Financial Stress, Family Conflict, and Australian Youths' Transitions from Home and School

By: Deborah A. Cobb-Clark and David C. Ribar

Cobb-Clark, D. A. and Ribar, D.C. (December 2012). "Financial Stress, Family Conflict, and Australian Youths' Transitions from Home and School," *Review of Economics of the Household* 10:4, 469-90.

The original publication is available at: http://link.springer.com/article/10.1007/s11150-011-9133-6

Abstract:

We analyze the effect of mothers' and youths' reports of family financial stress and relationship dissatisfaction on Australian youths' transitions into adult roles. We find that mothers' reports of financial stresses and borrowing constraints are associated with earlier transitions to inactivity, while youths' reports of financial stresses are associated with earlier nest-leaving. Youths reporting unsatisfactory relationships with parents leave school and move out earlier than their peers, while unsatisfactory relationships between parents are associated with youths making later transitions. Overall, financial stress and dissatisfaction have independent associations with youths' transitions and youths' perspectives have different consequences to those of their mothers.

Keywords: financial stress | family relationships | family studies | family conflict | young adults | children | Australian families | economics

Article:

1 Introduction

Young people in many countries are prolonging the period that they are financially dependent upon their parents (for example, Hartley 1993; Schneider 1999; Weston et al. 2001; Whittington and Peters 1996). Increasingly, parents are called upon to provide direct monetary transfers or co-residential support (i.e., food and shelter) to their adolescent or young-adult offspring in order to assist them in completing their schooling, beginning their careers, acquiring housing, and establishing families of their own. Families are not all equally well positioned to provide this support, however. The financial stress and family conflict that often accompany economic disadvantage may result in young people not receiving the financial or emotional support they

need in negotiating their transition to more adult roles. If so, the family's inability to provide support to its young-adult members may represent one important mechanism through which socio-economic disadvantage is perpetuated across the generations.

In particular, there is a vast literature documenting the adverse cognitive, behavioral, emotional, and physical consequences of growing up in poverty (Duncan and Brooks-Gunn 1997; Haveman and Wolfe 1995). Psychologists, in particular, argue that family economic hardship affects youths' outcomes by creating perceptions of economic pressure, weakening family relationships, and disrupting positive parenting practices (Conger et al. 2002; Mistry et al. 2009). Many parents protect their children from the most negative effects of economic hardship by bearing a disproportionate share of any cutbacks or by adopting supportive parenting strategies (Clark-Lempers et al. 1990; Conger et al. 1997, 2002; McLoyd and Wilson 1990; Mistry et al. 2009). As a result, adolescents' perceptions of financial stress are often distinct to those of their parents (Clark-Lempers et al. 1990; Conger et al. 2002) and variation in the way that objective economic conditions are perceived is important in understanding subsequent outcomes (see Lempers and Clark-Lempers 1997). Despite this, youths' perspectives are often ignored in models of economic hardship and subsequent wellbeing (Mistry et al. 2009).

Our objective is to fill a void in the literature by analyzing the effect of family financial stress and relationship satisfaction on youths' transitions out of school, into economic inactivity, and out of their parent's homes. Unlike the previous literature, we directly account for young people's perceptions of both financial stress and relationship satisfaction separately from those of their parents. Specifically, we estimate hazard models of a series of youth transitions using nationally-representative, longitudinal data for adolescents (aged 16–21) and their families captured in the Household, Income and Labour Dynamics in Australia (HILDA) survey. These data have several strengths that make them invaluable for the analysis at hand. First, the survey obtains detailed socio-economic, psychological, and demographic data, including reports of financial stress and relationship satisfaction, directly from each household member aged 15 years and over. This allows us to account separately for the role of economic resources (in particular, household income and the receipt of public transfers) as well as parents' and youths' perceptions of financial difficulty and family relationships in adolescents' transitions into a wide range of adult roles. Second, the HILDA panel is nationally representative and follows respondents as they move out of their parents' homes to establish households of their own. This ability to match a representative sample of adolescents and young adults to the households in which they grew up allows us to move beyond the selective, cross-sectional data samples that characterize much of the psychological research in this area. Finally, the Australian context itself is of considerable interest as government policy has increasingly shifted the financial burden of supporting young adults from the public purse to their families. Most young Australians under the age of 25 now qualify for social assistance on the basis of their parents' (rather than their own) incomes (Maas 1990; Smyth 2000). As a result, many young Australians rely heavily on their parents'

assistance, in particular co-residential support, while they pursue their post-secondary educations.1

Understanding the way that economic disadvantage, financial stress, and family relationships affect youths' transitions into adult roles is important for a number of reasons. First, these transitions are likely to be inter-related implying that less than successful transitions in one dimension may have consequences for the ability to assume adult roles more generally. Leaving the family "nest" early, for example, may be associated with early school leaving, economic inactivity and an inability to make labor market investments. Second, difficult transitions are likely to be incredibly consequential. Not only might adolescents and young adults fare badly during this transitional period, but a lack of education, little work experience, or an early press of family demands may also diminish their future economic prospects. Third, low income and financial stress are not synonymous. The incidence of financial hardship declines rapidly as household income increases, however, cash-flow problems also affect many middle- and upper-income families (Bray 2001; Breunig and Cobb-Clark 2006). Financial stress is typically concentrated in households with children and there is evidence that children have a larger effect on measures of financial stress than on measures of income or subjective poverty (Marks 2007).2 Finally, designing policies to support young people requires a firm understanding of the ways in which growing up in disadvantage constrains their future opportunities. If, for example, a youth's transition to adulthood is limited by his or her perceptions of family financial stress and family relationships, rather than by economic disadvantage per se, policies that direct additional resources to families may only indirectly affect his or her life chances.

Consistent with previous studies, our empirical analyses indicate that standard measures of economic resources and capabilities, such as higher household incomes, home ownership, and higher parental occupational attainments, are associated with "better" youth outcomes in terms of continuing schooling, avoiding economic inactivity, and continuing to live at home. Additionally, we find that mothers' reports of financial stresses are associated with young people making earlier transitions to inactivity, while youth reports of financial stresses are associated with earlier nest-leaving. Maternal reports of borrowing constraints are also associated with earlier youth transitions to inactivity. These relationships are striking given that we also account for both the economic resources and demographic characteristics of the youths' households. Finally, our multivariate analyses indicate that young people who report unsatisfactory relationships with their parents leave school and move out of the family home earlier than their peers, while parents' reports of unsatisfactory relationships with each other are associated with young people making later transitions. Taken together, these results suggest that financial stress and relationship dissatisfaction have independent effects on the transition into adult roles over and above those associated with economic resources per se. Moreover, youths' perspectives on the family's financial position and relationships have very different consequences to those of their mothers.

2 The household, income and labour dynamics in Australia (HILDA) survey

2.1 Estimation sample

The data for our empirical analyses come from the first seven waves of the HILDA survey which collects annual longitudinal information from a nationally-representative sample of more than 7,600 Australian households encompassing almost 20,000 individuals aged 15 years and older (see Watson 2009). The HILDA survey is a broad economic and social survey that pays particular attention to people's economic and social wellbeing, demographic circumstances, and labor market behavior. The survey began in 2001 and follows all individuals, including children and teenagers, who were living in, born to, or adopted by households that were initially sampled (Watson 2009). These "continuing sample members" are re-interviewed even after they move out of their original households and after they form their own households. In each wave, information is gathered from every member aged 15 years and older in the subject households through face-to-face interviews and self-completed questionnaires.

Our analysis sample includes youths who were continuing sample members and who provided interviews and self-completed questionnaires once they became eligible to participate in the HILDA survey at age 15. Our analyses focus on annual transitions in youths' outcomes, so we limit the sample to youths who entered the survey in the first six waves (i.e., those for whom we might have information at age 16). Because we are also interested in youths' parents and household circumstances, we restrict our attention to youths who were co-residing at age 15 with their biological or adopted mothers, who also provided interviews and self-completed questionnaires. There were 1,553 youths who were continuing sample members at age 15 during the first six waves of the survey and thus available for longitudinal follow-up. We dropped 124 youths who did not provide self-completed questionnaires at age 15 and dropped a further 163 who were not residing with biological or adopted mothers who provided self-completed questionnaires. We also dropped 105 youths with item non-response for our explanatory variables, leaving an analysis sample with 1,161 youths (75% of the initial age-eligible continuing sample members).

2.2 The transition into adult roles

Our interest is in three important transitions that young people might make as they move into adulthood: (1) the first instance of leaving full-time schooling; (2) the first instance of becoming economically inactive (of neither working nor attending school); and (3) the first instance of living apart from parents. For each of these transitions, we begin by creating binary indicators of the underlying outcomes at each age the youth is observed. For example, we construct dummy variables corresponding to full-time school enrollment at age 15, age 16, etc. Next, we create a

transition indicator which equals one if the underlying status changed from one year to the next and zero otherwise. In the case of schooling, a school-leaving transition would occur at age 16 if the youth attended school at age 15 but did not attend at age 16. When analyzing the determinants of these transitions, we restrict the relevant samples to youths who were “at risk” of a transition at age 15, that is, those who were initially in school or economically active. As mentioned, all of the youths were initially living at home. Table 1 lists age profiles of the underlying incidence for each of the three outcomes along with the hazard of making a first transition.

Table 1

Age-profile of outcomes for adolescents

Age						
16	**17**	**18**	**19**	**20**	**21**	
Out of school						
Hazard	12.6%	22.6%	41.8%	40.4%	23.1%	26.3%
Risk set	1,106	721	421	161	52	19
Incidence	14.9%	30.0%	53.5%	64.7%	66.9%	72.9%
Observations	1,161	886	679	482	305	144
Inactive (neither working nor in school)						
Hazard	4.5%	6.5%	9.1%	5.4%	5.9%	1.3%
Risk set	1,131	804	559	334	187	78
Incidence	5.2%	8.1%	13.1%	11.8%	12.1%	11.1%
Observations	1,161	886	679	482	305	144
Living apart from parents						

Age						
16	**17**	**18**	**19**	**20**	**21**	
Hazard	1.7%	4.4%	13.0%	15.5%	15.0%	14.1%
Risk set	1,161	849	610	348	180	71
Incidence	1.7%	5.9%	17.4%	31.1%	37.4%	45.1%
Observations	1,161	886	679	482	305	144

Authors' calculations from data for adolescents from waves 1–7 of the HILDA survey

The initial incidence of school drop-out is relatively low in our sample. At age 16, just over five-sixths of young people are attending school full-time. The rates of school leaving are highest at ages 18 and 19. By age 21, nearly three-quarters of the sample are no longer full-time students. The incidence of economic inactivity is very low at all ages, ranging from 5% at age 16 to 13% at age 18 when the peak in the rate of transition to inactivity occurs. Finally, rates of co-residence in the analysis sample are high and consistent with other Australian estimates. By age 18, nearly five-sixths of youths are estimated to be living with their parents. By age 21, just over half are co-residing. The transition rate out of the parents' home is fairly modest and steady from age 18 onward.

2.3 Accounting for household resources, financial stress, and relationship satisfaction

Given the importance of economic resources in determining youths' outcomes (Duncan and Brooks-Gunn 1997; Haveman and Wolfe 1995), our analyses include controls for the household's total gross income for the preceding financial year, excluding the income of the youth. We also control for: (1) whether or not any of the household's income comes from government transfers; (2) the total number of children and adults in the household; and (3) whether the family owns (or is purchasing) its home. These measures are useful in understanding the extent to which the household might be economically disadvantaged. At the same time, there is considerable evidence that youths' perceptions of the household's financial situation are important in understanding the consequences of economic disadvantage for youths' schooling and mental health (Clark-Lempers et al. 1990; Lempers and Clark-Lempers 1997; Mistry et al. 2009).

Our study is unique in including measures of financial stresses that are reported by the mother and the youth. Specifically, in each wave of the HILDA, respondents who receive the self-completed questionnaire are asked whether—"because of a shortage of money"—the respondent during the current calendar year: (1) could not pay electricity, gas or telephone bills on time, (2) could not pay the mortgage or rent on time, (3) pawned or sold something, (4) went without meals, (5) was unable to heat home, (6) asked for financial help from friends or family, or (7) asked for help from welfare/community organizations. Using these seven indicators of financial stress, we form separate scales for the mother and youth which equal the proportion of affirmative responses. Each scale ranges from 0 to 1 with higher scores corresponding to greater financial stress. The inter-item reliability is high (Cronbach's α was 0.71 for the mothers' scale and 0.72 for the youths'), indicating that the responses can be grouped.3 As a measure of possible credit constraints, we include an indicator of whether the mother reported that she would have to "do something drastic" or "couldn't" raise $2000 AUD in an emergency.4

Our study is also unique in including measures of perceived relationship quality among household members. Controlling for relationship quality between family members is important in light of the evidence that poverty and economic hardship can undermine parenting practices (see Hanson et al. 1997 and Mcloyd and Wilson 1990 for reviews) and that poor relationships and exposure to conflict have negative consequences for children and adolescents (Hair et al. 2009; Morrison and Coiro 1999). In each wave of the HILDA survey, respondents are asked about their satisfaction with their relationships with various family members. Responses are given using a Likert scale that ranges from completely dissatisfied (0) to completely satisfied (10). We use responses of three or lower as indicating an unsatisfactory relationship.5 We consider the satisfaction with several relationships. We include an indicator of whether the youth reports having an unsatisfactory relationship with his or her parents. We also include an indicator of whether the youth's mother reports an unsatisfactory relationship with her children. For lone mothers, we include an indicator of reporting an unsatisfactory relationship with her most recent spouse or partner, and for married parents, we have an indicator of either spouse reporting dissatisfaction with the other.

Our multivariate analyses also include several other demographic and economic controls. We include measures of the child's gender, migrant status, and aboriginal background. We also use several measures of household structure, including the partnership status of the mother (lone mother or remarried—the omitted category is married to the child's father), mothers' age and the age of the youngest child. As measures of parents' economic capabilities, we also include measures of the highest educational attainment among the parents, the highest occupational status, and an indicator for the occupational status being missing. Finally, we include controls for geographic location (i.e., major statistical region).6

Nearly all of the explanatory measures that we consider vary with time. To eliminate the possibility that the transition behaviors might directly affect these variables, all of the explanatory variables are measured in the year prior to the possible transition. For example,

when we examine whether a youth left school between ages 15 and 16, we consider explanatory variables that were measured at age 15, that is, just prior to the risk period.

Table 2 provides descriptive statistics for our financial stress, relationship satisfaction, and other explanatory variables measured when the youths in our sample were 15 years old—that is, when they were initially at risk for the transitions we consider. The first column in Table 2 gives means for the entire sample. The subsequent columns list means for all youths who were observed at age 18 as well as for youths conditional on their enrollment, inactivity, and co-residence outcomes at that age.

Table 2

Unconditional and conditional means of financial stress, relationship quality, and other measures at age 15

Characteristics at age 15	**Initial sample**	**Out of school at age 18?**		**Inactive at age 18?**		**Live apart at age 18?**	
	At age 15	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**
Financial stress reported by mother	0.08	0.12	0.06	0.15	0.08	0.15	0.08
Financial stress reported by adolescent	0.03	0.04	0.02	0.03	0.03	0.04	0.02
Household log income	11.17	10.98	11.22	10.75	11.14	11.01	11.10
Household received transfers	0.78	0.83	0.74	0.82	0.78	0.82	0.78
Mother unable to borrow $AUS 2000	0.24	0.30	0.20	0.44	0.23	0.39	0.23
Own home	0.79	0.73	0.85	0.55	0.82	0.68	0.81
Adolescent reports poor rel. w/parents	0.04	0.04	0.04	0.04	0.04	0.05	0.04
Mother reports poor rel. with children	0.01	0.02	0.01	0.03	0.01	0.03	0.01
Mother reports poor rel. w/fmr.	0.05	0.07	0.05	0.07	0.06	0.06	0.06

Characteristics at age 15	Initial sample	Out of school at age 18?		Inactive at age 18?		Live apart at age 18?	
	At age 15	Yes	No	Yes	No	Yes	No
spouse							
Parents report poor rel. with each other	0.07	0.04	0.09	0.03	0.07	0.04	0.07
Lone parent household	0.19	0.22	0.18	0.27	0.19	0.26	0.19
Step-parent household	0.13	0.14	0.09	0.15	0.11	0.19	0.10
Age of youngest person in household	11.33	11.39	11.01	11.30	11.20	10.72	11.31
Number of children in household	1.10	1.08	1.24	0.99	1.18	1.12	1.16
Number of other adults in household	0.56	0.51	0.51	0.55	0.50	0.40	0.53
Female	0.50	0.48	0.55	0.54	0.50	0.51	0.51
Migrant background	0.13	0.10	0.18	0.15	0.14	0.06	0.15
Aboriginal background	0.03	0.04	0.02	0.06	0.03	0.05	0.03
Mother’s age	43.31	42.58	43.78	42.19	43.28	42.01	43.37
Highest schooling attained by parents	5.08	4.54	5.60	4.30	5.14	4.60	5.12
Parents’ occupational status	50.70	45.56	57.09	39.55	52.65	45.20	52.14
Parents’ occupational status missing	0.09	0.10	0.07	0.17	0.07	0.10	0.08
Observations	1,158	362	315	89	588	118	559

Authors’ calculations from data for adolescents from waves 1–7 of the HILDA survey

An examination of Table 2 reveals that the incidence of financial stresses is low, with mothers reporting an average of half a stress and youths reporting less than a quarter of a stress. The lower incidence of reported financial stresses among youths is consistent with parents partially protecting their children from economic shocks. As we look across the table, young people are more likely to report some form of financial stress if they are out of school, inactive, or living apart from their parents.

There are even fewer reports of unsatisfactory relationships among family members. In the bivariate analyses, adolescents' reports of unsatisfactory relationships with their parents are not associated with having left school, become inactive, or moved out of their parents' homes by age 18. Mothers' reports of unsatisfactory relationships with their young-adult children are, however, associated with worse outcomes for adolescents. The results for our indicator of mothers' reported poor relationships with their former partners are harder to interpret because they pertain only to lone or remarried mothers. When we condition on partnership status, we find that there is no consistent relationship between a mother's relationship satisfaction with her former partner and her child's transition to adult roles. A similar interpretive issue arises for reports of poor relationships among spouses. Unsatisfactory spousal relationships appear to be associated with better outcomes for youths once we condition on partnership status.

The patterns for our other economic variables conform to expectations. Low incomes, borrowing constraints, family public assistance receipt, low parental schooling, and low parental occupational attainment are all associated with worse outcomes for youths at age 18. Home ownership is associated with better outcomes. An obvious limitation of these comparisons is that they do not condition on other variables or account for changes over time in circumstances. Our multivariate analyses address this.

3 Estimation strategy

Economists who have modeled the interaction between parents and their adolescent children have typically adopted a noncooperative game-theoretic approach (see Hao et al. 2008; Kooreman 2007; Lundberg et al. 2007; McElroy 1985; Weinberg 2001). Unlike the cooperative approach often adopted in models of bargaining between spouses, adolescents are better seen as economic agents with independent preferences and the power to influence family outcomes (Lundberg et al. 2007). Parents can be thought of as principals who may care about their children's characteristics or behavior—rather than their utility or wellbeing per se. The result is a noncooperative, principal-agent model in which parents strategically use their economic resources to influence their children's decisions.7 Ermisch (2003), for example, uses this basic framework to develop a theoretical model of intergenerational co-residence in which altruistic parents pre-commit to transferring specific financial resources to their young-adult children depending on the family's living arrangements. Similarly, Weinberg (2001) models parents'

ability to shape their children's behavior through the use of pecuniary incentives, while Hao et al. (2008) demonstrate that parents may withhold financial support from adolescents who engage in risky behavior in an effort to dissuade their younger children from such behavior when they reach adolescence. In short, adolescents are themselves decision makers and parents are left trying to strategically influence those decisions.

Given this, we begin with a simple conceptual framework in which a family's ability to support a young person's human capital and labor market investments is undermined by the financial stress and family conflict that often accompany limited economic resources. Thus, we draw an important distinction between the lack of economic resources (i.e., low income relative to needs) and the consequences of that for the household's day-to-day financial management (i.e., an inability to pay the bills, the need to borrow money) and consumption (i.e., pawning something, going without meals or heat). We also wish to take seriously the notion that parents' responses to economic difficulties are the mechanism through which economic hardship affects adolescent outcomes (see Conger et al. 1997). In particular, parents with limited financial resources may be constrained in their ability to use pecuniary incentives to support the choices they favor (e.g., remaining in school, living at home) and penalize the choices they do not (e.g., becoming economically inactive). Parents' ability to make household consumption decisions and to strategically reallocate economic resources makes it very important to account for youths' perceptions of financial stress and relationship problems when analyzing the decisions they make.

Drawing upon this conceptual framework, we estimate multivariate models of youths' transitions out of school, into economic inactivity, and out of their parents' homes. In each case, our focus is on the first time each of these transitions occurs. As leaving school and home may also be associated with a successful transition to adulthood, in our sensitivity analysis we also investigate the determinants of transitions that in some sense occur too early and are likely to be problematic for youth (see Sect. 4.3). We are especially interested in understanding how financial conditions and family relationships are associated with these transitions and use our multivariate models to account for confounding influences from other variables. In particular, we estimate discrete-time logistic hazard models of each transition (Allison 1982). Specifically, the hazard, h(t), of a youth making a given transition between age t and age t + 1 is modeled as

$$h(t)=\exp(A'T(t)+B'X(t))1+\exp(A'T(t)+B'X(t))$$

where T(t) represents a vector of age dummy variables; X(t) is a vector of other observed and possibly time-varying explanatory variables, including economic and demographic characteristics of the household, and A and B are vectors of coefficients to be estimated. As mentioned, all of the explanatory variables are measured at the start of the risk period and thus prior to the transitions we are modeling.

We estimate two alternative specifications for each model: i) a baseline model which excludes measures of financial stress, borrowing constraints, and relationship quality; and ii) an augmented model which adds these measures. These alternative specifications shed light on the way in which the effect of economic resources (most importantly household income) might be confounded by perceptions of financial stress and family relationships. Results (logistic hazard coefficients and standard errors) from these alternative specifications are presented in Tables 3 and 4.8

Table 3

Discrete-time hazard results with baseline variables

	Leave school	**Become inactive**	**Live apart from parents**
Household log income	−0.121** (0.059)	−0.146** (0.062)	−0.025 (0.083)
Household received transfers	−0.337** (0.145)	−0.053 (0.224)	−0.093 (0.204)
Own home	−0.049 (0.153)	−0.291 (0.217)	−0.810*** (0.198)
Lone parent household	0.203 (0.154)	−0.037 (0.225)	0.378* (0.217)
Step-parent household	0.804*** (0.178)	0.574** (0.259)	1.003*** (0.239)
Age of youngest person in household	0.015 (0.024)	−0.043 (0.032)	−0.018 (0.029)
Number of children in household	−0.133 (0.087)	−0.470*** (0.147)	0.041 (0.125)
Number of other adults in household	0.109	0.027	−0.102

	Leave school	Become inactive	Live apart from parents
	(0.076)	(0.120)	(0.119)
Female	−0.222** (0.110)	−0.102 (0.170)	0.407** (0.163)
Migrant background	−0.401** (0.169)	0.208 (0.241)	−0.558* (0.289)
Aboriginal background	0.595** (0.297)	1.428*** (0.338)	0.248 (0.388)
Mother's age	−0.041*** (0.013)	−0.049** (0.020)	−0.037** (0.019)
Highest level of schooling attained by parents	−0.060** (0.027)	−0.001 (0.041)	0.037 (0.039)
Parents' occupational status	−0.007** (0.003)	−0.002 (0.005)	−0.003 (0.004)
Parents do not have an occupational status	−0.026 (0.258)	0.507 (0.353)	0.310 (0.347)
Observations	2,357	2,751	3,077

Coefficients from discrete-time logistic hazard models estimated with data for adolescents from waves 1–7 of the HILDA survey. Models also include dummy-variable controls for age, year, and geographic area. Standard errors appear in parentheses

* 0.10 level; ** 0.05 level; *** 0.01 level

Table 4

Discrete-time hazard results with financial stresses, constraints and relationship quality

	Leave school	**Become inactive**	**Live apart from parents**
Financial stress reported by mother	0.627 (0.404)	1.052* (0.563)	−1.101* (0.654)
Financial stress reported by adolescent	0.052 (0.581)	−0.741 (0.894)	1.919*** (0.679)
Mother reports not being able to borrow $AUS 2000	−0.059 (0.161)	0.417* (0.230)	−0.168 (0.246)
Adolescent reports poor relationship with parents	0.498* (0.264)	0.340 (0.366)	1.364*** (0.311)
Mother reports poor relationship with children	−0.046 (0.494)	−1.278 (1.061)	0.496 (0.603)
Mother reports poor relationship with former spouse	−0.289 (0.274)	−0.749* (0.451)	1.075*** (0.365)
Parents report poor relationship with each other	−0.467* (0.249)	−0.884* (0.527)	−0.705 (0.457)
Household log income	−0.109* (0.060)	−0.137** (0.066)	−0.048 (0.079)
Household received transfers	−0.342** (0.147)	−0.091 (0.232)	−0.106 (0.211)
Own home	−0.043	−0.191	−0.930***

	Leave school	**Become inactive**	**Live apart from parents**
	(0.159)	(0.228)	(0.213)
Lone parent household	0.178 (0.180)	−0.080 (0.257)	−0.200 (0.287)
Step-parent household	0.720*** (0.181)	0.417 (0.268)	0.856*** (0.251)
Female	−0.229** (0.111)	−0.094 (0.174)	0.415** (0.170)
Migrant background	−0.454*** (0.173)	0.122 (0.251)	−0.633** (0.308)
Aboriginal background	0.562* (0.303)	1.180*** (0.364)	0.285 (0.444)
Observations	2,325	2,702	3,012

Coefficients from discrete-time logistic hazard models estimated with data for adolescents from waves 1–7 of the HILDA survey. Models also include controls for the number of children in the household, number of adults, age of the youngest child, mother's age, parents' education, parents' occupation, and dummy-variable controls for youth's age, year, and geographic area. Standard errors appear in parentheses

* 0.10 level; ** 0.05 level; *** 0.01 level

4 The link between financial stress, relationship satisfaction, and youth transitions

4.1 Results from the baseline model

The estimates from the hazard models indicate that youths' transitions into adult roles are linked to the economic resources of their families. Consistent with much of what is known about the

effect of family income on children's life chances (see Haveman and Wolfe 1995; Duncan and Brooks-Gunn 1997), we find that higher family income significantly reduces the rates at which young people leave school, and become economically inactive. A 10% increase in household income, for example, is estimated to decrease the hazard of leaving school by 1.1% which is consistent with the elasticities historically estimated in U.S. studies (Haveman and Wolfe 1995; Hill and Duncan 1987). Although we are unable to separate the effects of low permanent income from transitory income shocks given the length of our panel, both may be important in limiting educational attainment (see Chevalier et al. 2005). Young people are also less likely to become economically inactive as their family incomes increase. The magnitude of this effect—a fall in the hazard of 1.4% for each 10% increase in income—is similar to those estimated for transitions out of education suggesting that earlier school leaving is not fully compensated by successful transitions into the labor market.

In contrast, there is only a modest and statistically insignificant relationship between a young person leaving home and his or her family's income. Young people do have a substantially lower hazard of moving out if their family owns their own home, however. This pattern of results fits with previous evidence that while transferable parental resources promote youths' residential independence, non-transferable resources—such as high quality housing services—hinder it (De Jong Gierveld et al. 1991; Laferrère and Bessière 2003). Home ownership is also negatively associated with transitions to economic activity, though this result falls short of statistical significance.

The source of the family's income also influences the transitions that adolescents make. Young people have a somewhat lower (29%) hazard of leaving school, if their families receive public benefits than if they do not. As our model also controls for household income, this result implies that—compared to households with an identical income level derived solely from private sources—receiving some public transfer income is associated with an increased propensity for young Australians to remain in school. This result is at odds with evidence indicating that welfare participation is associated with lower educational attainment for U.S. children (see Haveman and Wolfe 1995). The differential effect of public income on youths' education in the two countries may stem from institutional differences in the level and availability of welfare benefits. Relative to the United States, public benefits in Australia are more generous and more widely available. There may also be differences in perceptions regarding the social contract between the two countries, with Australian youth and parents seeing an important role for government financial assistance in supporting students (Luteria and Bourne 2000).

Finally, there is no significant effect of public transfer income on the likelihood that young people move out of their parents' homes. Thus, taken together, our results provide no evidence that the residential decisions of young Australians are linked to the economic resources of their parents, other than home ownership.

We turn now to consider the way in which household composition—in particular, family type, household size, and age composition—affects youth transitions. Young people living with their mothers and a step-father have higher hazard rates of leaving school, becoming economically inactive, and moving out than do young people living with both of their parents. These effects are quite substantial ranging from an increase of 173% in the hazard of leaving home to a 78% increase in the hazard of becoming economically inactive. Everything else equal, living with a single mother increases a youth's hazard of moving out by 46%. The numbers (and age composition) of other individuals living in the household are generally unrelated to young people's successful transitions into adult roles. The exception is that larger numbers of children in the household reduce the hazard of a young person becoming economically inactive.

The estimated effects of demographic characteristics on school leaving, economic inactivity and moving out are as expected. Young women are less likely to leave school, but are more likely to leave home than their male counterparts. This is consistent with gender differences in school enrollment rates and co-residence patterns in Australia (see ABS 2006; Cobb-Clark 2008). Young people are less likely to leave school, become inactive, or move out the older their mothers are. Immigrant youth are also more likely to remain in school and at home, while Aboriginal and Torres Strait Islander youth are significantly more likely to leave school and become economically inactive. These transitions for indigenous youth almost certainly reinforce the substantially higher level of disadvantage within the indigenous community more generally (see FaHCSIA 2009).

Finally, we consider the effect of parents' socio-economic status on young people's transitions into adult roles. We account for the family's socio-economic status by controlling for the highest educational qualification and occupational status attained by either of the youth's parents. Young people have a lower hazard of leaving school as their parents' educational attainment and occupational status increases. However, transitions to economic inactivity and living apart are not strongly associated with these parental characteristics.

4.2 The roles of financial stress, borrowing constraints, and family relationships

The results from our baseline model indicate that family income, the receipt of public transfers, and home ownership are linked to young people's transitions into adult roles. Our goal is to understand whether—conditional on the family's economic resources—financial stress, borrowing constraints, and relationship satisfaction among family members independently limit youths' ability to make successful transitions. Moreover, we would like to account for youths' perspectives on their families' financial position and relationships, in addition to those of their mothers, in producing these outcomes. The results from our augmented model in Table 4 shed light on these issues.

Mothers' reports of financial stresses are strongly related to young people making earlier transitions to economic inactivity but later transitions out of the household. A report of one additional stress (an increase of 0.14 in our scale) results in a 26% increase in the hazard of becoming inactive and a 9% decrease in the hazard of leaving home. Moreover, young people leave school earlier if their mothers report experiencing financial stress, though the effect while sizable is imprecisely estimated. Taken together, the effect of financial stress across multiple outcomes (in particular economic inactivity and school leaving) suggests that mothers' financial stress may be linked to poorer labor market outcomes for their young-adult children. On the other hand, youths leave home earlier if they report their family is financially stressed; each additional reported stress (recall that such reports are rare) raises the hazard by 81%. Youths' reports of stresses are negatively related to inactivity, though the results are statistically insignificant. It is striking that these estimated effects are substantial, despite accounting for the effects of low economic resources generally, and differ for youths and their mothers.

In interpreting the results, it is important to note that our estimates hold other conditions constant, including the other family member's report of financial stress. Thus, the coefficient on the mother's report of financial stress captures the relationship between that report and a given transition, assuming no change in her child's report of financial stress or in other economic circumstances. Similarly, the coefficient on the youth's report of financial stress represents a relationship, holding the mother's report of the family's financial situation constant. Given this, one interpretation of the coefficient on the mother's report of financial stress is that it represents the effect of a stress that was mitigated (experienced by the mother but not by the youth). Although youths might not experience them, mitigated stresses would reduce family resources. This would be consistent with mothers' reports of financial stress contributing to youths' earlier transitions into inactivity and possibly out of schooling. A stress experienced only by the adolescent is potentially more pernicious—the stress is transmitted to or imposed on the youth but not the mother. The strong positive link between youth-reported stresses with nest-leaving is consistent with this interpretation.9

The estimates also indicate that borrowing constraints matter for transitions to economic inactivity. A mother's inability to raise $2,000 if she faces an emergency increases the hazard that her child will become economically inactive by 52%. In contrast, there is no significant relationship between self-reported borrowing constraints and either schooling or co-residence. This latter result is somewhat surprising in light of evidence that a family's inability to fully smooth transitory income shocks can be associated with the lower educational attainment of its children (Chevalier et al. 2005). Consistent with the discussion above, this overall pattern of results points to a link between mothers' financial stress and the labor market outcomes of their children.

Youths are more likely to leave school and to move out if they report unsatisfactory relationships with their parents. In particular, the hazard of leaving school is 65% higher among youths who report dissatisfaction in their relationships with their parents than among those who do not.

Similarly, reporting a poor relationship with ones parents is associated with a sharp (291%) increase in the hazard of subsequently living independently. These results differ from the bivariate associations in Table 2, which did not account for other influences. We also obtain sizeable estimates of the associations between mothers' reports of poor relationships with their children and youth transitions; however, these estimates have large standard errors, leading to inconclusive results.

Poor relationships between parents also appear to be related to youths' transitions but in ways that are difficult to understand. While youths in single-parent families have a significantly higher hazard of living independently (193%) when their mothers report unsatisfactory relationships with their former partner than when they do not, the hazards of leaving school and becoming inactive are lower for youths living in couple-headed families when their parents report poor relationships with each other than when they do not. One possible explanation of this result is that it reflects parents with less than satisfactory relationships who have decided to remain together for the sake of the children. If so, the result would be more indicative of the orientations of the parents toward their children's success than of the quality of the parents' relationship.

To what extent is there evidence that economic hardship affects adolescent outcomes primarily through parents' responses to economic difficulties as many psychologists have argued (see Conger et al. 1997)? Has separately accounting for the role of financial stress and family relationships altered our understanding of the link between economic resources and the ability of young people to successfully transition into adult roles? It seems clear that our understanding of the factors underlying the successful transition into adulthood is enriched by taking family members' perceptions of financial stress, borrowing constraints, and family relationships into account. Specification tests indicate that the financial stress, borrowing constraint, and relationship quality measures are jointly significant in the inactivity and co-residence models and not quite significant ($p = 0.13$) in the schooling model. Financial stress and relationship satisfaction have independent effects on the transition into adult roles over and above those associated with economic resources per se. Moreover, youths' perspectives have very different consequences to those of their mothers.

At the same time, if a lack of economic resources primarily affects outcomes by increasing financial stress and straining family relationships, we would expect that the estimated effect of additional economic resources—in particular family income—on promoting the successful transition to adult roles would be attenuated once we directly control for financial stress, borrowing constraints, and family relationships. Instead we find only modest differences in the magnitudes of the income and other economic coefficients between Tables 3 and 4. This suggests that, while financial stress and family relationships have important effects on the transitions that young people are likely to make, these effects are independent to those associated with the family having limited financial resources. In other words, while positive family relationships and a lack of financial stress help young people to successfully navigate the transition into adulthood, parents may not be able to completely compensate for the lack of

financial resources by reducing financial stress and maintaining good relationships with their children.

4.3 Sensitivity analysis: early transitions to school leaving and residential independence

While the successful completion of secondary school often marks the transition into adulthood, there are particular reasons to be concerned about young people who leave school too early. Consequently, it is useful to understand the extent to which financial stress may be leading to early school leaving. Moreover, our results indicate that limited financial resources increase the chances of young people leaving school and becoming economically inactive. In contrast, household income, public-transfer receipt, and credit constraints appear to play less of a role in the decision of young adults to live separately from their parents. Co-residence patterns are also not related to socio-economic status. One possible explanation for this divergence is that unlike the other transitions we consider, the transition to residential independence may be associated with successfully adopting adult roles by moving into higher education or entering the labor market.

We investigate these issues by using the detail of the HILDA data to create a number of additional indicators of what might be considered to be school leaving and residential independence that in some sense occurs too early. Specifically, we create two indicators of "early" school leaving which equal 1 if a youth i) leaves school before completing 12 years of school or ii) leaves school before age 18 and 0 otherwise. We also create three indicators of "early" residential independence which equal 1 if a youth: (1) leaves home and is not a studying; (2) leaves home before 12th grade and is not studying; or (3) leaves home before age 18 and is not studying; and 0 otherwise. In total, there are 1,106 youths initially at risk of leaving school. Of these we observe 136 leaving school before completing the 12th grade and 302 leaving school before age 18. Similarly, there are 1,161 youth initially at risk of leaving home. Of these we observe 155 leaving home and not studying, 63 leaving home before 12th grade, and 32 leaving home before age 18. As before, we estimate discrete-time logistic hazard models for each measure of early school and home leaving. Coefficients and standard errors from these models are presented in Table 5.

Table 5

Discrete-time hazard results of alternative school and nest-leaving transitions

Leave school with <12 years of school	**Leave school before age 18**	**Live apart from parents and leave school**	**Live apart and leave school with <12 years of school**	**Live apart and leave school before age 18**	
Financial stress reported by mother	0.139 (0.525)	0.532 (0.479)	−0.433 (0.782)	−0.343 (1.235)	−1.344 (1.631)
Financial stress reported by adolescent	1.201* (0.712)	−0.317 (0.748)	2.058*** (0.770)	1.751 (1.295)	2.088 (1.639)
Mother reports not being able to borrow $AUS 2000	0.179 (0.205)	0.014 (0.191)	−0.438 (0.306)	−0.711 (0.474)	−0.159 (0.582)
Adolescent reports poor relationship with parents	0.645* (0.333)	0.237 (0.329)	1.442*** (0.351)	1.401*** (0.512)	0.892 (0.716)
Mother reports poor relationship with children	−0.202 (0.773)	−0.546 (0.786)	1.210* (0.630)	2.568*** (0.908)	1.842 (1.353)
Mother reports poor relationship with former spouse	−0.662* (0.399)	−0.646* (0.367)	0.769* (0.448)	1.489** (0.705)	0.032 (1.180)
Parents report poor relationship with each other	−1.186*** (0.457)	−0.719** (0.351)	−1.689** (0.764)		
Household log income	−0.111 (0.096)	−0.018 (0.101)	0.000 (0.108)	0.024 (0.256)	−0.202 (0.309)
Household received transfers	−0.330 (0.226)	−0.149 (0.201)	−0.183 (0.250)	−0.090 (0.445)	0.209 (0.653)

Leave school with <12 years of school	**Leave school before age 18**	**Live apart from parents and leave school**	**Live apart and leave school with <12 years of school**	**Live apart and leave school before age 18**	
Own home	0.078 (0.213)	−0.162 (0.186)	−0.609** (0.262)	−0.652 (0.422)	−0.633 (0.507)
Lone parent household	0.125 (0.242)	0.229 (0.219)	−0.338 (0.343)	−0.756 (0.577)	−0.783 (0.701)
Step-parent household	0.846*** (0.229)	0.761*** (0.202)	0.945*** (0.290)	1.048** (0.460)	0.304 (0.595)
Female	−0.489*** (0.159)	−0.334** (0.139)	0.390* (0.204)	0.381 (0.346)	0.222 (0.427)
Migrant background	−0.598** (0.271)	−0.381* (0.226)	−0.498 (0.357)	−0.361 (0.684)	−0.795 (1.070)
Aboriginal background	0.645* (0.362)	0.619* (0.334)	0.645 (0.481)	0.789 (0.686)	1.137 (0.830)
Observations	1,748	1,762	2,820	1,751	1,631

Coefficients from discrete-time logistic hazard models estimated with data for adolescents from waves 1–7 of the HILDA survey. Models also include controls for the number of children in the household, number of adults, age of the youngest child, mother's age, parents' education, parents' occupation, and dummy-variable controls for youth's age, year, and geographic area. Standard errors appear in parentheses

* 0.10 level; ** 0.05 level; *** 0.01 level

Our sensitivity analysis of school leaving leaves many of our substantive conclusions unchanged. Young people are more likely to leave school early if they report a poor relationship with their parents or live in a step-parent household.10 Young people are less likely to leave school early if their mother reports a poor relationship with her former spouse or if parents report a poor relationship with each other. At the same time, although there is no relationship between youths'

reported financial stress and the timing of the first transition out of school (see Table 4) or in the likelihood of leaving school before age 18, young people who reported financial stress at age 15 are significantly more likely to leave school before completing 12 years of education. Reporting one additional stress at age 15 is associated with a 33% increase in the hazard of leaving school before age 18.

Consistent with our previous results (see Table 4), we find little evidence that a youth's early transition out of his or her parent's home is related to the family's financial resources, other than home ownership. Still, young people do have a higher hazard of leaving home and not pursuing further education if they report financial stress. Youths' perceptions of financial stress are also estimated to have large positive associations with leaving home before 12th grade or before age 18 to do something other than study. However, the small number of such transitions leads to very large standard errors and inconclusive results.

Finally, although there is modest but statistically insignificant relationship between mothers' reports of poor relationships with their children and the hazard of young people moving out generally, the hazard of leaving home early appears to be higher in families in which mothers report poor relationships with their children. Youth reports of unsatisfactory relationships with parents are also associated with leaving home early, while parent reports of unsatisfactory relationships among themselves is associated with later leaving.

Thus, these sensitivity tests indicate the lack an effect of financial resources on residential independence irrespective of the measure considered. In contrast, there is some evidence that the link between financial stress and family relationships on the one hand and young people's decisions to live apart from their parents on the other depends on whether or not residential independence is occurring "early." Early transitions out of the family home are more likely when families experience financial stress and poor relationships.

5 Conclusions

Families are not equally well positioned to support their young-adult children in successfully negotiating the transition to independent adulthood. Limited economic resources often constrain the opportunities that families are able to provide to young people. Moreover, the negative effects of economic disadvantage may be exacerbated by the financial stress and family conflict that often accompany a lack of economic resources. If a young person's transition into an adult role is also limited by his or her perceptions of family financial stress and relationship problems, public policies that simply target additional resources to families may only indirectly improve his or her life chances.

This paper analyses the effect of financial stress and family relationships on youths' transitions out of school, into economic inactivity, and out of their parent's homes. Unlike the previous

literature, we take advantage of unique, nationally-representative panel data for Australia to separately account for the effects of economic resources (in particular, household income and the receipt of public transfers) as well as parents' and youths' perceptions of financial difficulty and relationship quality on adolescents' transitions into a number of adult roles. We find, not surprisingly, that young people's ability to successfully negotiate the transition into many adult roles increases as the economic resources of their families increase. The exception is that there is no effect of economic resources (other than home ownership) on residential independence irrespective of whether we focus on "early" transitions out of the parental home or not. Moreover, financial stress, borrowing constraints, and poor family relationships limit youths' ability to remain in school, stay economically activity, and avoid leaving their parents' homes too early. Reports of financial stress, in particular, may be capturing changes in family needs, such as unexpected bills, or difficulties managing available resources which compound the effects of economic disadvantage.

These results lead to a number of important conclusions. First, it seems clear that our understanding of the factors underlying the successful transition into adulthood can be enriched by taking family members' perceptions of financial stress, borrowing constraints, and family relationships into account. Each of these factors has a sizable effect on the transition into adult roles over and above those associated with economic resources per se. Second, the estimated effect of family income is virtually unchanged after we account for the effects of stress, constraints and relationship dissatisfaction indicating that these latter effects are independent to those associated with the family having limited economic resources. In practical terms, this independence implies that strategies need to be developed to both raise limited economic resources as well as reduce the stress and conflict that often accompany economic disadvantage. Parents, for example, may not be able to completely compensate for their lack of financial resources by reducing financial stress and maintaining good relationships with their children. Moreover, government policy, while continuing to target financial resources to families in need, may also need to adopt initiatives to promote sound financial management and supportive family relationships. Finally, the consequences of youths' own perspectives of financial stress and poor relationships are very different to those of their mothers. This implies that it is important to account directly for young people's views of the family's financial position when attempting to understand the implications of economic disadvantage for youths' outcomes. Future data sources would be strengthened by collecting information from all family members about the way that limited economic resources affect the family's ability to meet its day-to-day needs and maintain effective relationships.

At the same time, there remain a number of important questions for future research. In particular, young people in the HILDA sample are interviewed separately only after they turn 15. Experiences before the age of 15 are of course also relevant to the outcomes that we study. To the extent that our initial controls fail to fully account for these experiences, there may be many other important drivers of school leavening, economic inactivity, and residential independence

that we fail to identify. It would be interesting therefore to study the effects of financial stress on younger groups of children. Moreover, the HILDA panel is not yet long enough to observe many of the important life transitions, for example college completion, household formation, fertility, career development, etc., which might interest us. As the HILDA panel becomes longer, it will be possible to also study the consequences of youths' perspectives of financial stress on these outcomes.

Acknowledgments

This paper uses confidentialized unit record file data from the Household, Income and Labour Dynamics in Australia (HILDA) survey. The HILDA Project was initiated and is funded by the Department of Families, Housing, Community Services, and Indigenous Affairs (FaHCSIA) and is managed by the Melbourne Institute of Applied Economic and Social Research (MIAESR). The findings and views reported in this paper, however, are those of the authors and should not be attributed to FaHCSIA or MIAESR.

References

Allison, P. (1982). Discrete-time methods for the analysis of event histories. Sociological Methodology, 13, 61–98.

Australian Bureau of Statistics. (2006). Schools Australia, catalogue No. 4221.0. Canberra: Australian Bureau of Statistics.

Bray, J. R. (2001). Hardship in Australia: An analysis of financial stress indicators in the 1998–1999 Australian bureau of statistics household expenditure survey. Occasional paper No. 4. Canberra: Department of Family and Community Services.

Breunig, R., & Cobb-Clark, D. A. (2006). Understanding the factors associated with financial stress in Australian households. Australian Social Policy, 2005, 13–64.

Chevalier, A., Harmond, C., O'Sullican, V., & Walker, I. (2005). The impact of parental income and education on the schooling of their children. Institute for the study of labor (IZA) discussion paper 1496. Bonn, Germany: IZA.

Clark-Lempers, D. S., Lempers, J. D., & Netusil, A. J. (1990). Family financial stress, parental support, and young adolescents' academic achievement and depressive symptoms. Journal of Early Adolescence, 10(1), 21–36.

Cobb-Clark, D. A. (2008). Leaving home: What economics has to say about the living arrangements of young Australians. Australian Economic Review, 41(2), 160–176.

Cobb-Clark, D. A., & Ribar, D. C. (2010). Financial stress, family conflict, and adolescents' transitions to adult roles. Institute for the study of labor (IZA) discussion paper 4618. Bonn, Germany: IZA.

Conger, R. D., Conger, K. J., & Elder, G. H. (1997). Family economic hardship and adolescent adjustment: Mediating and moderating processes. In G. J. Duncan & J. Brooks-Gunn (Eds.), Consequences of growing up poor. New York: Russell Sage Foundation.

Conger, R. D., Wallace, L. E., Sun, Y., Simons, R. L., McLoyd, V. C., & Brody, G. H. (2002). Economic pressure in African American families: A replication and extension of the family stress model. Developmental Psychology, 38(2), 179–193.

De Jong Gierveld, J., Liefbroer, A. C., & Beekink, E. (1991). The effect of parental resources on patterns of leaving home among young adults in the Netherlands. European Sociological Review, 7(1), 55–71.

Duncan, G. J., & Brooks-Gunn, J. (1997). Income effects across the life span: Integration and interpretation. In G. J. Duncan & J. Brooks-Gunn (Eds.), Consequences of growing up poor. New York: Russell Sage Foundation.

Ermisch, J. (2003). An economic analysis of the family. Princeton, NJ: Princeton University Press.

Families, Housing, Community Services and Indigenous Affairs. (2009). Closing the gap on indigenous disadvantage: The challenge for Australia. Families, housing, community services and indigenous affairs. http://www.fahcsia.gov.au/sa/indigenous/pubs/general/documents/closing_the_gap/closing_the_gap.pdf. Accessed 3 December 2009.

Guio, A. C. (2005). Material deprivation in the EU. Statistics in focus: Population and social conditions report No. 21/2005. Luxembourg: Eurostat.

Hair, E. C., Anderson, M., Kristin, H., Alena, M., Kaye, K., Day, R. D., et al. (2009). Parental marital quality and the parent-adolescent relationship: Effects on adolescent and young adult health outcomes. Marriage and Family Review, 45(2), 218–248.

Hanson, T. L., McLanahan, S., & Thomson, E. (1997). Economic resources, parental practices and children's well-being. In G. J. Duncan & J. Brooks-Gunn (Eds.), Consequences of growing up poor. New York: Russell Sage Foundation.

Hao, L., Hotz, J., & Jin, G. Z. (2008). Games parents and adolescents play: Risky behaviour, parental reputation and strategic transfers. Economic Journal, 118(528), 515–555.

Hartley, R. (1993). Young adults living at home. Family Matters, 36, 35–37.

Haveman, R., & Wolfe, B. (1995). The determinants of children's attainments: A review of methods and findings. Journal of Economic Literature, 33(4), 1829–1878.

Hill, M., & Duncan, G. J. (1987). Parental family income and the socioeconomic attainment of children. Social Science Research, 16(1), 39–73.

Kooreman, P. (2007). Time, money, peers, and parents: Some data and theories on child behavior. Journal of Population Economics, 20(1), 9–33.

Laferrère, A., & Bessière, S. (2003). Nest-living and nest-leaving: Does the nest matter? Unpublished working paper.

Lempers, J. D., & Clark-Lempers, D. S. (1997). Economic hardship, family relationships, and adolescent distress: An evaluation of a stress-distress mediation model in mother-daughter and mother-son dyads. Adolescence, 32(126), 339–356.

Lundberg, S., Romich, J., & Tsang, K. P. (2007). Decision-making by children. Institute for the study of labor (IZA) discussion paper 2952. Bonn, Germany: IZA.

Luteria, M., & Bourne, J. (2000). Financial independence and youth allowance: Young people's and parents' views. Paper presented at the 7th Australian institute of family studies conference, Sydney, July.

Maas, F. (1990). Shifting Responsibility: A decade of youth policy. Family Matters, 26, 19–24.

Marks, G. N. (2007). Income poverty, subjective poverty, and financial stress. Social policy research paper 29. Canberra: Department of Families, Community Services, and Indigenous Affairs.

McElroy, M. B. (1985). The joint determination of household membership and market work: The case of young men. Journal of Labor Economics, 3(3), 293–316.

McLoyd, V. C., & Wilson, L. (1990). Maternal behavior, social support, and economic conditions as predictors of distress in children. New Directions for Child Development, 46, 49–69.

Mistry, R. S., Benner, A. D., Tan, C. S., & Yeong, K. S. (2009). Family economic stress and academic well-being among Chinese-American youth: The influence of adolescents' perceptions of economic strain. Journal of Family Psychology, 23(3), 279–290.

Morrison, D. R., & Coiro, M. J. (1999). Parental conflict and marital disruption: Do children benefit when high-conflict marriages are dissolved? Journal of Marriage and the Family, 61(3), 626–637.

Pollak, R. A. (1988). Tied transfers and paternalistic preferences. American Economic Review, 78(2), 240–244.

Schneider, J. (1999). “The increasing financial dependency of young people on their parents,” SPRC discussion paper No. 96, February.

Smyth, B. (2000). Child support for young adult children. Family Matters, 55, 41–45.

Watson, N. (Ed.). (2009). HILDA user manual–release 7. Melbourne: Melbourne Institute of Applied Economic and Social Research, University of Melbourne.

Weinberg, B. A. (2001). An Incentive model of the effect of parental income on children. Journal of Political Economy, 109(2), 266–280.

Weston, R., Stanton, D., Qu, L., & Soriano, G. (2001). Australian families in transition. Family Matters, 60, 12–23.

Whittington, L. A., & Peters, H. E. (1996). Economic incentives for financial and residential independence. Demography, 33(1), 82–97.

Footnotes

1 See Cobb-Clark and Ribar (2010) for more details about the Australian institutional context.

2 In Australia, one-third of those living in households experiencing multiple financial stresses are children under the age of 15 (Bray 2001). The lack of a common scale for financial stresses makes international comparisons difficult. Guio (2005) examined four measures of “economic strains” in European countries and found that the percentage of households experiencing multiple deprivations ranged from five percent of less in Denmark, Luxembourg, and the Netherlands to 50 percent in Portugal. As with Australia, Guio found that the deprivation was generally higher in households with children.

3 Exploratory factor analyses also indicated that a single latent factor adequately explained the correlations among the financial stress responses for each person. Our multivariate results are robust to using predicted factor scores instead of the proportion of affirmative responses and to using indicators for whether any stresses were reported.

4 Alternative responses included that she could raise that amount “easily” or “with some sacrifice”.

5 Sensitivity analyses reveal few differences with changing the cut-off by a point either way.

6 There are ten major statistical regions in Australia. However, due to small sample sizes we combined the Northern Territory and the non-metropolitan portions of Southern and Western

Australia into one region and combined the Australian Capital Territory and the non-metropolitan portion of New South Wales into another region. In sensitivity analyses, we experimented with including controls for additional characteristics, such as the mother's and youth's physical and mental health, the interviewer's assessment of the dwelling condition, and initial conditions of the household when the youth was age 15. These did not alter our reported findings.

7 In effect, parents may have paternalistic rather than altruistic preferences (see Pollak 1988).

8 The coefficients indicate the direction in which a change in an explanatory variable shifts the hazard probability up or down. The magnitudes of these associations are difficult to gauge because the logistic model is a nonlinear specification and because the hazard probabilities are conditional (i.e., the population at risk, and hence the potential effect, declines as youths age and make transitions).

9 Unfortunately, small sample sizes prevent us from including interaction terms which would allow for a compounding effect of mothers and youths both reporting financial stress.

10 The effect of relationship satisfaction is not significant when we consider leaving school before age 18.