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Economic wellbeing

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Abstract

Over its 21 years, the HILDA Survey has assembled an unrivalled array of data on the economic wellbeing of the Australian population. This review summarises the main themes of the published research using this data.

1. Introduction

Since its inception, the HILDA Survey has regularly collected a large amount of information on the financial or economic wellbeing of individuals and households. This includes the core personal and household income data collected annually, as well as detailed household wealth data collected every four years. Perceptions of financial wellbeing, experience of financial stress and the ability to raise money in an emergency have also been measured in every wave of the study, while in 2014 and 2018, data on material deprivation was collected. Moreover, various components of household expenditure have been collected annually since 2002.

Cross-sectional analyses of economic wellbeing and its distribution, while crucial to assessment of the functioning of a society, have increasingly given way internationally to inquiry into how that distribution came about, how representative it is of the longer-term experiences of individuals, and the extent to which one's place in the distribution is dictated by one's family background, all lines of inquiry which almost always require longitudinal data.

The HILDA Survey is the only data source in Australia providing longitudinal household income data for a representative sample of Australia's population. Administrative longitudinal data sets exist, but do not provide complete household data. In particular, the new ALife longitudinal tax data file provides good information on taxable personal income, and Centrelink data do a good job of capturing government benefits at the individual and couple level, but neither source provides comprehensive measures of household income. Both sources miss important income components and, in most cases, do not measure total income of the household — and it is the household unit that is thought to matter most to any assessment of an individual's economic wellbeing.

Moreover, for other measures of economic wellbeing, including household wealth, consumption expenditure, financial stress, material deprivation and subjective assessments of economic wellbeing, the HILDA Survey is the only nationally representative longitudinal data source; indeed, for some of the measures of economic wellbeing in the HILDA Survey data, there is not even contemporary cross-sectional data available.

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1.1 Scope of this Review

The household economic data collected by the HILDA Survey have been used in hundreds of studies. There are four broad categories of study:

i. Economic wellbeing itself, and/or its dynamic properties, is the primary focus of the study.
ii. Measures of economic wellbeing are considered as outcomes in studies of another factor of interest, such as marital breakdown or poor health.
iii. A dimension or component of economic wellbeing is the focus of study, such as government benefit income in the study of welfare reliance, superannuation wealth in the study of retirement, and housing wealth in the study of home ownership or housing stress.
iv. A measure of economic wellbeing is included as an explanatory factor or control variable when studying another outcome of interest, such as marital stability, health or subjective wellbeing.

It is of course not possible to do justice to all these studies in a short review article. I consequently primarily restrict attention to the first category of studies, structuring the review around three streams of research:

i. Income inequality, income mobility and intergenerational correlations in income.
ii. Poverty and socio-economic disadvantage, and persistence and intergenerational transmission of disadvantage.
iii. Wealth distribution and evolution.

These three streams are themselves not exhaustive of the studies with a primary focus on economic wellbeing. Several studies have examined various components of household expenditure that are measured by the HILDA Survey, including housing (e.g., Rowley, Ong and Haffner. 2015), childcare (e.g., Baker 2012), food (e.g., Barrett and Brzozowski 2012), home energy (e.g., Wood, Ong and McMurray 2012) and telecommunications (e.g., Breunig and McCarthy 2020). A small number of studies of subjective measures of economic wellbeing, such as satisfaction with one's finances (e.g., Brown at al. 2014) are also not discussed. Further, the many studies examining housing stress and housing issues more broadly are not surveyed in this review.[i]

2. Income Inequality and Mobility

2.1 Cross-sectional Studies of Income Inequality

Perhaps surprising is that the HILDA Survey has been used in a number of cross-sectional studies of income inequality. In part, this has resulted from concerns about changes to the methods used by the Australian Bureau of Statistics (ABS) for its Survey of Income and Housing that made it difficult to ascertain inequality trends over the 2000s (Wilkins 2014). Studies include OECD (2008), Bray (2014), Kaplan, La Cava and Stone (2018), Productivity Commission (2018) and Sila and Dugain (2019), all of which concur that income inequality has been relatively stable over the period since 2001.

The cross-sectional focus has not just been on describing inequality, but also explaining it. Bray (2014) considers the evolution of the redistributive impact of taxes and transfers. Kaplan et al. (2018) undertake a decomposition analysis of inequality changes between 2001 and 2015, identifying the roles of changes in observed household characteristics, changes in the returns to unobserved skills, changes in the size of persistent income shocks and changes in the size of transitory income shocks. They find that changes in the size of persistent and transitory income shocks, rather than changes in observed household characteristics, explain most of the trend in inequality. However, since the middle of the 2000s, the source of

income inequality has shifted from transitory to persistent factors. Most recently, Li, La, and Sologon (2021) similarly undertake a decomposition analysis, but the components distinguished are tax and transfer settings, demographic characteristics, market income and 'all other' factors. They find market income changes were the primary driver of changes in income inequality between 2002 and 2016.

2.2 Short-run Income Mobility

Most analyses of income mobility using the HILDA Survey data have considered either intergenerational issues or have been concerned with poverty dynamics, the latter of which is discussed in Section 3. There appears to be very little study of broader income dynamics at the individual or household level. There have, however, been two studies concerned with short-term income dynamics in the community. Rohde et al. (2015) consider household income volatility at the individual level, taking the perspective that greater volatility translates to greater economic insecurity.

The nexus between income inequality and volatility is, however, a double-edged sword. For a given level of cross-sectional inequality, greater income volatility translates to less inequality in income measured over time frames longer than one year. That is, inequality in 'permanent' income is lower in countries with greater income volatility from one year to the next, all else equal. For example, Wilkins et al. (2020) shows the year-to-year income volatility evident from the HILDA Survey data results in the Gini coefficient for household equivalised income measured over five years being approximately 10 per cent lower than the same measure for one-year income.

Higgins and Sinning (2013) also examine income dynamics, but from the narrower perspective of what individual-level volatility in personal income means for the operation of income contingent student loans in the form of Australia's HECS/HELP scheme. They show that the complexity of earnings modelling has considerable implications for the calculation of loan subsidies.

2.3 Intergenerational Analyses of Income Mobility

Intergenerational studies have more commonly focused on earnings rather than income, but the motivation for these studies has primarily been what intergenerational correlations in earnings mean for mobility in the income distribution. Implicit is that greater correlation in earnings translates to less income mobility or, to put it another way, greater intergenerational persistence in advantage and disadvantage.

Initial studies of intergenerational earnings mobility using the HILDA Survey data relied on retrospective information collected on the family background of respondents. Leigh (2007) was the first to investigate the extent of intergenerational earnings mobility in Australia, using data from the HILDA Survey as well as three cross-sectional surveys conducted between 1965 and 1988.[ii] Leigh focuses on the father-son earnings elasticity, predicting fathers' earnings using sons' reports of their fathers' occupations when the son was aged 14. He estimates an intergenerational earnings elasticity of between 0.2 and 0.3, meaning that a one per cent increase in the father's earnings is associated with a 0.2 to0.3 per cent increase in the son's earnings. This is considerably lower than the 0.4 to 0.5 estimates found for the US using the same method, implying greater intergenerational mobility in Australia.

Four studies since Leigh (2007) have applied a similar method using the HILDA Survey data. Mendolia and Siminski (2016) apply Leigh's approach to the first 12 waves of HILDA Survey data, obtaining more precise estimates due to larger sample sizes and adjusting for the attenuation bias resulting from imputing fathers' earnings. They obtain a somewhat higher estimated intergenerational earnings elasticity between fathers and sons of 0.35 and conclude that 'in an international context, intergenerational mobility in Australia is not

particularly high, and is consistent with its relatively high level of cross-sectional inequality' (p. 361).

Huang et al. (2016) develop and apply a two-stage panel regression model to estimate father–son earnings elasticities in Australia using the first 13 waves of the HILDA Survey, again using fathers' occupations to impute earnings. They obtain estimates of the intergenerational earnings elasticity ranging between 0.11 to 0.30, depending on the earnings measure and degree of occupational disaggregation used in imputing fathers' earnings.

Fairbrother and Mahadevan (2016) were the first to produce estimates of intergenerational earnings elasticities for both sons and daughters in respect of both fathers' and mothers' earnings. As with the above three studies, parental earnings are imputed based on occupation when the child was aged 14. Using Waves 1 to 13 of the HILDA Survey data, for hourly earnings they obtain intergenerational earnings elasticities for fathers of 0.2 for sons and 0.08 for daughters, and for mothers of 0.16 for sons and 0.15 for daughters.

Only very recently have studies relied on the longitudinal structure of the HILDA Survey data, directly observing the earnings and incomes of parents and then the earnings and incomes of their children as young adults. Murray et al. (2017) examine people born between 1984 and 1986, comparing their household income (not earnings) in 2001, when they were aged 15–17, with their household income in 2015, when they were aged 30-32. This produces an intergenerational income elasticity of 0.28, which rises to 0.41 once an adjustment for attenuation bias is made. Wilkins et al. (2019), taking the same approach but updating Murray et al. by examining the period up to 2017, produces similar estimates. They also separately consider correlations parent and child earnings, allowing for different effects of fathers' and mothers' earnings and for effects of each to differ for sons' and daughters' earnings, finding a stronger association between mothers' earnings and child earnings than between fathers' earnings and child earnings.

Recent research on intergenerational mobility has also used the HILDA Survey data to explore the mechanisms by which intergenerational linkages in income operate. Mendolia and Siminski (2017) consider the extent to which education is the mechanism through which family background affects economic outcomes in adulthood. They estimate that educational attainment explains between 21 and 37 per cent of the family background effect on hourly earnings in Australia, and between 13 and 19 per cent of the effect on wealth. However, they argue that these estimates are likely upwardly biased, and that therefore the link between family background and economic outcomes operates mostly through other mechanisms.

Martinez et al. (2017) consider the broader question of the extent to which various sources of inequality of opportunities explain income inequality in adulthood. They estimate that at least 8 per cent of total income inequality before government transfers and taxes, and at least 6 per cent of total income inequality after government transfers and taxes, is attributable to factors outside of individuals' control, such as family background, gender and ethnicity.

Chesters (2019) considers the role of family wealth in impacting on educational attainment, occupational prestige and wealth in young adulthood. The results show that high levels of family wealth are associated with higher levels of educational attainment, occupational prestige and individual wealth in young adulthood. Deutscher (2020) use the HILDA Survey data to explore differences in intergenerational income mobility among second generation Australians, finding educational mobility drives many of the differences.

3. Poverty and Socio-economic Disadvantage

The dominant use of the HILDA Survey data for studies of economic wellbeing has been to study poverty and socio-economic disadvantage. There are at least 80 studies where this is the major focus.

These studies can be broadly classified into two groups: those taking conventional income-based measures of poverty and drawing on either the annual frequency or the longitudinal information to understand poverty trends and dynamics and their drivers; and those augmenting or supplanting the income-based measures with approaches that draw on the cross-sectional richness of the HILDA Survey data to take account of other factors relevant to assessing economic wellbeing.[iii]

3.1 Conventional Poverty Studies

Conventional income-based studies of poverty include Headey, Marks and Wooden (2005a), Buddelmeyer and Verick (2008), Rodgers and Robson (2008), Rodgers (2010), Rodgers and Rodgers (2010), Rodgers (2012), Redmond, Patulny and Whiteford (2013), Venn and Hunter (2018) and Hérault and Jenkins (2019). Most of these studies make use of the longitudinal information to examine the dynamics of poverty and the drivers of these dynamics. The first of these studies, Headey et al. (2005a), examined the first three waves of the HILDA Survey, showing that approximately 4 per cent of the population was in poverty in all three years, compared with an annual poverty rate of approximately 13 per cent. Buddelmeyer and Verick (2008) focus on the drivers of persistent poverty using the first five waves of the HILDA Survey, finding that education and employment protect against persistent poverty, while disability and living in regional and remote areas increase the risk of persistent poverty.

Rodgers and Rodgers (2009) use the first six waves of the HILDA Survey to examine the extent to which measures of poverty from cross-sectional studies can accurately identify people in chronic poverty, finding that there is no substitute for longitudinal data in identifying chronic poverty. Herault and Jenkins (2019) similarly make the case that repeated cross-sections are not suited to understanding poverty dynamics.

Using the first seven waves of data, Rodgers and Rodgers (2010) characterise the extent and nature of chronic and transitory poverty, while Rodgers (2010) investigates the efficacy of the Australian public transfer system in alleviating chronic poverty, finding that 64 per cent of all transfers were received by people who were, or would have been but for the transfers, in chronic poverty, while 22 per cent were received by people in temporary poverty and 14 per cent were received by people who were not in poverty at all absent the transfers.

Venn and Hunter (2018) show that Indigenous Australians of working age have a higher probability of entering poverty and a lower probability of exiting than non-Indigenous people. Changes in household size trigger almost half of Indigenous poverty entries and 40 per cent of exits. Vera-Toscano and Wilkins (2020) is the only study to explicitly consider the intergenerational transmission of poverty from one generation to the next. They show that poverty experienced in childhood is strongly predictive of poverty in adulthood.

3.2 Multidimensional Approaches

There has long been concern with the limitations of income-based measures of poverty, which may incorrectly identify people as poor who are not (e.g., because they have considerable wealth) and others as not poor who are in fact poor (e.g., because of disability creating greater income need) (Sen 1999). This has given rise to multidimensional approaches to measuring socio-economic disadvantage that account for factors other than cash income. These approaches have variously incorporated consideration of two or more of

wealth, expenditure, health and disability, economic and social participation, and a range of other factors relevant to economic wellbeing.

In Australia, interest in multidimensional measures has naturally drawn researchers towards the HILDA Survey, which is uniquely rich in the information it provides about each respondent and household. The earliest study in this space was Headey (2006), who drew inspiration from Sen's (1999) 'capabilities' approach to define disadvantage in terms of financial, employment, health and family/social domains. Headey (2008) and Headey, Krause and Wagner (2012) then took an alternative approach, producing measures of poverty requiring that an individual have low income, low wealth and low consumption expenditure to be considered poor. Using the 2006 HILDA Survey data, Headey (2008) estimates 1.9 per cent of the population is below 50 per cent of the median on all three counts, much lower than the 11.7 per cent classified as poor on the more conventional measure which requires only income be less than 50 per cent of the median. In a similar vein, Barrett (2009) considers both income and food expenditure over the 2001 to 2005 period, finding a substantial reduction in poverty between 2003 and 2005.

Naidoo (2019), while also incorporating wealth, takes a somewhat different approach, first attempting to measure income more accurately by including non-cash benefits and imputed rental income from owner-occupied housing, and then accounting for other forms of wealth via measures of 'potential consumption' from that wealth. The study shows substantially reduced poverty among older persons compared with standard approaches based on disposable cash income.

Taking the lead from European research on social exclusion (e.g., Burchardt, Le Grand and Piachaud 2002), Scutella, Wilkins and Kostenko (2013) develop a measure of social exclusion applicable to the Australian context and operationalised with HILDA Survey data. Based around seven life domains, but aggregated to a single index, the measure identified up to 30 per cent of the population experiencing at least marginal social exclusion. Other studies to have considered multiple dimensions of disadvantage aggregated into a single index include Azpitarte (2014), Martinez and Perales (2017), Rohde and Guest (2018) and Naidoo (2019).

In 2014 and 2018, the HILDA Survey administered a battery of questions aiming to measure material deprivation, defined as going without one or more of the 'essentials of life' because one cannot afford them. Items are only deemed essential if a majority of respondents agree they are essential, ensuring the material deprivation measure reflects community attitudes rather than judgements made by researchers. Research drawing on this measure has been undertaken by Saunders and Naidoo (2018, 2020).

Also relevant to discussion of multidimensional studies of disadvantage are the several studies drawing on the data on 'financial stress' collected by the HILDA Survey annually since its inception. Each wave, the self-completion questionnaire asks whether, because of a shortage of money, the respondent had each of seven things happen to them, including going without meals, asking for help from a welfare or community organisation, or inability to pay the mortgage or rent on time.

This information has been used as a key focus of analysis of hardship or poverty in several studies, including Butterworth and Crosier (2005), Saunders and Bradbury (2006), Breunig and Cobb-Clark (2006), Siminski and Yerokhin (2012), Rowley et al. (2015), Lim and Tsiaplias (2019) and Breunig, Hasan and Hunter (2019). Among the findings of these studies is that those who are income poor experience twice as many indicators of financial stress as those who are not poor (Saunders and Bradbury 2006), and the majority of reported financial stress is driven by inadequacy of (financial and other) resources, although a significant proportion (30 per cent) is driven by 'behaviours' such as consumption choices (Siminski and Yerokhin 2012). In addition, Breunig et al. (2019), examining financial stress among

Indigenous Australians, finds evidence consistent with it being exacerbated by demand sharing ('humbugging').

4. Household Wealth

Despite the obvious importance of wealth to economic wellbeing, prior to 2002, there had been almost no data collected on the distribution of household wealth in Australia.[iv] The HILDA Survey therefore filled an important gap when it began collecting household wealth data in 2002. Every four years, a detailed set of questions are administered collecting information on most financial assets (including bank accounts, superannuation, cash investments, equity investments and trust funds), non-financial assets (the home, other property, business assets, collectables and vehicles) and debts (home debt, other property debt, business debt, unpaid credit card debt, HECS/HELP debt, overdue household bills, car loans and other personal debt).[v]

Th HILDA Survey has thus facilitated both cross-sectional and longitudinal analyses drawing on the wealth data for the period since 2002. While there have been many and varied uses of the wealth data (including, as noted in Section 4, studies of poverty and socio-economic disadvantage), here I restrict attention to the three core uses of the data: to study the distribution of wealth, to examine retirement issues, and to study the composition of household wealth (often positioned as the study of portfolio choice).

4.1 Distribution of Wealth

Headey, Marks and Wooden (2005b) is the first study of the distribution of household wealth using the HILDA Survey data. Drawing on the 2002 data, they show that wealth is very unequally distributed, with the bottom half of the distribution owning less than 10 per cent of total household net worth, and the wealthiest 10 per cent accounting for 45 per cent. Researchers at the Reserve Bank of Australia have since produced an analysis of the wealth distribution with each new release of wealth data (most recently in Adams et al. 2020). The HILDA Survey wealth data has also featured prominently in some OECD reports (e.g., Sila and Dugain 2019).

Studies of the wealth distribution in Australia have used the HILDA data to examine differences in wealth distributions of immigrants and natives (Doiron and Guttmann 2009; Bauer et al. 2011) and gender differences in wealth distributions (Austen, Jefferson and Ong 2014; Austen et al. 2015). In addition, Katic and Leigh (2016) draw on the HILDA wealth data, along with other data sources, to estimate top wealth shares—e.g., the share of wealth held by the top 1% in the wealth distribution—for the period 1915 to 2012. Among their findings is that top wealth shares rose between the 1970s and 2010.

4.2 Retirement Wealth

Wealth accumulation over the working-age life cycle is the main vehicle for private provision of income in retirement. Thus, a significant number of studies using the HILDA Survey have focused on how well this process is functioning.

Several studies have examined how wealth levels and composition adjust leading up to and after retirement. Cobb-Clark and Hildebrand (2011) find little evidence that people approaching Age Pension age reallocate their assets to maximise eligibility for the Age Pension. Spicer and Thorp (2016) use the first three 'wealth waves' to examine the dynamics of retirement wealth and portfolio allocation of retired households. They find wealth decumulation between 2002 and 2006, but wealth accumulation between 2006 and 2010, with these patterns largely reflecting asset price movements rather than drawdown behaviour. At older ages, households prefer portfolios with less risk and more liquidity, while maintaining ownership of the family home.

Hulley et al. (2013) investigate the impact of the Age Pension on post-retirement decumulation and portfolio choice, with particular interest in whether households decumulate faster early in retirement, and choose more risky portfolios, than they would in the absence of the Age Pension. Panel data tests on inferred wealth for pensioner households show evidence of more rapid spending early in retirement. However, they also show that better-off households continue to accumulate, even when facing a steeper implicit tax rate on wealth than applies to poorer households.

Various other retirement-related issues have been examined using the wealth data. Burnett et al. (2018) project future retirement income streams of non-retired individuals, showing that failure to account for non-superannuation wealth results in substantial underestimation of living standards in retirement. Hodgson, Tapper and Nguyen (2018) present evidence that the superannuation system is a significant contributor to economic inequality among retirees, although they also find this effect has tended to reduce over time as the system matures. Connolly (2007) uses the HILDA Survey wealth data to estimate the impact of compulsory superannuation contributions on total wealth, finding it has raised total wealth and increased self-funded retirement incomes. Austen and Mavisakalyan (2018) and Best and Saba (forthcoming) examine the gender gap in retirement savings and the drivers of the gap.

4.3 Portfolio Analysis

The composition of wealth has also been considered in a number of studies using the HILDA Survey data. While the level of disaggregation of assets is somewhat limited, this has not prevented researchers attempting to examine the riskiness, liquidity and diversification of household wealth portfolios. As noted above, portfolio composition has been examined in the context of analysis of retirement, but several other studies have considered portfolio choice in the broader population.

Marriotti, Mumford and Pena-Boquete (2015) examine household asset diversification, finding it is adversely impacted by 'ineffective information conduits' and short-term concerns over job security or health. The main channel by which adverse impacts on diversification occur is through non-participation in equity markets. West and Worthington (2018) likewise examine the extent of diversification of household asset portfolios. Based on four measures of diversification, they conclude that diversification is generally poor. A subsequent study (West and Worthington 2019) investigated the roles of various significant life events, finding serious illness or injury, loss of employment, marital breakdown and spousal death to be causes of portfolio rebalancing in ways that can have detrimental effects on long-term wealth accumulation.

Cardak and Wilkins (2009) examine the implications of exposure to labour income risk for holdings of risky financial assets (defined as equity holdings). Consistent with the finding of Mumford et al. (2015) in respect of job security concerns, they find greater labour income risk is associated with lower holdings of equities. Cardak, Martin and McAllister (2019) also consider stock market participation, examining the effects of the 2008 Global Financial Crisis. They present evidence that the crisis caused households to become more myopic, increase their responsiveness to shocks and focus more on past extreme returns. There is also evidence that older households were more responsive than younger households, while high wealth households were less affected.

5. Conclusion

As long as the HILDA Survey continues to be conducted, it will be an ongoing and important data source for documenting the story of economic wellbeing in Australia. There is no other

data source providing the relevant information for assessing the dynamics and intergenerational patterns of economic wellbeing for the Australian community. And there is no other data source providing the level of richness of cross-sectional information on the many dimensions of economic wellbeing, as well as allowing study of their linkages with a broad range of other life domains, such as health, social wellbeing and family life.[vi]

The opportunities for new insights from intergenerational analyses will particularly grow as the length of the panel increases. While already a mature panel study, the fact is that household panels only increase in value from the perspective of understanding intergenerational linkages the longer they run.

There are also unexploited research opportunities from the data already produced by the HILDA Survey. The richness of the data and the many linkages between dimensions of economic wellbeing and other life domains that can be explored with the data make it almost impossible to succinctly summarise these opportunities, but there is no doubt existing research has by no means exhausted these opportunities.

Notes

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i. Each year, the HILDA Survey Statistical Report (https://melbourneinstitute.unimelb.edu.au/hilda/publications/hilda-statistical-reports) contains analysis of income inequality and poverty and also periodically looks at other dimensions of economic wellbeing, including wealth inequality, material deprivation, financial stress and perceived financial wellbeing. For the most part, these findings are not discussed in this review.

ii. See Cobb-Clark (2019) for a more comprehensive review of Australian studies of intergenerational mobility that includes studies using data other than HILDA.

iii. There are also many studies using the HILDA Survey data to examine the links between socio-economic disadvantage and aspects of health and disability (e.g., Callander and Schofield 2015). These are not discussed in this review.

iv. The 1915 war census collected wealth data, while a university study conducted between 1966 and 1968 also attempted to collect wealth data directly from households, but suffered from a response rate considerably less than 50 per cent (Podder and Kakwani 1976). The ABS began collecting wealth data directly from households in 2003-04; since 2009-10, the data has been collected every two years as part of its Survey of Income and Housing.

v. The only significant component omitted from the HILDA Survey measure of household wealth is 'dwelling contents' (other than collectibles), such as furniture and appliances. Based on ABS data, Wilkins et al. (2020) estimate that the average value of this omitted wealth component across all households was $66,323 in 2018.

vi. There is a caveat to this observation: The HILDA Survey's representativeness of the Australian population has been diminishing since 2011 because it does not automatically replenish in respect of immigrants in the way it does for native-born children. Without steps to add new immigrants to the sample, it will become increasingly difficult to argue that the study tells the story of the entire Australian community.