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Parental expectations for young people's participation in higher education in Australia

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ABSTRACT

This paper examines factors affecting parental expectations of higher education prospects for their children using Australian household survey data. We find that a variety of factors influence parental expectations, of which parents' assessment of their children's academic performance is the strongest. Factors known to impact upon actual higher education participation, such as parental education and remoteness, are already evident in parental expectations, but with limited evidence of expectations being shaped by financial constraints. We also find evidence of a 'same gender' effect, with mothers exhibiting higher expectations for higher education for their daughters. This may be in part due to significantly lower expectations held by fathers with sub-bachelor qualifications. These factors contribute to higher expectations overall for girls entering university. The research points to the importance of interventions commencing in early childhood, and accounting for key household background characteristics when designing, implementing and evaluating programmes for widening participation in higher education.

KEYWORDS

Aspirations; parental expectations; higher education participation; socio-economic status; family

1. Introduction

In recent years, Australian policy-makers have committed considerable resources to the support of programmes designed to increase participation in higher education by school students. These programmes are largely associated with outreach activities which bolster student aspiration in addition to managing student retention. Since 2010, they have been substantially funded through the Higher Education Participation and Partnerships Program (HEPPP), with total related funding of just over A\$1 billion during this period, representing a substantial national commitment to this effort (ACIL Allen Consulting 2017, 20).

Such outreach work among school-aged students relies on evidence about the key determinants of participation in higher education by young people, be they economic, cultural or academic. An aspiration to attend university is the first step towards participation and represents those aspects of an individual's decision to participate in higher education which are motivational.

An influential explanatory model for higher education aspiration and achievement is the status attainment model, which began with an examination of social stratification and achievement (Blau and Duncan 1967), and which was gradually expanded to include a variety of factors including: parental influence and expectations, household and family background characteristics, academic performance, peer influence and neighbourhood effects (for early work, see Sewell and Hauser 1972,

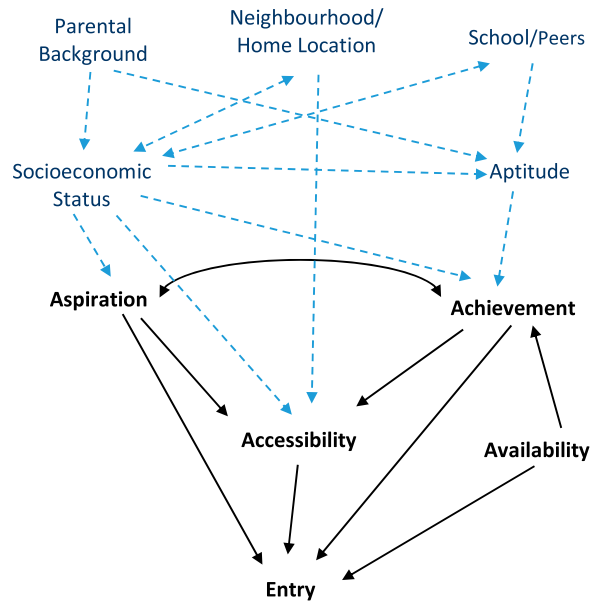


Figure 1. A representative model of higher education participation – socio-economic and systemic factors.

Note: Figure 1 is based on Figure 0.7 in Anderson et al. (1980, 7).

1975). Figure 1 below presents a representation of this participation model in which family, school and social background factors (denoted in grey and dashed lines) interact with factors affecting student navigation of the higher education system (denoted in black and solid lines). Here, aspiration is informed by the socio-economic realities facing students which determine the probability of transition to higher education.

This forms the basis of *expectation* which is qualitatively different from *aspiration* (Khattab 2015). Expectation can be thought of as the extent to which factors affecting aspiration interact with a student's prior achievement and perceptions of accessibility and availability of places in higher education to shape their perceptions of the likelihood of entry.

In this framework, parental expectation is a significant, long-term determinant of student aspiration, expectation and participation in higher education. A recent Australian study by Gemici et al. (2014) finds that young people whose parents express a preference for them to attend university are 11 times more likely to do so. Wu and Bai (2015) using longitudinal data from the Taiwan Youth Project find that 'parental expectations fundamentally affected university aspirations' in an educational context where economic status was shown to not unduly affect access and attainment in higher education. This is a situation not dissimilar to that found to be the case in Australia (Cardak and Ryan 2009; Marks 2017). However, while there has been a concerted focus in the literature on the role of expectations in determining higher education participation outcomes, the formation and determinants of parental aspiration have attracted less attention. As Spera, Wentzel, and Matto (2009) note:

... although the relationship of parental aspirations to student outcomes has been well documented, researchers have not assessed contextual factors that might influence the formation and adoption of such aspirations for their children's educational attainment. (1140)

This paper addresses this topic in Australia, using data from responses to a question on parental expectations for children's participation in higher education in the Household, Income and Labour Dynamics in Australia (HILDA) survey. It draws on HILDA's extensive set of parental and family controls to examine differences across income and socio-economic strata which explain and identify key influences on parental expectations.

2. The formation of parental expectations for higher education participation

The literature on parental influence on educational outcomes of their children identifies four broad factors which figure prominently in the formation of parental expectations: parental educational attainment; sociological factors such as parental occupational status, family structure and ethnicity; family income and wealth; and parental assessments of children's school performance.

Parental educational attainment is a well-established predictor of parental expectations. An Australian study of university aspirations among students in Melbourne by Bowden and Doughney (2010) finds a gradient in higher educational aspirations in relation to parental educational background, their preferred measure of socio-economic status. Davis-Kean (2005), in an examination of school performance, finds that parents' years of schooling is the most important socio-economic factor when looking at school age children and ongoing educational progress. Parents with higher levels of attainment tend to form higher levels of expectation in relation to their children's participation in higher education (see for instance, Gill and Reynolds 1999). This extends to studies examining educational preferences across cultures. For instance, in the US, Yamamoto and Holloway (2010) study the impact of ethnicity and school climate on parental aspirations and find that within each ethnic sub-group parental aspiration is significantly correlated to parental education, although the impact is more heterogeneous at lower levels of parental education.

A myriad of social factors, bracketed as 'socio-economic status', influence expectations. In Australia, as elsewhere there is strong historic evidence for continued under-representation of people from disadvantaged or 'low socio-economic' backgrounds (Anderson et al. 1980; James 2002; Koshy 2016). These include ethnic background, family structure, parental occupation and gender. They also encapsulate effects associated with Bourdieu (1986), who identifies cultural capital (access to cultural practices associated with education) and social capital (access to social networks associated with advancement) as important resources which enable students to progress to higher education and acquire human capital (see also, Coleman 1988). Social capital also encapsulates broader notions of access to information and social support networks – as discussed in Putnam (1995) and more critically in Portes (1998) – which can be thought of impacting indirectly on the prospects of transition to higher education, an idea also present in extensions of the 'capability approach' to analysing disadvantage (Sen 1985). Yu and Daraganova (2014) observe that parental expectation acts directly, to affect children's own expectations and eventual attainment and can 'compensate for a lack of financial and human resources' (105). Socio-economic factors have been postulated to drive this process (McCarron and Inkelas 2006; Turley, Santos, and Ceja 2007). Kim, Sherraden, and Clancy (2013) find that when socio-economic factors are taken into consideration, racial differences in parental educational preferences tend to become less significant. In a 12 country study, Buchmann and Dalton (2002) examine the impact of interpersonal influences on student aspiration and suggest that their findings 'reinforce the point that peers and parents are separate influences and indicate that they may function differently across institutional contexts' (113). Importantly, they observe that parental expectation is both formed in these environments but also interacts with them, citing the example of 'tracking' in schooling across several countries which sees children separated according to academic ability at an early age. While this could build educational expectation on the basis of tracking, it could also conceivably be a function of parental support for children at an early age. Further, Wood, Kaplan, and McLloyd (2007) point to 'a growing body of research that attempts to elucidate the extent to which school-level factors play a compensatory role when family processes are compromised' (424).

Marks (2017) sounds a note of caution on the focus of socio-economic status in education given evidence that where measures of academic ability, prior learning and educational background are included in models, socio-economic status becomes a less powerful explanatory variable. Gore et al. (2015), in looking at career aspirations, find that socio-economic status is less pervasive as an explanation for patterns of occupational preferences among school students (Years 4, 6, 8 and 10), but they observe differences in the level and motivation of students to enter higher education.

These include a sense of greater scope to pursue individual interests and passions among students from higher socio-economic status backgrounds, in comparison with stronger financial motivations among those from lower socio-economic backgrounds, with these differences emerging in children as young as nine (173). This important qualifier recognises that parental influence, as mediated by social and educational advantage, extends over the life course (McMillan and Western 2000), which is especially pertinent during the developmental phase, so received evidence on factors such as prior learning may reflect in some part the effect of reduced socio-economic status (Heckman 2000).

Financial advantage, in the form of higher level of income and wealth, enables parents and families to invest resources in children's education. Zhan and Sherraden (2011), in a US study of the impact of financial assets and liabilities on educational participation find that 'differences in economic resources are associated with a substantial portion of the Black-White gaps in college attendance and graduation' (2173). In particular, they find that ownership of non-financial assets are important in determining the educational participation of children in minority families, a result they attribute to the relative unimportance of financial asset holdings in low socio-economic minority households and also the stability associated with key non-financial assets such as home ownership, a finding echoed by Nam and Huang (2009). These findings accord with Huang et al.'s (2010) observation that economic theory posits that financial constraints act in both the short term and long term to reduce educational opportunities. Immediate financial constraints limit options for children attending higher education institutions, and the effects of financial constraints that reflect a family's background during a child's development accumulate over the longer term. Both operate to reduce attainment opportunities in post-secondary education. The authors control for both effects in their study using a structural equation model approach and find that long-term factors tend to dominate outcomes, but that the short-term issue of financing education is still relevant. Generally, families with greater access to financial resources are in a position to consider the final implications of post-secondary education for their children, supporting existing aspirations.

The Australian evidence on income and wealth is less certain. Dockery, Seymour, and Koshy (2016) find that household income was insignificant in predicting higher education access using a sample from HILDA, with housing effects also being less important. One explanation for this is that the nature of higher education student financing in Australia has reduced the impact of credit constraints on access (Cardak and Ryan 2009). In the Australian arena the existence of an income contingent loans system for tuition payments and the reality that most university-aged students in Australia commute from home to university rather than pay university board, may make financing requirements associated with higher education less of a factor in shaping expectation. A possible exemption from this general observation applies to students from regional and remote areas, where relocating to attend a higher education institution is common (Koshy and Phillimore 2013) and the total cost of participation is therefore greater (see Kilpatrick and Abbott-Chapman 2002; Alloway and Dalley-Trim 2009; Abbott-Chapman 2011; Wilks and Wilson 2012).

Finally, parental perceptions of a child's academic ability and prospects inform their expectations. Various studies have found that even after controlling for socio-economic background factors, an individual child's academic potential, proxied by prior achievement, is important in shaping expectations (Gore et al. 2015), as are perceptions of 'school climate' whereby children's performance is assessed in the broader context of their school (Spera, Wentzel, and Matto 2009). However, it should be noted that the direction of this cause is uncertain and it is likely to be multi-directional as good academic performance is both a driver and derivative of student and parental expectation of progress towards post-secondary study (Alexander and Eckland 1975; Spera, Wentzel, and Matto 2009, 1149; Bozick et al. 2010).

More generally, parents also appear to take into consideration broader education and training prospects for their children. For instance, a number of studies have identified a strong gender effect in parental aspirations, with higher levels of expectation that girls will attend university (Gil-Flores, Padilla-Carmona, and Suarez-Ortega 2011; Yu and Daraganova 2014).

It is a parent's assessment of their child's abilities, coupled with a knowledge of the likely options that translates aspiration into expectation as the child grows older. This point is examined in the context of student aspiration formation in a study by Marjoribanks (2003) using data from the Longitudinal Surveys of Australian Youth (LSAY) which models attainment in view of a series of background factors over time. He finds that 'academic performance at the beginning of secondary schooling has an important impact on the formation of adolescents' education aspirations' (241) – a finding which other studies find to hold for parental aspirations as well (Goldenberg et al. 2001; Zhang et al. 2011).

3. Data and methodology

We use data from the HILDA survey to examine the formation of parental expectations.

Commencing in 2001, HILDA is a panel survey of individuals from a representative sample of private households.¹ Within selected households all occupants aged 15 and over are surveyed annually. Around 13,000 individuals from over 7000 households have responded in each year, with year-on-year attrition rates averaging below 10%. In 2011, an additional top-up sample of 2153 households encompassing 4009 responding individuals was recruited to the survey sample (HILDA Survey Annual Report 2012).

HILDA represents Australia's most comprehensive household longitudinal collection covering economic and socio-economic dimensions of household formation and activity in Australia. HILDA provides a rich set of explanatory variables for inclusion in modelling parental expectations of higher education participation for their children. This includes information on a child's age, school type, household income and parental educational background, occupation and employment status.

The set of survey instruments includes a Household Questionnaire administered to an adult member of the household and collecting information about the household unit; as well as individual surveys with each member of the household aged 15 or over. The variables used in the modelling are listed in Table 1, with summary statistics provided in Appendix.

Specifically, we use data from Wave 12 (2012) of HILDA in which a module featuring questions on 'education, skills and abilities' was introduced into the survey.² The 2012 module included, for the first time, questions in the Household Questionnaire on parental perceptions of their children's academic performance and *their* expectations for higher education participation for each child. Thus, these particular questions were answered only by the parent who completed the Household Questionnaire. Specifically, the question relating to parental expectations was:

Do you think that this child will go onto university when they finish schooling or at some time in the future?

This question was asked with reference to each child in the household aged 4–18 providing responses for a sample of 3252 children in 1635 households, of which 1204 were couple parent households (with 2422 children) and 431 were single parent households (830 children).

The response options and shares by family type were as follows:

- Yes, definitely (31.3% – couple/23.9% – single parent);
- Yes, probably (31.8%/30%);
- Maybe (23.3%/27.2%) and
- No (13.6%/21.8%).

The combined response for 'Yes, definitely' and 'Yes, probably' of 63% is considerably higher than the national higher education attainment target of 40% for people aged 25–34, set by the Rudd government in 2007 (Koshy 2016). Given this overwhelming preference for higher education, we focus on the most emphatic response of 'Yes, definitely'. We estimate a series of ordered probit models, to model the probability (0–1) that the parent responds 'Yes, definitely'. Marginal effects are reported for each variable, holding other variables at the *sample average*, to identify the impact it has on the probability of this response.

Table 1. Parental expectations model variables.

Variable
<i>Dependent variable:</i>
Response to HILDA (Wave 12, 2012) question: Do you think this child will go onto university when they finish school? Four possible responses 'Yes, definitely', 'Yes, probably', 'Maybe' and 'No'. Coded as 'Yes, definitely' = 1; otherwise = 0.
<i>Independent variables:</i>
Respondent characteristics –
Gender (respondent is female)
Age (in years)
Respondent and child same gender
Parental Assessment of Overall Academic Performance [Average] – Excellent; Above Average; Below Average; Well below average
Child characteristics –
Age [14–18] – Aged 4–6; Aged 7–13
Gender (child is female)
Birth position [first child] – second child; third to sixth child
School –
Attended government school
Household characteristics –
Socio-economic status [middle] – high socio-economic status; low socio-economic status
Household disposable income (in \$10,000 dollar increments)
Housing [owner occupier] – renting in government housing; renting in private housing
Area –
State [New South Wales] – Victoria; Queensland; South Australia; Western Australia; Tasmania; Northern Territory; Australian Capital Territory
Region [Metro] – Inner Regional; Outer Regional and Remote
Parent Characteristics – (Separate for 'Father' and 'Mother' in <i>Couple Parent Model</i> ; 'Parent' in <i>Single Parent Household</i>)
Parent age
Parent is female (yes) (single household only)
Parent born in Australia (yes) (single household only)
Occupation [Category 1 (highest skilled)] –Category 2; Category 3; Category 4; Category 5 (lowest skilled)
Mother/father/parent unemployed
Mother/father/parent not in labour force
Education [degree or higher] – TAFE Certificate 3 or 4/Diploma; Year 12; Year 11 or below

Note: For sets of categorical dummies, omitted variables are in brackets [omitted category]. See Table 2 for a listing of all variables.

4. Results

Table 2 below presents the results of the analysis. The model was estimated for the two household sub-samples: – couple parent and single parent households, with the couple parent sample being split into two further sub-samples by the parent ('mother' or 'father') who completed the Household Questionnaire. As noted in the discussion above, the results presented here are marginal effects.

4.1. The couple parent household sample

For the sample of couple households, the estimated effects of the gender and age of the responding parent are insignificant. However, where the respondent and child are the same gender, there is a significant marginal effect observed of 0.038, implying a 3.8% increase in the probability of selecting 'Yes, definitely', at the 1% level of significance ($p < .01$). Thus mothers appear to hold relatively higher expectations for daughters relative to sons, while fathers hold relatively higher expectations for sons relative to daughters, other things being equal.

The impact of parental estimation of their child's academic ability is, as expected, highly significant in shaping expectations of future higher education participation, with higher probabilities of a 'Yes, definitely' response for children seen as being 'Excellent' (34.8%, $p < .01$) or 'Above Average' (22.8%, $p < .01$) compared to the omitted category of 'Average'. Similarly, a statistically significant negative effect is observed where children are deemed to be 'Below Average' (–18.4%, $p < .01$) or 'Well Below Average' (–34.5%, $p < .01$). These are the most powerful effects observed in the model.

Table 2. Parental expectation model – ‘Yes, definitely’ to ‘child to go onto university when they finish school’, for couple parent (all, female, and male respondents) and single parent households.

Variable	Couple	Female respondents	Male respondents	Single
<i>Respondent characteristics</i>				
Respondent is female	0.003 (0.022)	–	–	0.015 (0.054)
Age [years]	0.001 (0.003)	0.000 (0.005)	–0.064** (0.034)	0.002 (0.002)
Respondent and child same gender	0.038** (0.018)	0.104** (0.017)	–0.04 (0.049)	0.056** (0.034)
<i>Parental assessment of overall academic performance [average]</i>				
Excellent	0.348** (0.026)	0.346** (0.03)	0.349** (0.038)	0.317** (0.036)
Above average	0.228** (0.019)	0.22** (0.021)	0.252** (0.08)	0.185** (0.026)
Below average	–0.184** (0.038)	–0.132** (0.043)	–0.296** (0.155)	–0.155** (0.05)
Well below average	–0.345** (0.09)	–0.418** (0.099)	–0.101 (0.039)	–0.278** (0.098)
<i>Child characteristics [age 7–13]</i>				
Aged 4–6	0.022 (0.019)	0.036 (0.022)	–0.018 (0.043)	0.074** (0.041)
Aged 14–18	0.057** (0.022)	0.061** (0.025)	0.043 (0.027)	–0.027 (0.028)
Child is female	0.072** (0.018)	–	–	–0.005 (0.033)
<i>Birth position [first child]</i>				
Second child	0.000 (0.014)	0.002 (0.017)	–0.007 (0.04)	0.029 (0.027)
Third to sixth child	–0.038 (0.026)	–0.028 (0.029)	–0.062 (0.054)	0.021 (0.035)
<i>School</i>				
Attended government school	–0.112** (0.02)	–0.104** (0.023)	–0.133** (0.051)	–0.091** (0.027)
<i>Household characteristics</i>				
<i>Socio-economic status [middle]</i>				
High socio-economic status	0.004 (0.027)	0.011 (0.03)	–0.003 (0.004)	0.02 (0.046)
Low socio-economic status	–0.037 (0.023)	–0.049** (0.026)	–0.041 (0.161)	–0.077** (0.027)
Household disposable income	0.001 (0.002)	0.001 (0.002)	–0.001 (0.059)	0.003 (0.002)
<i>Housing [owner occupier]</i>				
Renting in government housing	0.008 (0.071)	0.051 (0.077)	–0.129 (0.051)	–0.019 (0.043)
Renting in private housing	0.029 (0.026)	0.04 (0.028)	0.007 (0.055)	0.055** (0.028)
<i>State [New South Wales]</i>				
Victoria	–0.014 (0.026)	–0.011 (0.03)	–0.017 (0.077)	0.034 (0.035)
Queensland	0.022 (0.027)	0.029 (0.03)	0.03 (0.07)	0.064** (0.033)
South Australia	–0.037 (0.036)	–0.025 (0.04)	–0.056 (0.094)	–0.063 (0.042)
Western Australia	–0.036 (0.032)	–0.047 (0.035)	–0.055 (0.148)	–0.027 (0.056)
Tasmania	0.018 (0.049)	0.055 (0.056)	–0.081 (0.102)	0.076 (0.052)
Northern Territory	0.084 (0.094)	0.06 (0.113)	0.059 (0.005)	–0.265** (0.068)
Australian Capital Territory	–0.121** (0.055)	–0.145** (0.06)	–0.065 (0.07)	0.133 (0.158)
<i>Region [Metro]</i>				
Inner regional	–0.084** (0.024)	–0.074** (0.027)	–0.114** (0.000)	–0.029 (0.028)
Outer regional and remote	–0.123** (0.03)	–0.124** (0.033)	–0.08 (0.000)	0.032 (0.035)
<i>Mother/parent characteristics</i>				
Mother/parent age	0.000 (0.004)	0.003 (0.006)	–0.005 (0.096)	0.000 (0.002)
Parent is female	–	–	–	0.031 (0.062)
Parent born in Australia	–	–	–	–0.064** (0.037)
<i>Mother/parent occupation [Occupation Category 1 (highest skilled)]</i>				
Category 2	0.029 (0.036)	–0.033 (0.042)	0.169** (0.065)	0.024 (0.055)
Category 3	0.009 (0.043)	–0.005 (0.049)	0.031 (0.087)	–0.099 (0.081)
Category 4	–0.01 (0.031)	–0.068** (0.034)	0.121** (0.139)	–0.003 (0.046)
Category 5 (lowest skilled)	–0.083** (0.039)	–0.082** (0.042)	–0.14 (0.059)	–0.013 (0.053)
<i>Labour force status [mother/parent employed]</i>				
Mother/parent unemployed	0.006 (0.054)	–0.075 (0.057)	0.295** (0.055)	0.11** (0.061)
Mother/parent not in labour force	–0.008 (0.031)	–0.042 (0.035)	0.049 (0.066)	–0.008 (0.049)
<i>Mother/parent education [degree or higher]</i>				
TAFE Certificate 3 or 4/Diploma	–0.078** (0.029)	–0.073** (0.033)	–0.086 (0.069)	–0.084** (0.045)
Year 12	–0.053** (0.032)	–0.068** (0.036)	–0.001 (0.006)	–0.093** (0.054)
Year 11 or below	–0.103** (0.034)	–0.12** (0.038)	–0.085 (0.058)	–0.145** (0.052)
<i>Father characteristics</i>				
Father age	0.000 (0.002)	–0.001 (0.002)	0.069** (0.071)	–
<i>Father occupation [Occupation Category 1 (highest skilled)]</i>				
Category 2	0.042 (0.029)	–0.097** (0.031)	–0.232** (0.077)	–
Category 3	–0.094** (0.035)	–0.077** (0.041)	–0.158** (0.051)	–
Category 4	–0.157** (0.034)	–0.118** (0.039)	–0.228** (0.066)	–
Category 5 (lowest skilled)	–0.084** (0.024)	–0.074** (0.027)	–0.114** (0.000)	–
<i>Labour force status [father/parent employed]</i>				
Father unemployed	–0.041 (0.061)	–0.007 (0.061)	–0.147 (0.048)	–

(Continued)

Table 2. Continued.

Variable	Couple	Female respondents	Male respondents	Single
Father not in labour force	0.035 (0.05)	0.043 (0.058)	−0.005 (0.07)	–
Father education [degree or higher]				
TAFE Certificate 3 or 4/Diploma	−0.146** (0.026)	−0.097** (0.031)	−0.232** (0.077)	–
Year 12	−0.094** (0.035)	−0.077** (0.041)	−0.158** (0.051)	–
Year 11 or below	−0.157** (0.034)	−0.118** (0.039)	−0.228** (0.066)	–
N (sample size)	2422	1666	756	830

*Denotes significance at the 5% level. Standard errors in parentheses; [Omitted category in brackets].

**Denotes significance at the 1% level.

Estimated coefficients for child-specific characteristics revealed outcomes anticipated or demonstrated in the literature. Age of the child is significant in affecting responses, with 'Aged 14 to 18' showing a significant impact of 5.7% relative to the control category of 'Aged 7 to 13', indicating growing expectations of higher education participation as children approach Year 12 completion. Birth order effects (e.g. first to sixth child) are not detected in this model. There is a strong impact of the gender of the child in favour of girls (7.2%, $p < .01$), which again supports the contention that gender is an important determinant of parental aspiration for higher education participation by their children. The result is also in line with the reality that women now make up a higher proportion of university students in Australia (Koshy 2016).

Within couple families, household characteristics are not significant factors in shaping aspiration in this model. For instance, no significant effect is viewed for socio-economic status. Additionally, household disposable income and variables capturing housing tenure – 'Owner Occupier', 'Renting in Government Housing' and 'Renting in Private Housing' – are insignificant.

Against this, a strong schooling effect is observed, with a child attending a government school associated with a −11.2% marginal effect ($p < .01$), implying a reduced aspiration for higher education relative to those attending non-government schools. This accords somewhat with the evidence on the impact of school type on university performance. Li and Dockery (2015) find evidence that 'higher SES schools inflate their students' ATAR scores and improve their access to university' (91), suggesting that parents with stronger expectations that their children will enter higher education may actively seek to enrol them in private schools which, in the Australian context, are generally higher SES schools.

There is only one observed state effect, a negative and highly significant result associated with the Australian Capital Territory, which implies a reduced 'area effect' in the territory with the lowest level of socio-economic disadvantage in Australia (for a discussion, see: Koshy 2011). This somewhat perverse result may reflect the high proportion of Commonwealth public service workers in that territory who are classified as being in high-skilled occupations, a factor that is already controlled for in the models. Compared with families living in metropolitan areas, those in regional areas – 'Inner Regional' (−8.4%) and 'Outer Regional and Remote' (−12.3%) – display markedly lower expectations at the 1% level of significance. This is consistent with the significant evidence on higher education expectations in Australia's regions (Department of Education, Employment and Workplace Relations 2010).

Parental characteristics in the couple respondent sample indicated that in the case of both mothers and fathers, parental age and workforce participation (*Unemployed; Not in Labour Force*) are statistically insignificant in affecting the probability of respondents selecting 'Yes, definitely'.

Occupational effects are also observed. In HILDA, occupations are classified using the Australian Bureau of Statistics (ABS) Occupational Categories 1–5 (2006), whereby Australian and New Zealand Standard Classification of Occupations (ANZSCO) are classified on the basis of skill, as defined by the range and complexity of tasks undertaken in each occupation. These are ordered from Level 1 (the highest skill level) to Level 5 (lowest). For both mothers and fathers, parental employment in the lowest skilled category, Occupation Category 5, reduced the probability of a 'Yes, definitely' response by around 8.3% in both cases (a marginal effect of −8.3% for mothers' occupation and −8.4% for fathers').

Parental attainment of a degree is important in shaping expectations, with all other levels of qualification associated with significant negative effects in the case of both parents, with increasing divergence on the basis of parent gender as years of schooling and/or training increase. For instance, in the case where the highest level of educational attainment is 'Year 11 or below', both the father's qualification level (−15.7%) and mother's qualification level (−10.3%) see highly significant and similar negative impacts on aspiration. Where the highest qualification is 'TAFE Certificate 3 or 4/ Diploma', the effect for fathers' qualification (−14.6%) is around double that of mothers' qualification (−7.8%), partly explained by the observed preference for girls to attend university and also the pre-dominance of males in vocational education and training.

4.2. The couple parent household sample by gender of responding parent

In the couple sample, female responding parent (mothers) account for 69% of all respondents, or 1666 respondents out of a total couple sample of 2422. This indicates that gender effects related to mothers may dominate the couple results. However, the male respondent sample (fathers), at 756 observations, is still large enough to enable us to split the sample along these lines.

Some differences on the basis of the respondent gender are observable. The significant effect of respondent and child being of the same gender is shown to apply only to mothers, with the effect among fathers being insignificant. Further, the marginal effect is considerably larger among mothers than that seen in the combined sample (10.4% compared to 3.8%). Hence the 'same gender' bias noted above can be attributed solely to mothers having higher expectations for daughters to attend university than for their sons. An age effect appears in the father sub-sample (−6.4%), the only significant age effect identified in this modelling.

Parents' assessment of the child's academic performance has a monotonic impact among mothers, with the likelihood of a very positive view of children's participation increasing steadily from 'Below Average' through to 'Excellent' whereas among fathers, the parameter on 'Below Average' is insignificant.

The observed increase in expectations for older children (aged 14–18) years appears to be largely present in the mother subset, with a slightly higher significant response (6.1% compared to 5.7% for the couple sample overall), with the effect on fathers' responses being insignificant.

The strong effect of the child attending a government school as opposed to a private school is observed for both parent sub-samples at broadly similar levels, −10.4% for mothers and −13.3% for fathers.

In terms of regional effects, that seen for 'Inner Regional' remained highly significant for both genders of respondent, but with fathers seeing a stronger negative impact (−11.4% compared to −7.4% for mothers), whereas results in 'Outer Regional and Remote' areas showed that only mothers exhibited a highly significant effect for location in a *Remote* area (−12.4%), accounting for that seen in the overall sample.

The impact of occupation varied across the mother and father sub-samples. Among mothers, highly significant effects are observed for mother's occupation in the lower skilled categories of 4 (−6.8%) and 5 (−8.2%), with the latter driving the effect seen in the overall sample. Among fathers, highly significant and substantial effects are seen where mothers are employed in higher status occupations in 'Occupational Category 2' (16.9%) and 'Occupational Category 4' (12.1%). Employment variables are generally not significant in the sub-samples, with the exception of 'Mother Unemployed' in the father sub-sample, which is both highly significant and constituted a large effect at around 29.5%.

In terms of parental educational background, university-educated parents had the highest expectations of their children also attending university irrespective of parental gender. For fathers it is their own qualifications that have the strongest association with their expectations, while mothers' expectations appear to be shaped equally by their own level of education and that of their partner's.

4.3. The single parent household sample

Another consideration in relation to socio-economic status is that of family structure. Krein and Beller (1988) find that children from single parent families tend to have lower rates of educational attainment, with a particularly pronounced effect among children who have spent the greatest number of years in such situations and with boys seeing a greater negative effect than girls.

As shown above by the pattern of responses to the question on higher education expectations, single parents had substantially lower expectations that their children would go on to university than partnered parents. However, covariates may have differential effects on aspirations within these households. To examine this issue, we estimate a similar model using a single parent household sample from HILDA.

As with the couples sample, respondent age and gender are insignificant in explaining the probability of a respondent indicating their child will definitely go to university. There is a positive effect of the respondent and child being of the same gender (5.6%, $p < .01$) in keeping with that seen in the mother sub-sample and the couple households sample in general. Given the fact that 85.1% of single parent households are headed by females, we would expect some commonalities with results from the female couple sub-sample.

Comparable effects to those identified for the couple sample are found for parental estimation of their child's academic ability, the child attending a government school as opposed to a private school and parent's educational attainment. The single parent model included an additional variable for the parent having been born in Australia, which had a negative impact on aspiration (−6.4%, $p < .01$).

Looking at child characteristics, age is largely insignificant, with the exception of 'Aged 4 to 6' which is highly significant for single parent households (7.4%, $p < .01$), indicating a greater degree of assertiveness on this question for relatively younger children than is present in couple households. Possibly this reflects recognition of immediate resource constraints facing single parents for children close to finishing school, but hopes that their circumstances will have improved by the time their younger children leave school. The single parent sample showed no strong effect of the gender of the child, by contrast with the overall sample. However, with the vast majority of single parents being mothers, such an effect will be captured through the variable indicating whether the respondent and child are the same gender. Thus the single parent results are consistent in suggesting higher expectations for female children.

The household characteristic variables in the single parent model are insignificant, with the exception of that for *Low Socioeconomic Status* (−7.7%, $p < .01$). This indicates that measures of socio-economic disadvantage may be more relevant in capturing the compounding nature of disadvantage in single rather than couple households.

Parental occupational status is not significant in the single parent model, while unemployment is positively associated with increased expectation of university attendance (11.0%, $p < .01$).

5. Conclusion and discussion

Parental expectations are an important determinant of higher education access, with studies finding a strong link between the two (notably Gemici et al. 2014, in the Australian context). In this paper, we examine Australian evidence on the key drivers of parental expectations using data from the HILDA study. We do so by looking at two broad samples, one for couple households and the other for single parent households, and in addition, we split the couple household sample into mother and father sub-samples.

There are strong commonalities across these four cases. Primarily these relate to parental assessment of the academic performance of their child. There is an estimated 34.8% increase in the probability of a parent answering 'Yes, definitely' to the focus question, 'Do you think that this child will go onto university when they finish school?', when their assessment of a child's academic performance is 'Excellent' as opposed to 'Average', while 'Below Average' and 'Well Below Average' assessments

resulted in reduced probability of parents nominating the 'Yes, definitely' option relative to 'Average' assessments. Single parent households report similar patterns of expectation. This finding is in line with previous studies in Australia (such as Marjoribanks 2003) and Marks' (2017) assessment in relation to the importance of prior academic performance in determining higher education access and participation.

Variables in relation to socio-economic status are less significant in the couple parents' model as are those tracking household income and housing status and home ownership. However, 'low socio-economic status' is shown to have some negative impacts in the mother sub-sample (−4.9%) and the single (and predominantly female) sample (−7.7%), with respondents in the lowest skilled occupations (Categories 4 and 5) also likely to have lower expectations of their children's higher education participation. To some extent, this echoes Marks (2017) observations on socio-economic variables having less explanatory power in view of variables which either capture actual or perceived academic performance in relation to higher education participation (and in this context, the expectation which proceeds it).

Against this, there is a strong school effect across all models, with attendance at a government school associated with a reduced expectation and certainty around eventual higher education attendance, relative to parents of children attending a private school. In the Australian context, it could be the case that investment in non-government school is a better proxy for socio-economic status in relation to education than income and wealth accumulation variables and/or reflects a willingness on the part of parents to invest in their children's education.

Other observed socio-economic factors are important. Gender variables are significant, both in relation to the responder and child. In the mother sub-sample of the couples model, there is a 10.4% increase in the probability of a definitive expectation of higher education attendance where it is asked of female child, with no similar effect existing (either way) for males. A similar story exists in the single parent household sample, again, where most of the respondents are female. These findings coupled with a 7.2% effect of the child being female indicate that parents, particularly mothers, view girls as having greater opportunities in higher education than in other post-compulsory settings, a finding that confirms the observations from data in the LSAC by Yu and Daraganova (2014).

This view is likely to reflect the reality in Australia that young females face far more limited post-school vocational education and training pathways if they do not go on to study at university than is the case for males (Buchler and Dockery 2015). This represents an interesting hypothesis in view of the findings in this paper and one which can be tested using data from future collections of the 'education, skills and abilities' module in HILDA.

The couple parent samples show significant regional effects which track distance whereas the single parent sample shows that these factors are not significant in the context of overall drivers of parental expectation in these households.

Finally, parental educational background is important in shaping expectations of their children's participation in higher education, with significant reductions in expectations as the number of years of schooling declined, a finding that is robust across all models studied. Additionally, there is a strong indication of the importance of paternal TAFE participation in shaping expectations of alternatives to university. For instance, in a couple household where the father has a TAFE certificate (3 or 4) or diploma, there is a 14.6% reduction in support for 'Yes, definitely', driven in large part by a 23.2% reduction among father respondents only. Again, this may reflect broader options for young males in the VET system, with fathers with trade qualifications placing a greater likelihood on their sons following similar career paths.

Overall, expectations for higher education attainment are high among parents, with over 60% of parents in couple households seeing this as a prospect for their child, with this figure falling to 53% in single parent households. These findings confirm previous evidence on parental expectations for their children's entry into higher education. Namely, that parental assessment of their children's ability coupled with their educational and occupational backgrounds inform their expectations in relation to higher education participation.

It does raise the important policy question: how do we address educational disadvantage associated with family background?

Encouragingly, current measures to address the financial aspects of this disadvantage appear to be effective in Australia (Cardak and Ryan 2009; Dockery, Seymour, and Koshy 2016). Nevertheless, there is some evidence that socio-economic disadvantage may persist – for instance, in the strong observed school effect in this study – both in terms of the provision of resources as well as education and parental initiative. Moreover, the importance of children's perceived academic performance in shaping expectations suggests such effects may commence in early childhood and accumulate through primary and secondary school.

More broadly, it is this interplay between economic and educational advantage that education policy is designed to address and these results suggest that higher education policy, be it geared towards widening participation or attendant issues such as student income support, should flow from an evidence base that captures critical household characteristics that shape parental expectations in relation to higher education, especially where parents have no direct experience of university attendance.

The findings here demonstrate that many of the factors known to be associated with relative exclusion from higher education have their precedence in parental expectations, supporting growing evidence of the benefit of intervention strategies that commence in early childhood (Heckman 2000). Sole-parent status and living in a regional or remote area, in particular, are among key household background variables that need to be integrated into the design, delivery and evaluation of intervention strategies, whether those strategies work to identify and directly address the barriers faced by such families directly, or to otherwise revise those parents' expectations.

The analysis was made possible by the addition of the 'education, skills and abilities' module into the 2012 wave of the HILDA survey. Data from future repeats of this module will be made available at four year intervals, with the 2016 release due to be released in December 2017. This provides considerable scope for future analyses and comparisons with the 2012 collection. Promising avenues for future research include the within-child persistence and evolution of parental expectations across the life course; the effects of changes in circumstances (such as family structure); and relating parental expectations to actual educational outcomes.

Notes

1. See <http://www.melbourneinstitute.com/hilda/> and Watson and Wooden (2010) for details on the survey.
2. A follow up to this module was included in the Wave 16 HILDA collection in 2016, with data from this to be released in December 2017.

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No potential conflict of interest was reported by the authors.

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Appendix. Means of the independent variables in the expectations model – couple and single parent household samples.

Variable	Couple parent household	Single parent household
<i>Sample size – respondents (N)</i>		
Total respondents	2422	830
Female respondents	1666	706
<i>Respondent characteristics</i>		
Respondent is female	0.688	0.851
Age [years]	41.8	41.0
Respondent and child same gender	0.509	0.481
<i>Parental assessment of overall academic performance</i>		
Excellent	0.209	0.157
Above average	0.372	0.273
Average	0.357	0.464
Below average	0.051	0.083
Well below average	0.011	0.023
<i>Child characteristics</i>		
Aged 4–6	0.165	0.127
Aged 7–13	0.530	0.522
Age 14–18	0.302	0.314
Child is female	0.488	0.478
<i>Birth position</i>		
First child	0.497	0.519
Second child	0.353	0.340
Third child	0.117	0.106
Fourth child	0.023	0.019
Fifth child	0.005	0.016
Sixth child	0.002	0.000
<i>School</i>		
Attended government school	0.636	0.755
<i>Household characteristics</i>		
High socio-economic status	0.223	0.082
Middle socio-economic status	0.541	0.540
Low socio-economic status	0.235	0.378
Household disposable income	\$118,649	\$69,965
<i>Housing</i>		
Owner occupier	0.791	0.372
Renting in government housing	0.019	0.118
Renting in private housing	0.189	0.510
<i>State</i>		
New South Wales	0.293	0.275
Victoria	0.242	0.271
Queensland	0.210	0.229
South Australia	0.088	0.110
Western Australia	0.100	0.059
Tasmania	0.034	0.047
Northern Territory	0.010	0.005
Australian Capital Territory	0.021	0.005
<i>Region</i>		
Major city	0.623	0.531
Inner regional	0.248	0.312
Outer regional	0.114	0.140
Remote	0.014	0.012
Very remote	0.001	0.005
<i>Mother/parent characteristics</i>		
Mother/parent age	41.0	41.0
Parent is female	–	0.871
Parent born in Australia	–	0.807
<i>Mother/parent occupation</i>		
Category 1 (highest skilled)	0.271	0.165
Category 2	0.115	0.086
Category 3	0.045	0.036
Category 4	0.216	0.206

(Continued)

Appendix. Continued.

Variable	Couple parent household	Single parent household
Category 5 (lowest skilled)	0.082	0.131
Mother/parent unemployed	0.027	0.047
Mother/parent not in labour force	0.244	0.329
<i>Mother/parent education</i>		
Degree or above	0.357	0.175
TAFE Certificate 3 or 4/Diploma	0.283	0.361
Degree or above	0.151	0.149
Year 11 or below	0.209	0.314
<i>Father characteristics</i>		
Father age [Years]	44.0	–
<i>Father occupation</i>		
Category 1 (highest skilled)	0.382	–
Category 2	0.122	–
Category 3	0.163	–
Category 4	0.170	–
Category 5 (lowest skilled)	0.071	–
Father unemployed	0.026	–
Father not in labour force	0.066	–
<i>Father education</i>		
Degree or above	0.302	–
TAFE Certificate 3 or 4/Diploma	0.424	–
Degree or above	0.103	–
Year 11 or below	0.171	–