

Melbourne Institute Information Sheet 6/2012

Based on reports under the 2005-2009, and 2010 SPRS agreement

Youth

Brief overview of key results

The findings regarding the theme of Youth, as researched under the 2005-2009 and 2010 Social Policy Research Services Contract, are summarised in the overview in Appendix Table 1. Six papers that appeared in this period have been identified as studying labour market and/or education outcomes for young people, or in the case of mothers who experienced teenage childbearing, studying the effect of decisions in youth on welfare participation outcomes across the life-cycle.

Discussion of the results

According to expectation, youth with low education levels have poorer labour market outcomes, particularly when finding a job is more difficult in times of poor GDP growth or high unemployment rates. The research on apprentices and trainees by Fok and Tseng (2009) shows that it is not just education at the tertiary level that is useful but also more vocationally oriented education that leads to substantial improvements of outcomes.

In the case of mothers who had their child when they were a teenager, teenage pregnancy cannot be blamed for the low education levels. Rather, it seems more likely that low education and teenage pregnancy are caused by common factors, since the majority of affected mothers left school before they became pregnant. What is clear however is that university-educated mothers who had their first child as a teenager are less likely to be an income support recipient than lower-educated women in the same situation so education can play a protective role. Nevertheless, low education levels appear to explain only a small part of the difference in welfare dependence between older mothers and teenage mothers as a follow-up analysis in Jeon, Kalb and Vu (2011) shows. Poor health also appears to be a relevant factor in the difference in welfare dependence. Jeon, Kalb and Vu (2011) also use the estimation results from Jeon, Kalb and Vu (2008) to decompose the difference in welfare participation into differences in characteristics and differences in responses to the characteristics. The counterfactual decomposition shows that the higher rate of welfare participation (in terms of both entry and continuation rate) by teenage mothers relative to older mothers is driven by differences in characteristics between the two groups of mothers as well as differences in behaviour, particularly the behavioural response related to welfare receipt in the previous period (i.e. welfare receipt is more persistent for teenage mothers). However, conditional on welfare receipt in the previous period, the differences in the characteristics of the two groups make a larger contribution to the difference in probabilities of welfare participation between the two groups of mothers than the differences in the behavioural responses to these characteristics.

In the case of teenage mothers, the outcomes of these women are examined across their lifecycle for as long as they are aged in between 20 and 62 (the age pension age for women at the time). In all regards, this group of former teenage mothers has poorer outcomes compared to women who had their first child at age 20 or older. This started already in childhood with women who have their first

child as a teenager experiencing a more difficult start in life compared to other mothers (e.g. growing up in a single parent household).

The studies by Hérault *et al.* (2009) and by Fok and Tseng (2009) cover a relatively limited period just after leaving school. Within this limited period, youth with a better education outcome (either tertiary or vocational) clearly do better on the labour market. Fok and Tseng (2009), and Black, Polidano and Tseng (2010) show that early school leavers can return to education, complete this education and potentially do well after that. In the former report, it is shown that a large proportion of apprentices and trainees did not complete school before taking up the apprentice- or traineeship. However, with the apprenticeship or traineeship completed, they manage to do relatively well on the labour market and certainly achieve a major improvement in labour market outcomes compared to similar youth who did not do an apprentice- or traineeship. Black, Polidano and Tseng (2010) show that the highest probability of re-engagement of early school leavers occurs in the first five years, and when this first re-engagement is successful (that is a course is completed) then subsequent engagement in education is more likely to occur again. The success rate is however lower in the first year after early school leaving, possibly indicating that the re-engagement needs to be a considered choice. This is confirmed in a follow-up project by Black *et al.* (2011) under the 2010 research agenda, which shows that youth with a career plan (that is they know what they would like to do for a job) do better at re-engagement. This indicates that the choice of type of re-engagement is important and the optimal choice is obviously going to be different for different young individuals. Black *et al.* (2011), using wave 2 of the 1998 LSAY cohort, find that those who leave school with a career plan to find employment or continue studying are more confident, agreeable, calm and hardworking than those who leave for other reasons. Thus making a good choice may have something to do with the individual's maturity. They also find that after leaving school the probability of re-engaging increases up until 4 months out of school (positive duration dependence, due to the wait until the next academic year starts), but then it decreases rapidly afterwards (negative duration dependence, consistent with Black, Polidano and Tseng (2010)). In addition, as before, the 20 per cent of early school leavers who re-engage within a month of leaving school are less likely to complete than those who delay (again consistent with Black, Polidano and Tseng, 2010), possibly due to poor matches to courses.

Houng, Jeon and Kalb (2011) focus on a much younger population following a cohort from birth to the age of 2 to 3. This is before formal education starts for most children, but there are already clear differences to be observed in children's development, which may have implications for later education and training. Using a value-added model based on an Education Production Function, the role of childcare in child development at age 2 to 3 is investigated.

Controlling for a wide range of characteristics and examining the effect of childcare use on the changes in learning and socio-emotional outcomes from age 0-1 to age 2-3 we find that the positive association with childcare observed in the raw data remains, although it becomes smaller after the inclusion of a wide range of control variables. Although this is still no proof of a causal effect of childcare use on children's outcomes, the robustness of the association to including many controls and the use of a value-added model has made causality more likely. Although all types of childcare and all levels of usage are beneficial compared to not using any childcare, there are combinations and levels of usage that appear to lead to better results than other combinations and levels. Combining formal and informal childcare increases the learning and socio-emotional outcomes the

most. Furthermore, only children that use at least some day care as part of their childcare arrangements experience a significant positive association with learning outcomes. Low and medium use of any childcare is associated with better children's outcomes compared to higher levels of usage, but again, even high levels of usage have a positive association with outcomes compared to not using any childcare at all. A higher number of children per childcare staff member reduced the beneficial effect of day care on the socio-emotional outcomes of children.

A final interesting result for this young group of children is the stronger association of childcare with outcomes for three specific subgroups. Houg, Jeon and Kalb (2011) found that children of single parents experienced the highest association of formal care on learning outcomes, followed by children living in households where the main language is not English and the smallest association was observed for children of low-educated main carers. The associations for all three groups are larger than for the general population of children. A weaker association than for the general population is observed for informal care. Children living in households where the main language is not English have the largest association of childcare use with socio-emotional outcomes, and they are the only group where informal childcare also has a stronger positive association than for the general population. Unfortunately, the estimation of full models including all control variables was not feasible for these subgroups due to the sample size so part of the childcare effect may be driven by other characteristics of the families.

Contribution to knowledge on this topic

- Given the lack of education amongst those with the poorest labour market outcomes (as well as amongst those with poor health outcomes and higher welfare dependency), education appears to be the key to improving the lot of disadvantaged youth.
- Education provides some protection for adverse short-term outcomes of youth in times of economic slowdown. However in part this is through further participation in education by this group at a time of higher unemployment.
- Childcare appears to have a positive effect on children's learning and socio-emotional outcomes at age 2 to 3. No negative effects are found for any childcare arrangements.
- The highest positive effects are found for medium-level usage of childcare and a combination of formal and informal care appears most beneficial to children. Some day care use is required for a positive effect on learning outcomes.
- Early school-leaving can be remedied through subsequent, considered, re-engagement.
- Youth who do apprenticeships or traineeships, do well compared to similar youth without apprenticeships or traineeships.
- Although education plays some role in the welfare dependency outcomes for teenage parents, their situation is complex since they experience disadvantage in many aspects of their life. Therefore only fixing education is unlikely to be sufficient. The poor health outcomes for this group may be another area that deserves policy attention.

Potential policy implications

- Education should be encouraged at all levels. Similar to tertiary education, traineeships and apprenticeships can be very valuable in terms of labour market outcomes.

- However in the case of teenage mothers increasing education alone is unlikely to be sufficient. It appears poor health is another major issue.
- In addition, it is not just a matter of encouraging any type of education. Early school-leavers seem to be more likely to re-engage in education successfully (that is complete their course/training) if they have some career plan. This may be an indication that Earn or Learn in itself may not be sufficient. Career counselling may be required to choose the right course or training.
- Childcare appears to provide valuable early learning with regard to cognitive and non-cognitive skills. Combinations of different types of care can all provide good outcomes, but for increased learning outcomes at least some day care use seems required.
- A transition program, such as the Victorian Government's Managed Individual Pathways (MIPs) program, that emphasises student welfare and the building of non-cognitive skills alongside career counselling, may be important in assisting students to make better choices after leaving school early.

Reference list of 2005-2010 Projects

- 4/09 Black, D., Polidano, C. and Tseng Y.P. (2009). ['The Re-engagement in Education of Early School Leavers.'](#)
- 2/10 Black, D., Polidano, C., Tabasso, D. and Tseng, Y.-P. (2011). ['Second Chance Education: Re-engagement in Education of Early School Leavers.'](#)
- 2/08 Fok, Y.K. and Tseng Y.P. (2009). ['Wage Transitions of Apprentices.'](#)
- 1/08 Hérault, N., Kostenko, W., Marks, G. and Zakirova, R. (2009). ['The Education and Employment Outcomes of Youth in School-to-work Transition.'](#)
- 1/10 Houg, B., Jeon, S.H. and Kalb, G. (2011). ['The Effects of Childcare on Child Development.'](#)
- 7/07 Jeon, S. H., Kalb, G. and Vu, H. (2008). ['Teenage Mothers' Income Support, Education and Paid Work: The Dynamics of Welfare Participation.'](#)

Related references

- Jeon, S.-H., Kalb, G. and Vu, H. (2011). The Dynamics of Welfare Participation among Women Who Experienced Teenage Motherhood in Australia. *Economic Record*, 87(277), 235-251.

Appendix Table 1 Summary Table of Reports Relating to Youth

Authors/title	Data	Approach	Findings
Jeon, S. H., Kalb, G. and Vu, H. (2008) Teenage Mothers' Income Support, Education and Paid Work: The Dynamics of Welfare Participation	HILDA 2001-2005, Census 2001	Descriptive analysis and dynamic random effects probit. Dependent variable: welfare participation	<ul style="list-style-type: none"> • Strong correlation between teenage motherhood and education, but given timing of early school leaving (well before pregnancy), having a child is unlikely to cause early school leaving • Education of more recent birth cohorts of women has increased compared to earlier birth cohorts but not for those who became teenage mothers • In a comparison of women who had their first child as a teenager and women who had their first child at a later age, it is found that state dependence (effect of welfare participation in the previous period on current welfare participation) is more important for teenage mothers. Health status is more important for teenage mothers (increases welfare participation), while marital status is more important for older mothers (decreases welfare participation).
Hérault, N., Kostenko, W., Marks, G. and Zakirova, R. (2009) The Education and Employment Outcomes of Youth in School-to-work Transition	LSAY 1995, 1998; YIT 1965, 1970, 1975	Descriptive analysis and multinomial logit. Dependent variable: employment/education outcomes after leaving secondary school (with or without completing Year 12) in the period 1985 to 2006	<ul style="list-style-type: none"> • Seven outcomes: not in the labour force, unemployed, PT work, FT work, FT study, PT study, and two combination statuses (FT student and PT work, FT work and PT student) • State-level annual Gross Domestic Product (GDP) growth rate and state-level monthly unemployment rate by gender are linked to surveys • When GDP growth is low or negative, males and females with low education levels (less than Year 10) are less likely to be working, more likely to be studying and more likely to be unemployed. • High unemployment rates lead to higher unemployment probabilities for youth who have not completed high school and higher probability of study, particularly for university graduates. • high unemployment rates have a negative effect on the probability of working full-time, especially for males who have not completed high school and males with a TAFE certificate.
Fok, Y.K. and Tseng, Y.P. (2009) Wage Transitions of Apprentices	LSAY 1995	Descriptive analysis and difference-in-difference approach matching comparable individuals.	<ul style="list-style-type: none"> • majority of individuals in this cohort entered apprenticeships or traineeships aged 17 to 22 and over a third of these individuals did not complete high school education. • Trainees entered slightly later than apprentices and had a higher high school

Authors/title	Data	Approach	Findings
		Dependent variable: labour market outcomes up to 6 years after training commencement	<p>completion rate.</p> <ul style="list-style-type: none"> • 6 years after training commencement, the difference in employment rate is 5.2 percentage points higher, the self-employment rate is 6.9 percentage points higher and the unemployment rate is 2.8 percentage points lower for apprentices vs. non-participants. • The weekly earnings gap becomes stable at around 100 dollars more for apprentices • similar results for traineeships, but earnings gap is lower at 38 dollars. • positive returns to apprenticeship and traineeship participation, not only in terms of weekly earnings, but also in terms of employment
Black, D., Polidano, C. and Tseng, Y.-P. (2010) The Re-engagement in Education of Early School Leavers	HILDA	Descriptive analysis and logistic regression to model time until re-engagement in education. Dependent variable: return to education by early school leavers of all ages	<ul style="list-style-type: none"> • high rates of re-engagement among those who would benefit most with regard to labour market outcomes — the low-paid, those with little wealth and those who have recently left school. • rates of re-engagement are highest among those who have just left school, but they do not fall until after 5 years out, and then decline steadily. • those who re-engage, especially those who finish their course, are more likely to engage again in the future. • expected future returns from completion do not affect the chances of completion. Instead, it is found that those who re-engage soon after leaving school (especially within one year), are less likely to complete their studies. • the latter point is investigated more in-depth using the LSAY in Black <i>et al.</i> (2011) under the 2010 Research Agenda
Houng, B., Jeon, S.H., Kalb, G. (2011). The Effects of Childcare on Child Development.	LSAC, 2004-2008 (Wave 1 to Wave 3)	Descriptive analysis (for 3 waves) and Ordinary Least Squares (for the value-added model between Wave 1 and Wave 2) and Probit regressions Dependent variables: standardised score of the derived learning index	<p>Raw data of children's outcomes on learning, and physical and socio-emotional development shows:</p> <ul style="list-style-type: none"> • Children using formal childcare appear slightly worse off physically, possibly due to the spreading of colds and other infections while immunity is still being build up. • ... but they are slightly better off in socio-emotional development and learning. • Children attending informal childcare only are slightly better off physically but attendance in at least some formal childcare is associated with slightly better learning (except in the first wave) and better socio-emotional outcomes

Authors/title	Data	Approach	Findings
		(cognitive skill) and the socio-emotional index (non-cognitive skill)	<p>Controlling for a wide range of characteristics and examining the effect of childcare use on the change in learning and socio-emotional development from age 0-1 to age 2-3 we find the following:</p> <ul style="list-style-type: none"> • Although slightly smaller the positive effect of childcare remains. • a combination of formal and informal childcare has the largest effect on learning and socio-emotional outcomes • only children that use at least some day care experience a significant positive effect on learning outcomes • informal care only, and any other formal care have larger effects on socio-emotional outcomes compared to using a day care centre (note however that using a day care centre has a substantial positive effect as well compared to not using any care) • low and medium use of any childcare are associated with better children's outcomes compared to higher levels of usage • However, there are no negative effects from using any level of childcare compared to not using childcare • a higher child-to-staff ratio reduced the beneficial effect of day care on socio-emotional outcomes of children <p>Findings from a basic specification without control variables for three subgroups:</p> <ul style="list-style-type: none"> • Children of single parents experienced the highest association of formal care with learning outcomes, followed by children living in households where the main language is not English and the smallest association was observed for children of low-educated main carers. All associations are stronger than for the general population • Weaker associations than for the general population are observed for informal care • Children living in households where the main language is not English have the largest association of childcare use with socio-emotional outcomes, and they are the only group where informal childcare also has a stronger effect than for the general population
Black, D., Polidano, C., Tabasso, D. and Tseng, Y.-P. (2011). Second	LSAY 1995, 1998 and 2003	Descriptive analysis and a lognormal duration model and probit regression.	<ul style="list-style-type: none"> • lower levels of numeracy and literacy do not seem to affect re-engagement or course completion, possibly due to: <ul style="list-style-type: none"> • high overall levels of numeracy and literacy in Australia

Authors/title	Data	Approach	Findings
Chance Education: Re-Engagement in Education of Early School Leavers	cohorts: Wave 1 to Wave 7	Dependent variables: re-engagement in education in the months after leaving school and completion of the first post-school course	<ul style="list-style-type: none"> • post-school qualifications available at a wide range of levels • a post-school career plan before exiting school or finding a career job soon after may be important to the chances of post-school qualification acquisition of early school leavers <ul style="list-style-type: none"> • this may be due to the vocational nature of courses, which requires students to know which direction they would like to take their career • potential role of non-cognitive skills. This is supported by analysis of wave 2 of the 1998 LSAY cohort. Those who leave school with a career plan to find employment or continue studying are statistically more confident, agreeable, calm and hardworking than those who leave for other reasons. • This underlines the importance of transition programs: e.g. the Victorian Government’s Managed Individual Pathways (MIPs) program, that emphasises student welfare and the building of non-cognitive skills alongside career counselling • after leaving school the chances of re-engaging increase up until 4 months out (positive duration dependence, due to the wait until the next academic year starts), but decreases rapidly afterwards (negative duration dependence, consistent with the previous study by Black, Polidano and Tseng (2010)). • the 20% of early school leavers who re-engage within a month of leaving school are less likely to complete than those who delay (again consistent with Black, Polidano and Tseng, 2010), possibly due to poor matches to courses • The most popular post-school education pathway for early school leavers is to commence a traineeship or apprenticeship (around 50% of all first time re-engagements), usually soon after leaving school. • Those who choose to return to study through an apprenticeship or traineeship are estimated to be 22 percentage points and 15 percentage points less likely to complete than those who re-engage in other ways