9	52.6	50.4
Age	29.2 (6.8)	28.9 (6.7)	28.5 (6.6)
University degree			
No	83.5	65.6	79.5
Yes	16.5	34.4	20.5
Marital status			
Partnered	62.5	59.5	52.4
Divorced, separate or widowed	4.3	3.3	4.4
Never partnered	33.2	37.2	43.2
Employment status			
Employed	78	82.7	71
Unemployed	5.7	3.9	7.5
Not in the labour force	16.3	13.4	21.5
Ethno-migrant group			
Born in Australia	87.2	83.6	79.7
Main English Speaking countries	6.9	6.9	3.9
Other countries	5.9	9.5	16.4
Disability			
No	84.4	87.4	82.7
Yes	15.6	12.6	17.3
OECD equivalised household income in 10,000s			
	5.2 (3.2)	6.3 (4.6)	5.0 (3.3)
# dependent children	0.9 (1.2)	0.7 (1.1)	0.8 (1.2)
# siblings	2.3 (1.6)	2.2 (1.4)	2.8 (2.0)
# co-residing parents			
0	82.2	81.1	75.5
1	5.8	4.9	7.8
2	12.0	14.0	16.7
Survey wave	8.5 (4.4)	8.7 (4.4)	8.2 (4.5)
<u>Life-course events, transitions & stages</u>			
Getting married			

No	97.2	97.0	97.2
Yes	2.8	3.0	2.8
Getting married: year before			
No	97.1	96.9	97.2
Yes	2.9	3.1	2.8
Having children			
No	92.6	92.9	92.8
Yes	7.4	7.1	7.2
Having children: year before			
No	92.5	92.8	92.8
Yes	7.5	7.2	7.2
Buying a property			
No	95.4	95.0	95.7
Yes	4.6	5.0	4.3
Buying a property: year before			
No	95.4	94.9	95.7
Yes	4.6	5.1	4.3
Being a full-time student			
No	90.7	84.6	89.1
Yes	9.3	15.4	10.9
Missing	<0.01	<0.01	<0.01
Income poverty			
No	84.1	87.9	78.3
Yes	15.9	12.1	21.7
Material deprivation			
No	51.6	57.3	50.1
Yes	28.5	23.2	27.4
Missing	19.9	19.4	22.5
Financial worsening			
No	77.2	78.5	73.8
Yes	2.6	2.2	2.6
Missing	20.2	19.3	23.6
<i>N (observations)</i>	<i>28,422</i>	<i>35,853</i>	<i>23,579</i>
<i>N (individuals)</i>	<i>5,542</i>	<i>6,841</i>	<i>4,340</i>

Notes: HILDA Survey, 2001-2015. Mean values for continuous variables and percentages for categorical variables are reported. Standard deviations are in parentheses.

Table A2 Random-effect Heckman selection models of the effect of socio-economic background on parental wealth transfers, full output

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	S (OR)	A (β)	S (OR)	A (β)	S (OR)	A (β)	S (OR)	A (β)	S (OR)	A (β)	S (OR)	A (β)
# parents employed												
0 (<i>reference</i>)												
1	1.34***	0.47**										
2	1.48***	0.50**										
# parents with university degree												
0 (<i>reference</i>)												
1			1.30***	0.21***								
2			1.63***	0.43***								
# parents in managerial/professional occupation												
0 (<i>reference</i>)												
1					1.25***	0.22***						
2					1.58***	0.53***						
Parental mean occupational status							1.01***	0.01***				
Parents ever divorced/separated												
Yes (<i>reference</i>)												
No	1.15***	0.23**	1.15***	0.22*	1.16***	0.23**	1.13***	0.21*	1.16***	0.24**	1.14***	0.21*
Father ever unemployed over 6 months												
Yes (<i>reference</i>)												
No											1.22***	0.36***
Controls												
Female												
No (<i>reference</i>)												
Yes	1.06**	0.08	1.06**	0.08	1.06**	0.07	1.07**	0.09	1.06**	0.08	1.06**	0.08
Age	0.73***	-0.00	0.74***	0.00	0.73***	0.00	0.73***	0.00	0.73***	-0.00	0.73***	-0.00
Age square	1.00***		1.00***		1.00***		1.00***		1.00***		1.00***	
University degree												
No (<i>reference</i>)												

Yes	1.12***	0.14*	1.06**	0.10	1.07**	0.09	1.03	0.06	1.12***	0.14*	1.12***	0.14*
Marital status												
Partnered (<i>reference</i>)												
Divorced, separate or widowed	1.09	0.28	1.09	0.29	1.09	0.30	1.12	0.27	1.08	0.28	1.08	0.28
Never partnered	1.20***	0.08	1.19***	0.06	1.19***	0.05	1.17***	0.03	1.19***	0.07	1.20***	0.07
Employment status												
Employed (<i>reference</i>)												
Unemployed	1.30***	0.14*	1.30***	0.14*	1.30***	0.14*	1.31***	0.18**	1.27***	0.13*	1.30***	0.15*
Not in the labour force	1.20***	0.30***	1.19***	0.29***	1.20***	0.29***	1.20***	0.31***	1.19***	0.29***	1.20***	0.30***
Country of birth												
Born in Australia (<i>reference</i>)												
Main English Speaking	1.20***	0.11	1.19***	0.10	1.20***	0.12	1.16***	0.04	1.21***	0.11	1.21***	0.11
Other	1.23***	0.86***	1.14***	0.79***	1.22***	0.84***	1.20***	0.83***	1.22***	0.84***	1.22***	0.85***
Disability												
No (<i>reference</i>)												
Yes	1.09***	-0.12*	1.09***	-0.13*	1.09***	-0.13*	1.11***	-0.13*	1.08***	-0.13*	1.09***	-0.12*
OECD equivalised household income, in AU\$ 10,000s	1.01***	0.08***	1.01***	0.08***	1.01***	0.08***	1.01***	0.08***	1.01***	0.08***	1.01***	0.08***
# of dependent children	0.94***	-0.02	0.95***	-0.02	0.94***	-0.02	0.95***	-0.03	0.94***	-0.02	0.94***	-0.01
# of siblings	0.92***	-0.09***	0.92***	-0.09***	0.92***	-0.09***	0.92***	-0.08***	0.91***	-0.10***	0.92***	-0.10***
# of co-residing parents												
0 (<i>reference</i>)												
1	0.90**	-0.50***	0.90**	-0.50***	0.90**	-0.48***	0.90**	-0.48***	0.90**	-0.50***	0.90**	-0.49***
2	0.90***	-0.83***	0.89***	-0.84***	0.90***	-0.82***	0.89***	-0.83***	0.89***	-0.84***	0.89***	-0.83***
Survey wave	1.02***	-0.02***	1.02***	-0.02***	1.02***	-0.02***	1.02***	-0.02***	1.02***	-0.02***	1.02***	-0.02***
<i>N</i> (observations)	87,196	87,196	87,196	87,196	87,196	87,196	83,677	83,677	87,196	87,196	87,196	87,196
<i>N</i> (individuals)	16,628	16,628	16,628	16,628	16,628	16,628	15,967	15,967	16,628	16,628	16,628	16,628
AIC / BIC	62,634 / 63,094		62,380 / 62,839		62,334 / 62,794		60,125 / 60,545		62,715 / 63,118		62,602 / 63,043	

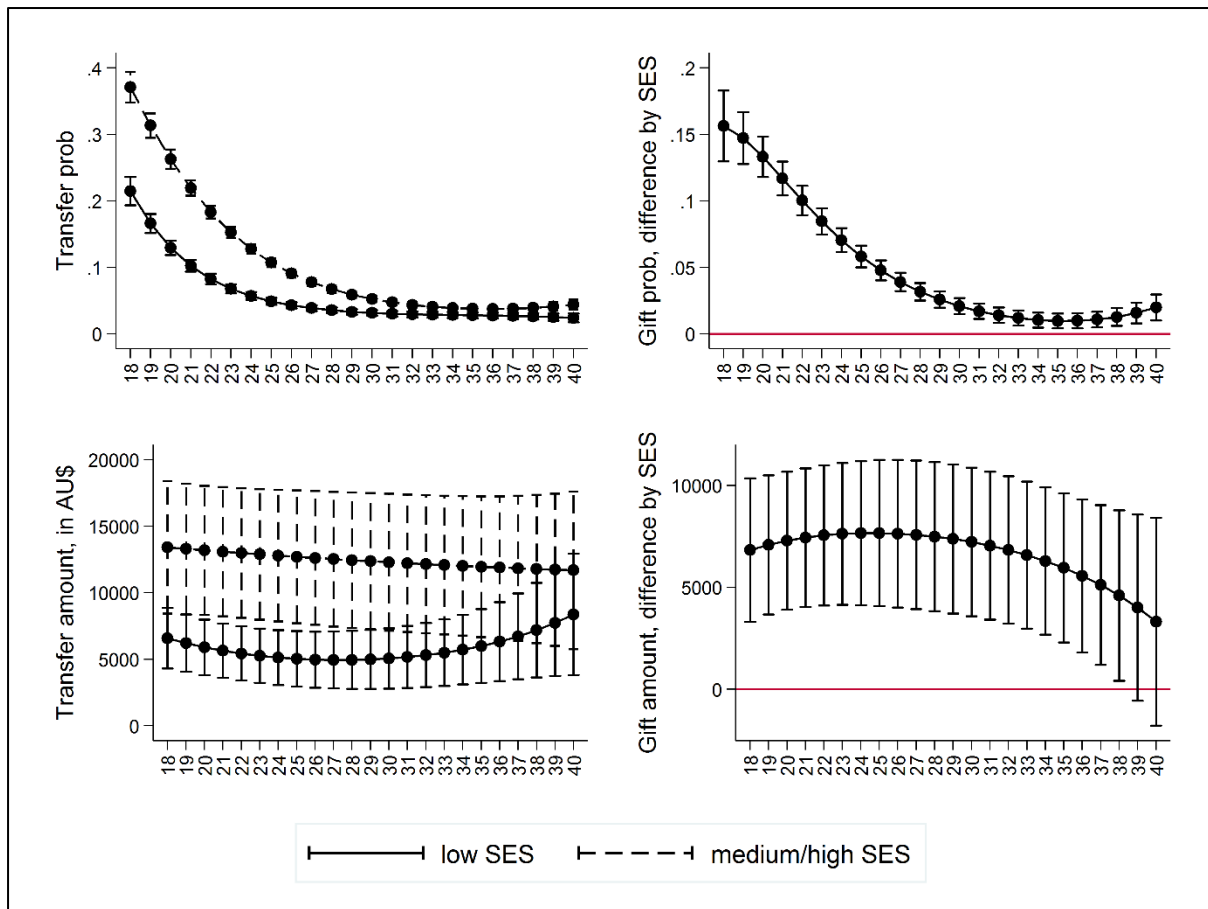
Notes: HILDA Survey, 2001-2015. S: selection equation. A: amount equation. OR: odds ratios. β : Unstandardized beta coefficients. Parental employment status and occupation relate to when the respondent was 14 years of age. The coefficients on the dummy variables capturing missing information are omitted for readability. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A3 Life-course patterns of parental wealth transfers by parental SEB, base model estimates

	S (OR)	A (β)
<u>Main effects</u>		
Age	0.20***	0.01
Age ²	1.04***	0.00
Parental SEB (<i>ref. low SEB</i>)		
Medium/high SEB	0.00*	-1.64
<u>Interactions effects</u>		
Medium/high * Age	2.48**	0.18*
Medium/high * Age ²	0.96**	-0.00*
Low SEB * Age ³	1.00**	
<i>N (observations)</i>	64,275	64,275
<i>N (individuals)</i>	12,383	12,383
<i>AIC / BIC</i>	50,579 / 50,733	

Notes: HILDA Survey, 2001-2015. S: selection equation. A: amount equation. OR: odds ratios. β : Unstandardized beta coefficients. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Figure A1 Life-course patterns of parental wealth transfers by parental SEB, estimates from model with all covariates



Notes: HILDA Survey, 2001-2015. 95% confidence intervals are reported. The graphs in the first row are marginal effects of the probability of receiving parental transfers, and the graphs in the second row are marginal effects of the amount of parental transfers received. Age polynomials and their interactions with SEB are included in the models. The best functional forms of the age effect are fitted for both the low- and the medium/high-SEB groups: for the low-SEB group, the best functional forms of the age effect are cubic in the selection equation and quadratic in the amount equation. For the medium/high-SEB group, the best functional forms of the age effect are quadratic in both the selection and amount equations. Control variables include gender, education, marital status, country of birth, employment status, OECD household equivalised income, disability, # dependent children, # siblings, # co-residing parents and survey wave. Covariates are held at the means, and the random-effects are held at zero.