

**The School to Work Transition:
understandings of students from low SES
backgrounds**

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Introduction:

The Australian Context for School to Work Transitions: Young people in western societies today face a myriad of decisions in moving through secondary and post-compulsory education and a much longer and more complex period of transition to independence (Broucker 2005). They are likely to be financially reliant on parents for longer, and to have to combine work and study over an extended period (Ayres-Wearne 2001). In addition, the transition through adolescence to young adulthood through which they are passing at this time can present many other challenges beyond those of the school to work transition (Wyn 2004).

Since the 1980s the pathways available for young people who are making the transition from school to work have diversified and become far more complex. With significant changes to the youth labour market, full-time employment opportunities have largely been replaced by part-time and casual work.ⁱ Furthermore, participation in post-school study and training opportunities has expanded and teenagers and young people are participating in post-school education more than ever before. However, despite generally higher rates of participation in tertiary and vocational education in Australia a significant minority of young people remain at risk (Dusseldorp Skills Forum 2003).

It is often argued that in the current labour market conditions, the completion of Year 12 studies is an *essential* stepping stone for successful transitions between school and adult life whether that be through work or through further study. Early school leavers are, therefore, at greater risk of making transitions that are regarded as unsuccessful because these lead to poorer long-term labour market outcomes and reduced participation in further education and training opportunities.ⁱⁱ

However, from the perspective of prevention and early intervention against the likelihood of negative outcomes from critical episodes,ⁱⁱⁱ such as the loss of a job, a positive first school to work transition is very important for better outcomes between education and training or retraining throughout a person's working life. Education and training can serve as a kind of individual or societal insurance against the risk of social exclusion and also better equip people for successful participation in transitional labour markets at later points in their lives (Schmid 2003).^{iv}

The Smith Family's Response: The Smith Family has identified education and life long learning as a preventive strategy against intergenerational

disadvantage. Hence, we have been evaluating the effectiveness of our *Learning for Life* (LfL) suite of programs to identify the advantaging factors at key transition points in the life cycle and, most strongly since 2001 at the school to work transition for young people from financially disadvantaged backgrounds taking part in LfL.

The aim of this paper is to highlight the findings from four discrete but related studies commissioned by The Smith Family. The first study was undertaken by the Australian Centre for Industrial Relations, Research and Training (ACIRRT) at Sydney University from 2001 – 2003.^v The initial research question was to identify whether and / or how participation in LfL contributed to improved retention rates for students from a financially disadvantaged background. The preliminary report issued midway through the project raised a number of questions which went beyond the scope of the ACIRRT project and which were subsequently addressed in a second study, our first major project with the Australian Council for Educational Research (ACER).

Our second study – *Post school plans: aspirations, expectations, implementation* – took place during 2003 and was released as an ACER report commissioned by The Smith Family in 2004 (Beavis et al). The latter built upon ACIRRT's highlighting the relatively more important component of social and educational support from LfL educational support workers in contrast to the financial scholarship component in LfL. *Post school plans* also re-affirmed the importance of formulating post-school plans as an indicator of enhanced participation and retention, as well as of successful school to work transitions.

Acknowledging the importance of post-school plans, in our third study – *What do students think of work?*, – ACER carried out a more fine grained analysis of how Years 8 and 9 *Learning for Life* student perceptions in these three areas exerted a significant influence on whether post-school plans were formulated and how realistic they may have been. The study took place during 2004 and was released in March 2005 as a report by The Smith Family (Beavis et al).

Then, in a fourth study, *What do students know about work?* – ACER carried out a comparable analysis for The Smith Family on Years 10, 11, and 12 *Learning for Life* students. The study was completed in June and will be launched in September.

In considering each phase of research over the last four years, The Smith Family is progressively identifying types of support that appear to enhance both the retention rates and educational achievement, but also the negotiation

of realistic post-school plans and successful school to work transitions.

TSF/ACIRRT Study 2001-2003 --The Impact of Learning for Life on Retention

The focus of the study was on those aspects of *Learning for Life* (LfL)^{vi} which encourage students in Years 11 and 12 from financially disadvantaged backgrounds to stay at school and complete Year 12.^{vii} Part of the rationale for undertaking the study is the compelling evidence that staying on to complete Year 12 is associated with improved labour market outcomes for young people primarily due to the increased literacy and numeracy skills gained by two extra years of high school.^{viii} There is also evidence that staying on to year 12 decreases the likelihood of subsequent criminality.^{ix} In Australia, with the use of the *Longitudinal Survey of Australian Youth* (LSAY) the research on students who do not stay on to complete Year 12 has been extensive and there are a number of characteristics known to be associated with young people leaving school early. Sub-groups that are over-represented among early school leavers include males, people born in Australia (compared to people born overseas), those living outside capital cities, and those who attend public schools (compared to students who attend independent or systemic Catholic schools). Other research has shown that the prevalence of early school leaving is also higher among indigenous Australians, young people with poor literacy and numeracy skills, those from low socio-economic backgrounds, truants and the homeless youths.^x It is relevant therefore to determine whether the characteristics associated with early school leaving in the general population are also prevalent among those young people who leave LfL before completing Year 12.

Three critical questions were raised. Is the program assisting students who would stay on to complete Year 12 anyway but who are excluded from a rounded educational experience because they don't have the financial resources to participate in regular school activities? Or, is LfL, enhancing the learning experiences of students who would stay on to complete Year 12 without financial assistance from The Smith Family? Alternately, is the program aimed at a combination of both types of students? Related to all of these questions is the issue of what is being achieved by the program with regard to retention rates and achievement.

The sample

The data considered in the ACIRRT study comes from a sample of 396 LfL students who were in Year 11 in 2001 and took part in at least one wave of a three-year longitudinal survey. The survey looked at students' learning experiences and their attitudes and opinions about school and study.^{xi} These

survey data were supplemented with data from The Smith Family's administrative records, in particular entry and exit dates from the program.

Unfortunately, information on why students leave LfL has not been collected. Leaving LfL, does not automatically equate to leaving school. It is likely that some of the students who left LfL before completing Year 12 were in families whose financial circumstances had substantially improved and who were, therefore, no longer eligible to receive the scholarship component of LfL. It is reasonable to expect that some of the students who did leave LfL before completing Year 12 still remained at school to complete their studies.

Another qualification is that in each wave of the survey, there was significant sample attrition of approximately 50 percent.^{xii} Also, we are working with disadvantaged families many of whom can be more transient as compared to the general population. In 2002, there were 193 respondents and by 2003 there were only 95 so only limited use can be made of the data collected in these years. Analysis was primarily conducted using survey data collected in 2001 and administrative data available from The Smith Family's records.

The limitations of these data prevent us from being able to make definitive statements about the effect LfL has had on student outcomes or school retention rates. However, the results from this study are useful in highlighting specific areas of research that require further investigation and that can be incorporated into the development and future management of LfL.

LfL program leavers and program stayers – family and demographic differences

The proportion of Year 11 students in the first wave of the study who remained on LfL until the end of Year 12 was similar to the national retention rate of Year 11 students. In 2003, 79 percent of LfL students in the study stayed on the program until the end of Year 12 while figures from the LSAY data show that nationally, the retention rate from Year 11 to Year 12^{xiii} was 84 percent.^{xiv}

A recent LSAY study has shown that social inequality in Year 12 participation, based on socio-economic status as measured by parental occupational and educational backgrounds, declined during the 1980s and levelled off in the 1990s. For example, by 2001, there was a relative difference of 1.2 percentage points in retention rates of students from professional and unskilled manual backgrounds.^{xv} The findings from the LSAY study suggest that students on LfL should be just as likely as students from high socio-economic backgrounds to complete Year 12.^{xvi}

There was no significant difference in program retention based on gender

(81% for females versus 76% for males),^{xvii} family circumstances (household with both natural parents 79% versus household headed by a single mother 77%), or country of birth of primary care giver (78% for Australian or English born versus 80% for born overseas from a non-English speaking background).

In terms of characteristics that reflect economic factors associated with socio-economic status students whose primary carer was not in the labour market due to home duties had a lower retention rate (75%) than LfL students whose primary carer was engaged in other activities. Not surprisingly, there was higher program retention among students whose primary carer was engaging in study of their own (94%).

Program retention for LfL students whose primary care giver had a formal post-school qualification was higher (96% for those with a non-trade qualification and 94% for those with a university diploma or degree) than students whose primary carer had no qualification (77%). LfL students whose primary care giver had trade qualifications had lower program retention than other groups of students (69%). However, this appears to be due to a tendency for these students to express a greater preference in Year 11 than other students to leave school before Year 12 to work or start an apprenticeship.

LfL program leavers and program stayers – the effect of student attitudes

The extent to which student attitudes affected program retention was also examined using the 2001 survey data. The lowest rate of retention (39%) was, not surprisingly, among those LfL students who, in Year 11, did not plan to complete Year 12 (compared to 84% retention among those who did plan to complete Year 12). Similarly, students who stayed at school after Year 10 because 'there was nothing else to do' also had a lower rate of program retention (65%). Related to these findings was that students who rated themselves below average with regard to general school work compared to others were much more likely to leave the program before the end of Year 12 (62% retention) than students who perceived themselves to be average (77%) or above average (90%).

Program retention was lower among students whose post-school plans, as reflected by opinions at the end of Year 11, were less contingent on having completed Year 12. In particular, those who planned to enter into an apprenticeship or traineeship had a lower program retention rate (68%) than all other groups of students. As would be expected, there was a higher rate of retention among students who planned to go on to university when they left school (89%).

VET^{xviii} and LFL students

In 2001, 48 per cent ($n = 192$) of year 11 students who responded to the LFL survey were enrolled in VET subjects at school and 52 per cent ($n = 208$) were not. Of those who responded to the 2002 survey ($n = 209$) 47 per cent had been enrolled in Year 11 in VET subjects; indicating that LFL students who took VET subjects were as likely to remain on the program as students who didn't take VET subjects. They were also more likely to indicate in Year 11 that they planned to find work as an apprentice or trainee or that they planned to study at TAFE or a business college when they finished school. Students who weren't studying VET subjects, on the other hand, were more likely to indicate in Year 11 that they planned to study at university.

Post-school outcomes

In the final wave of the study, in October 2003, all students who had been in the Year 11 cohort were surveyed and responded to a range of questions assessing their post-school experiences.^{xix} A total of 95 young people from the Year 11 cohort responded to the survey.^{xx} Young women were more likely to respond in 2003 than young men with the proportion of young women responding increasing from 59 percent to 68 percent of the sample. Compared to non-respondents in 2003, respondents also had higher aspirations in terms of post-school plans to study at university. By 2003, the proportion of students who had indicated in Year 11 that they wanted to study at university when they completed school had risen from 34 per cent of the sample to 63 per cent of the sample. Students who responded in 2003 also had higher perceptions of their own general ability at school work in 2001 (by 2003 52% of respondents had self-rated their performance in school work in 2001 as above average compared to only 35% of all respondents in 2001).

Length of time on the program showed some relationship with post-school outcomes for those who responded in 2003. Respondents who were relatively new to LfL seemed slightly less likely to be enrolled on a full-time basis at university (32%) than young respondents who had been on the program for two or three years (42%). They were also more likely to be enrolled full-time in a TAFE course (26%) than were those who had been on the program for two to three years (14%) or longer (9%). Young respondents who had been on the program for four years or more were more likely to be studying on a part-time basis, either at university or at TAFE (25%) than were young respondents who had been on the program for fewer years.

Overall, the main activity of the 2003 respondents shows that the majority of these respondents were making positive transitions from school to adult life. Over half of them were studying full-time at either university or TAFE and a further 17 per cent were engaged in full-time work. In addition, a quarter of

those who weren't currently studying full-time indicated that it was very likely that they would commence full-time study the following year.

ACER Study 2004--Post school plans: aspirations, expectations, implementation

Although we could not draw definitive conclusions from the TSF / ACIRRT study, we were able to identify areas for further research into the possible effects of LfL on student attitudes and participation in school. There were sufficient indications that LfL contributed to either the development or reinforcement of positive attitudes toward participating in school. In addition, we wanted to test what appeared to be the further positive consolidating effect of formulating post-school plans in the school to work transition. Hence, post-school plans provided the focus for the research design and questions in The Smith Family's first project with the Australian Council for Educational Research (ACER).

A major part of the scope of our first major report with ACER was to investigate the relations between post-school plans, family background and having a lifelong learning orientation. *Lifelong learning was understood as an orientation that encourages engagement with learning, and the development of characteristics that will make learning an integral part of the learner's life.* Post-school plans were understood as the set of aspirations and expectations that an individual has about what activities, related to (a) education; post-compulsory school destinations, including TAFE, VET, university and other learning options (b) work or (c) family, they will undertake after leaving secondary school.

Data for the study were taken from two sources – the *Longitudinal Study of Australian Youth* (LSAY) and the *Organisation for Economic Co-operation and Development's* (OECD) *Program for International Student Assessment* (PISA) data for Australia. The study did not collect new data. The LSAY data examined the progress of several groups of young Australians as they move from school into post-secondary school or education.^{xxi} LSAY also investigated links between social characteristics, education and training, and unemployment. The PISA data measured student reading, mathematical and scientific literacy and provided a range of data about family background, and educational and post-school plans. PISA also focuses on the nexus between education and work, and on the skills and types of knowledge that are not curriculum bound.^{xxii}

The Smith Family was particularly interested in having ACER focus the

analyses on young people from families in the lowest quintile of socio-economic status. Accordingly many of the findings relate to differences between these quintiles.

The main findings reflected responses to the three main research questions. The first question was “What are the post-school plans of young people?” LSAY found that most year 9 students in 1995 planned further study in their first year after leaving school. Around 40% of boys and 20% of girls planned no post-school study. A fifth of students did not know what they would do in the first year after leaving school.

The second major research question was “What factors are associated with the development of post-school plans?” The analysis showed that girls are more likely to study than boys and that students who had parents with a degree or diploma were more likely to plan study full-time after school. The socio-economic status (SES) of the family had a weak effect on how students formulated their post-school plans. Nonetheless, students from higher SES families were somewhat more likely to plan to study at a university. Also, family SES influenced the extent to which young people were able to successfully implement their post-school plans, especially when those plans were for attending a university. Indeed, this effect was strong. Vocational orientation clearly influenced post-school plans, but family structure had no effect on post-school plans to not study or study part-time in any quintile of family SES.

The third major research question was “What is the association between types of post-school plans and pre-dispositions towards lifelong learning?” The LSAY data suggested that having an orientation to lifelong learning has a weak effect on post-school plans and expectations. Ability, gender, and vocational orientation are strong influences on post-school plans. The Australian PISA data showed a weak to moderate relation between an orientation to lifelong learning and family wealth, depending on indicators used. A stronger relation was found for two indicators of lifelong learning – home educational resources, and comfort and ability with computers – suggesting that where material resources are required family wealth has an impact on the development of an orientation to lifelong learning. The PISA data also showed that for students from the lowest quintile of family wealth, having an instrumental motivation towards learning was associated with an increased expectation of an occupation with high socio-economic status.

The study confirmed that post-school plans are a source of rich data about the students who formulate them. They appear to reflect understandings of: (a) the self – including abilities, interests, and gender; (b) the world of work –

including the socio-economic status of occupations, types of work and the distribution of the sexes within occupations; (c) the nexus between education or training and the world to which they perceive themselves as best suited.

Overall, the study suggested that the most important factors for predicting post-school plans are gender, ability and the vocational orientation of the student. Students appear to have a good understanding of all these factors and plan their post-school destinations accordingly. An orientation to lifelong learning also has an effect on these destinations, but it appears on the LSAY data to be small. This suggests that policies designed to enhance student outcomes, by encouraging the development of a positive lifelong learning orientation may need to pay more attention to the interests and abilities of young people. The contents and methods of delivery for programs need to be situated in an environment that is congruent, in the very first instance, with their interests and, secondly, set at a level that is appropriate to their ability.

The study also suggested three preventive buffers to ensure that students make the link between what's happening in school and what they intend to do afterwards. The first and most important is the provision of substantial career counselling and mentoring to assist students in identifying and owning their interests. Interests are absolutely critical starting points for entering upon and staying on a course of lifelong learning. A second preventive buffer is integrated family and community support systems to provide the different types of support needed for post-compulsory school transitions and the development of positive attitudes toward lifelong learning. Finally, a third preventive buffer is the provision of work experiences while in compulsory school. While we also anticipated that such experiences would assist in providing a more realistic understanding of the world of work, subsequent research has challenged this assumption.¹

The analysis of the data in the report helped us to identify a number of questions for subsequent research and more fine grained analysis of relevant factors:

- The accuracy of the perceptions of the world of work by 'at risk' young peoples
- The clarity and congruence of interests of young people in relation to vocational goals
- How young people from low SES families view the world of work, and how their perceived interests, ability and gender together shape their post-

¹Refer to results from "*What do students know about work?*", pp. 17 – 22 below. Three other work related buffers are compared in relation to the effectiveness with which they assist in providing a realistic understanding of the relation between school and work.

school plans in ways that might differ from young people of higher SES families.

The questions formed the research design for one of our next major reports with ACER which looked at young peoples' perceptions of work, education, and vocation.

ACER Study March 2005—“What do students think of work?”

Post-School Plans indicated that the post-school plans of young people were important for understanding their planned and eventual destinations into the world of work. It is in these plans that the effects of education begin to be translated into active preparations for entry into the world of work.

What do students think of work? explores this proposition in more detail. It has a particular focus, reflecting the concerns of *The Smith Family*, on young high school students from disadvantaged backgrounds.

Sources of data

Data for this study were taken from two main sources:

- a. A survey of high school students in Years 8 and 9 participating in *Learning for Life*. The survey data were also matched to administrative data (under strict conditions of confidentiality, including de-identification to ensure individual and family anonymity). The data for this study came from 3721 responses to a survey sent to *Learning for Life* participants. This represented a response rate of around 75% and so the study had available a robust set of data. However, it is important to remember that the students who participate in the *Learning for Life* program are self-selected and do not, therefore, represent the population of Australian young people in Years 8 and 9. (Nor do they necessarily represent the population of Australian young people from disadvantaged backgrounds.)
- b. The Organisation for Economic Co-operation and Development's (OECD) Program for International Student Assessment (PISA).

Research questions

There is sound evidence that people broadly share occupational stereotypes and that these are usually accurate (Holland, 1997, p. 10). However, if this is not true for particular groups of young people then their post-school plans will be less likely to provide outcomes that they are seeking. Such a

possibility raises the question: *To what extent are stereotypes of the world of work, including pathways into this world, which are held by students from a disadvantaged background, accurate and complete?*

There are two broad groups of research questions that need to be raised in order to address this major research question:

- a. What are the plans and aspirations of young people and the factors associated with these plans?
- b. How accurate are the understandings that young people in the early years of secondary school bring to their plans?

Consistent with the theoretical underpinnings of *Post school plans*, these questions are addressed by focusing upon the interests, abilities, and gender of young people. The research questions are addressed by considering the relations between: (1) self-perceived ability; (2) gender; (3) occupational interests; and, (4) their educational and occupational plans. The extent to which young people are engaged with school is considered also, as it has been shown (Marsh & Kleitman, 2002) that levels of engagement may influence occupational aspirations.

School and educational plans

Respondents were asked at what year level they intended to leave school. Nearly two thirds of respondents plan to leave at Year 12, but a large proportion did not know (21.2%). In other words, one in five Years 8 and 9 students do not know how much schooling they intend to complete. Further, 28.2% do not know if they will undertake any further study after leaving school. Only 9.9% said they would not undertake study, and 61.4% indicated that they would.

Of all the students responding to the survey, 32.5% indicated that they planned to go to university for a degree. (This represents 52.3% of those who indicated that they planned to go onto further study after school.) Of all those responding 23.2% of the sample indicated that they would be going to TAFE (37.7% of those who indicated they planned post school study). Of all those responding 19.2% of the sample indicated that they would do an apprenticeship or traineeship (31.3% of those indicated they planned post school study).

There is clear evidence available that students' perceptions of their school achievement influence their educational plans. Those who perceive

themselves as not doing as well as others are more likely to plan to leave school during Year 10, and are also more likely to not know what year level they will leave school. Conversely, those who perceive themselves as a lot better than most at school, are most likely to plan to stay to complete Year 12, and are least likely not know when they will leave school. Those who perceive themselves as doing best at school are more likely to plan post school education.

For those intending post school study, their planned destination varies according to their perceived school achievement. In particular, whether they will study at university or not appears to be strongly associated with these perceptions. Interestingly, the proportions intending a TAFE destination is roughly the same for each level of perceived school achievement. The proportion planning an apprenticeship or traineeship is highest for those who perceive themselves as doing less well than most at school. It is lowest for those who perceive themselves as well above average in their achievement at school.

Females are more likely to prefer a professional occupation than boys, and boys are more likely to prefer associate professional occupations, and trades.

In Years 8 and 9, students' perceptions of their achievements at school shape their preferences for the world of work. Those who perceive themselves as below average achievers are least likely to prefer a professional occupation, and most likely to prefer an occupation in the trades.

For all students, perceived ability – or the perceived lack of ability – is seen to be an important explanation for why they may not be able to get the job they would most like at 25 years of age. Almost 60% of respondents thought that this would be an important or very important reason. However, this reason is seen as more important for those with perceived less ability at school than others. The lower a student perceives their achievement at school, the more important ability is seen to be as an explanation for a failure to implement their vocational aspirations.

Those who perceive themselves as achieving below average would most like an occupation with the lowest average level of socio-economic status (46.1). In contrast those who perceive themselves as well above average would like occupations with an average level of socio-economic status some 25 points higher on the scale (72.4). It appears, then, that a 'confidence factor' influences what students may project as their career prospects after school.

School and future occupational plans

While the Report looks at the relation between students' experiences in school and their educational plans, it is the relation between their school experiences and their occupational plans that alert us most strongly to areas where slightly over a third of the sample of students (34.5%) could be at risk. In general, they are planning less education than is needed for their most preferred job. These students can be seen to be at risk of making educational plans that will not allow them to achieve their vocational goals. Given this problem, the researchers established to what extent these apparent misunderstandings are distributed disproportionately across subgroups of these students.

In effect, 34.5% of respondents were planning lower levels of education than were required. This suggests a high proportion of students have a misunderstanding about the pathways to destinations in the world of work. Some students who planned lower levels of education than needed were much more likely to expect that they will not get the job which they would like to have at age 25. However, within this group there were some who still expected to get their preferred job even though they planned lower levels of education than were needed. There were 555 of these young people representing 23.8% of the respondents. This is a large proportion of young people who may unfortunately become part of a similar proportion of unemployed or underemployed young people in the general population. Even when asked to think about the amount of education required, this group, on average, was more inclined not to see the relevance of education than other *Learning for Life* students. Complicating this picture further, these students were, on average, no more likely to indicate that they did not know how to get their most preferred job than other students.

The survey asked the students, not only about their educational and occupational plans and preferences but also about their self-efficacy concerning school work, their feelings about school (school affect) and the number of extra-curricular activities that they participated in through school.^{xxiii} These variables were used to help understand the characteristics of those young people who plan an education which will provide them with lower levels of education than is required for the occupation that they would most like at age 25. All of these variables, plus those already described -- gender, perceived ability and interests -- were examined in an attempt to understand the errors that a large proportion of students appear to be making about the level of education needed for jobs they would like to do.

Of all females, 21.9% appear to misunderstand the required level of education

for their most liked job. In contrast, 32.3% of males have this misunderstanding. There was an association between the level of perceived ability and the expectation that the most liked job will be obtained despite planning for an educational level too low for the job. Those who perceive that they are below average at school are much more likely than others, who have higher ability, to exhibit this misunderstanding of the pathways to their preferred job. Thus, around 35% of all those who reported they were below average in achievement at school had a mismatch between educational levels planned and needed. This compares with just 15% of those who reported themselves as well above the average.

Vocational interests

There was no evidence that different types of vocational interests were associated with misunderstanding the educational requirements of the job respondents would like to do at age 25. However, using the interest data it was possible to construct a measure of 'vocational engagement'. Those with the lowest scores were seen to have the lowest levels of vocational engagement. Those who appear to misunderstand the educational level required for their most liked job are less vocationally engaged than other students.

Self-efficacy

Self-efficacy in a domain is regarded as an important predictor of success in school. Students with low self-efficacy may withdraw effort so that, should they not achieve desired goals, they can then claim reduced effort rather than admit to a lack of ability. Those who planned a lower level of education than is needed for their preferred job have, on average, lower levels of self-efficacy than other Years 8 and 9 LfL students.

School affect

School affect, or liking school, may influence students' intentions about leaving school and undertaking further study. The survey asked students how happy they felt, whether they liked to go to school each day, whether they enjoyed it and whether they enjoyed what they did in class. Those students who appear to misunderstand the pathways to their preferred job have less liking, on average, than other students, for school.

Number of extra-curricular activities

There was no evidence of a difference between those who misunderstand the nexus between education and the world of work and those who do not in terms of the average number of extra-curricular activities undertaken. If these are taken as an indicator of engagement with school, this suggests that level of engagement may not be associated with more accurate information about the

relationship between education and work.

Vocational readiness

Students who believed that they would make a good choice of job now, those who thought that a career choice was important and those who reported thinking about their career were, on average less likely to misunderstand the levels of education required for the job preferred. This suggests that those who do have this misunderstanding, do know that they have more thinking and learning to do about the world of work. In short, they do not believe that they are making a good decision about a job – and they are, broadly, correct in this assessment. However, we might have to also ask whether or not they have sufficient motivation to engage in further thinking about their choices.

Overview

Just under half of the Years 8 and 9 LfL students who provided information about their educational and occupational plans have a match in the skill levels they plan to achieve and the skill level needed for their most preferred job. Around 20% plan higher levels of education than is needed and over one third plan to obtain a level of skill too low for their most preferred job. This latter group has a higher proportion of:

- Boys than girls
- Students reporting below average achievement in school
- Students with low levels of vocational engagement
- Students who on average do not like school as much as other students.

Vocational interests and the amount of extra-curricular activity were not associated with this group in any systematic way. Overall, this group does not like being in school, do not do well there, and probably are keen to leave. Finally, this group of students appear to be particularly keen to disengage from education and are not likely to plan post-school study. This would not be a problem if their most preferred job did not require a higher level of education than they thought necessary. However, on the basis of the evidence they have provided, their plans and intentions are likely to lead to outcomes they do not appear to desire.

The students whose educational plans do not appear to provide the correct pathway to the destination hoped for, suggests that they are students who are not happy at school, and who do not do well there. Despite this they seek jobs which range across a wide spectrum of types and occupational status. They are not, therefore, marginalised and demoralised – their plans for the future involve an active engagement in the world. The course they are setting, however, seems likely to compound their sense of failure at school

since they will not be able to implement these vocational plans. This implies a serious need to assist these students to adjust their plans – or redefine their destinations.

ACER Study September 2005 – “What do students know about work?”

This report examined the educational and occupational plans and aspirations of *Learning for Life* students in Years 10, 11 and 12. The data for the study came from 3018 responses to a self-completed mailed questionnaire. This represented a response rate of around 75%.

The study addressed the following questions:

- a. What are the educational and occupational plans and aspirations of *Learning for Life* students in Years 10 to 12?
- b. What factors shape their plans and aspirations?
- c. How accurate are the understandings that these *Learning for Life* students bring to their plans?

The study also investigated the extent to which the accuracy of these understandings is evenly distributed across various sub-groups of young people.

The educational and occupational plans and aspirations of *Learning for Life* students in Years 10 to 12

Most students in Years 10, 11 and 12 appear to have vocational plans in place, although around 30% appear to remain undecided. *Learning for Life* students planned many different destinations in the world of work and many different routes to these destinations:

- most want a professional level job
- very few want low-skilled jobs
- more girls than boys would like a professional job
- more boys than girls would like a trade-level job
- around 80 per cent of students expect to get the job they would most like at age 25
- very few expect to be unemployed.

The proportion of students aspiring to higher level jobs is higher than the proportion of jobs in the market, while the proportion of students aspiring to lower level jobs is lower than the proportion of these jobs in the labour market.

Factors which shape educational and occupational plans and aspirations

Relationship between student characteristics and vocational learning and experience of work

In the current study, the hypothesis that vocational learning and experience of work moderate the effects of gender, (self-reported) ability and liking for school on educational and career intentions was examined.

Two way analyses of variance were conducted using *self-reported ability* and *liking for school* as dependent variables, with *Year Level* and respectively *VET study at school*, *TAFE study*, *Work Experience*, and *Part-time or Casual work involvement*. No main effects were found for any of these variables.^{xxiv} In general, vocational learning and experience of work do not appear to be influenced by self-perceived ability or liking for school. Stated another way, there does not appear to be a selection process in which self-reported ability or liking for school influence decisions to undertake vocational learning or to engage in experience of work.^{xxv}

The finding of a lack of relationship between vocational learning and self-reported ability is in contrast to findings reported by Fullarton (2001, p. 12). She found that students with lower than average academic achievement were more likely to undertake vocational learning than were above average ability students. One difference between the two data sets is that the LSAY data used by Fullarton included a more objective measure of academic achievement based on literacy and numeracy assessments while the present study used subjective normative self-reports of ability.^{xxvi} Also, unlike the data set used by Fullarton, the current study consists of responses from students in the lowest SES quintile. This difference suggests that low SES students and possibly their families, irrespective of their academic achievement, perceive greater value in including vocational learning in their school programs.

Relationships between vocational learning and experience of work and educational and career intentions

One of the claims made for vocational learning and associated workplace learning is that students develop a greater understanding of career options (Woods, 2005, p. 1). In order to test this claim using the current data set, the following question was considered: *Does vocational learning or experience of work influence students' educational or career intentions or the concordance between students' educational and career intentions?*

The educational intentions of students taking VET in school were compared with those who were not taking these studies. An index of the match between the skill demands of the desired job at age 25 and educational plans can be found by examining the concordance between these two variables and this is provided by Kendall's Tau². In analyses summarised below, the Tau statistic is compared for subgroups who have, or have not, undertaken vocational learning and experience of work.

Participation in School VET

With increasing school year level, there is an increase in the highest level of education intended. This is an expected finding, since most students in lower years who intended to leave school before attaining the higher levels have done so (Khoo, Ainley, & Rothman, forthcoming). Those who are taking VET in school studies plan lower levels of education than those who do not take these studies. Thus, the decision to take school VET subjects appears to be associated with decisions either to pursue no post-school study or to undertake post-school vocational studies. Those who do take these studies have a lower level of concordance between educational intentions and the skill requirements of their preferred jobs.³ These results indicate that these students were more likely to plan either too much or too little education.

Further investigation revealed a complex set of associations, pointing to the fact that students who have studied VET subjects more often have a mismatch plan encompassing too little education, except at Year 12. At Years 10 and 11, both groups – those who have and those who have not studied VET – more often plan too low a level rather than too high a level of education. However, at Year 12, this position is reversed for both groups.

Workplace Learning

Where VET students participate in workplace based learning as part of their VET studies, there is no evidence that this form of learning influences their education plans. However, those who do undertake workplace based learning seem to have a lower concordance between the skill requirements of their desired job at age 25 and their educational intentions compared with students who do not participate in workplace learning.⁴ This finding is at odds with claims that structured workplace learning leads to better career planning decisions (Woods, 2005). However, the limited opportunities for work placements has meant that the intensity of students' involvement in

² Kendall's Tau has a value ranging from -1 through 0 to +1, and may be interpreted in a manner similar to the more common correlation statistic Pearson's *r*. The larger the value the stronger the association found in the data. Values of around 0.3 and higher are especially interesting.

³ Kendall's Tau = 0.32 for school VET students compared with 0.43 for those who do not take school VET studies.

⁴ Kendall's Tau = 0.28 and 0.44 respectively.

workplace learning is quite limited and high expectations probably should not be placed on this limited exposure to authentic and structured work placements.

TAFE study

Students in the study who take TAFE subjects plan for a lower level of study than those who do not. This association is quite strong.⁵ Students who take TAFE subjects also have a lower level of agreement between the skill requirements of their preferred job and their intended educational goals⁶. This difference was only just statistically significant.

Work experience

Students who undertake work experience plan lower levels of education than those who do not.⁷ These students also have a lower level of concordance between the skills requirements of their preferred jobs and their intended level of education than those who do not participate in work experience.⁸ This difference is statistically significant, although it should not be interpreted to mean that work experience leads to this effect. It may be the case that those students who are most uncertain about their plans elect to participate in work experience programs while those who have a clear idea choose not to participate.

Paid work

Participation in paid work is associated with a different pattern of relationships than the above work variables. An analysis of variance of educational aspiration by year level and participation in paid work revealed that those students undertaking paid work had higher educational aspirations than those who did not work on a part-time or casual basis.⁹ Part-time workers revealed a slightly greater concordance between the skill requirements of their preferred jobs and their educational plans.¹⁰ This difference is marginally significant. However, the fact that the direction of this difference is opposite to other experience-of-work variables is notable. Thus, part-time or casual paid work seems to be associated with 'better' career planning than does vocational learning or, usually short term, work experience placements.

⁵ $P < 0.001$.

⁶ Kendall's Tau = 0.36 for TAFE study participants compared with 0.41 for those who do not undertake TAFE study.

⁷ $P = 0.015$.

⁸ Kendall's Tau = 0.38 for those who participate in work experience compared with 0.50 for those who do not.

⁹ $P = 0.05$.

¹⁰ Kendall's Tau = 0.40 for those who do not work part-time compared with 0.44 for those who do.

So what is it about paid work, or those who choose to do it, that leads to better career planning decisions? Is it because paid work tends to be of longer duration than school-sanctioned work experience placements, or because working for wages brings with it real responsibilities and obligations? Or is it because paid work brings entrée into employment networks? Past research on the part-time work of students (E. Smith, 2000) suggests that students undertake part-time work in order to earn money and not because they want to gain experience relevant to their career aspirations. This interpretation is borne out in the current study, with the dominant reasons for working part-time being for financial independence, self-support and enjoyment, with respectively 87.2, 79.1 and 78.7 per cent of part-time workers agreeing or strongly agreeing that these were their reasons for participation in paid work.

It would be unwise to conclude that participation in vocational learning or school sanctioned work experience led to impaired decisions about educational goals and career aspirations. It is more likely that students who elect not to engage in these activities have already formed intentions about their career goals and the education pathways they believe will enable them to realise their career intentions. Students with achievable and perhaps more definite goals seem less likely to participate in vocational learning and work experience than those whose career and educational plans are less well formed. This suggests that additional career decision making support needs to be established for students who choose to undertake vocational study and various forms of organised work experience. Extra support does not seem necessary for those students who engage in paid part-time work as the reasons for doing this appear different from the reasons for engaging in organised work experience.

The diversity of students' career choices further suggests that careers advice needs to be targeted to individuals, rather than being of a general nature. Their career aspirations are informed by a combination of their perceptions, their ability and their own interests, and by their understanding of the gendered organisation of work. It seems they do not know about the relative availability of different types of work, nor understand the education and training required for jobs that interest them.

Summary

The educational plans of Years 10, 11 and 12 *Learning for Life* students appear to be influenced by their gender, interests and perceived ability. Different types of vocational interests are associated with liking jobs of different skill levels. Perceived ability at school was strongly associated with expectations

about getting their most liked jobs, with those having self-perceived low ability least likely to expect to get their preferred jobs. In addition, perceived ability at school strongly shapes the skill level of the job most liked at age 25. Somewhat surprisingly, participation in VET or studying a TAFE subject at school is associated with a poorer match between educational plans and occupation preferences. However, those in paid work tended to have higher educational aspirations and a better match between their education and job plans.

Overall, it seems as if students seek jobs that they expect to like, and from this pool of jobs, they select a job which matches their perceived ability. This finding implies these students have a rich appreciation of the world of work.

The accuracy of understandings brought to educational and occupational plans

While the *Learning for Life* students appear to have a good understanding of the contents of the world of work, this study found evidence they have more to learn about how to get these jobs, and the probabilities of their doing so even if qualified. Many appear to misunderstand the availability of some jobs, especially those interested in the professions and trades.

Many students seemed not to understand the educational requirements of jobs. Half of the Years 10, 11 and 12 *Learning for Life* students who provided information about their educational and occupational plans matched the skill levels they planned to achieve and the skill level needed for their preferred job. Around a quarter planned higher levels of education than needed and a quarter planned a level of education too low for their preferred job. Further, 13.5 per cent of the *Learning for Life* students in the senior years expected to get their most liked job despite planning too little education for entry to it.

This indicates a need to provide students with more information about how to get the job they would most like. The study suggests that this is especially for those students who perceive themselves low in ability at school.

All students may also need more information about the availability of jobs of various types in the labour market. A large proportion of students indicated they did not know how to get the job they would most like.

Concluding comments

ACIRRT Study

When The Smith Family joined with ACIRRT in the application for an ARC Linkage Grant, we were aware of research that showed that early school leavers jeopardised their participation in the labour market and in further education and training. Therefore, we wanted to assess whether or not *Learning for Life* was, in fact, contributing to improved retention rates in a small sample of high school students from a financially disadvantaged background. The study suggested that LfL's financial scholarship and other support components of the program appeared to encourage students to continue on at school and, indeed, to participate more fully. However, the study also raised more questions than it answered, specifically focusing on the formation of student attitudes which appeared to have discernible effects on retention and achievement levels.

In pointing out that low levels of self-perceived achievement inclined students to be more at risk of leaving school early, the ACIRRT study flagged an issue that came into focus more sharply in data contained in the studies ACER carried out for The Smith Family. Another issue flagged by ACIRRT that has also been reflected and reaffirmed by the ACER studies is the suggestion that length of time on the program can lead to higher student aspirations. For example, from 2001-2003 there was an increase from 34 to 63 percent of LfL students who wanted to study at university. There was also data that suggested that longer periods of time on the program could lead to better post-school outcomes.

Another issue flagged by ACIRRT, which was also reaffirmed by the ACER studies was that LfL students who had enrolled in VET courses tend to do better at school when they begin to grasp its relevance to the world of work. This finding was developed more fully in the focus on the importance of identifying student interests in the ACER studies as a very important condition for motivation to continuing involvement in school and making connections between school and the world of work.

However, an issue which we were not able to pursue further in the ACER studies was the identification of factors that could have potentially contributed to the small sample size and 50 percent reduction in response rate per year over a three-year period. One challenge which this response rate suggests to The Smith Family is to track students who leave the program before the completion of schooling, as well as those who leave the program after completing year 12.

Nonetheless, the most positive finding from the ACIRRT study was that the main activity of the 2003 respondents shows that the majority of these respondents were making positive transitions from school to adult life. Over

half of them were studying full-time at either university or TAFE and a further 17 per cent were engaged in full-time work. In addition, a quarter of those who weren't currently studying full-time indicated that it was very likely that they would commence full-time study the following year.

ACER Studies 2004 and 2005

By identifying variables that could potentially impact on the formation of student attitudes toward school and perceptions of its relation to work and vocation, the ACER studies are providing important data for the forward development of *Learning for Life*.

The first study confirmed that post-school plans are a rich source of data about students' understandings of themselves, the world of work and the nexus between education or training and the world of work to which they see themselves as best suited. Overall, the study confirmed earlier research that the most important factors for predicting post-school plans are gender, ability and vocational orientation. In relation to pointers to The Smith Family about forward program development for *Learning for Life*, the research suggested three forms of support to assist students make a link between what's happening in school and what they intend to do afterwards. These included interactive career counselling and mentoring; integrated family and community support systems for school to work transitions; and, the provision of work experiences, based on students' interests, while in compulsory schooling.

The second ACER study showed that LfL students in Years 8 and 9 have, indeed, begun to locate parts of the world of work that they like – guided it, seems, by their gender and the degree of perceived academic ability needed to get there. These students are beginning to identify paths which they will need to follow in order to enter the world of work. However, it appears that a sizeable proportion of them do not properly understand these routes into this world – they do not know how to get to where they want to go. Over a third of the students were planning an education which would not permit them entry into the job they would most like to do. Given the importance of work in the lives of people [Holland, 1997 #154; Holland, 1985 #152], this mismatch is a concern.

Those whose educational plans do not appear to provide the correct pathway to the destination planned, tend to be those who are not happy at school, and who perceive they do not do well there. However, most of these students plan an active engagement in the world, across a wide range of occupations. The direction they are setting off on, however, will make it difficult for them to

implement these plans. They need to adjust their plans – or change their destinations, and to do this, they will require pertinent information and perhaps guidance. However, these students still have a number of years before they have to implement decisions, during which time their understandings will mature, become more refined and probably also, more accurate.

Those whose plans appear on track will need encouragement to reflect upon their choices and develop other options because too many are seeking jobs for which there is an insufficient supply in the labour market.

The third ACER report examined the educational and occupational plans and aspirations of young people in Years 10, 11 and 12 who are participants in *Learning for Life*. Most appear to have vocational plans in place, although around 30% appear to remain undecided. The majority, however, planned many different destinations in the world of work and many different routes to these destinations. The proportion of students aspiring to higher level jobs is greater than the proportion of jobs in the market, while the proportion of students aspiring to lower level jobs is less than the proportion of these jobs in the labour market.

Learning for Life students see entry into further education and the world of work as largely based upon educational achievement or ability or both. To this extent they do not appear to allow their background to hinder their plans. All of these students come from low socioeconomic families, yet those who perceive themselves as having high ability (a) plan higher levels of education (b) like jobs with higher skill levels and (c) like jobs with higher levels of socioeconomic status. Using data from PISA, it was also found that it is unlikely that that these aspirations are being muted by family background.

For a sizeable proportion of the *Learning for Life* students, the perceived effort required for a job is linked, to educational requirements and the ability required to undertake this education. In short, for them, achieving a desired job requires education and education requires ability and effort. Interestingly, these same students (and possibly their families), irrespective of their academic achievement, appear to perceive greater value in including vocational learning in their school programs.

Where to next? – further questions

What do students know about work? reveals that young people are preparing, somewhat optimistically, to enter the world of work and expect to get their preferred job. However, few seem to appreciate some of the difficulties and

challenges that they might encounter. In addition, few expect to be unemployed. It is possible that many of these students have not yet been confronted with the need to adjust plans when reality conflicts with their expectations. Hopefully, the experience of having to adjust plans may influence a more realistic pattern of demand that may be closer to the pattern of supply in the labour market. At present, we do not have any data to confirm if this outcome will happen, and that the possible outcome is unknown points to a need for longitudinal data. With such data we could begin to observe the outcomes of post-school plans and the factors which were associated with these outcomes could be identified. We would also be in a better position to assess the value of post-school plans and to identify indicators of achieved outcomes. Such data would undoubtedly assist in the continuing development of *Learning for Life* for greater effectiveness in the short-term and impact in the medium and long-term.

The study also points to students who perceive themselves to be low in ability at school as being in a particularly difficult situation. They are more likely to not know what they want to do, or if they do know, to be less likely to know how to get their preferred job. They are more likely to expect that they will not get their preferred job. They are more likely to expect to be unemployed. This mix is especially troublesome. Most students perceive ability to be key determinant of success in entering the world of work. It is not surprising that those with low ability appear to be perplexed about their future options. A longitudinal study would also help to understand how these students navigate around these obstacles, and the extent to which they succeed once they enter the world of work where the criteria for success differs from schools.

In the meantime, it is clear that many of the *Learning for Life* students are optimistic about their futures and that some are probably too optimistic. Others, often because they perceive themselves to be of low ability, do not see their futures very clearly. Overall, it is clear that most of these students have a rich understanding of themselves and their preferred location in the world of work. Nearly all, however, will have to adapt their plans and the success of that adaptation, in the future, will determine the success (or otherwise) of their post-school plans.

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Endnotes

- ⁱ Muir, Kristy with Anne Maguire, Daniel Slack-Smith and Maree Murray (2003) *Youth Unemployment in Australia: a contextual, governmental and organisational perspective* A report by The Smith Family for the AMP Foundation.
- ⁱⁱ McIntyre, J. Freeland, J., Melville, B & Schwenke, C (1999) *Early school leavers at risk*, Leabrook, South Australia: NCVER.
- ⁱⁱⁱ Critical episodes or transitions occur when events in our lives result in a change in assumptions about oneself and the world and thus require a corresponding change in one's behaviour and relationships. Events that change important elements of social networks are especially critical. Actual or potential job losses are such critical events (Hartenstein and David Waugh, 1993; Schlossberg, 1984). They can create great tension because the usual problem solving mechanisms no longer work.
- ^{iv} Schmid defines transitional labour markets (TLMs) as institutionalised arrangements which allow or support the change of the employment status or the combination of labour market work with other socially (and to some extent economically) useful activities. See Schmid, 1998 *Transitional labour markets: a new European employment strategy*, Discussion paper FS I 98-206, Social Science Research Centre Berlin, Available: <http://www.wz-berlin.de/default.en.asp>. Schmid argues that transitional labour markets provide a practical replacement for the earlier model of full employment. They are a way to create many voluntary transitional jobs as a significant alternative to involuntary long-term unemployment or long-term poverty. Important elements of such a strategy are the combination of working time reduction with life-long learning.
- ^v The unpublished report on the research carried out by ACIRRT was written by Gillian Considine. An earlier analysis of data in the final report can be found in Watson & Considine 2003.
- ^{vi} The emergence of programs such as LFL, which are aimed at improving the educational experiences of children from disadvantaged backgrounds, is relatively new. The LFL program began as a pilot in 1988 and was expanded in 1997 to include senior high school and tertiary students.
- ^{vii} Zappalà, G. & Parker, B. (2000) 'The Smith Family's Learning for Life program a decade on: poverty and educational disadvantage'. *Background Paper No. 1* The Smith Family, Sydney. There is now a total of 21,500 students on the program and 2,973 who are in Years 11 or 12.
- ^{viii} Marks, G. & Fleming, N. (1998) 'Factors influencing youth unemployment in Australia: 1980-1994'. *LSAY Research Report Number 7*, ACER, Camberwell, Vic.
- ^{ix} Chapman, B., Weatherburn, D., Kapuscinski, C.A., Chilvers, M. and Roussel, S. 2002, 'Unemployment Duration, Schooling and Property Crime', Discussion Paper No. 447, Centre for Economic Policy Research, Australian National University, April 2002, available <http://www.aic.gov.au/conferences/schools/chapman.html> viewed 21 February 2005. This paper is from the Australian Institute of Criminology 2002 Role of Schools in Crime Prevention Conference, see <http://www.aic.gov.au/conferences/schools/index.html> for other papers.
- ^x McIntyre, J. Freeland, J., Melville, B. & Schwenke, C. (1999) *Early school leavers at risk*, Leabrook, South Australia: NCVER. Marks, G. and McMillan, J. (2001) 'Early school leavers: who are they, why do they leave, and what are the consequences?' in ACER (ed) *Understanding youth pathways, Research Conference 2001 Proceedings*, Victoria: ACER. Teese, R. Polesel, J., O'Brien, K. Jones, B. & Davies, M. (2000) *Early school leaving: a review of the literature*, Queensland: ANTA.
- ^{xi} This figure differs from an early report (Attitudes towards school and learning among students from low-income households, 2003) in which the sample size was 462. In this report data were only included for those who responded to the 2001 survey and for whom family data was available from The Smith Family's administrative files.
- ^{xii} The attrition rate in the *Longitudinal Survey of Australian Youth* (waves 1995 to 1999) was approximately 9 per cent per year (LSAY Technical Report No. 15, 2000). However, the LSAY uses phone interviews to survey students. Phone surveys typically have higher response rates than the method used in this study: self-response paper-based survey.
- ^{xiii} Retention on the program was measured using administrative data that was available even for students who did not return surveys after Wave 1 (i.e. sample attrition from the study does not affect the program retention rate).
- ^{xiv} Derived from McMillan & Marks, 2003 "School leavers in Australia: Profiles and pathways" *LSAY Research Report No. 31*. Camberwell, ACER.

^{xv} Fullerton, S. Walker, M. Ainley, J. & Hillman, K. (2003) 'Patterns of participation in Year 12' *LSAY Research Report No. 33*. Camberwell, ACER. pp. 16.

^{xvi} If the LFL program includes a significant proportion of the students who, without financial assistance from The Smith Family, would otherwise have been early school leavers then it is reasonable to expect lower retention rates amongst this cohort. In 2001, 83 percent of Year 11 students in this study indicated that they intended to stay on to complete Year 12, 5 percent indicated that they would leave before the end of Year 12 and 13 percent were unsure. In 2003, 78 percent of the Year 10 students in the study indicated that they intended to stay on to complete Year 12.

^{xvii} Data was not available from which to calculate standard error estimates. However, it is unlikely that differences of 5 percentage points are statistically significant given the sample size.

^{xviii} Since the 1980s vocational education and training (VET) has gained increasing importance in high school curriculum. VET in schools is intended to broaden the educational opportunities for students as well as offering alternative pathways into work and tertiary education. (See Marks and Flemming 1998, 1999).

^{xix} Responses only came in from students who had also responded to the second wave (Year 12) survey.

^{xx} These young people represent only 24 per cent of the original sample and therefore the results are not representative responses from the Year 11 cohort but rather are indicative of the sub-group of young people who stayed with the study throughout the three years it was conducted. The transitions made by students who did not respond to the survey are not known. However, sample attrition was greatest amongst LFL students who were experiencing learning difficulties at school. It is likely therefore, that the results from this wave of the study reflect the most positive outcomes experienced by this cohort of students.

^{xxi} The LSAY research program is managed jointly by ACER and DEST. LSAY data are publicly available from the Social Science Data Archives, ANU, Canberra. The respondents first provided data in 1995 when they were in Year 9. The data used here were collected in the 1999 survey when the respondents were around 18 years of age and most had completed their secondary schooling. A representative sample of 13,613 Year 9 students, from all States/Territories and school sectors, participated in the first administration of the survey in 1995. By the time of the 1999 survey, 8,783 students remained in the study. The original sample was designed so that some small groups with high policy salience (for example, Aboriginal or Torres Strait Islanders) were over sampled to ensure that there were enough respondents for detailed studies of these groups. The contribution of these groups to the data, as a whole, then has to be weighted back so that it does not bias population estimates.

^{xxii} The PISA project collects data on large nationally representative sample of 15yr olds over a three-year cycle. Its first data collection was in 2000. Only the data from Australia were used in this study. PISA is forward-looking, focussing on young peoples' ability to use their knowledge and skills to meet real life challenges, rather than on the extent to which they have mastered a specific school curriculum (OECD 2001). A detailed account of the study is provided in the initial report from the project, "Knowledge and skills for life: first results from PISA 2000 (OECD), 2001.

^{xxiii} Academic self-efficacy refers to self-efficacy in a domain is regarded as an important predictor of success in that domain. The analysis showed that Year Level was marginally significant ($p = 0.07$) with Year 9 students having a slightly higher academic self-efficacy score (Year 9, 16.39; Year 8, 16.21). Although this difference is marginally statistically significant, the effect size (0.06) is small.

School affect, or liking school, may influence students' intentions about leaving school and undertaking further study. In this sample, there was a marginally significant effect of year level ($p = 0.09$) and a highly significant effect for gender ($p < 0.001$). Year 8 students had a greater liking for school than Year 9 students and girls showed a greater liking for school than boys.

Extra-curricular activities are thought to exert an important influence on students' engagement with school, especially for students from less affluent families. Before looking at its influence on further study and post school employment plans, differences in this variable by year level and gender were sought. Differences in extra-curricular involvement were found for both year level and Gender, with year eight students (17.53) showing more involvement than year nine students (17.04) and girls (17.44) having more involvement than boys (17.14).

^{xxiv} For part-time work, an interaction effect was found in which Year 10 students who worked

had higher self-efficacy than those who did not, but for Year 12 students, the relationship was the reverse.

^{xxv} It is possible two factors are operating here. First, some students are leaving school, and these tend to be boys and probably of lower ability and with less affinity for school. Second, of those who remain at school, the ones we surveyed, we did not find a relationship between self-perceived ability or liking for school and work experience and VET study. Any selection that occurred, did so before they were surveyed. Caution is therefore needed here because these are cross sectional data and the conclusions being drawn are getting close to requiring longitudinal data to sustain them.

^{xxvi} That is, students were asked to compare themselves with their peers. If lower ability peers had left school, those who remained would be comparing themselves with a higher ability grouping and they may not claim to be high in comparison with that more select group, even if, objectively, they are.