

# Breaking Down Barriers



Melbourne Institute research  
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overcoming disadvantage

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series

## Does poverty in childhood beget poverty in adulthood in Australia?

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# Executive Summary

Analysis of the intergenerational transmission of economic disadvantage and entrenched poverty is concerned with discovering the extent to which an individual's socio-economic outcomes as an adult depend on the economic fortunes of his or her parents. This includes examining the level to which children who grew up in poor households perform worse in terms of educational attainment, labour market outcomes, health status and even life satisfaction and well-being, than their peers who grew up in better-off households.

This report provides new empirical evidence that the length of time children live in households experiencing income-based disadvantage is a predictor of other forms of disadvantage experienced by early adulthood. This analysis explores the extent and structure of this form of intergenerational transmission of disadvantage, and especially entrenched income-based poverty, in Australia. The analysis draws on the Household, Income and Labour Dynamics in Australia (HILDA) Survey to examine a cohort born between 1986 and 1992 over the 18-year period from 2001 to 2018. The HILDA Survey is a unique longitudinal dataset which is well suited to the study of the transmission of poverty across generations in Australia. This survey is nationally representative and contains rich information on individuals' personal, family and household characteristics, economic circumstances educational outcomes and labour market activity, and furthermore allows us to match parents to their children.

The results suggest that low household income during childhood is a key predictor of disadvantage in later life (as a young adult) and therefore an important indicator to guide policy interventions to break intergenerational cycles of disadvantage.

Examining the period from 2001 to 2018 for Australia, the key findings of the report are:

- Children from a disadvantaged background often struggle to move up the economic ladder. Experiencing just a single year of income poverty during childhood is associated with lower earnings in early adulthood, compared with never having experienced poverty as a child.
- Experiencing multiple years of income poverty during childhood worsens the socio-economic outcomes of children in adulthood.
- Comparing children from households which experienced several years of income poverty with those who did not, the latter group are 2.4 times more likely to get a university degree, 1.8 times more likely to be employed full-time, and 1.3 times more likely to have a permanent, ongoing job (as opposed to a casual or fixed-

term job). Among the employed, children who were raised in non-poor families earn, on average, an hourly wage rate that is 23% greater than those who experienced poverty as a child.

- Both general health and mental health are worse among young adults who grew up in poor households.
- Children from poor households are more likely to suffer early adult poverty (3.3 times more likely), to live in social housing (up to 2.5 times) and to experience financial stress (2.5 times more likely) than children from non-poor household.
- Growing up in a family with little or no wealth is an important predictor of lower educational attainment, poorer labour market performance, worse health, and lower overall life satisfaction.
- Finally, even after we control for parental welfare receipt, a wide range of non-economic parental factors and neighbourhood characteristics, our analysis strongly supports the idea underlying the 'economic resources model', meaning that having experienced poverty during childhood is associated with dramatically reduced financial sufficiency and dramatically higher chances of being poor as an adult, confirming the notion that poverty begets poverty.

Despite its existence and persistence, the intergenerational transmission of poverty should not be viewed as unavoidable. Rather, efforts should be concentrated on gaining a better understanding of the sources of this intergenerational transmission and the different pathways for helping individuals build a better future. For example, while low parental income may be the key driver of the intergenerational transmission of poverty, it is important to investigate the roles played by potential mediating factors, such as family circumstances and dynamics, socioeconomic characteristics of the neighbourhood, educational opportunities and outcomes, and health and access to health care.

# 1. Motivation and overview of report





## 1.1

### The intergenerational transmission of poverty and its policy relevance



Poverty is a phenomenon closely linked to the economic development of a country, but a high level of social well-being is achieved not only via high rates of economic growth. In fact, as the OECD warned in 2010, a lack of social mobility can 'curb economic growth' (OECD, 2010). Social mobility here refers to the relationship between the socio-economic status of parents and that of their children when adults (i.e., intergenerational social mobility). In the 'career' of life we each start from a different position, since personal and family characteristics place us more or less ahead of the starting line. An early experience of poverty can follow children throughout their lives. Poor families often lack the resources to adequately invest in their children's education. And poor education can contribute to poor skills, limited employment prospects, low job quality, and even poorer health outcomes, greater exposure

to environmental hazards and crime later in life. If nothing is done to remedy such unequal beginnings, the inequality of origin will continue to mark and condition a society's progress and ultimate success.

Poverty and inequality are thus at the core of poor intergenerational mobility since they shape access to opportunities in education, as well as the integration of individuals (as they age) into the labour market and society more generally. Consequently, as inequality increases intergenerational mobility often decreases, such that some individuals and regions prosper, while others fall further behind, with important economic, social and political consequences. According to the OECD (2018; p.13), a lack of upward mobility among the poorest means that potential talents remain under-developed. It also means that many investment opportunities are unexploited and potential businesses



never see the light, undermining productivity and economic growth. At the opposite end of the spectrum, a lack of mobility at the top of the income-wealth scale can translate into persistent economic rents for a few at the expense of the many: opportunity hoarding is bad for society and incurs high efficiency costs. More broadly, there is evidence suggesting that the possibility of upward mobility has a positive influence on life satisfaction and well-being. Conversely, a high risk of downward mobility and a loss of economic and social status tend to reduce life satisfaction and undermine individual self-esteem and social cohesion, particularly among middle- and low-income people. This can reduce trust in the socio-political system, with potentially negative consequences for democratic participation and even foster political extremism or populism.

The intergenerational transmission of poverty is not the sole responsibility of families. As argued by Corak (2013), contemporary labour markets, with skill requirements dictated by technical change, globalization and the capacity of the skilled labour supply to keep up with demand, have also played a role. Ultimately, public policy and the broader national context can affect the investment made in children across the entire income distribution and how families interact with labour markets. Thus, for any society wishing to improve the living conditions of its citizens and increase social cohesion, obtaining a better understanding of the intergenerational transmission of poverty is an important aspect of effective policy-making.

## 1.2

### Recent research on intergenerational poverty transitions in Australia



The majority of studies on the intergenerational transmission of economic disadvantage in Australia focus on individual earnings or an individual's household income. Studies which focus on intergenerational earnings elasticities measure the extent to which the earnings of parents are associated with the eventual earnings of their children and in principle can range between -1 and 1. A positive earnings elasticity implies that children of higher income parents will themselves have higher earnings, and the higher the elasticity, the lower the income mobility. An estimate of, for example, 0.5 implies a child's earnings are increased by 0.5% for each additional 1% of parent earnings. Greater earnings persistence across generations, as reflected in high earnings elasticity, may have very negative implications, especially if the parents are at the lower end of the earnings distribution. The increasing availability of longitudinal surveys and administrative datasets with detailed information

on income has facilitated an increase in research using an individual's household income as the basis of intergenerational studies. Alternative studies of intergenerational disadvantage have focused on other childhood disadvantage and poverty variables, such as welfare receipt. Being a welfare recipient is associated not only with a lack of income, but also with features such as low levels of wealth, poor health and inadequate housing. Growing up in a family receiving social assistance is a marker for compromised long-term development (Weitoff et al. 2008).

Table 1 summarises the important contributions in Australia to the study of intergenerational disadvantage based on the approaches defined above.

**Table 1. List of the most relevant studies on the intergenerational association of disadvantage in Australia**

Study	Data	Sample and time period	Estimation methods	Definition of poverty/disadvantage during childhood	Outcomes	Key results
Leigh, 2007	<ul style="list-style-type: none"> <li>Social Stratification in Australia (1965)</li> <li>Social Mobility in Australia Project (1973)</li> <li>National Social Science Survey (1987) and</li> <li>HILDA Survey (2001-2004)</li> </ul> <p>Results were compared to the US using the Panel Study of Income Dynamics (PSID) for 2001</p>	Employed men with reported earnings, aged 25-54 and over a 40 years period	<p>Ordinary least squares (OLS) regression of son's hourly earnings (log) on father's imputed hourly earnings (log) plus control variables is used to estimate IGE</p> <p>Intergenerational elasticity of earnings (IGE) estimated</p>	Father's hourly earnings which are imputed using the predicted hourly earnings of a 40 year old with the same occupation.	Earnings of employed men	<ul style="list-style-type: none"> <li>✓ IGE 0.181 in Australia for 2004 compared to 0.325 for the US in 2001</li> <li>✓ Considering the 40 years of the study, no evidence that intergenerational mobility has changed over time in Australia</li> <li>✓ Result suggests intergenerational earnings mobility is higher in Australia than in the US and, compared Jäntti et al. (2006), less socially mobile than the Scandinavian countries, and possibly about as socially mobile as the UK.</li> </ul>
Mendolia and Siminski, 2016	<ul style="list-style-type: none"> <li>HILDA Survey (2001-2012)</li> </ul> <p>Results were compared to the US using the Panel Study of Income Dynamics (PSID) for 2001, 2003, 2005, 2007.</p>	Men aged 25-54 who report positive earnings	<p>Ordinary least squares (OLS) regression of son's earnings (log) on father's imputed earnings (log) plus control variables is used to estimate IGE (unadjusted).</p> <p>Adjusted IGE using US benchmarks to circumvent measurement error problems (attenuation bias).</p>	Father's earnings are imputed using the approach of Leigh (2007).	Positive earnings of men	<ul style="list-style-type: none"> <li>✓ Higher intergenerational persistence than that estimated by Leigh (2007)</li> <li>✓ Adjusted IGE based on US benchmarking = 0.350</li> </ul>
Murray et al., 2017	<ul style="list-style-type: none"> <li>HILDA Survey (2001-2015)</li> </ul>	Children aged 15-17 in 2001 are paired to their parents and followed up to 2015. This results in 489 parent-child pairs.	<p>OLS regression of child's household income (log) on parent's household income (log): IGE</p> <p>OLS regression of child's percentile rank in child income distribution on parent's corresponding measure: Rank correlation. It allows for zero or negative income (IGE does not), mitigating sample-selection problems.</p>	Parents' household income	Children's household income	<ul style="list-style-type: none"> <li>✓ IGE: 0.409 (gross household income, adjusted for attenuation bias)</li> <li>✓ Rank correlation: 0.273.</li> <li>✓ They also conclude that Australia has greater mobility than the United States.</li> </ul>

**Table 1. List of the most relevant studies on the intergenerational association of disadvantage in Australia (CONT.)**

Study	Data	Sample and time period	Estimation methods	Definition of poverty/disadvantage during childhood	Outcomes	Key results
Deutscher and Mazumder, 2019	• Australian Taxation Office (ATO) intergenerational data (1991–2015)	People born between 1 July 1978 and 30 June 1982 registered for a tax file number, remained resident in Australia through 2015 and could be matched to their parents	OLS regression of child's income (log) on average parental household income (log): IGE  OLS regression of child's percentile rank in child income distribution on parent's corresponding measure: Rank correlation	Average parental household income	Children's income	✓ IGE: 0.185 (individual total pre-tax income) ✓ Rank correlation: 0.215 ✓ Some regional differences in mobility were also observed.
Cobb-Clark, et al 2017	• Australian social security (Centrelink) records: 2014 version of the Transgenerational Data Set (TDS) constructed by the Department of Social Services (DSS)	All young people born between October 1987 and March 1988 who ever had contact with the social security system between 1993 (age 5–6) and beginning of 2014 (age 25–26). 124,285 unique matched youth – parent pairs.	Compares a series of generational correlations across social programs to identify: i) the parental social assistance payments most likely to result in higher rates of social assistance receipt among adult children; ii) the extent to which the intensity of parental social assistance drives youth outcomes; and iii) the specific pathways through which intergenerational social assistance is linked.	Perception by a family member (usually a parent) of at least one Centrelink payment at some point between 1993 and 2005 (before children turned 18)	Social assistance receipt of young adults	✓ Young people are 1.8 times more likely to need social assistance if their parents have a history.  ✓ They also receive more intensive support; an additional \$12,000 over an 8-year period.  ✓ Some heterogeneity exists: (1) The intergenerational correlation is particularly strong in the case of disability payments, payments for those with caring responsibilities, and parenting payments for single parents; (2) Disadvantage from parents' poor labour market outcomes seems to be easier to overcome.

Leigh (2007) stands out as the first contribution to the study of social mobility in Australia. Using four different surveys conducted over a 40-year period (one of them being the Household, Income and Labour Dynamics in Australia (HILDA) Survey), he focused on the earnings elasticities of children born between 1911 and 1979 using occupation-specific predictions of their fathers' earnings. He found that the elasticity of a child's earnings with respect to the father's earnings is around 0.20 to 0.30. This suggests that if an Australian father's earnings increase by 10%, his child's earnings would rise by 2% to 3%. Interestingly, after comparing these results with US data, Leigh concludes that intergenerational earnings elasticity in Australia is significantly lower than in the United States, indicating that mobility across generations is higher in Australia than in the United States.

The work of Leigh has been followed by several authors examining actual earnings of fathers rather than estimated earnings. This includes Mendolia and Siminski (2016), who use the first 12 years of the HILDA Survey (as well as the US Panel Study of Income Dynamics) to estimate intergenerational earning elasticities for male children aged 25 to 54. Their preferred estimates, which were more precise than those of Leigh, show that a 10% increase in a father's earnings is associated with a 3.5% increase in his son's earnings—a substantially higher degree of intergenerational persistence than estimated by Leigh. Their adjusted estimates are intended to be comparable to those for other countries. Corak's (2013) cross-country study shows that higher cross-sectional inequality is associated with lower intergenerational mobility. Mendolia and Siminski conclude that Australian social mobility is broadly consistent with its level of cross-sectional inequality.<sup>1</sup>

Murray et al. (2018) provide the first Australian estimates of intergenerational mobility that draw on direct observations of *income* (rather than earnings) for parents and their children. Using 15 years of the HILDA Survey data, they follow people born between 1984 and 1986 who were aged 15–17 in 2001, when the HILDA Survey commenced. They adopt the methodological approach used by Chetty et al. (2014), who estimated intergenerational elasticities from US federal income tax data. They observe that a 10% increase in parental household income is associated with a 2.8% increase in the household income of adult children. This estimate rises to 4.1% once an adjustment for potential attenuation bias is made. Using income rather than earnings, they also show that Australia has greater mobility than the United States.

More recently, Deutscher and Mazumder (2019) estimated intergenerational mobility using income tax data—the Australian Taxation Office (ATO) Australian Longitudinal Individuals File (ALife)—between 1991 and 2015. They examined cohorts born between 1978 and 1982, 90% of whom could be linked to their parents through applications for tax file numbers. They found that the intergenerational elasticity of total income is 0.185, while the rank correlation is 0.215, suggesting that Australia is among the most mobile countries in the world. Interestingly, they also produce the first regional estimates of intergenerational mobility in Australia and conclude that, while mobility is high throughout most of the country, there is meaningful regional variation, with the mining boom in particular driving strong upward mobility over this period.

<sup>1</sup> Other empirical studies that have adopted Leigh's approach to examine intergenerational mobility in Australia include Huang et al. (2016) and Fairbrother and Mahadevan (2016).

The most recent evidence using the welfare receipt approach is that of Cobb-Clark et al. (2017). Using administrative data that links the social security records of a birth cohort of young adults to those of their parents, they find that 58% of young Australians receive welfare between the ages of 18 and 26 if their parents ever received welfare, compared with 31.8% if their parents did not—a ratio of 1.8. Given that welfare receipt is concentrated at the younger end of this age range because of Youth Allowance, this ratio would rise if the focus were limited to those in their mid-20s. They also find that the intergenerational correlation for welfare receipt varies across payment types, indicating that some forms of disadvantage may be more easily transferred from parents to children than others.

The recent evidence presented here shows that some of the social and economic status of Australian parents is passed on to their children. Consequently, it is to be expected that poor and disadvantaged children experience poorer socio-economic outcomes as adults. Nevertheless, it should not be forgotten that institutions play an important role in shaping the extent of intergenerational disadvantage. In reality, families, labour markets, public policy and the broader national context all interact to drive the extent to which children's opportunities and outcomes depend on their family background (Corak 2013). It is important, then, to develop a solid and robust understanding of the processes underlying Australian social mobility so as to ensure effective policy design.

By explicitly focusing on the transmission of disadvantage from parents to children and drawing on the rich longitudinal data provided by the Household, Income and Labour Dynamics in Australia (HILDA) Survey, this report makes an important contribution to this understanding. It contributes new empirical evidence on the extent and structure of the intergenerational transmission of economic disadvantage

and entrenched poverty in Australia. More specifically, the report analyses how 'entrenched poverty' and 'economic disadvantage' are transmitted across generations, and how much individual and family background characteristics, economic circumstances and institutional settings (including social policies) are related to disadvantage in adulthood.

The majority of studies on the intergenerational transmission of economic disadvantage in Australia focus on individual earnings or an individual's household income where the income-outcome relationship is assumed to be linear, and cannot tell us directly about the intergenerational inheritance of poverty (and disadvantaged groups tend to be jobless individuals or families with no earnings or income to report). Given the longitudinal nature and time span of the HILDA Survey, this study expects to contribute to the literature in at least three ways.

First, the study focuses on the transmission of disadvantage looking at childhood poverty and examining a broader range of young adult outcomes (for example, educational attainment, labour market outcomes and health status).

Second, to investigate the nonlinear effects in the childhood-poverty to young-adult-outcome relationship, the study distinguishes between different disadvantaged groups of individuals, including those from 'poor' families and those from 'low-income' families.

Third, the study makes further distinctions according to the length of time in poverty (fully exploiting the degree of poverty persistence), thus likely providing greater insights into the dynamics of intergenerational transmission of disadvantage. Incomes might vary substantially during childhood (in a manner that parents cannot easily account for by borrowing and smoothing consumption). Thus, considerable intergenerational '*income mobility*' may exist even as many children from extremely poor families are permanently stuck in poverty. By focusing on the persistence of poverty rather than just income mobility we should be able to overcome this limitation.

## 1.3

### The importance of the HILDA Survey



The HILDA Survey provides a unique dataset which is well-suited to the study of the transmission of poverty across generations in Australia. At the time of writing it comprises 18 years of rich data relating to personal, family and household characteristics, as well as individual behaviours and outcomes, further allowing the successful matching of data about parents with data from their children. The HILDA Survey is a nationally representative, longitudinal study of Australian households that has been collecting data on the lives of Australian residents since 2001. The annual survey collects information on topics such as household and family relationships, childcare, employment, education, income, expenditure, health and well-being, attitudes and values, and various life events and experiences. The HILDA Survey allows us to: (1) examine a variety of concepts and measures of poverty and economic disadvantage; (2) examine in depth the characteristics of people and families most susceptible to the transmission of disadvantage; and (3) investigate the drivers of intergenerational transmission of poverty.

The most common practice internationally for defining (and measuring) socio-economic disadvantage is to focus on the cash income of households, and defines people as poor if their income (after receipt of government benefits and payment of income taxes) is below some threshold level. The OECD has traditionally set this level at half the median income, giving a 'poverty line' for Australia of about \$50,000 for a family of four and \$24,000 for a single-person household.

However, such an approach ignores other available economic resources, most notably in-kind income such as publicly-provided healthcare and housing, as well as wealth. It also ignores differences amongst people in terms of need. For example, people in poor health often have higher medical expenses, which mean they need more income to achieve a decent material living standard. Moreover, there is also a time dimension to consider: persistent disadvantage is of considerably more concern than temporary poverty.



A more-refined identification of persistent disadvantage requires more-refined and better data. In this regard, the HILDA Survey is an ideal resource. Its longitudinal aspect, following the same people year after year, allows for the identification of persistent, long-term disadvantage.

There are, however, demographic groups which show higher rates of disadvantage regardless of any particular measure. In this regard, disability, poor health, low educational attainment, living outside a major urban area, living alone or in a single-parent family and indigeneity are all consistently associated with persistent disadvantage. Indeed, on most measures more than 90% of people experiencing persistent socio-economic disadvantage have one or more of these characteristics.

By design the HILDA study can continue indefinitely, following as it does not only the initial sample members for the remainder of their lives, but also their children and all subsequent descendants, thus being ideal for intergenerational analyses. The sample design also ensures that the data collected are broadly representative of the population of Australia as it changes through time. That said, biases may be introduced by potential differential non-response in the initial interview wave in 2001 (and subsequently), together with differential attrition (sample drop-out) after the first interview. The use of sample (longitudinal) weights used throughout this report, where appropriate, is the conventional way to mitigate against these potential biases. For more information about the HILDA Survey, sample design, representativeness and methods, see Watson (2012) and Summerfield et al. (2019).

## 1.4

### Outline of the remainder of this report



The remainder of this report presents our analysis of the extent and structure of the intergenerational transmission of poverty, and entrenched poverty, in Australia using the longitudinal information available from the HILDA Survey. Section 2 describes the sample and the primary measures of income and poverty used in the report.

Section 3 provides an in-depth review of social mobility as individuals age along the key dimensions of income, occupation, education and health. Special attention is paid to living in an income-poor household as a child and how this determines outcomes as the child becomes a young adult. Moreover, different categories of childhood poverty are defined and studied based on the length of time young adults were poor during childhood, from occasionally poor to more frequent and severe poverty. Some

complementary analysis considers parental wealth rather than parental income (Section 3.2), following the literature that links parental wealth and social mobility (Anderson et al. 2016; Hochstenbach 2018).

Section 4 of the report analyses the persistence of income disadvantage when we look at parents' income in a multivariate context. That is, how and how frequently poverty is transmitted between generations after controlling for non-economic parental characteristics, parental welfare receipt, neighbourhood characteristics and labour market conditions (while the child was growing into a young adult).

## 2. Data, samples and definitions

Before turning to the analysis we describe the samples used in the different sections of this report and define some important concepts, notably 'income' and 'poverty'. Definitions and concepts that are specific to the discussion of a particular topic are explained in the relevant section.





## 2.1

### Samples for the analysis



The overall sample examined comprises children aged nine to 15 years in 2001.<sup>2</sup> In total, the 2001 HILDA Survey sample contains 952 males and 929 females aged nine to 15 years. For the descriptive analysis presented in Section 3, and in order to maximise the number of observations, we follow an ‘unbalanced panel’ of all these children for as long as they are in the survey, either as children or as young adults. That is, we do not impose a condition that they are present in the sample every single year from 2001 to 2018. Since our purpose in Section 3 is to monitor the socio-economic outcomes of a group of children as they get older (under different poverty statuses), we believe this is a reasonable approach as it maximises the precision of estimates for

socio-economic outcomes at each stage of early adulthood. Table 2 shows the number of observations used in the analysis each year.

However, in Section 4 and the last part of Section 3, the research focuses on the intergenerational transmission of disadvantage, and our interest here lies solely in individuals observed as children aged nine to 15 in 2001 and as young adults later on in 2018 when they had reached 26 to 32 years of age. From our starting sample of 1,881 observations, on this basis only 580 males and 598 females remained in the HILDA Survey sample in 2018. Thus, the resulting sample for this analysis is 1,178 observations.<sup>3</sup>

2. To be included in the sample, respondents had to be observed in at least three years as children. Corcoran and Adams (1997) further restrict the sample to have been a head or wife in their own household in at least one year after 24 years of age. Given the increasing proportion in Australia of young adults living in the parental home we have not imposed this restriction on our sample.

3. For the multivariate analysis in Section 4 this sample size goes down to 1,088 individuals who provide full information (non-missing values) to all the variables used in the analysis.

**Table 2. Sample studied in Section 3 of this report by age group and year.**

	Children's age	Number of children	Adults' age	Number of adults
2001	9 to 15	1,881	-	0
2002	10 to 16	1,855	-	0
2003	11 to 17	1,858	-	0
2004	12 to 17	1,563	18	191
2005	13 to 17	1,355	18 to 19	412
2006	14 to 17	1,080	18 to 20	629
2007	15 to 17	806	18 to 21	849
2008	16 to 17	538	18 to 22	1,030
2009	17	245	18 to 23	1,322
2010	-	0	18 to 24	1,542
2011	-	0	19 to 25	1,472
2012	-	0	20 to 26	1,413
2013	-	0	21 to 27	1,363
2014	-	0	22 to 28	1,318
2015	-	0	23 to 29	1,284
2016	-	0	24 to 30	1,244
2017	-	0	25 to 31	1,188
2018	-	0	26 to 32	1,164

*Notes for Table 2:* This table shows the number of individuals used in Section 3 of this report classified by age group and year. We start with individuals aged 9 to 15 in 2001 and follow them as they age. However, to maximise the number of observations, we follow an ‘unbalanced panel’ of individuals where some withdrawals take place, and new individuals also arrive. Thus, for example, in 2001, we use 1,881 individuals aged 9 to 15 while in 2004, the sample was composed of 1,563 individuals aged 12 to 17 and 191 young adults aged 18.

While there is considerable earlier evidence using a similar time span (Corcoran and Adam (1997); Peter and Mullin (1997); Teachman et al. (1997)), some authors argue that earnings observed at relatively young ages may not be a good measure of longer-run earnings, due to the unsettled nature of labour market careers at this life-cycle stage (Grawe 2006). Better measures of the extent to which poverty is transmitted from one generation to the next are likely to require earnings information from parents and children when both are in the middle of their working careers (see e.g. Haider and Solon 2006).

Similarly, given the demanding requirements for building up the samples, we are only able to produce statistically reliable estimates of the intergenerational transmission of income poverty for the overall population in Australia. We therefore are unable to explore how this process differs across population groups, for example defined by immigrant status, location of residence or presence of a disability. As more years of the HILDA Survey data become available, this research can be extended to confirm and enrich the study’s contribution to understanding intergenerational poverty dynamics in Australia.

## 2.2

### The definition of an individual's income



In this report we use a definition of individual income which is widely used in the literature on poverty and poverty dynamics, namely: '*real household annual equivalised disposable income, before the deduction of housing costs*'.<sup>4</sup> Household annual disposable income is a derived variable that combines incomes of all household members after receipt of government pensions and benefits and after deduction of income taxes in the financial year ended 30 June of the year of the survey wave (for example, 2001 in Wave 1). To produce this variable, the HILDA Survey data managers impute values of collected income components that are missing

due to non-response (Hayes and Watson, 2009). Furthermore, as described in Wilkins (2014) certain income components that are not collected from respondents (primarily Family Tax Benefit) are estimated. Income tax is then estimated for each sample member to produce disposable income estimates at both the personal and household level.

4. Income poverty measures can also be calculated based on income net of housing costs. For example, an individual may be classified as in relative income poverty if equivalised income net of housing costs—that is, the equivalised income that is left over after housing costs have been paid—is less than 50% of the median of this income measure. These measures produce substantially higher poverty rates for renters in the private rental market, and substantially lower poverty rates for outright home owners. Notably, this leads to higher estimated poverty rates among single-parent families and non-elderly single people, relatively high proportions of whom are private renters.

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We examine the distribution of income (and low income in particular) among individuals and each person's income is measured using the income of the household to which he or she belongs. Further adjustments are made to account for household size and composition differences and for differences in price levels between years. Given the particular features of the income definition used, some further clarifications are provided below.

#### 1. The unit of analysis is the individual, but the household is the unit of account

We consider the distribution of income across individuals, not households or families. But because we are using income data to provide a measure of the economic well-being or living standard of each individual, we need to take account of the fact that most individuals live in families and households and thus benefit from income pooling and sharing. (For example, a baby has no income, but benefits from his or her parents' income). We follow conventional practice and assume that, within each household, total household income—the sum of all the incomes of each household member—is distributed equally among household members. In sum, the individual is the unit of analysis, but the household is the unit of account.

#### 2. Household (disposable) Income in the HILDA Survey

HILDA Survey respondents do not actually report their disposable income. Rather, each respondent is asked how much income they received from each of a number of sources, including employment, government benefits, investments and any businesses they may own. The total gross income of each individual is equal to the sum of these income components. The disposable income of each respondent is then calculated by estimating the income tax payable by the individual and subtracting this from the individual's total gross income. The disposable incomes of all household members are then added together to obtain household disposable income. See Wilkins (2014) for details on the construction of gross income and the methods used to calculate disposable income. Note that, consistent with the Canberra Group's recommendations (see United Nations, 2011), large irregular payments received by individuals are excluded from income in the analysis presented in this report—that is, it is regular disposable income that is examined.

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3. Incomes are adjusted (equivalised) to account for differences in household size and composition

Equivalised income is a measure of material living standards, obtained by adjusting household disposable income for the household's 'needs'. Most obviously, a household of four people will require a higher household income than a single-person household to achieve the same living standard. There are, however, many factors other than household size that could be taken into account in determining need. These include the age and sex of household members; health and disability of household members (since poor health and/or disability increase the costs of achieving a given standard of living); region of residence (since living costs differ across regions); and home-ownership status (since the income measure does not usually include imputed rent for owner occupiers).

In practice, it is common to adjust incomes based solely on the number of adult and child household members, using an equivalence scale. In this report, we have used the 'modified OECD' scale (Hagenaars et al., 1994), which divides household income by one for the first household member, plus 0.5 for each additional household member aged 15 and over, plus 0.3 for each child under 15. A family comprising two adults and two children under 15 years of age would therefore have an equivalence scale of 2.1 ( $1 + 0.5 + 0.3 + 0.3$ ), meaning that the family would need to have an income 2.1 times that of a single-person household in order to achieve the same standard of living. This scale recognises that larger households require more income, but it also recognises that there are economies of scale in consumption (for example, the rent on a two-bedroom flat is typically less than twice the rent on an otherwise comparable one-bedroom flat), and that children require less than adults. Each member of a household is assigned the same equivalised income, the implicit assumption being that all household income is pooled and then shared equitably.

4. Incomes are put on a constant-price basis in order to compare real incomes

We examine real income rather than nominal income, which is achieved by adjusting for inflation using the Australian Bureau of Statistics Consumer Price Index (the official measure of consumer price inflation in Australia). Real incomes are expressed at December 2018 prices, which means that—since prices tend to rise over time—real incomes are higher than the nominal (actual) incomes reported by individuals. The reason for this adjustment is that it makes incomes comparable over time: a real income of one dollar in 2001 has the same purchasing power—that is, can buy the same amount of goods and services—as a real income of one dollar in 2018.<sup>5</sup>

5. Note that adjusting for the nationwide measure of consumer inflation does not account for differences in prices, and in changes in prices, across different regions of Australia

## 2.3

### Poverty and income sufficiency measures



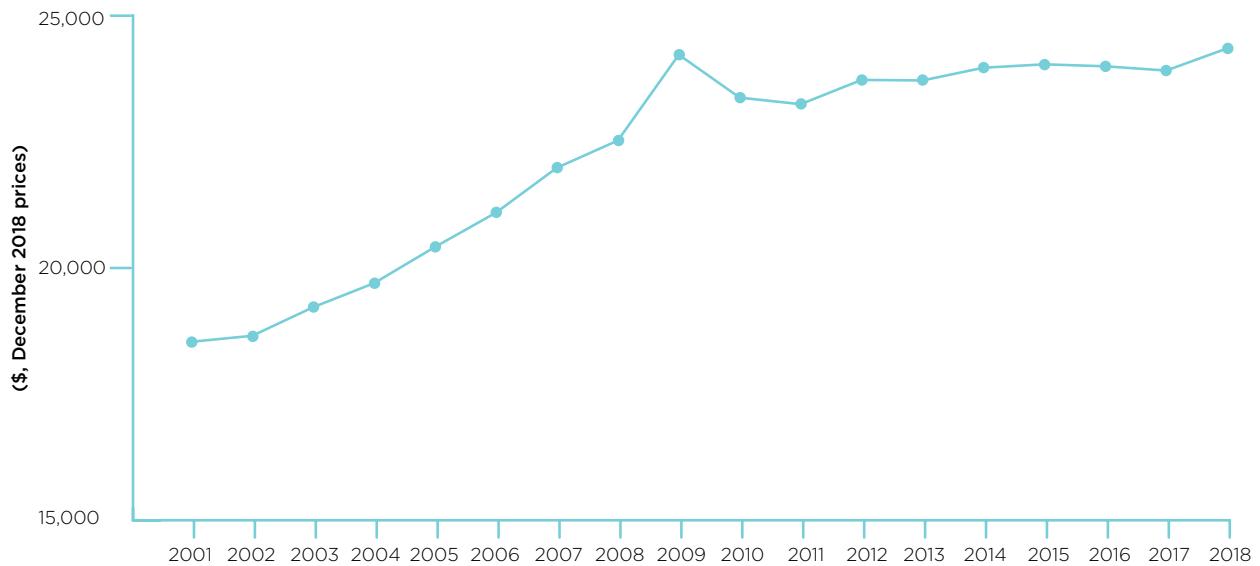
The definition of 'poverty' has been the subject of widespread discussion over time. In most instances poverty refers to a lack of income. Nevertheless, low consumption expenditure, poor housing and other inadequacies in physical living conditions are also sometimes used to identify those who are poor. Broader definitions include poor quality health care and education and a reliance on basic social services, amongst other things (for example see Gordon et al. 2000).

The definition of poverty used in this report is based on income. An individual is defined as poor if he or she has an income which falls below a particular low-income threshold (the 'poverty line'). There is no single official poverty line in Australia but, following the poverty definitions used by the OECD<sup>6</sup>, the poverty line used for our analysis is 50% of the median household income of the total population for each year. This is a 'relative' poverty line because it is defined with reference to the contemporary household income distribution and the middle (median) income in particular. Moreover its value in real terms changes over time as median income changes.<sup>7</sup> As shown in Figure 1, the 50% of median poverty line increased by just over 31% between 2001 and 2018, from \$18,537.83 to \$24,352. (These figures are expressed in December 2018 prices; the definition of income is explained above.)

6. <https://data.oecd.org/inequality/poverty-rate.htm> (last accessed November 2019)

7. For a review of the issues surrounding the choice between relative and absolute measures of poverty, see the surveys in Callan and Nolan (1991), Citro and Michael (1995), and Ruggles (1990).

**Figure 1. Poverty line values from 2001 to 2018, expressed at December 2018 prices**



*Notes for Figure 1:* The poverty line is calculated as 50% of the median household annual equivalised disposable income (before the deduction of housing cost) of the total population for each year. Household income were adjusted for inflation using the ABS consumer price index, expressed at December 2018 prices.

The choice of a 50%-of-median poverty line used in this report is of course arbitrary to some degree. However, Jenkins and Riggs (2001) argue that their experience suggests the commonly-used alternatives, such as half the mean or half of Wave 1 (2001) income, would not significantly affect the general conclusions.

In addition, to the definition of poverty described above, we further use a broader measure that captures whether an individual's income is *sufficient*. This variable is labelled **income sufficiency** or **income-to-need**. More specifically, it measures the extent to which an individual's income meets (minimum) needs,

with minimum needs being determined by the poverty line defined above. Thus, it is the ratio of individual's income to the value of the poverty line. For those with incomes below the poverty line, greater income sufficiency translates to less severe poverty and, as such, this measure is more inclusive than the simpler poverty dummy. In particular, we are able to examine the contributions of factors to increasing or decreasing income sufficiency. This measure is used in Section 4, where its use is discussed in further detail.

### 2.3.1. Longitudinal poverty indicators

To investigate the extent to which childhood experiences of poverty are short-term or more persistent we use two measures of longitudinal poverty. The first measure counts the number of times an individual is observed living in a poor household as a child. We classify individuals into four categories: (1) never in a poor household; (2) one year in a poor household; (3) two years in a poor household; and (4) three or more years in a poor household.

Importantly, our sample is composed of individuals aged nine to 15 in 2001 who were present in the sample for at least three waves (years). This means that individuals can be present as children a minimum of three years (if they were 15 years of age when they entered) and up to a maximum of nine years (if they were nine years of age when they entered). However, given the unbalanced structure of our sample, this means that not all individuals are uninterrupted present for every year of the HILDA Survey. To account for the different number of years that an individual is present in the sample as a child, the second measure is the share of time the child is in a poor household while in the sample. Thus, we classify individuals into four categories defined in Box 1:

#### **Box 1: Longitudinal poverty definitions**

1. *Never poor*: Not in poverty in any of the years observed in childhood (that is, the years when they are aged under 18 and they are in the HILDA sample).
2. *Low experience of childhood poverty (Occasionally poor)*: In poverty in at least one year, but in no more than 20% of the years they have been observed in childhood.
3. *Medium experience of childhood poverty (Regularly poor)*: In poverty for more than 20% but no more than 50% of the years observed in childhood.
4. *High experience of childhood poverty (Frequently poor)*: In poverty for more than 50% of the years observed in childhood.

**Table 3. Overlap between the two measures proposed to study poverty and its persistence (%)**

	Never poor	Occasionally poor	Regularly poor	Frequently poor	Total
Never poor	<b>100.00</b>	0	0	0	100
Poor 1 year	0	<b>69.97</b>	30.03	0	100
Poor 2 years	0	0	<b>77.36</b>	22.64	100
Poor 3 years or more	0	0	35.34	<b>64.66</b>	100
	71.88	9.18	11.97	6.97	

Notes for Table 3: **Never poor** means not in poverty in any of the years observed in childhood; **Occasionally poor** means poor for at least 20% of that time; **Regularly poor** means poor for more than 20% but no more than 50% of the time observed as a child; and **Frequently poor** means poor for more than 50% of the time observed in childhood. This table shows the overlapping between this definition of persistent poverty and the one based on the absolute number of years in poverty as a child. Thus, for example, out of the **11.97%** of those young adults who were **regularly poor** as children, **30.03%** declared to be **poor for just 1 year**, 77.36% declared to be **poor for 2 years**, and **35.54%** declared to be **poor for 3 years or more**.

It is important to emphasise that we rely on relatively simple methods here that do not address the spell-censoring problem.<sup>8</sup>

The estimates presented in Table 3 show the percentage of individuals that simultaneously fall under the different categories identified in the two proposed measures. Thus, for those found to be poor in just one year, 69.97% are occasionally poor (poor for less than 20% of their time in the sample), while 30.03% are regularly poor (20–50% of time in the sample as children being poor). These numbers reflect the fact that individuals spend different lengths of time in the sample. Thus, the former group may have been present in the sample a greater number of years and that is the reason for the lower percentage of time they are found to be poor as a child. However, while there is some movement between categories, there is also a link between being poor for one year and being occasionally poor (69.97%); poor for two years and regularly poor (77.36%); and poor for three years or more and frequently poor (64.66%). Consequently, results are similar for the different descriptive statistics provided in this chapter and only those related to the second measure will be presented in the main text (results for the first measure are available from the authors upon request).

Poverty experience is measured in the same way for poverty in adulthood. A child who reaches 18 years of age is considered an adult in our sample and, as before, we classify into four categories: never poor; occasionally poor (in poverty in at least one year but in no more than 20% of the years they have been observed as adults); regularly poor (in poverty in more than 20% of years but in no more than 50% of years observed as an adult); and frequently poor (in poverty in more than 50% of years observed as an adult).

We should stress that the measures of poverty incidence are based on the experience of low income rather than ongoing deprivation across a wider range of living standard indicators.

8. Construction of descriptive poverty measures may be complicated by the fact that many poverty-spell start dates or end dates are not observed in longitudinal sets (the problem of ‘censoring’). Some spells may be in progress at the start of the survey, and others may still be in progress at the last interview wave of available data, and so completed spell lengths cannot always be determined directly. Statistical estimation techniques of event history analysis are used to handle this problem, but this is out of the scope of this chapter.



### 3.

# Characterising poverty, entrenched poverty and persistent poverty across generations





### 3.1

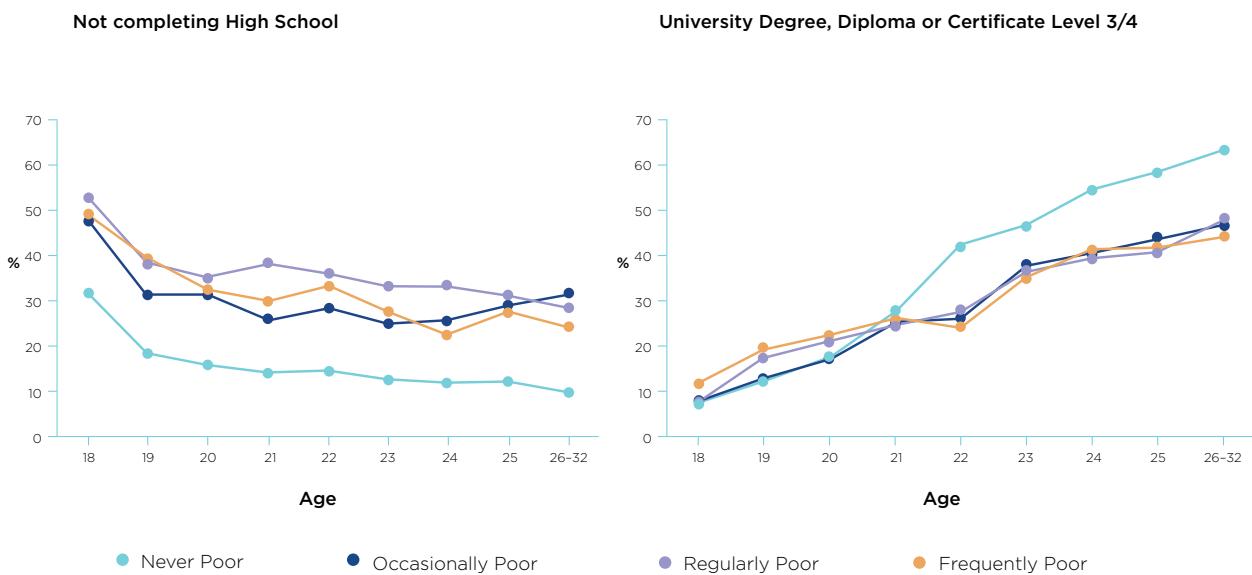
## Childhood poverty and socio-economic outcomes later in life



The purpose of this section is to provide relatively straightforward summary statistics on the extent to which poverty experience as a child, whether short-term or more persistent, relates to particular socio-economic outcomes later in life. More specifically, the focus is on indicators that capture educational attainment, health and labour market outcomes. As indicated by Jenkins and Siedler (2007-ISER), the difficulties in collecting information about income for individuals during both childhood and adulthood encourage the use of measures other than

income that are known to be correlated with income. These outcomes are, of course, also of interest in their own right. Moreover, the longitudinal nature of the HILDA Survey allows for the tracking of socio-economic outcomes in every year the individual is in the sample. Thus, not only is the outcome itself important but, also, changes as the individual ages may be extremely useful for understanding poverty patterns.

**Figure 2. Child poverty and educational attainment as young adult.**



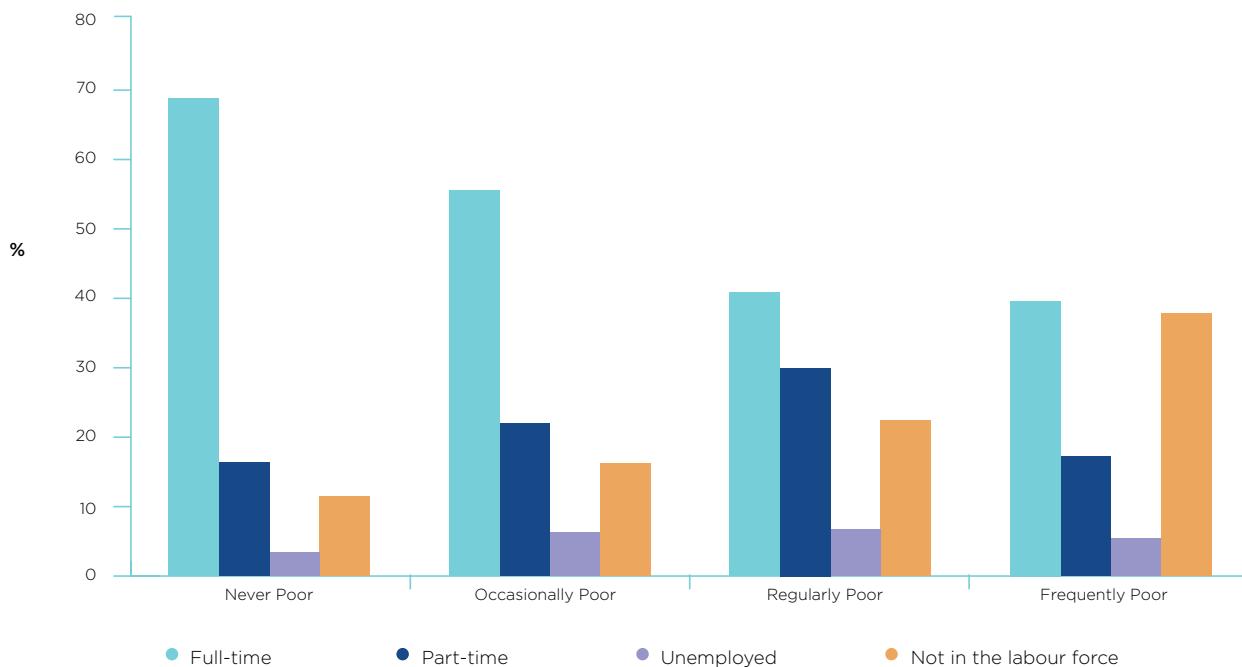
*Notes for Figure 2:* For each income poverty category and age group we compute the share of individuals who did not complete high school and who completed a university degree, diploma or Certificate Level 3/4. For example, we observe that 42% of those individuals who were never poor during childhood had obtained a university degree, diploma or Certificate Level 3/4 at the age of 22 while 143% did not complete high school (the remaining 43.7% to add up to 100% but not reported here would be those individuals who completed high school at the age of 22). It is important to note that for the 'University degree, diploma, Cert 3/4' category, results are not statistically reliable for ages 18 to 20 in 'occasionally poor', ages 18 and 19 in 'regularly poor', and ages 18 to 23 in 'frequently poor' because of small sample size

### 3.1.1. Child poverty and educational attainment

A key socio-economic outcome is educational attainment (see, for example, Duncan et al. 1997), since education is widely considered to be one of the primary drivers of labour market success. On average, individuals with higher levels of education have higher earnings and employment rates, are less likely to be unemployed, and are less likely to receive welfare benefits (Ashenfelter and Ham 1979; Meghir and Palme 2005).

The descriptive analysis presented in Figure 2 confirms previous evidence and shows that childhood poverty is correlated with a lower probability of obtaining a university degree, diploma or certificate level 3 or 4. Thus, while only 9.6% of those who grew up in a never-poor household achieved less than high school completion by the time they were 26 years of age, this fraction rises to 28.6% and 31.5% for those frequently and regularly poor as children.

**Figure 3. Labour force status of individuals aged 26 and over, by number of years in income poverty as a child**



Notes for Figure 3: **Never poor** means not in poverty in any of the years observed in childhood; **Occasionally poor** means poor for at least 20% of that time; **Regularly poor** means poor for more than 20% but no more than 50% of the time observed as a child; and **Frequently poor** means poor for more than 50% of the time observed in childhood. This Figure focuses on individuals aged 26 to 32 and, for each income poverty category we compute the share of individuals in each labour force state. Notice that full-time students are included in this figure (and can in principle be in any of the four labour force states).

### 3.1.2. Child poverty and labour market outcomes

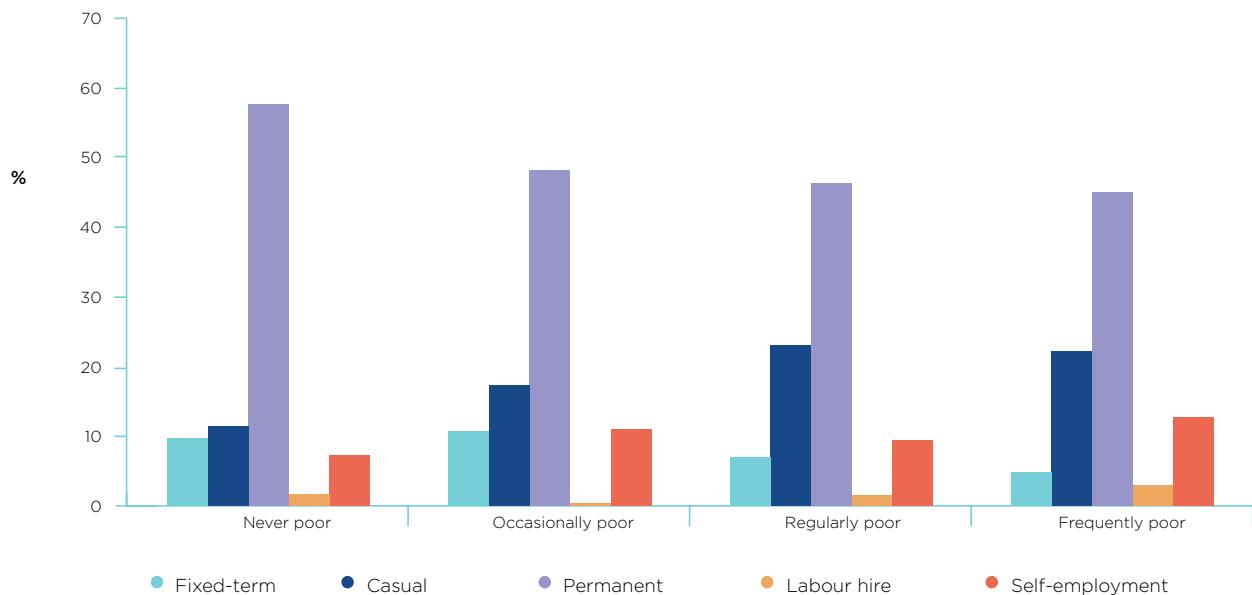
A large number of other studies have also investigated links between an experience of poverty during childhood and labour market outcomes later in life, in particular in relation to wage rates, labour market participation and economic inactivity (Peters and Mullis, 1997; Ermisch et al., 2001). For example, for men, childhood poverty is associated with lower labour supply, annual earnings, household income and hourly wages in adulthood (Corcoran and Adams 1997; Haveman and Wolfe 1994; Corcoran 1995). Our results in Figure 3 further confirm these findings.

It is worth noting that Figure 3 provides results for those who are already at least 26 years of age, and hence are more likely to be fully participating in the labour market than their younger counterparts who may still be studying. Figure 3 shows that, overall, full-time employment is the more prevalent status, with

approximately 69% of those who grew up in non-poor households being fully employed, compared with 38.8% of their frequently-poor counterparts—a significant difference of 29 percentage points. By contrast, part-time employment seems to be more widespread among young adults coming from income-poor households, especially regularly-poor households.

Interestingly, while no substantial differences are evident in the proportion of young adults unemployed across the groups, the proportion of individuals not in the labour force is 38.3% for those who were frequently poor during childhood compared with the much lower figure of 11.4% for those who were never poor as children. Overall, the pattern for young adults is one of greater levels of part-time employment and unemployment and, more importantly, greater economic inactivity (not being in the labour force) the more pronounced is the experience of income poverty during childhood.

**Figure 4. Employment type of individuals aged 26 and over, by number of years in income poverty as a child**

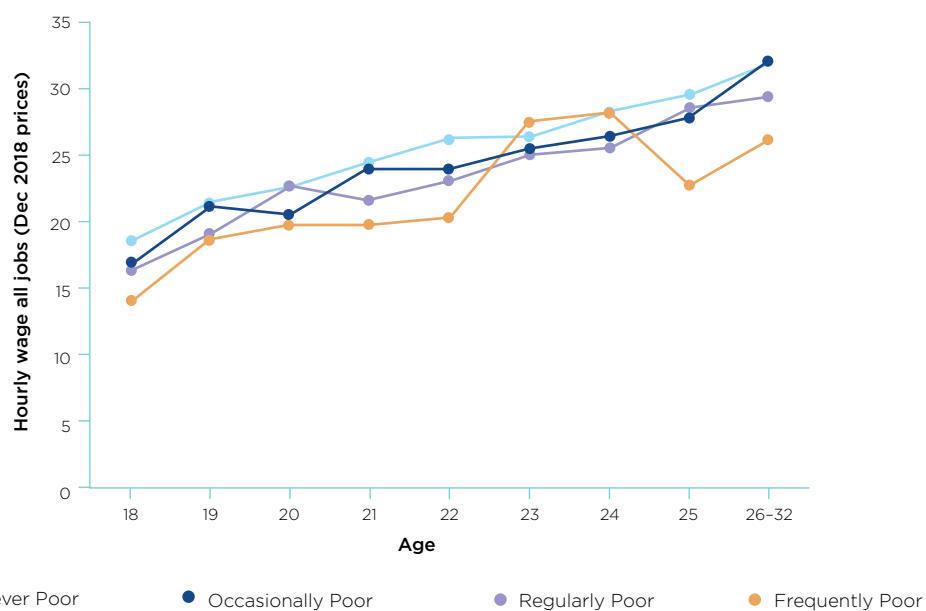


Notes for Figure 4: **Never poor** means not in poverty in any of the years observed in childhood; **Occasionally poor** means poor for at least 20% of that time; **Regularly poor** means poor for more than 20% but no more than 50% of the time observed as a child; and **Frequently poor** means poor for more than 50% of the time observed in childhood. This Figure focuses on employed individuals aged 26 to 32 and, for each income poverty category we compute the share of individuals in each type of employment. For example, for those regularly poor, 26.4% of the individuals hold a casual job.

We have seen in Figure 3 that adults who grew up in persistently poor households are more likely to be unemployed or out of the labour force completely. Figure 4 focuses on employed young adults (aged 26 to 32) and further disaggregates by type of employment. While permanent employment is the most prevalent form of employment across poverty experience categories, the proportions in permanent employment fall steadily from 65.8% for those with no childhood experience of poverty, to 55% for the occasionally poor, 53% for the regularly poor and 51.4% for the frequently poor. Young adults with some experience of childhood poverty are also more likely to be employed in casual jobs; 26.4% of regularly poor and 25.3% of frequently poor children are in casual employment as young adults compared with only 13% of their never-poor peers.

Lastly, turning to earnings of those in employment, Figure 5 presents the mean hourly earnings (in all jobs) of young employees aged 18 up to 32 years. As expected, we observe an increase in hourly earnings as individuals get older and gain work experience. However, if we narrow our focus to the 26 to 32 age group, we find that those who have never been in poverty as children have average hourly earnings of \$32.17, which is \$5.87 more than the earnings of those who were frequently poor as children (\$26.25).

**Figure 5. Mean hourly earnings (all jobs) of individuals aged 18 and over, by number of years in income poverty as a child**



Notes for Figure 5: Hourly earnings for those frequently poor have been calculated on a small sample size for young adults aged 18 to 25 (around 40 observations at each age). For the frequently poor aged 26-32, the sample size is 157 observations.

### 3.1.3. Child poverty and health as adult

Because there is considerable evidence of a strong correlation between health and success in the labour market, we also look at studies of the association between growing up poor and an individual's health later in life. The relationship between household income and children's health is important since health status may be one transmission channel for the intergenerational link between income and education (Case et al. 2005; Doyle et al. 2004). For instance, it is well known there is a negative association between mental health problems and labour market outcomes (Kessler et al. 2004). Furthermore, there is evidence that poor health in childhood is related to poor health as an adult (Case et al. 2005).

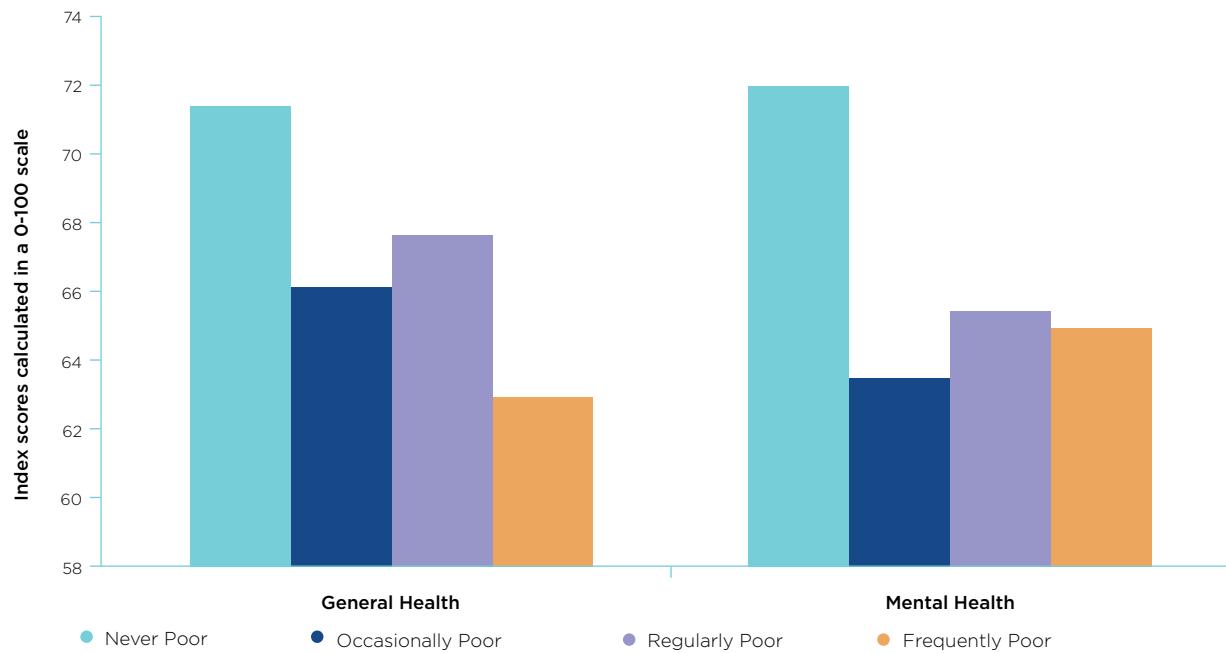
Figure 6 shows the results for SF-36 General Health and SF-36 Mental Health measures among individuals aged 26–32 years by the proportion of years they have been income poor as children. These measures are obtained

from the SF-36 Health Survey, a 36-item questionnaire intended to measure health outcomes (functioning and well-being) from a patient point of view (see <http://www.sf-36.org/> for further details). The potential scores for both general and mental health measures range from 0 to 100.

Results in Figure 6 show that young adults aged 26 to 32 years, who have never been poor as children, report relatively high average levels of both general health (71.4) and mental health (71.9). Those who were frequently poor as children have the lowest mean score for general health (62.8), and a considerably lower mean score for mental health (64.9), than those who were never poor; perhaps surprisingly the frequently poor fare slightly better on mental health than those who were occasionally poor (63.4) as children, but differences were not statistically significant.

9. The general health index was constructed using responses to the following questions provided in a self-completion questionnaire: (1) self-assessed health compared to others the same age; (2) get sick a little easier than other people; (3) as healthy as anybody I know; (4) expect my health to get worse; (5) my health is excellent. Correspondingly, the mental health index used the results from the following questions: (1) be a nervous person; (2) feel so down in the dumps nothing can cheer you up; (3) feel calm and peaceful; (4) feel down; (5) be a happy person. Results from these indexes are calculated on a 0 (poor health) to 100 (good health) scale.

**Figure 6. General and Mental Health indexes for individuals aged 26 and over, by number of years in income poverty as a child**



Notes for Figure 6: **Never poor** means not in poverty in any of the years observed in childhood; **Occasionally poor** means poor for at least 20% of that time; **Regularly poor** means poor for more than 20% but no more than 50% of the time observed as a child; and **Frequently poor** means poor for more than 50% of the time observed in childhood.

### 3.1.4. Childhood poverty and subsequent poverty in adulthood

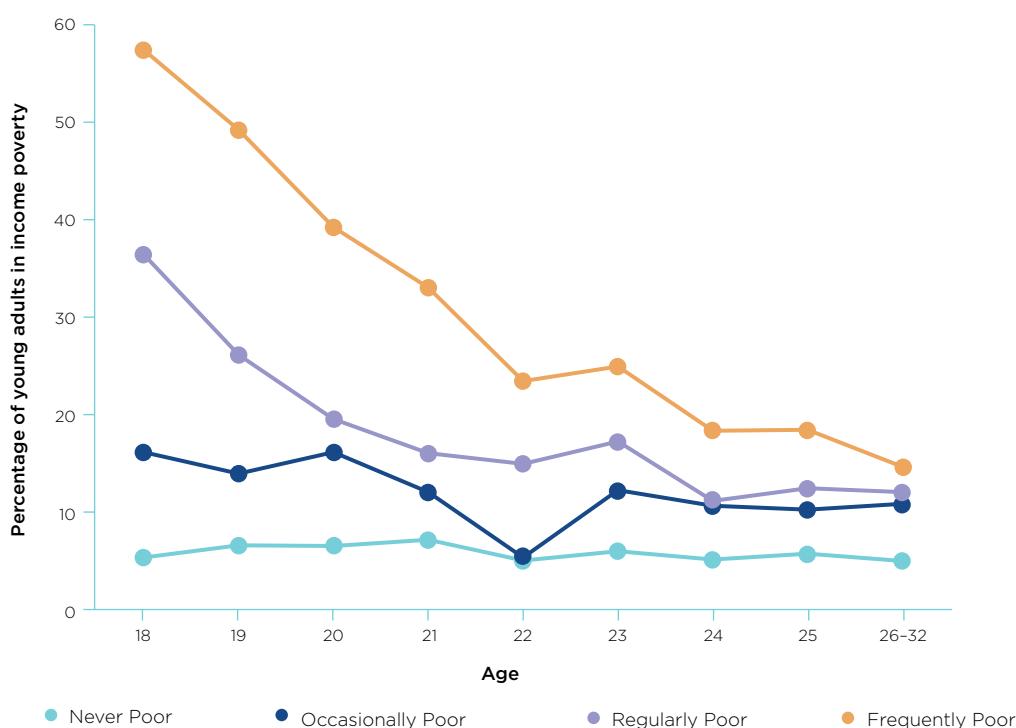
Figure 7 compares the percentage of individuals aged 18 to 32 years in income poverty by the number of years they were classified as income poor during childhood. For example, of those individuals who were never income poor as children, approximately 5.5% are income poor when they are aged 18, rising to 6.6% when they are aged 19, 7.2% when they are aged 21 and easing to 5.0% when they are above 25 years of age. Overall, despite small fluctuations across the different ages considered, the risk of income poverty is low and relatively stable for this group of individuals as they enter adulthood.

If we look at individuals who were frequently poor during childhood the picture is very different. We observe that 57.6% are income poor when they are 18 years of age, falling slightly to 49.3% when they are aged 19 and 39.3% when they are aged 20. Interestingly, this percentage falls significantly to 14.7%

when they are between 26 and 32 years of age. It is evident that the intergenerational transmission of income poverty is relatively strong for individuals exposed to frequent income poverty as children, as well as for those who were regularly poor, compared to children who were never poor. However, as these young adults grow older and leave the parental home to become financially independent, the risk of income poverty seems to diminish.

From these results, it appears that there is more income volatility for those that were frequently poor than those that were never poor. However, this static picture only tells us about the proportion of individuals who are poor by age, without providing any additional information on the length of time young adults are poor. Some additional answers to this question are provided later on in this report (Section 3.3.) That said, it is revealing that the risk of poverty for those aged 26 to 32 who were frequently poor as children is still three times the corresponding poverty risk of those who were never poor as children.

**Figure 7. Percentage of young adults in income poverty as they age, by number of years in income poverty as a child**



Notes for Figure 7: **Never poor** means not in poverty in any of the years observed in childhood; **Occasionally poor** means poor for at least 20% of that time; **Regularly poor** means poor for more than 20% but no more than 50% of the time observed as a child; and **Frequently poor** means poor for more than 50% of the time observed in childhood.

### 3.1.5. Child poverty and financial stress

The self-completion questionnaire of the HILDA Survey annually collects information regarding situations identified with financial stress. The question asked can be found in Box 2.

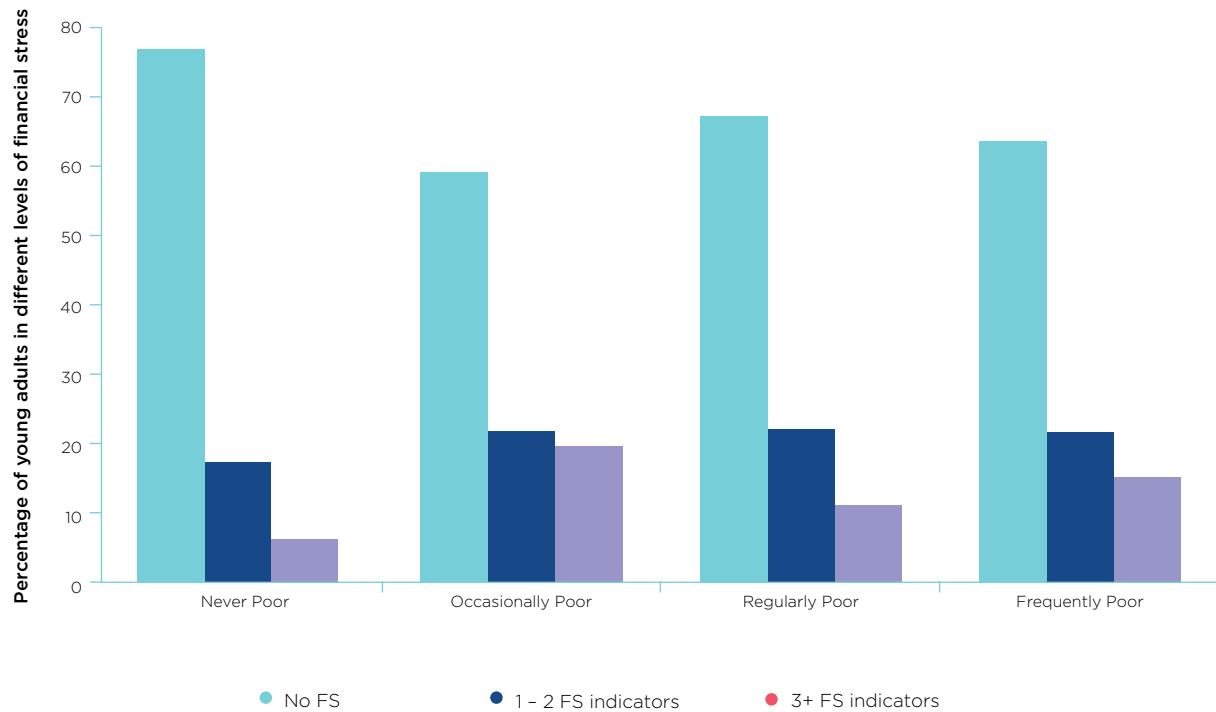
#### Box 2: Question in HILDA Survey self-completion questionnaire about financial stress

Since January of [survey year], did any of the following happen to you because of a shortage of money?

- Could not pay electricity, gas or telephone bills on time
- Could not pay the mortgage or rent on time
- Pawned or sold something
- Went without meals
- Was unable to heat home
- Asked for financial help from friends or family
- Asked for help from welfare/community organisations

Respondents are asked to indicate which of the seven events have occurred. Experience of any one of these events can be considered an experience of financial stress, although some events, such as going without meals, probably indicate more severe stress than events such as inability to pay bills on time. In this report no distinction is made between the indicators, but a condition is imposed whereby two or more of the indicators must be experienced for a person to be classified as being in financial stress. We have recoded these variables to distinguish three scenarios: 1) Never experienced financial stress; 2) Financially stressed according to one or two of the indicators listed above; 3) Financially stressed on three or more of the indicators above.

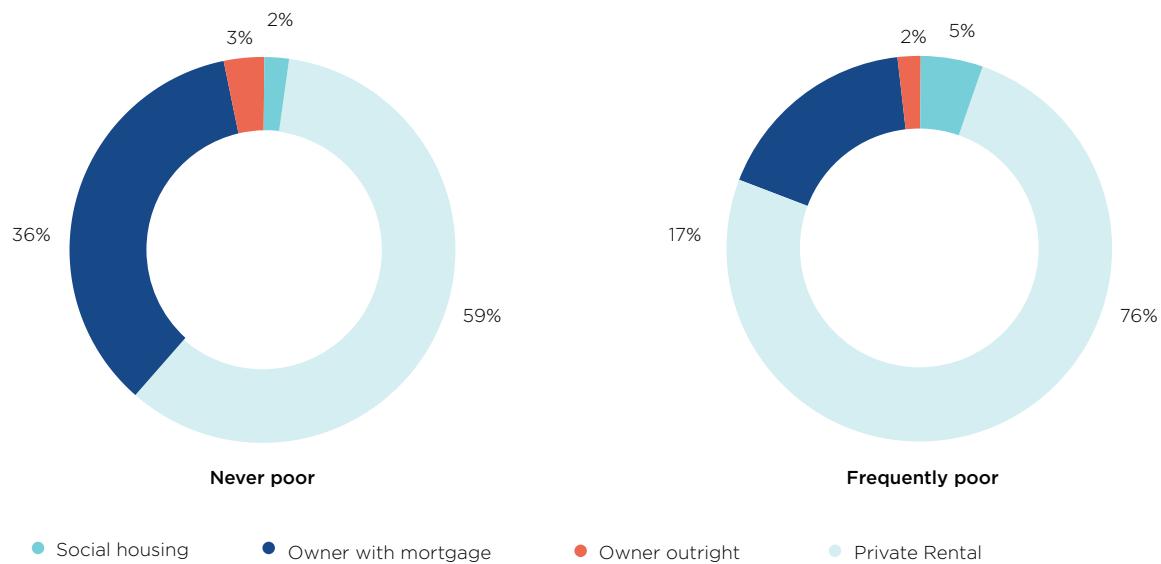
**Figure 8. Financial stress for individuals aged 21 and over, by number of years in income poverty as a child**



*Notes for Figure 8: Financial stress. For each category for experience of income poverty during childhood, we compute the share of individuals aged 21 and over who report different levels of financial stress.*

Results showing the level of financial stress by the number of years young adults experienced income poverty as children are reported in Figure 8. All individuals aged 21 and over are examined to ensure a sufficient sample size in the analysis. The most striking finding from the figure is that the share of individuals in the most financially stressed category (experiencing three or more of the indicators listed above) who were never poor as children is less than half that of those who were frequently poor (6.1% vs. 15.0%), confirming a sizeable correlation between the economic situations of parents and their young adult children.

**Figure 9. Child poverty and housing tenure type—Young adults aged 26 and over living outside the parental home**



*Notes for Figure 9:* This figure distinguishes between individuals who were never poor as children and those who were frequently poor during childhood, computing the share of individuals in each type of housing tenure. For example, among those never poor as children, 59% are privately renting their home when aged 26 and over.

### 3.1.6. Child poverty and home ownership as a young adult

Figure 9 provides information on the type of home tenure of young adults aged 26 to 32 who have left the parental home. As expected, young adults who grew up in frequently poor households as children are more likely to live in social housing or be renting privately, whereas those who were never poor as children are more likely to be a home owner, albeit typically with mortgage debt.

The concentration of poor households in disadvantaged neighbourhoods can exacerbate disadvantage across generations and prevent improvements over the life course. This suggests scope for improvements in local development and urban planning, including measures related to housing and transport. While beyond the scope of this report, given the limited capacity in HILDA for geospatial analysis, we understand that this is a key issue for guaranteeing social mobility while providing good quality and affordable housing.

## 3.2

### Parental wealth and young adults' poverty and other socio-economic outcomes



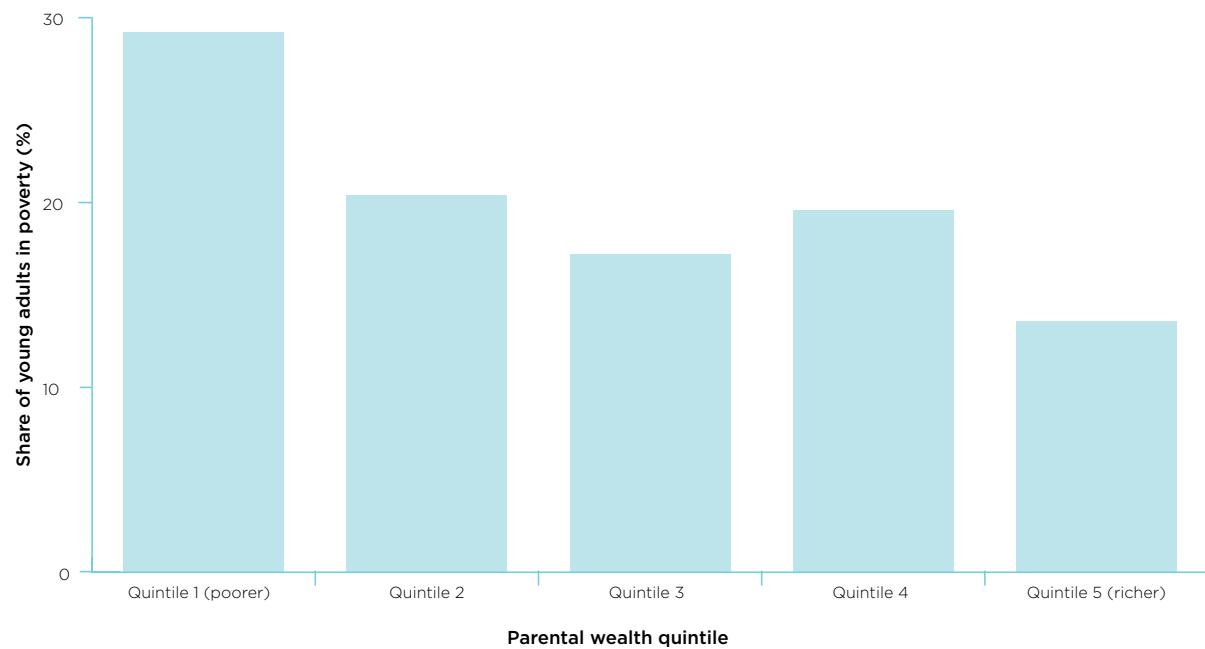
Parental wealth can influence the outcomes of children, since parents can use such wealth to support their children's education or transfer part of their wealth before or after they die. However, wealth is much more unequally distributed than income, and wealth deprivation often goes hand in hand with income poverty (OECD 2015; Adermon et al. 2016; Balestra and Tonkin 2018).

To complement the results provided so far, this section provides some descriptive statistics about the relationship between parental wealth<sup>10</sup>

(as captured by their quintile of the distribution of household wealth among parents of children aged nine to 15 in 2001) and a number of adult socio-economic outcomes, namely: likelihood of poverty, educational attainment, labour force status, home ownership and health. Figure 10 shows the proportion of adults in poverty by the level of wealth of their parents. As expected, almost 30% of young adults who grew up in the least rich households (poorest wealth quintile) are poor, compared with only 14% of those who grew up in the richest group of households.

Likewise, Table 4 confirms the results obtained for income poverty during childhood: young adults coming from less wealthy households have lower educational attainment, are more likely to be unemployed or out of the labour force, report poorer health, and are more likely to live in social housing. They are also more likely to report lower levels of life satisfaction.

<sup>10</sup>. Household wealth has been measured by the HILDA Survey in 2002, 2006, 2010, 2014 and 2018. It is equal to total (financial and non-financial) assets minus total debts. As with income, wealth components missing due to non-response are imputed by the HILDA Survey data managers. Parental wealth refers to parental household net wealth in 2002.

**Figure 10. Proportion of young adults in poverty, by wealth quintile of parents**

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*Notes for Figure 10:* We compute the share of young adults (aged 18 to 32) who are in poverty for each quintile of the parental wealth distribution. That is, young adults are sorted from poorest to wealthiest in terms of the wealth of their parents when they were children; the proportion in poverty when aged 26 to 32 is then evaluated for the poorest 20% (first quintile), the second-poorest 20% (second quintile), and so on.

**Table 4. Relationship between parental wealth and socio-economic outcomes of young adults aged 26 and over**

	Quintile 1 (poorer)	Quintile 2	Quintile 3	Quintile 4	Quintile 5 (richer)
<b>Educational attainment (%)</b>					
University degree	15.2	19.0	25.4	39.2	37.6
Diploma	4.6	12.4	9.0	10.0	8.5
Certificate Level 3/4	20.8	23.2	19.0	16.1	22.1
Completed high school	28.5	28	28.5	26.4	24.2
Less than high school completion	31.0	17.4	18.0	8.4	7.6
TOTAL	100.0	100.0	100.0	100.0	100.0
<b>Labour force status (%)</b>					
Employed full-time	46.1	63.5	59.5	67.9	71.1
Employed part-time	20.5	17.8	18.6	16.7	17.4
Unemployed	5.7	3.5	4.2	3.3	4.2
Not in the labour force	27.7	15.2	17.8	12.1	7.3
TOTAL	100.0	100.0	100.0	100.0	100.0
<b>Housing tenure type of those not living with their parents (%)</b>					
Social housing	4.9	2.9	4.0*	1.2*	0.8*
Private rental	71.1	58.0	61.2	63.9	58.4
Owner with mortgage	22.2	36.3	31.9	32.5	34.5
Owner outright	1.8	2.9	2.9	2.3	6.3
TOTAL	100.0	100.0	100.0	100.0	100.0
<b>General Health Index</b>					
% reporting poor general health	23.6	22.0	12.1*	26.0	17.7
<b>Life satisfaction</b>					
Index from 0 to 10 (mean)	7.7	7.6	7.8	7.8	8.0

Notes for Table 4: \*Physical and Mental well-being are measured in the HILDA Survey using the SF-36 Health Survey (Ware et al. 2000), an internationally recognised diagnostic tool for assessing functional health status and well-being. The potential scores for both measures range from 0 to 100. There are no universally accepted threshold scores for defining poor general and mental health, but for the purposes of this paper, and following the approach followed in the various HILDA Statistical Reports, poor general health is defined as a score less than or equal to 37, on the basis that approximately 10% of the population are at or below this threshold. Similarly, poor mental health is defined as a score less than or equal to 52, on the basis that approximately 10% of the population are at or below this threshold. \* Estimate not reliable.

### 3.3

## Intergenerational poverty transition tables: Poor as children equals poor as adults?



Finally, poverty transition tables allow us to compare the chances of being poor (and not poor) as an adult by the degree of exposure to poverty during childhood. Corcoran (2001) found considerable differences in the persistence of poverty between African Americans and whites in the United States. Using data from the US Panel Study of Income Dynamics (PSID), she reports that more than 30% of African Americans who grew up poor during late childhood (aged 16–17) lived in poverty as young adults. The corresponding proportion for white American young adults was around 7%. Similarly, Blanden and Gregg (2006) report poverty transition tables for the United Kingdom. They found that while 19% of men

who experienced poverty at age 16 in the mid-1970s were also poor as young adults, only 10% of adult men who were not poor at age 16 were poor as young adults. The corresponding figures for women are 29% and 17%. Airio *et al.* (2004) investigated the intergenerational correlation of poverty for Finland. They found that Finnish children who grew up poor were around twice as likely to be poor as adults than those who grew up non-poor.

We devote this section to looking at how Australia fares on this front by producing poverty transition tables, following Corcoran and Adams (1997), for the sample of 1,158 individuals who were observed in the HILDA Survey as children in 2001 and as adults in 2018.

**Table 5. Transitions from childhood to early adulthood poverty, by gender (%)**

Poverty status during childhood	Never poor	Poverty status in early adulthood			Total
		Occasionally poor	Regularly poor	Frequently poor	
<b>All sample</b>					
Never poor	63.4	23.1	10.9	2.6	100.0
Occasionally poor	45.2	25.0	23.9	5.9	100.0
Regularly poor	38.3	29.4	25.7	6.7	100.0
Frequently poor	20.9	34.7	32.3	12.2	100.0
<b>Males</b>					
Never poor	64.7	21.9	9.8	3.7	100.0
Occasionally poor	46.5	22.8	24.7	6.1	100.0
Regularly poor	34.3	35.1	25.1	5.6	100.0
Frequently poor	24.4	29.5	31.7	14.4	100.0
<b>Females</b>					
Never poor	62.1	24.3	12.0	1.6	100.0
Occasionally poor	43.9	27.2	23.2	5.7	100.0
Regularly poor	42.6	23.1	26.4	8.0	100.0
Frequently poor	18.1	38.8	32.8	10.4	100.0

*Notes for Table 5:* Each row refers to the poverty status during childhood while each column refers to the poverty status during early adulthood. Thus, for example, we observe that **63.4%** of those individuals who were **never poor as children** declare, on average, **not to be poor as young adults**, while **23.1%** of those never poor as children said to be **occasionally poor as young adults**.

The results are presented in Table 5. They show considerable mobility out of childhood poverty in Australia, although the more disadvantaged (frequently poor) children struggle significantly more to move up the socio-economic ladder. First, around 88% of frequently-poor children (poor in more than half the years) escaped frequent poverty in early adulthood ( $20.9+34.7+32.3$ ). Despite this mobility, children in frequently-poor families were much more likely to be poor in early adulthood—either occasionally (34.7%), regularly (32.3%) or frequently (12.2%)—than children raised in non-poor families, of whom 23.1% are likely to be occasionally poor, 10.9% regularly poor and 2.6% frequently poor. Moreover, frequently-poor children are also more likely to be poor in adulthood than children who experience less intense or persistent poverty,

as only 20.9% transition to non-poverty during adulthood compared with 38.3% of the regularly poor and 45.2% of the occasionally poor. On average, children from frequently-poor families are 1.8 times more likely to experience frequent adult poverty than regularly-poor children; 2.1 times more likely to experience frequent adult poverty than those occasionally poor as children; and 4.7 times more likely to experience frequent adult poverty than children who grew up in never-poor households.

Breaking the data down by gender, 24.4% of male frequently-poor children escape poverty compared to 18.1% of their female counterparts. However, women in this most disadvantaged group are more likely to move into temporary poverty than men (38.8% vs. 29.5%), while for men frequent poverty as adult is more likely (14.4% vs. 10.4%). The differences by gender are not, however, statistically significant.

## 3.4

### Recap of the main results of this section



This chapter considers social mobility from an intergenerational perspective by analysing how being exposed to income poverty as a child is associated with a range of socio-economic outcomes for young adults. Particular attention is paid to the extent to which the different degrees of childhood income poverty persistence affect young adult socio-economic outcomes. Our results relating to Australia confirm that children from a disadvantaged background struggle to move up the socio-economic ladder, the more so the longer they were disadvantaged as children, and this is true for many important aspects of life. Some of the results worth highlighting here include the following:

- Having been poor during childhood, even for a single year, makes a difference compared with no experience of childhood poverty.
- Regular or frequent poverty during childhood worsens the socio-economic outcomes of children as they grow. Thus, it is not only the experience of poverty that determines social mobility: the longer you are in poverty as a child, the poorer the outcomes in adulthood.
- Compared with young adults who lived in frequently-poor households during childhood, young adults with no experience of poverty as children are 2.4 times more likely to obtain a university degree, 1.8 times more likely to be employed full-time, and 1.3 times more likely to have a permanent job. They will also earn on average 23% more per hour worked.

- 
- Health outcomes (both general health and mental health) are worse among young adults coming from poor households.
  - Children from poor households are more likely, than never-poor children, to suffer adult poverty (3.3 times more likely); more likely to live in social housing as adults (up to 2.5 times); and more likely to suffer greater financial stress (2.5 times more likely).
  - Having grown up in families with little or no wealth also seems to be an important predictor of lower educational attainment, poorer labour market performance, poor health and lower overall life satisfaction.
  - Finally, on average, young adults from frequently-poor family backgrounds are 1.8 times more likely to experience frequent adult poverty than regularly-poor children; 2.1 times more likely to experience frequent adult poverty than those occasionally poor as children; and 4.7 times more likely to experience frequent adult poverty than children who grew up in never-poor households. These results highlight the fact that the length of time spent in poverty during childhood has an impact on the poverty experience as an adult.

## 4. The inheritance of poverty across generations





The analysis presented to this point has provided descriptive statistics showing how individuals exposed to different length time-periods of poverty as children fare on a number of different socio-economic measures (that are highly correlated with poverty) as young adults. Our results confirm that children from disadvantaged backgrounds struggle in important areas of life in line with the length of their experience of poverty. Moreover, the results further suggest there is persistence of poverty across generations, with individuals who experienced poverty during childhood and adolescence more likely to be poor as adults than those who did not.

'Are these associations driven by other family background, environmental or labour market related characteristics?'

Corcoran and Adams (1997) provide one of the first contributions endeavouring to disentangle the effect of growing up poor from other potentially important family background characteristics. They found that the association between poverty during childhood and adulthood decreased by almost 40% once they controlled for other variables such as the mother's years of schooling, the head of household's average work hours, having ever lived in a female-headed household, and a range of neighbourhood characteristics. Having said this, the degree of intergenerational poverty persistence remained large and statistically significant, suggesting that a childhood experience of poverty has a direct effect on later-life outcomes.

Blanden and Gregg (2004) also examined the extent to which family background characteristics were mediating channels for the intergenerational persistence of poverty, using two UK birth cohort surveys. After controlling for parents' employment and schooling, social housing, absence of father in the household and number of siblings (mediating factors), they found no statistically significant association between the experience of poverty as a teenager in the 1970s and subsequent poverty when aged in the early thirties. Interestingly, for those who grew up poor in the 1980s, poverty seemed to have harmful long-term effects beyond the influence of several family background characteristics. Not surprisingly, both Corcoran and Adams (1997) and Blanden and Gregg (2004) found that individuals with better-educated parents were less likely to be poor themselves; schooling played a crucial role in the intergenerational transmission process.

In the next section of our analysis we estimate adult income status after controlling for family background and environmental characteristics, as undertaken in Corcoran and Adams (1997).

## 4.1

### Other factors affecting poverty status in adulthood



#### 4.1.1. Adult poverty status and socio-economic covariates

Despite the considerable intergenerational income mobility in Australia as documented in studies such as Murray et al. (2018), there is a group of children from frequently-poor families that are persistently in poverty. To better understand how often and why poor children are destined to remain poor as adults we estimate the effects of parental poverty on children's chances of experiencing poverty in their late 20s and early 30s (26 to 32 years of age) using several measures of parental poverty, but also controlling for non-economic parental characteristics, parental welfare-use, neighbourhood characteristics and labour market conditions. We test hypotheses about the possible influence of: (1) growing up in a deprived neighbourhood; (2) depressed labour markets (Wilson 1987); and (3) habituation to a 'welfare culture' (Mead, 1986).

For this particular analysis we follow Corcoran and Adams (1997) and analyse three outcomes related to the adult experience of poverty.

1. Whether income as an adult is sufficient<sup>11</sup> – the extent to which adult income exceeds (minimum) needs. This variable is summarised as income-to-need [income-to-need].
2. Whether the child is ever observed to be poor as an adult [ever poor].
3. Whether the child is observed to be frequently poor as an adult [frequently poor]. Here we use the same definition used for frequent poverty in childhood—that is, poor for 50% or more of the years they are observed in our sample as an adult.

<sup>11</sup> Intuitively, greater income sufficiency is expected to be associated with less poverty.

Outcomes are measured for all the years an individual is observed after 24 years of age, this way we ensure that most of them have completed full-time study.

Thus, **income sufficiency or income-to-need** is the natural log of the ratio of household income to household needs (determined by the poverty line<sup>12</sup>) averaged over all the years a respondent is observed in the survey as an adult aged 24 or older. Likewise, we define individuals as **ever being poor** if the individual has been identified as poor for at least one year since reaching 24 years of age; and as **frequently poor** if the individual has been in poverty in more than 50% of years observed as an adult aged 24 or more.

These outcome measures are related to a set of family, community, labour market, and state welfare benefit measures (descriptive statistics for which are provided in Table 6). First, the economic situation of the individual during childhood is controlled for using different variables such as parental income, parental income-to-need (income sufficiency), and time spent in poverty as a child measured as: (1) never poor; (2) poor for up to 50% of the years they are observed in the sample as children<sup>13</sup>; and (3) poor for more than 50% of the years observed in the sample as children. In addition, alternative specifications distinguish between the linear and nonlinear effects of parental income-to-needs. The family background characteristics comprise mother's schooling, mean weekly hours worked by the household reference person<sup>14</sup>, whether the childhood household contained someone with a disability, whether at least one of the parents is foreign-born, and two family structure measures: whether the child ever lived in a single-parent household, and percentage of years the child lived in a single-parent household.

Parental welfare receipt is measured as the percentage of time the child was in a household receiving income support, which provides a proxy measure of welfare reliance. Deciles of the index of relative socio-economic disadvantage (SEIFA 2011) of residence location, a proxy for neighbourhood characteristics, are included by averaging results for the period of time the children were present in the sample. As a measure of labour market demand, we include the ABS unemployment rate for the relevant major statistical region in October of the relevant year (averaged over all the years a child was observed).

Note that we have between three and nine years of family data for each child, depending on the child's age in 2001. If a child was nine years of age in 2001, the family measures are averaged over a nine-year period, ages nine to 17 years. If a child was 15 years of age in 2001, the family measures are averaged over a three-year period.

Descriptive statistics on the variables used are reported in Table 6. Here we present the overall sample with those sub-samples: (1) occasionally and regularly poor merged; and (2) frequently poor.

12. As reported in section 2.3, the poverty line used for our analysis is 50% of contemporary median household income of the total population each year.

13. This variable combines the definitions of occasionally and regularly poor defined in Section 2.3 to ensure adequate sample size.

14. For couples, the household reference person is the higher income earner. If earnings are the same, the older person is chosen. In single-parent households, the parent is the reference person.

**Table 6. Descriptive statistics for explanatory variables and outcome measures examined in regression models**

	All	Ever poor as an adult	Persistently poor as an adult
<b>Family income measures (during childhood)</b>			
Average household income-to-needs ratio	2.07	1.76	1.66
Income-to-needs ratio category (%)			
<1.0	5.5	12.4	13.2
1.0-1.5	22.8	34.9	43.3
1.5-2.0	22.7	19.8	15.9
2.0-2.5	25.0	18.5	12.8
2.5-3.0	13.1	6.5	5.7
3.0-4.0	7.7	5.6	9.0
>=4.0	3.0	2.3	0.0
Proportion of years in poverty as child (%)			
Never poor	74.0	60.2	47.1
Poor 1-50% of years	20.8	29.1	40.9
Poor 51-100% of years	5.2	10.6	12.1
Average household income (\$1,000, December 2018 prices))	40.8	34.7	33.2
Average number of children	1.4	1.4	1.6
Family income support receipt (%)			
Household never received income support payments	47.9	30.6	24.2
Household received income support payments, but in less than 50% of years	21.4	18.4	17.2
Household received income support payments in 50% or more years	30.6	50.9	58.6
<b>Other family measures (measured when a child)</b>			
Mother's educational attainment (%)			
University degree	21.7	17.0	14.2
Diploma	8.7	4.66	3.3
Certificate Level 3/4	12.5	16.3	14.0
Completed high school	14.7	11.7	12.5
Less than high school completion	42.4	50.4	55.9
Adult with disability in the household (%)	15.3	18.8	23.4
Ever lived in a single-parent household (%)	30.8	44.7	55.1
Proportion of years in a single parent household (among those ever in a single-parent household) (%)	20.9	31.3	35.3
Mean weekly hours worked by reference person (all jobs)	35.3	30.3	23.8
At least one parent is foreign-born (%)	30.6	28.9	19.1
Male (%)	49.5	50.8	57.6
Mean child age (years)	11.8	11.9	11.1
<b>Other environment-related variables (measured when a child) (%)</b>			
Decile of index of advantage/disadvantage of childhood neighbourhood			
Lowest decile of disadvantage	7.4	12.3	12.8
2nd decile	11.1	13.3	15.8
3rd decile	8.8	9.6	7.8
4th decile	10.3	10.0	12.8
5th decile	7.0	6.7	6.7
6th decile	11.6	14.0	15.4
7th decile	11.5	11.1	11.9
8th decile	10.1	10.4	7.9
9th decile	13.1	6.5	5.3
Highest decile of disadvantage	9.2	6.1	3.5
ABS unemployment rate in major statistical region as an adult (October of interview year)	6.89	7.05	7.13
<b>Dependent Variables (measured in adulthood)</b>			
Mean income-to-needs ratio (income sufficiency)	2.37	1.36	0.95
Ever poor (%)	21.3	1.0	1.0
Poor at least 50% of years (%)	6.6	31.1	1.0
<b>Number of observations</b>	1,088	234	71

Notes for Table 6: The sample comprises children aged nine to 15 in 2001 who were observed as young adults in 2018, when they were aged 26 to 32, and who provided full information on the variables used in the analysis.

#### 4.1.2. Empirical Approach

First, we estimate models predicting the natural log of adult income-to-needs (adult sufficiency) using ordinary least squares (OLS) as a function of childhood income-related variables, but also controlling for a number of demographic and family background characteristics during childhood.

In regards to childhood income-related variables several approaches are used: Models 1 and 2 in Table 7 use average parent income-to-needs (parental income sufficiency) when a child, while Model 3 in Table 7 replaces the parental income-to-needs measure by variables measuring parental income and the average number of children in the household.

We also test whether the effects of the parent income-to-needs ratio on children's adult income-to-needs are nonlinear—allowing us to ascertain whether it is particular levels of the parent income-to-needs ratio that matter most in determining the early-adulthood income-to-needs ratio—by breaking up the parental income-to-needs measure into four dummies: poor families (less than 1); low income families (1-2); moderate-income families (2-3); and average- to high-income families (greater than 3) (Table 7, Models 4 and 5).

Alternatively, Model 6 in Table 7 further dissects the parental income-to-needs measure into seven dummies to give greater granularity: less than 1.0; 1.0-1.5; 1.5-2.0; 2.0-2.5; 2.5-3.0; 3.0-4.0; and greater than 4.0. The regressions are identical—the only difference being which income-to-needs dummy is omitted. The omitted dummy, also referred to in the tables as the 'reference category', is normally arbitrarily selected. The reference category is so named and identified as a category of comparison for the other categories of the variable to study. In other words, the other categories are compared to the reference category.

Last, in Model 7 of Table 6 we examine the effects of *time* spent in poverty as a child on adult income sufficiency. Specifically, we distinguish three categories for time spent in poverty as a child: never poor; occasionally or regularly poor; and frequently poor. Note that, in the models presented in Table 7, because the outcome is the *log* of the income-to-needs-ratio in adulthood, the estimated coefficients can be interpreted as the *percentage change* in the income-to-needs ratio associated with a one-unit increase in the explanatory variable. In the case of indicator explanatory variables (such as a male indicator variable), the interpretation of the coefficient estimate is the percentage change in the income-to-needs ratio associated with the indicator being present (for example, being male as opposed to female).

Second, we use Probit regressions to estimate models predicting poverty status in adulthood, namely: (1) whether ever poor as an adult; and (2) whether persistently poor as an adult. As before, each outcome is estimated as a function of different childhood income-related variables, plus a set of individual demographic and family background characteristics. Results are presented in Table 8.

Last, we further investigate the determinants of intergenerational poverty by regressing the adult income-to-needs ratio (adult sufficiency) and both measures of adult poverty status (ever poor and persistently poor) on childhood income-related variables and family background characteristics, but paying attention also to: (1) parental welfare receipt; (2) advantage and disadvantage of the childhood neighbourhood; and (3) the local unemployment rate when a child. Results are presented in Table 9.



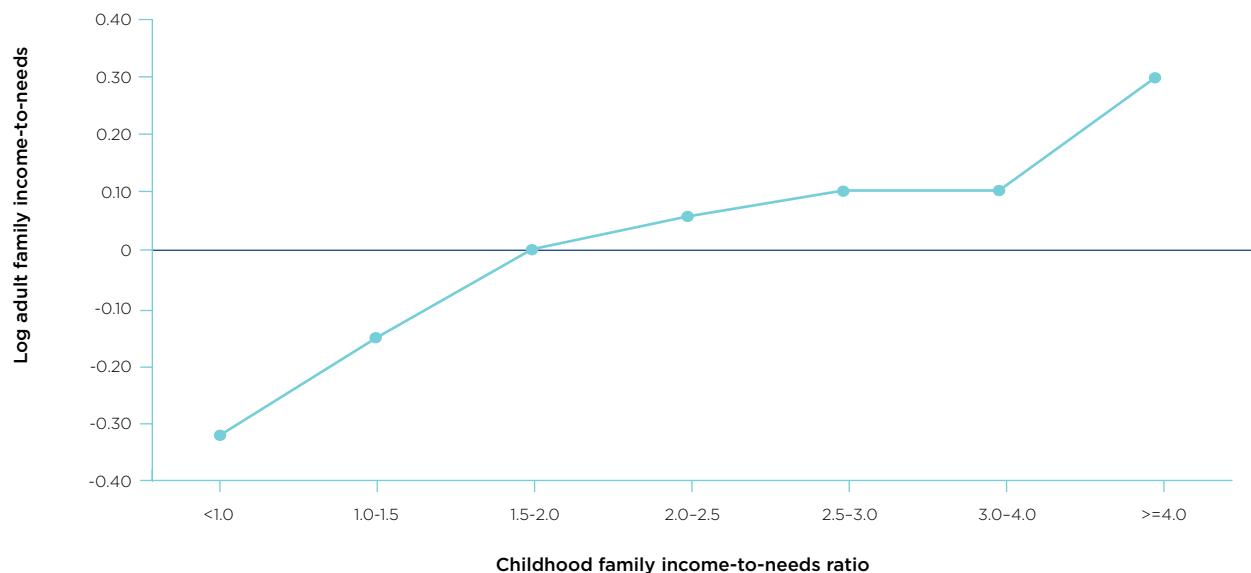
#### **4.1.3. Comparing models of parents' economic and non-economic resources**

Results from Table 7 show that the persistence of income disadvantage remains when we look at parental income and parental poverty in a multivariate context. The baseline specification (Model 1) shows that a large and significant association persists between children's and parents' income-to-needs: a one-point increase in parental income-to-needs increases a child's subsequent adult income-to-needs by 14%. When we add controls for non-economic parental characteristics—the mother's schooling, the head of household's work hours, and family structure (Model 2)—the coefficient on the parental income-to-needs measure drops by almost 22% (from 0.14 to 0.11), but still remains large and significant. Background non-economic factors correlated with parental income-to-needs explain some, but by no means all, of the intergenerational association between parents' and children's income-to-need ratios.

We next replace the parental income-to-needs measure with variables measuring parental income and the number of children in the household (Model 3). While higher parental incomes raise adult children's income-to-needs

(greater income sufficiency as an adult), no significant results are found for larger family sizes.

We also test whether the effects of the parent income-to-needs ratio on a child's adult income-to-needs are nonlinear—and in particular, whether it is *low* income relative to needs in childhood that matters most to early-adulthood income relative to needs—by breaking up the parental income-to-needs measure into four dummies: poor (less than 1); low income (1-2); moderate income (2-3); and average to high income (greater than 3) (Models 4 and 5). Models 4 and 5 are identical, the only difference being which income-to-needs dummy is omitted (that is, the reference category). We change the 'reference' category to better understand the relationship between childhood and adulthood income-to-needs. More specifically, we can examine whether different categories differ statistically significantly from other categories. For example, if the 'low income' dummy is omitted, the estimates allow us to examine whether each of the other categories significantly differ from the 'low income' reference category, whereas if the 'moderate income' dummy is omitted, we can examine whether each of the other categories differ significantly from that category.

**Figure 11. Log of adult family income-to-needs ratio, by childhood family income-to-needs ratio**

*Notes for Figure 11:* The graph plots the coefficients on the family income-to-needs dummies in Specification 6 of Table 7. We explore the nonlinear relationship between parental income-to-needs ratios and those of their adult children. Thus, for example, we find that increases in childhood family income-to-needs ratios in the range <1.0 to 1.5-2.0 had large effects on children's income-to-needs ratios when young adults.

The effects of parental income are clearly nonlinear, varying significantly depending on the parental income-to-needs ratio (evaluated when the young adult was a child). In Model 5, children raised in *poor* families (income-to-needs ratio <1.0) have a 35% lower chance of income sufficiency as adults compared to those in the reference category (children raised in *moderate income families*, who have an income-to-needs ratio between 2.0 and 3.0). However, those raised in *low-income* families (with an income-to-needs ratio between 1 and 2) have a 13% lower chance of income sufficiency than those in the reference category.

At the other end of the income distribution, children from families with *high incomes* (income-to-needs ratio >=3.0) have a 7.6% higher chance of reaching adult sufficiency than children from *moderate-income families*. We further explore the nonlinear relationship between parental income-to-needs ratios and adult children sufficiency at the top end of the distribution by further breaking up the parental income to-needs measure into seven dummies: less than 1.0; 1.0-1.5; 1.5-2.0; 2.0-2.5; 2.5-3.0;

3.0-4.0; >=4.0 (Model 6 of Table 7 and Figure 11). There, we observe that children raised in families with an income-to-needs ratio between 2.5 and 3.0 are 10% more likely to reach adult income sufficiency. That likelihood more than doubles to 29% if their income-to-needs ratio as children is >=4.0.

All in all, we still observe that being in the poor income range (less than 1.0) as a child has the largest negative effect on the adult income sufficiency.

The parental income status measures examined in Models 1 to 6 are all based on parents' average income status. Lastly, we examine the effects of time spent in poverty on children's adult income sufficiency in Model 7 in Table 7. The effects are strong: children who were poor 50% or more of the time they were observed as children have 26% lower income-to-needs ratios in early adulthood than non-poor children, while children who lived in poor families for 1–50% of their childhood have 11% lower income-to-needs ratios as adults (half of the persistently poor children).

**Table 7. Childhood predictors of income-to-needs ratio in adulthood (adult income sufficiency) under different specifications**

	1	2	3	4	5	6	7
<b>Household income variables</b>							
Average household income-to needs	0.14*** (0.012)	0.11*** (0.014)					
Average household income (\$1,000, December 2018 prices)			0.006*** (0.001)				
Average number of children			-0.009 (0.013)				
<b>Income-to-needs ratio</b>							
<1.0				-0.23*** (0.056)	-0.37*** (0.060)		
1.0–2.0				ref.	-0.13*** (0.029)		
2.0–3.0				0.14*** (0.029)	ref.		
>=3.0				0.22*** (0.045)	0.08* (0.043)		
<1.0						-0.32*** (0.061)	
1.0–1.5						-0.15*** (0.037)	
1.5–2.0						ref.	
2.0–2.5						0.060* (0.036)	
2.5–3.0						0.11** (0.043)	
3.0–4.0						0.11** (0.053)	
>=4.0						0.29*** (0.078)	
<b>Proportion of years in poverty as a child (Reference category: Never poor)</b>							
1–50% of years							-0.12*** (0.033)
51–100% of years							-0.28*** (0.060)
<b>Child variables</b>							
Male	0.0062 (0.024)	-0.0074 (0.024)	-0.0063 (0.024)	-0.017 (0.025)	-0.017 (0.025)	-0.013 (0.025)	-0.014 (0.025)
Age	0.20** (0.086)	0.16* (0.086)	0.17** (0.086)	0.17** (0.086)	0.17** (0.086)	0.15* (0.086)	0.16* (0.088)
Age <sup>2</sup>	-0.0076** (0.004)	-0.0061* (0.004)	-0.0065* (0.004)	-0.0067* (0.004)	-0.0067* (0.004)	-0.0057 (0.004)	-0.0064* (0.004)
At least one parent is foreign-born	0.043 (0.026)	0.040 (0.027)	0.039 (0.027)	0.053** (0.027)	0.053** (0.027)	0.055** (0.027)	0.055** (0.027)
<b>Family variables</b>							
<i>Mother's educational attainment (Reference category: Less than high school completion)</i>							
University degree	0.07* (0.034)	0.07* (0.034)	0.05 (0.035)	0.05 (0.035)	0.05 (0.035)	0.05 (0.035)	0.09*** (0.034)
Diploma	0.12*** (0.045)	0.12** (0.046)	0.11** (0.046)	0.11** (0.046)	0.11** (0.046)	0.12*** (0.046)	0.14*** (0.046)
Certificate Level 3/4	-0.04 (0.039)	-0.04 (0.039)	-0.06 (0.039)	-0.06 (0.039)	-0.06 (0.039)	-0.06 (0.039)	-0.05 (0.040)
Completed high school	0.08** (0.037)	0.09** (0.037)	0.07** (0.037)	0.07** (0.037)	0.07** (0.037)	0.07* (0.037)	0.08** (0.038)
Ever lived in a single-parent household	-0.16*** (0.055)	-0.16*** (0.055)	-0.15*** (0.056)	-0.15*** (0.056)	-0.15*** (0.055)	-0.16*** (0.055)	-0.15*** (0.057)
Percentage of years in a single parent household	0.0006 (0.001)	0.0005 (0.001)	0.0006 (0.001)	0.0006 (0.001)	0.0006 (0.001)	0.0009 (0.001)	0.0002 (0.001)
Reference person average weekly hours of work (all jobs)	-0.0001 (0.001)	-0.0001 (0.001)	-0.0002 (0.001)	-0.0003 (0.001)	-0.0003 (0.001)	-0.0007 (0.001)	0.0003 (0.001)
Adult with disability in the household	-0.11*** (0.035)	-0.11*** (0.035)	0.092*** (0.035)	0.092*** (0.035)	-0.08** (0.035)	-0.010*** (0.036)	
Constant	-0.76 (0.505)	-0.54 (0.517)	-0.62 (0.517)	-0.48 (0.520)	-0.34 (0.521)	-0.23 (0.520)	-0.40 (0.527)
Number of observations	1,129	1,068	1,068	1,068	1,068	1,068	1,068
R <sup>2</sup>	0.11	0.16	0.16	0.15	0.15	0.17	0.13

Notes for Table 7: Table presents coefficient estimates from Ordinary Least Squares regressions of the determinants of the income-to-needs ratio in early adulthood. For example, the upper most estimate for Specification 1 indicates that a one-unit increase in the income-to-needs ratio in childhood is associated with a 0.14 higher income-to-needs ratio in early adulthood. ref. – Reference category. Standard errors in parentheses. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. P < 0.10 implies that there is a greater than 90% probability that the estimated coefficient does not equal zero. p < 0.05 and p < 0.01 similarly imply this probability exceeds 95% and 99%, respectively.



No significant differences are found by gender. However, there is some weak evidence that if at least one parent is foreign born, the child is more likely to have a higher income-to-needs ratio as an adult, perhaps suggesting positive social mobility for immigrants.

The other background measures yield few surprises. Maternal education is associated with higher income-to-needs in early adulthood. Having ever lived in a single parent household is associated with a less adequate adult income, but this effect does not depend on the *amount* of time the child was living in a single-parent household. Being raised in a household where the head works regularly raises the adult income-to-needs ratio, albeit only marginally. Growing up in a household where there is a person with a disability decreases the income-to-needs ratio of an adult.

Growing up in a poor family clearly reduces children's adult income sufficiency, especially if they experienced persistent poverty, as shown in specification 7 of Table 7. We now pose a different question: how big is the intergenerational transmission of poverty? To answer this question, we estimate the adult poverty status using logistic regressions as a function of the several alternative models of parental income, and look at two possible poverty outcomes.

- a. Whether those in our sample were ever poor as young adults.
- b. Whether they were frequently poor as adults (that is, poor in 50% or more of the years observed from age 24 years).

Table 8 reports the mean marginal effects<sup>15</sup> from the Probit models. The estimates for Models 1 to 3 indicate that household income as a child—whether relative to needs or not—is a significant predictor of ever experiencing poverty in early adulthood. For example, Model 2 shows that each \$1,000 increase in household income in childhood (expressed at December 2018 prices) is associated with a 0.3 percentage-point decrease in the probability of ever experiencing poverty in early adulthood. However, household income as a child is not a significant predictor of frequent poverty in adulthood in all of Models 1 to 3. In particular, the ratio of household income to needs is not a significant predictor of *frequent* poverty in young adulthood once the effects of other parental characteristics (such as the mother's educational attainment) are accounted for (Model 2), and household income as a child (not expressed relative to need; Model 3) is also not a significant predictor of frequent poverty in early adulthood.

15. In qualitative dependent variable models such as Probit, 'mean marginal effects' estimates provide a better and more straightforward way of ascertaining the effects of explanatory variables on the outcome of interest. For a continuous explanatory variable such as income, the mean marginal effect is interpreted as the effect of a one unit increase on the probability of the outcome (for example, being in poverty). For an indicator variable such as a 'male' indicator, the marginal effect is interpreted as the effect of the indicator being present (for example, being male as opposed to female) on the probability of the outcome.



As in Models 4 to 7 in Table 7, Models 4 and 5 allow consideration of whether it is low income in childhood (relative to needs), rather than income per se, that is relevant to determining the likelihood of experiencing poverty in early adulthood. The estimates provide clear evidence that it is indeed low income that matters. Model 4 shows that a low income-to-needs ratio in childhood is an important predictor of poverty as an adult, while Model 5 shows that experience of poverty as a child, and particularly persistent or frequent poverty, is also a strong predictor of early-adulthood poverty.

For example, all else being equal, children whose household income was below the household needs (income-to-needs ratio less than 1) have an 18.9 percentage-point higher probability of ever being poor as young adults, and a 6.8 percentage-point higher probability of being persistently poor, than children with household income-to-needs ratios between 1.5 and 2. Similarly, estimates for Model 5 show that those who have been poor as children in at least one year, but for no more than 50% of the time, have a 6.7 percentage-point higher probability of being poor in at least one year of early adulthood, and a 3.8 percentage-point higher probability of being persistently poor, compared with those who were never poor as children. For those who were persistently poor in childhood (more than 50% of the time), other factors held constant,

the probability of ever being a poor adult is 13.8 percentage points higher than for those who were never poor as children, and the probability of being frequently poor as an adult is 4.8 percentage points higher. This result confirms the greater risk of poverty in early adulthood of those growing up in persistently poor households.

The effects of maternal educational attainment are smaller than found for the income-to-needs model (Table 7). The effect of a mother having a diploma or high school completion (compared with less than high school completion) in decreasing the likelihood of a child ever experiencing adult poverty is only weakly significant.

The estimates for the variable depicting the number of hours worked by the household reference person show that parental employment in the childhood household significantly diminishes the likelihood of a child entering persistent poverty in adulthood. Interestingly, growing up in a single-parent household increases the probability of being frequently poor as a young adult by approximately 6 percentage points.

**Table 8. Childhood predictors of experience of poverty in early adulthood (Mean marginal effects)**

Ever poor as an adult					Frequently poor as an adult				
1	2	3	4	5	1	2	3	4	5
<b>Household income variables</b>									
Average household income-to needs	-0.10***	-0.07***			-0.048***	-0.022			
Average household income (\$1,000, December 2018 prices)		-0.003***				-0.001			
Average number of children		0.019				0.003			
<b>Income-to-needs ratio as a child (Reference category: 1.5-2.0)</b>									
<1.0		0.189***				0.068**			
1.0-1.5		0.107***				0.057***			
2.0-2.5		-0.026				0.000			
2.5-3.0		-0.064				0.007			
3.0-4.0		-0.001				0.076			
>=4.0		0.016				0.000			
Household Poor 1-50% of years		0.067**				0.038**			
Household Poor 51-100% of years		0.138***				0.048*			
<b>Child variables</b>									
Male	0.005	0.011	0.010	0.014	0.015	0.020	0.017	0.017	0.021
Age	-0.13	-0.078	-0.097	-0.072	-0.079	-0.042	-0.012	-0.016	-0.002
Age <sup>2</sup>	0.006	0.003	0.004	0.003	0.003	0.001	-0.000	0.000	-0.001
At least one parent is foreign-born	-0.023	-0.009	-0.006	-0.018	-0.012	-0.035*	-0.033	-0.031	-0.031*
<b>Family variables</b>									
<i>Mother's educational attainment (Reference category: Less than high school completion)</i>									
University degree	-0.027	-0.031	-0.025	-0.045		-0.020	-0.020	-0.030	-0.020
Diploma	-0.11*	-0.114*	-0.107*	-0.121**		-0.065	-0.066	-0.076	-0.065
Certificate Level 3/4	0.023	0.018	0.031	0.026		-0.014	-0.015	-0.015	-0.013
Completed high school	-0.074*	-0.078*	-0.062	-0.078*		-0.020	-0.020	-0.022	-0.020
Ever lived in a single-parent household	0.065	0.063	0.069	0.060		0.060**	0.060**	0.068**	0.054**
Percentage of years in a single-parent household	0.0000	0.001	0.000	0.001		-0.000	-0.000	-0.000	-0.000
Reference person average weekly hours of work (all jobs)	-0.0001	-0.001	0.000	-0.001		-0.001	-0.001	-0.000*	-0.001
Adult with disability in the household	0.009	0.017	-0.011	0.008		0.007	0.008	0.002	0.004
Number of observations	1,129	1,068	1,068	1,068	1,068	1,129	1,068	1,068	1,039

*Notes for Table 8:* Table presents 'mean marginal effects' estimates from Probit regressions of the probability of ever being poor, and the probability of frequently being poor, in early adulthood. For example, the upper left estimate indicates that a one-unit increase in the income-to-needs ratio in childhood is on average associated with a 0.1 decrease in the probability of ever being poor in early adulthood—that is, a 10 percentage-point reduction in the probability of ever being poor in early adulthood. ref. – Reference category. Standard errors in parentheses. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. P < 0.10 implies that there is a greater than 90% probability that the estimated coefficient does not equal zero. p < 0.05 and p < 0.01 similarly imply this probability exceeds 95% and 99%, respectively.

#### **4.1.4. The influence of neighbourhood, welfare receipt and labour market characteristics**

This section extends our explanations of intergenerational poverty by reporting estimates of the adulthood outcome variables as a function not only of parents' economic and non-economic resources, but also of parental welfare receipt, neighbourhood characteristics (as measured by the ABS Index of socio-economic disadvantage) and the unemployment rate in the location (ABS major statistical region) the adult lived as a child.<sup>16</sup> Again, we look at three outcome measures: the log of the income-to-needs ratio (Column 1 of Table 9); whether ever observed to be poor as an adult (Column 2); and whether frequently poor as an adult (Column 3).

Our results strongly support the idea that parental poverty matters both for children's future income sufficiency and their poverty status as an adult. Children raised in poor households (income-to-needs ratio less than 1) had dramatically lower income-to-needs, and were much more likely to be poor, in their late 20s and early 30s than children raised in moderate-income households (income-to-needs ratio between 2 and 3).

Parents' non-economic resources also matter for children's adult economic status, but the effects are smaller and not always statistically significant. Maternal education reduces the probability of poverty in adulthood, but its effects are significant in only some of the specifications. Being raised in a household where the head works more hours raises adult income-to-needs and lowers the probability of frequent poverty as an adult, while growing up in a single-parent household reduces adult income sufficiency and increases the likelihood of frequent poverty.

Children growing up in households which received welfare for more than half of the time they were observed have significantly lower income-to-needs as an adult than those who were in households which did not receive income support. Similarly, the chances of being poor and frequently poor are much higher for those who grew up in households that were persistently dependent on welfare.

No significant results are found for the lack of job opportunities in the local area when growing up (as measured by the local unemployment rate). On neighbourhood characteristics, individuals raised in more disadvantaged communities are predicted to have much lower income-to-needs ratios as an adult, but no conclusive results are found for the likelihood of being poor or persistently poor.

<sup>16</sup>. There are 13 major statistical regions in Australia: each of the five mainland capital cities, the balance of each state, Tasmania and the two territories.

**Table 9. Effects of family welfare receipt and neighbourhood and labour market factors in childhood on poverty experienced in adulthood**

	Income-to-needs ratio (sufficiency) (OLS estimates)	Ever poor (Mean marginal effects)	Frequently poor (Mean marginal effects)
<b>Income-to-needs ratio as a child (Reference category: 1.5-2.0)</b>			
<1.0	-0.240***	0.133***	0.049*
1.0-1.5	-0.100**	0.064*	0.046*
2.0-2.5	0.035	-0.014	0.003
2.5-3.0	0.065	-0.042	0.010
3.0-4.0	0.064	0.007	0.081
>=4.0	0.190**	0.056	0.000
<b>Child variables</b>			
At least one parent is foreign-born	0.050*	-0.010	-0.031
Male	-0.007	0.014	0.024
Mother's educational attainment (Reference category: Less than high school completion)			
University degree	0.024	-0.006	-0.024
Diploma	0.068	-0.075	-0.057
Certificate Level 3/4	-0.050	0.030	-0.016
Completed high school	0.065*	-0.071*	-0.026
Ever lived in a single-parent household	-0.17***	0.06	0.07**
Percentage of years in a single-parent household	0.001	-0.000	-0.001
Adult with disability in the household	-0.024	-0.060	-0.013
Reference person average weekly hours of work (all jobs)	-0.001	0.001	-0.002
Age	0.14	-0.06	-0.01
Age <sup>2</sup>	-0.005	0.003	-0.000
Household received income support for 50% or more of the years observed as a child	-0.098**	0.109***	0.036*
Unemployment rate in local area where lived as a child	-0.003	-0.004	-0.009
Decile of index of advantage/disadvantage of childhood neighbourhood (Reference category: 10th decile)			
Lowest decile (most disadvantaged area)	-0.30**	0.154**	0.091
2nd decile	-0.14***	-0.046	0.041
3rd decile	-0.25***	0.089	0.086
4th decile	-0.17***	0.021	0.058
5th decile	-0.094	-0.008	0.016
6th decile	-0.22**	0.088	0.105
7th decile	-0.13**	0.047	0.028
8th decile	-0.15**	0.100	0.106*
9th decile	-0.026	-0.106	0.024
Constant	0.13		
Number of observations	1,068	1,068	1,039
R <sup>2</sup>	0.21	-	-

Notes for Table 9: Table presents coefficient estimates from an Ordinary Least Squares regression of the determinants of the income-to-needs in early adulthood and 'mean marginal effects' estimates from Probit regressions of the probability of ever being poor in early adulthood and the probability of frequently being poor in early adulthood. For example, the estimates in the top row indicate that an income-to-needs ratio in childhood of less than 1 is associated with a 0.24 decrease in the early-adulthood income-to-needs ratio, and is on average associated with a 0.133 increase in the probability of ever being poor in early adulthood and a 0.049 increase in the probability of frequent poverty in early adulthood. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

## 4.2

### Recap of the main results of this section



This section has described the extent to which income poverty persists across generations after controlling for non-economic characteristics of parents, parental welfare receipt, neighbourhood disadvantage characteristics and labour market conditions.

Using a linked sample of parents and their adult children from the HILDA Survey, this paper provides new empirical evidence on the extent and structure of the intergenerational transmission of poverty, and entrenched poverty, in Australia.

The results show that the parental income-to-needs ratio has a positive correlation with the child's income-to-needs ratio as a young adult. In fact, the effects of parents' income-to-needs have been found to operate over and above the influence of other parental non-economic characteristics, remaining strong even when controlling for parents' reliance on welfare and the quality of the neighbourhood where the child grew up. This suggests that the income-to-needs ratio experienced during childhood does not reflect the impact of other correlated

measures of parental disadvantage. Rather, it is the childhood income-to-needs ratio itself that is generating the income inadequacy children experience as young adults. Researchers examining other economic outcomes using the American PSID report similar results (Corcoran et al. 1992; Corcoran and Adams 1997).

The estimated effects obtained for the three different outcomes studied imply that the relationship between parental and young adults' income sufficiency (as captured by the income-to-needs ratio) and poverty status is highly non-linear. In particular, we find that low income sufficiency in childhood is strongly predictive of low income sufficiency in early adulthood, whereas at higher levels of income sufficiency as a child there is little evidence of an impact on income sufficiency as an adult that is, high levels of childhood income sufficiency do not appear to translate into high levels of income sufficiency in early adulthood.

Additional interesting insights include the following:

- Substantial parental use of welfare is significantly associated with lower adult income-to-needs ratios and higher chances of being poor.
- The non-economic parental factors we examined—family structure, mother's education, and hours employed—have mostly weak and often insignificant effects on children's economic mobility. The notable exception is that growing up in a single-parent household is significantly associated with lower adult income-to-needs and higher chances of being frequently poor. In comparison with non-economic factors, parental poverty and parental welfare receipt are much more important predictors of a child's economic fortunes. However, these results do not imply we should completely dismiss the non-economic characteristics as potential predictors, since our analyses did not consider all of the background characteristics that potentially affect children's mobility and which are correlated with parental poverty and welfare dependence. For example, the HILDA Survey data do not allow for consideration of the roles of drug and alcohol abuse, parenting styles or the extent of home-based cognitive stimulation of children.
- Finally, our analyses support the hypothesis that neighbourhoods shape and constrain poor children's chances of escaping poverty as adults. Young adult income-to-needs ratios (sufficiency) seems to be strongly tied to neighbourhood characteristics as measured by the index of socio-economic disadvantage provided by ABS Census of Population and Housing: Socio-Economic Indexes for Areas. However, this may not be the most appropriate measure as it uses aggregate measures of neighbourhood resident characteristics as proxies for very complex neighbourhood processes, such as peer group pressure, school resources and community norms. Similarly, our analyses do not seem to support the argument that structural economic conditions shape and constrain a child's chances of escaping poverty. But, once again, using the unemployment rate in the 13 major statistical regions (Sydney, Melbourne, Brisbane, Adelaide, Perth, the balance of each of these five States, Tasmania and the two Territories) may not be the best way to capture the barriers to full and successful participation in the labour market.



## 5. Summary and Conclusions





The analyses presented in this report provide new empirical evidence on the extent and structure of the intergenerational transmission of poverty, and entrenched poverty, in Australia. Results confirm that childhood poverty begets adulthood poverty.

More specifically, experiencing just a single year of poverty during childhood is associated with poorer socio-economic outcomes in terms of educational attainment, labour market performance and even overall life satisfaction in early adulthood. Children from poor households are 3.3 times more likely to suffer adult poverty than those who grew up in never-poor households. Moreover, it is not only the experience of poverty that determines social mobility: the longer the period of time you are in poverty as a child, the poorer the outcomes in adulthood. Results show that children from frequently-poor families are 1.8 times more likely to experience frequent adult poverty than regularly-poor children; 2.1 times more likely to experience frequent adult poverty than those occasionally poor as children; and 4.7 times more likely to experience frequent adult poverty than children who grew up in never-poor households.

It is somewhat difficult to make policy recommendations without a full understanding of the mechanisms underlying the relationships found in this report, but the magnitudes of the estimated associations, and the fact that the strongest effects are identified for poor families (with an income-to-needs ratio lower than 1.9), support the policy case for taking steps to reduce child poverty. It is highly likely that such reductions in child poverty would have substantial benefits—not only for life outcomes and well-being of the children in later life, but also through benefits to the wider community, for example through increased income tax revenue (from higher rates of labour market participation), reduced demands on the welfare budget, and indeed possibly even through reduced demands on the criminal justice system.

Clearly, however, more research is required in the Australian context to understand the drivers of the findings presented in this report and thereby inform on the policies required to reduce intergenerational poverty persistence. While the models used in this paper control for a number of important factors, the analysis is largely descriptive and as such cannot identify what drives the estimated relationships. The magnitude of the gradient we identify in this report is an important step towards understanding the intergenerational impacts of income inequalities and poverty, but it is only a first step towards developing the evidence base for sound policy to combat the intergenerational ‘transmission’ of poverty.

While there is considerable international evidence that growing up poor reduces a child’s economic prospects, and this report presents solid empirical evidence that this also applies to Australia, we need to know more about why poverty matters for future success if we are to improve poor children’s futures. In particular, what are the processes by which parental poverty affects children’s life chances? Past research speculates that reduced access to prenatal care, less home-based cognitive stimulation, harsh and inconsistent parenting, unsafe neighbourhoods, and exposure to acute and chronic stressors may be the pathways by which childhood poverty negatively affects children’s adult outcomes. Other studies argue that the apparent effects of poverty on child outcomes may be due to often uncontrolled-for factors such as poor parental health, parental depression or domestic violence. Both arguments are plausible and deserve further investigation, as distinguishing correlation from causality is critical to targeting policies toward both changing childhood poverty and reducing its impact on children’s futures.

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Future work using bigger samples and longer time-frames (allowing examination of life outcomes at ages beyond 32) will provide a more robust picture of the magnitude of the potential intergenerational effects in the relationship between parental poverty status and lifetime economic performance. It would also enable a deeper understanding of why poverty in childhood and poverty in adulthood are linked, and why some children 'buck' the intergenerational trend. As the HILDA Survey panel grows over time, this type of analysis will be more possible.

It is also important that future research explore other data sources. In particular, development and linkage of longitudinal administrative sources on income (through tax and government benefit records), education, health, criminal justice, child support, housing and potentially many other areas would be beneficial because of the additional information this would provide and the large sample sizes it could deliver. Incorporating these data sources has the potential to improve our understanding of the mechanisms by which childhood poverty increases the risk of poverty in adulthood, in turn providing critical insights about policy actions that can reduce the risk of poverty in adulthood.

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# About the Authors

## **Dr Esperanza Vera-Toscano**

Esperanza Vera-Toscano works as Senior Research Fellow at the Melbourne Institute since February 2019. She is currently on a leave of absence as Senior Scientist for the National Research Council in Spain (CSIC) and holds a PhD in Economics from the University of Aberdeen (UK). Dr Vera-Toscano has a long-standing expertise in the study of disadvantage, social exclusion and individuals' wellbeing, acquired over more than two decades working for government agencies including the Spanish National Research Council and Statistics Canada and collaborating with supranational institutions such as the World Bank and independent social organisations like the Joseph Rowntree Foundation (UK).

She brings a well-established record of supporting evidence lead policy reform to Melbourne Institute, following her six years serving as Senior Researcher at the Joint Research Centre of the European Commission.

Esperanza has extensive experience using numerous panel and cross-section datasets to investigate the incidence and determinants of disadvantage in its broadest sense, as well as more specifically in the examination of the role of gender, regional differences, and education and skills on inequality and social exclusion.

## **Professor Roger Wilkins**

Roger Wilkins is Deputy Director of the Melbourne Institute as well as being Deputy Director (Research) of the HILDA Survey program area.

His research interests include the nature, causes and consequences of labour market outcomes; the distribution and dynamics of individuals' economic wellbeing; and the incidence and determinants of poverty, social exclusion and welfare dependence.

As part of his work in the HILDA Survey program, Roger produces the annual HILDA Survey Statistical Report, which each year analyses the latest release of the HILDA data.

He has also produced the Australian income component of the World Wealth and Income Database (WID) since 2014.

Roger is a member of the Australian Bureau of Statistics' Labour Statistics Advisory Group, the Australian Housing and Urban Research Institute Research Panel, and the Department of Social Services 'Building a New Life in Australia' Survey Technical Reference Group, and is a Policy Adviser for the Australian Council of Social Service. He is also a Research Fellow at the IZA Institute of Labor Economics.

### **Breaking Down Barriers**

The Breaking Down Barriers report series provides in depth analyses of questions that will help us to better understand the challenges faced by individuals, families, communities, and governments that affect the existence and persistence of deep and entrenched poverty and disadvantage in Australia. The analyses have been undertaken by Melbourne Institute researchers and utilise economic and statistical techniques which involves developing shared data environments to study disadvantage and developing data visualisations.

This report has been produced as part of an ongoing partnership between the Paul Ramsay Foundation and the Melbourne Institute with the goal of informing and shaping policy and practice to break cycles of disadvantage. This includes improving our understanding of the extent, nature, and causes of socio-economic disadvantage in Australia and encouraging solutions that enable program development and policy innovation that foster opportunity and reduce poverty and disadvantage.

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### **Melbourne Institute: Applied Economic & Social Research**

The Melbourne Institute is a research-only, academic department in the Faculty of Business and Economics at the University of Melbourne with over 58 years of experience informing and shaping economic and social policy. The Melbourne Institute's list of longstanding accomplishments includes playing an active role in the establishment of the Henderson Poverty Line (by inaugural director Ronald Henderson), the development of the blueprint for Medibank/Medicare (John Deeble and Dick Scottion), the execution of the HILDA Survey and resulting analyses (Mark Wooden), the creation and running of the Australian Economic Review, the establishment of the consumer sentiment index (our longest running survey having been established in 1973 and now conducted in partnership with Westpac), and a host of many other achievements that have resulted from the engagement of researchers as part of the bedrock that informs macroeconomic, microeconomic, and social policy in Australia.

The Melbourne Institute is home to more than 50 economic researchers that are supported by survey methodologists and data scientists. Their work is recognised internationally by both academic and policy communities. All work undertaken by the Melbourne Institute is independent and impartial.

From its inception, researchers have been engaged in understanding poverty and disadvantage from a range of perspectives. This work has been in partnership with other organisations such as the Brotherhood of St. Laurence, as a node of the ARC funded Centre of Excellence for Children and Families over the Life Course, and a range of commonwealth and state government departments. Current projects that affect our understanding of poverty or disadvantage include studies to understand employment, family dynamics, social housing, tax and transfer policies, consumer expectations, the delivery of health care, intergenerational disadvantage, and studies of particular populations in Australia.

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### **Paul Ramsay Foundation**

The Paul Ramsay Foundation seeks to identify and partner with individuals, communities and organisations working to create an Australia where people can overcome disadvantage and realise their potential.

The late Paul Ramsay AO established the Foundation in 2006 and, after his death in 2014, left the majority of his estate to continue his philanthropy for generations to come.