



What do students think of work?

Are they on the right page?

JUNIOR SECONDARY SCHOOL STUDENTS' PERCEPTIONS OF THE WORLD OF WORK

A report prepared for
The Smith Family

Adrian Beavis
David Curtis
Niola Curtis



everyone's family

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ISBN: 1 876833 36 X

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March 2005

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Preface

The Smith Family's first major research report for 2005, *What do students think of work?* was prepared for The Smith Family by the Australian Council for Educational Research (ACER). Adrian Beavis and his colleagues David Curtis and Niola Curtis have progressed research into questions raised from last year's major report, *Post-school plans: aspirations, expectations and implementation*, also prepared for us by ACER. This year's report conducts a more finely grained analysis of how students' perceptions of work, education and vocation influence the formation of post-school plans and selection of pathways from school to further education and/or work.

Two of the more worrying findings from the report point to how students' perceptions of their ability, which may or may not mirror the reality of their actual skill base or capacity, exert a strong influence on plans either for further education and training after compulsory school or occupational choice. Students who perceived themselves as below average in how well they do at school were more likely to plan to leave school at the end of Year 10, and were more likely to not know at what level they will leave school. Of even greater concern, students who perceived themselves as below average, over one third in the study, also were not planning a sufficient level of education or skill development to allow entry into their most preferred job. Given the importance of work in the lives of people this mismatch, which could result in long-term disadvantage, is also of concern.

The Australian context for school to work transitions challenges young people to face a myriad of decisions in moving through secondary and post-compulsory education and through a much longer and more complex period of transition to independence. Since the 1980s the pathways available for young people have diversified and there have been significant changes to the youth labour market. Full-time employment opportunities have largely been replaced by part-time and casual work and young people are participating in an expanded number of post-school study and training opportunities more than ever before.

As the authors note, the study of education and occupational decisions and plans of young people in Australia is long-established both within the traditions of vocational psychology and sociology. Much of the earlier work focused

upon those years of schooling when students begin the transition, from school to work, or into further education in Years 10, 11, and 12. However, there is in Australia little current empirical research available regarding the educational and occupational plans and aspirations of students in Years 8 and 9. Yet, if these plans are predictors of later plans and decisions, it is important to describe and understand them accurately.

There are two major sources of data for this report. The first is from a survey of 3,721 families of high school students in Years 8 and 9 participating in *Learning for Life*. The survey data were also matched to administrative data from The Smith Family, under conditions of strict confidentiality and privacy. The number of completed returns provided a response rate of around 75%, an excellent outcome that ensured the study had a robust set of data. A second source of data came from the Organisation for Economic Co-operation and Development's Program for International Student Assessment.

In addition to making a sound empirical contribution to our understanding of how junior secondary school students begin to think about their places in the world of work, the report also shows how *Learning for Life* students in Years 8 and 9 are beginning to identify paths they will need to follow in order to enter the world of work.

This Report and a companion study, to be released later this year, focusing on *Learning for Life* students in Years 10, 11, and 12 will make significant contributions to the evidence base which guides The Smith Family's program development of its *Learning for Life* strategy. More broadly, however, it is hoped that this research will also drive wider policy development to facilitate successful transitions to post-compulsory education and work by supporting young people in their families and communities to navigate one of the most important of life's transitions to a productive and prosperous adulthood.



Dr Rob Simons
National Manager Strategic Research and
Social Policy
The Smith Family



List of acronyms

ACER	The Australian Council for Educational Research
AIM	Australian Interest Measure
ASCO	The Australian Standard Classification of Occupations
CI	Confidence Interval. A range in which it is likely a mean would be found with repeated sampling of the population. When comparing two means, if Confidence Intervals overlap their differences may be attributable to sampling error. When this occurs the difference between the means is said to be not 'statistically significant'.
ISCED	The International Standard Classification of Education
LSAY	Longitudinal Surveys of Australian Youth
PISA	Program for International Student Assessment, an international study of student literacy conducted by the Organisation for Economic Co-operation and Development.
RIASEC	Realistic, Investigative, Artistic, Social, Enterprising and Conventional vocational interest types, so named by Holland (1985, 1997).
SD	Standard deviation, a measure of spread in data. About 70% of the data in a distribution lays within one standard deviation either side of the mean.
TAFE	Technical and Further Education

Notes on the Authors

Adrian Beavis is a Principal Research Fellow at ACER. He has been at ACER for over 10 years during which time he has worked on a wide range of educational evaluation and policy related studies for State and Australian governments, as well as on the OECD PISA project. He is currently working in the Teaching and Learning Division at ACER and has particular interest in Teacher Education. He is also interested in, and continues to work

on, projects concerned with school to work transition. He was a contributing author to The Smith Family report *Post-school plans* published in 2004.

David Curtis worked as a lecturer in higher education for 25 years prior to becoming a consultant. He is particularly interested in both flexible delivery and educational measurement. Since 2000, he has been involved in projects to develop and assess students' generic skills, with a particular emphasis on problem solving ability. With Phil McKenzie of ACER, he co-authored the report "Employability skills for Australian industry: Literature review and framework development".

Niola Curtis has worked as both a practitioner and researcher in education for over 20 years, initially as a training officer then as a teacher, librarian, and as a researcher. She is now working as a consultant. She is interested in fostering improvement in educational practice and outcomes for people of all ages through the application of research. In her spare time she is a volunteer instructor with Seniors on Line.

The Authors' Acknowledgments

We wish to acknowledge the contribution of Maree Murray of *The Smith Family*, for her willing support and intellectual collegueship during the conduct of this study. This contribution was of great value. We wish to acknowledge the artistic contribution of Evan Shapiro, also of The Smith Family, in preparing camera-ready copy of the report.

We wish to also thank the staff at the Australian Council for Educational Research who administered the survey and processed the data – Jim Carrigan and the Project Support team. Jarrod Bates proof-read the final draft.

Most particularly, we wish to thank the students and their families who answered and returned the questionnaires that form the basis of this study.



Executive Summary

This report examines the educational and occupational plans and aspirations of young people in Years 8 and 9 who were participants in The Smith Family's *Learning for Life* program.

It aims to describe how these young people are preparing for their later years of education and their entry into the world of work and the factors that shape these plans.

THE RESEARCH QUESTIONS

The specific research questions were:

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

This last question was extended to consider the characteristics of those who appear to have a poor understanding of the pathways they need to take into the world of work.

THE DATA

The data for this study came from 3721 responses to a survey sent to *Learning for Life* families.

A response rate of around 75% was achieved.

A random sample was not taken. All families in the *Learning for Life* program were approached to participate in the survey. The students who participate in the *Learning for Life* program are self-selected and are not representative of the population of Australian young people in Years 8 and 9. They may not represent the population of Australian young people from disadvantaged backgrounds.

EDUCATIONAL AND OCCUPATIONAL PLANS: FINDINGS AND IMPLICATIONS

The key findings from the study concerning educational plans were:

- Around 21% of students did not know if they would complete school at Year 12.
- Two thirds of students did plan to complete Year 12.
- Girls were more likely to plan to complete Year 12 (72%) than boys (61%).

- Students with 'Realistic' interests – that is an interest in work and problem solving using their hands – were more likely to plan to leave at the end of Year 10 and were more likely to not know at what level they will leave school.
- Students who perceived themselves as below average in how well they do at school were more likely to plan to leave school at the end of Year 10, and were more likely to not know at what level they will leave school.
- Around 10% of students planned to do no further study after leaving school, a little over 60% planned post-school study and 28% did not know if they would study after school.
- Just over half of those intending post-school study planned to go to university, 37% planned to go to TAFE and over 30% planned to do an apprenticeship or traineeship. (Note, because students could indicate more than one possible post-school destination, there was some unavoidable double counting in these figures.)
- More girls (68%) than boys (55%) planned post-school study, and more girls planned to go to university than boys but more boys (36%) planned to do an apprenticeship or traineeship than girls (19.5%).
- Those who perceived that they had below average levels of achievement at school were more likely to have planned no post-school education, and if they were planning post-school education, more likely to plan an apprenticeship or traineeship.
- An analysis of variance contrasting those who planned study with those who did not, indicated that perceived ability was statistically significant, gender marginally significant and occupational interests were not significant.

An examination of the educational plans of these students indicates that there is a substantial minority who do not know what they want to do. Boys and those students who perceive themselves as below average in their school work, were more likely to not know what they will do, or if they did know, to plan lower levels of education than others.



Those students who perceived themselves as below average and who were planning a lower level of education than other students, appeared to be acknowledging the constraints imposed by their perceived ability. This implies that they have made an appraisal of their chances of success.

The key findings from the study concerning vocational plans were:

- Around 70% of students could nominate an occupation that they would like to do at the age of 25.
- Of those nominating an occupation, 50% indicated they would like a professional level job and 25% would like a trade level job.
- Girls were more likely to prefer a professional level job than boys, and boys were more likely to prefer a trade level job than girls.
- Around 75% of students expected to get the job that they would like to do at age 25.
- The expectation that the student would get their most liked job was associated with perceived ability. Those who perceived themselves as achieving below average at school were less inclined to expect to get their preferred job.
- Some 60% of students saw lack of ability as an important explanation for a failure to obtain a job, with those who perceived themselves as below average at school more likely to see this as an important explanation.
- A little over 50% of students indicated that one of the reasons that they might not get the job they most liked was that they did not know how to get it.
- Girls aspired, on average, to higher socio-economic status jobs than boys.
- Girls aspired, typically, for jobs which have more women than men working in them, and conversely, boys aspired for jobs which have more men than women working in them.

In summary, the *Learning for Life* students have vocational aspirations that appear to be shaped by their gender and perceived ability.

There was little evidence of vocational interests being important. There was evidence, also, of a lack of understanding about the availability of professional and trade level jobs in the labour market.

The Year 8 and 9 students in this study appeared to match their perceived ability to their educational and vocational goals. This tendency appears to override their socio-economic background because those students in the *Learning for Life* program who perceive themselves as having high ability, would like to attain, on average, higher levels of education, higher skilled jobs, and jobs with higher levels of socio-economic status than other students in the program.

THE ACCURACY OF EDUCATIONAL AND OCCUPATIONAL PLANS: FINDINGS AND IMPLICATIONS

The key findings from the study concerning the accuracy of educational and occupational plans were:

- Around 35% of students planned education that would be at too low a level for the occupation that they would like at the age of 25.
- Just over 45% of students planned an education that would provide them with a level required for the job they would like.
- Of those whose educational level was too low for their preferred job, 70% expected that they would get this job.
- Boys were more likely than girls to have a mismatch between their planned educational level and the skill level of their preferred job.
- Those who perceived themselves as below average at school were more likely to have a mismatch between their planned educational level and the skill level of their preferred job.
- Self-efficacy (having the belief that one is able to do school work) and happiness at school were also associated with educational and occupational skill level mismatches. Those who had lower self-efficacy and were less happy at school were more likely to plan an educational level too low for the skill level of their preferred job.



- Of those whose educational and vocational plans mismatched, 58% intended to complete Year 12 (compared with 81.5% whose educational and occupational plans matched).
- Of those whose educational and vocational plans mismatched, more were likely to be uncertain about when they would leave school.
- Those students whose educational and vocational plans mismatched were particularly likely to plan no post-school study.

In general, students whose educational and job plans mismatch, appear to be keen to disengage from education.

OVERVIEW

This study shows that the Year 8 and 9 students in the *Learning for Life* program have begun to locate parts of the world of work that they like – guided it seems by their gender and constrained by perceptions of their ability. These students are beginning to identify paths that 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.

FURTHER QUESTIONS

The study has posed some further, intriguing questions:

- How do students acquire their accurate or inaccurate perceptions of the world of work, especially concerning the level of education required?
- What further can be learnt about school disengagement, and the distribution of its effects?
- For those who do appear to be at risk of the negative effects of school disengagement, what can be done by organisations such as The Smith Family to address the problem?
- Why do girls appear to be more informed about the nexus between education and the world of work than boys? What support, if needed, might work for boys?





Chapter One

Introduction

This report was stimulated by a previous Smith Family report, *Post-school plans: aspirations, expectations and implementation* (Beavis, Murphy, Bryce, & Corrigan, 2004), which indicated that the post-school plans of young people were important for understanding their eventual destinations into the world of work. It is in these plans that the effects of education and other influences begin to be translated into action readying for entry into the world of work.

The study of the educational and occupational decisions and plans of young people in Australia is long-established both within the traditions of vocational psychology and sociology (Anderson & Blakers, 1980; Beavis et al., 2004; Blakers, 1978; Bourke & Keeves, 1977; Broom, Jones, McDonnell, & Williams, 1980; Dusseldorp Skills Forum, 1999; Elsworth, Day, Hurworth, & Andrews, 1982; Elsworth & Day, 1987; Keeves & Bourke, 1976; Kidd & Naylor, 1991; G. Marks, 1998; Naylor, 1984; OECD, 2001; Poole, 1992; SCOPE Project, 1989; Williams, Batten, Girling-Butcher, & Clancy, 1980; Williams, Clancy, Batten, & Girling-Butcher, 1980).

However, much of this work focuses upon those years of schooling when students can begin the transition from school to work or into further education – typically this means the middle or senior years of secondary school. Indeed, the only work found which specifically examined the early years of secondary schooling in Australia was Williams' et al. (1980) work looking at 14-years-olds in schools. There is in Australia then, little current, empirical research available on the educational and occupational plans and aspirations of students in the early years of secondary school. Yet, if these plans predict later plans and decisions, they are important to describe and understand.

This report examines the educational and occupational plans and aspirations of young people in the early years of secondary school. In particular it focuses upon those young people who are participants in The Smith Family's *Learning for Life* program. This study is, therefore, concerned to understand how these young people, all of whom come from a low socio-economic status background, are

preparing for their later years of education and entry into the world of work. Once these plans are described it becomes possible to:

- Identify factors associated with various plans for the future. These factors may provide policy levers, or they may define boundaries within which policies need to be developed.
- Examine how these plans may differ from other young people's plans.
- Examine how well attuned these plans are:
 - o to the requirements for entry into the labour market (that is, their knowledge of pathways to work and employment).
 - o to the likely supply of particular jobs within the labour market (their knowledge of the world of work).

This information should provide The Smith Family, and others concerned with a pro-active approach to overcoming social disadvantage, with a sound empirical basis for the further development and refinement of policies and practices.

RESEARCH QUESTIONS

There is much evidence that people broadly share occupational stereotypes and that these are usually accurate (Holland, 1997, p. 10). However, if this is not the case for particular groups of young people then their post-school plans will be less likely to provide the outcomes they are seeking. Such a possibility raises the question: To what extent are stereotypes of the world of work, including pathways into this world, held by students from a disadvantaged background accurate and complete?

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

- 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?

To address the accuracy of understandings, three subsidiary questions are considered.



These are:

- a. To what extent are young peoples' understandings of the relations between occupations within the world of work accurate?
- b. Is the accuracy of these understandings evenly distributed across various sub-groups of young people?
- c. What is the nature and significance for post-school plans of any inaccuracies in these understandings?

THEORETICAL APPROACH TO ANSWERING THE RESEARCH QUESTIONS

Under Gottfredson's (1981; 1996; 2002) theory of the development of vocational aspirations, young people seek to identify their preferred destinations in the world of work using three aspects of occupations to guide them. Typically, they seek jobs they perceive to be appropriate to their ability, gender and interests. The research questions are, therefore, addressed by considering the relations between: (1) ability, or in the case of these data, 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 shape occupational aspirations.

SOURCES OF DATA

Data for this study were taken from two main sources:

- a. A survey of families of high school students in Years 8 and 9 participating in The Smith Family's *Learning for Life* program. The survey data were also matched to administrative data (under strict conditions of confidentiality, including de-identification to ensure individual student and family anonymity). Appendix 1 provides information about the methodology used, and the response rate achieved.
- b. the Organisation for Economic Co-operation and Development's (OECD) Program for International Student Assessment (PISA), 2003 study (Thomson, Cresswell, & De Bortoli, 2004).

STRUCTURE OF THE REPORT

The substantive part of this report begins with a description of the gender, perceived abilities and interests of the survey respondents. It then considers how these factors are associated with educational and occupational plans. The following chapter examines the accuracy of students' understandings of the nexus between education and the world of work; how these may vary by different groups and what the consequences may be of any misunderstandings. The report concludes with an overview, summarising the main findings and suggesting some directions for further research.





Chapter Two

Gender, interests, ability and future plans

This chapter describes:

- Background characteristics of the Year 8 and 9 students who participated in the *Learning for Life* survey.
- The distribution of gender, interests and ability of these students.
- The school and post-school educational plans of these students.
- The occupational aspirations and plans of these students.

BACKGROUND CHARACTERISTICS

All the respondents were families of young people who were participants in The Smith Family's *Learning for Life* program. Participants in the *Learning for Life* program come from a family background of low socio-economic status.

Of the 3721 respondents, around 50% were in Year 8, 47% were in Year 9, and 3% indicated that they were in Year 10. These Year 10 students were excluded from the analyses reported here as they were outside the scope of the population definition.

Table 1 shows that responses came from all states and the Australian Capital Territory. Only three respondents came from Tasmania. (The Smith Family does not yet have a major presence in Tasmania or the Northern Territory.)

Table 1 Distribution of respondents by state or territory of residence

	Frequency	Percent
ACT	104	2.8
NSW	1263	34.0
Victoria	897	24.1
Queensland	839	22.6
South Australia	390	10.5
Western Australia	221	5.9
Tasmania	3	0.1
Total	3717	100.0
Missing	4	
Total	3721	

GENDER, INTERESTS AND ABILITY

Gender

Of all the respondents, 51.7% were female and 48.3% were male.

Vocational interests

The vocational interests of respondents were measured using the research form of the Australian Interest Measure (AIM)¹. This instrument measures the six types of vocational interest classified by Holland (1962; 1985; 1997)². The six types of interest, as named by Holland, are:

- Realistic – having an interest in (skilled or unskilled) manual work
- Investigative – having an interest in work involving abstract thinking, especially of a scientific type
- Artistic – having an interest in work involving the performing, visual or literary arts
- Social – having an interest in working with people to help or develop them, for example as nurses or teachers
- Enterprising – having an interest in work involving the exercise of power or entrepreneurial activities
- Conventional – having an interest in the routine handling of data and information, such as clerical or other office work.

The acronym RIASEC is often used in the literature when referring to these categories.

1. AIM © Career-Wise Propriety Limited. All rights reserved.

2. Appendix 2 contains the survey form. In this survey, question number 11 is made up of the AIM items.



People are, of course, more complex than the RIASEC classification denotes. Nearly everyone has a mix of interests. However, to keep the discussion as clear as possible, the area of most interest was the focus of analyses reported here. Table 2 shows the distribution of each of the RIASEC types. Over half the respondents have strong Artistic or Social interests, and few express Enterprising or Conventional interests.

Table 2 Distribution of respondents by RIASEC type

		Frequency	Percent	Valid Percent
Interest	Realistic	647	17.4	18.2
	Investigative	502	13.5	14.1
	Artistic	1002	26.9	28.1
	Social	1072	28.8	30.1
	Enterprising	222	6.0	6.2
	Conventional	115	3.1	3.2
	Total	3560	95.7	100.0
Missing		161	4.3	
Total		3721	100.0	

Interests are known to be associated closely with gender (Holland, 1985, 1997), and this was the case with the respondents to the *Learning for Life* survey. As Table 3 shows, very few of the females appear to have Realistic interests while nearly half have Social interests. In contrast over one third of the males have Realistic interests, and only 11.3% have Social interests.

Table 3 Distribution of respondents by RIASEC type by gender

		Sex of respondent		
		Female %	Male %	Total %
Interest	Realistic	2.4	35.2	18.2
	Investigative	5.0	23.9	14.1
	Artistic	32.7	23.3	28.2
	Social	47.5	11.3	30.1
	Enterprising	8.1	4.3	6.2
	Conventional	4.4	2.0	3.2
Total		100.0	100.0	100.0

Perceived ability

There was no objective measure of academic ability available from the survey, but a self-reported estimate was obtained by asking students: ‘Think of students in your year level, at your school. Generally how well do you do in your school subjects compared with them?’

Most of the respondents perceived themselves as having average or ‘a bit’ above average abilities. Table 4 shows that only 15% indicated that they did not do as well as other students.



Table 4 Perceived ability as indexed by how well respondents perceive they do in their school subjects

	Frequency	Percent	Valid Percent
Not as well as most	542	15.0	15.0
About the same as most	1815	50.1	50.4
A little better than most	921	25.4	25.6
A lot better than most	326	9.0	9.0
Total	3604	99.6	100.0
Missing	16	0.4	
Total	3620	100.0	

Further analysis showed that boys were more likely to indicate that they did not achieve as well as most (18%) compared with girls (12.3%). They were also less likely to report that they did 'a lot better than most' (7.8%) than girls (10.2%). This distribution is consistent with known patterns of actual achievement of boys and girls (Thomson et al., 2004). Further, the known distribution of academic ability suggests that around two-thirds of respondents should have indicated that they were about average – that is within one standard deviation of the mean. Some 65% indicated that this was the case. The evidence, therefore, suggests that most of the respondents appear to have a good idea of their ranking of their academic ability³ at school.

School and future educational plans

Respondents were asked at what year level they intended to leave school. Table 5 shows that nearly two thirds of respondents plan to leave at Year 12, but a large proportion did not know when they intended to leave (21.2%). In other words, one in five Year 8 and 9 students surveyed did not know how much schooling they intend to complete. In PISA 2003, 80.9% of respondents indicated that they would complete Year 12. However these students did not have a 'Don't know' option on the PISA survey form. They were also a little older. The PISA data come from a randomly selected, representative sample of Australian 15-year-old students, so differences between the *Learning for Life* and PISA samples probably indicates that the *Learning for Life* students are distributed differently across these variables.

Table 5 Year level at which it is planned to leave school

	Frequency	Percent	Valid Percent
Before end of Yr 10	55	1.5	1.5
End of Yr 10	280	7.7	7.8
During Yr 11	20	0.6	0.6
End of Yr 11	55	1.5	1.5
During Yr 12	20	0.6	0.6
End of Yr 12	2384	65.9	66.7
Don't know	759	21.0	21.2
Total	3573	98.7	100.0
Missing	47	1.3	
Total	3620	100.0	

3. Appendix 3 discusses the strengths and limitations of this approach to measuring ability.



Gender affects the year level at which students plan to leave school. As Table 6 shows, just on 10% of boys plan to leave at the end of Year 10, compared with 5.6% of girls. Some 72% of girls plan to leave at the end of Year 12, compared with around 60% of boys. In PISA these gender differences were also observed. For example, 84.9% of girls planned to complete Year 12 compared with 77.6% of boys.

Table 6 Year level at which it is planned to leave school, by gender

When planning to leave school	Sex of respondent		Total %
	Female %	Male %	
Before end of Yr 10	1.1	2.0	1.5
End of Yr 10	5.6	9.9	7.7
During Yr 11	0.5	0.6	0.5
End of Yr 11	0.7	2.4	1.5
During Yr 12	0.6	0.5	0.5
End of Yr 12	72.4	60.7	66.8
Don't know	19.1	23.9	21.4
Total	100.0	100.0	100.0

There is evidence that interests may also shape school plans (Ainley & Elsworth, 1997; Ainley, Jones, & Navaratnam, 1990; Ainley, Robinson, Harvey-Beavis, Elsworth, & Fleming, 1994; Naylor, 1984; Naylor, Elsworth, Care, & Harvey-Beavis, 1997). Figure 1 shows that those students with Realistic interests are more likely to plan to leave at the end of Year 10 and more likely to not know when they will leave school. They are less likely to plan to leave at the end of Year 12. The other interest types are broadly similar to each other regarding anticipated school leaving age, and so interests do not seem to be shaping the educational plans of these students.

Perceived ability also appears to influence when students plan to leave school. Those who perceive themselves as below average are more likely to plan to leave school during or at the end of Year 10. They are also more likely to not know when they will leave school. This can be seen in Figure 2. This is consistent with findings from the PISA data where the higher the reading literacy score of the respondent, the more likely they were to plan leaving school at higher year levels.

Figure 1 Year level at which it is planned to leave school, by interest type

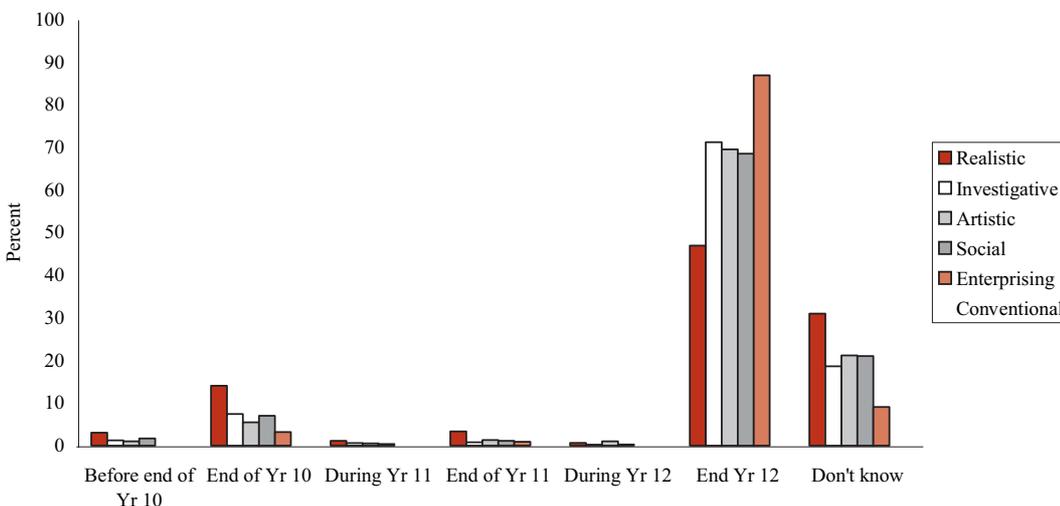
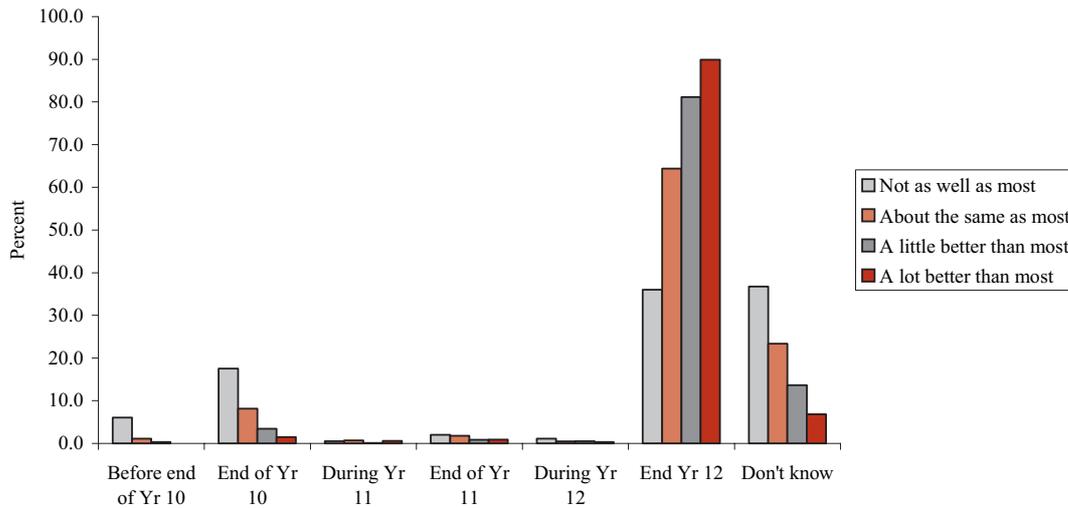


Figure 2 Year level at which it is planned to leave school by self-perceived ability at school

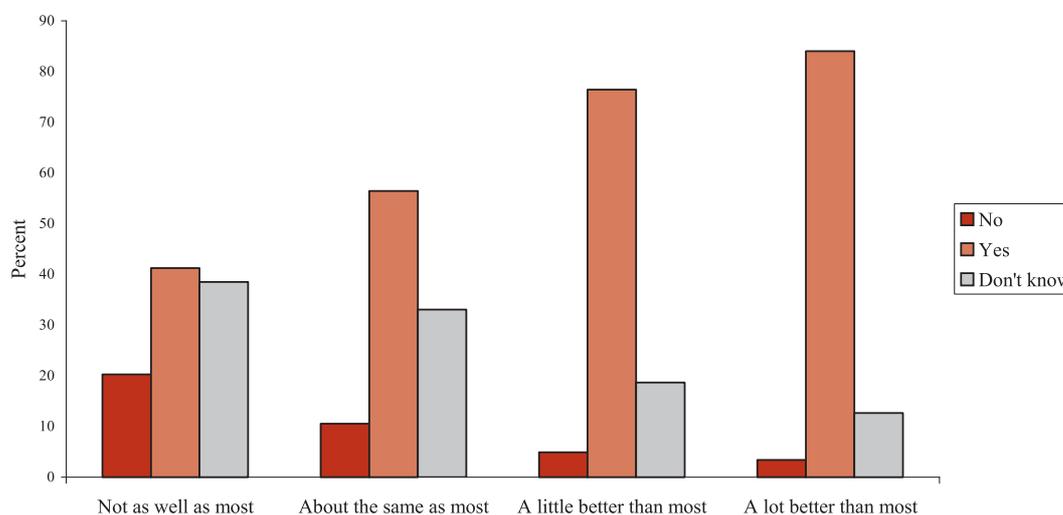


The Smith Family survey also asked families of students if they intended to study after leaving school, and if so, at what level. Of all those responding to the survey, 32.5% indicated that they planned to go to university for a degree. (This represents 52.3% of those who indicated that they planned 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 who indicated they planned post-school study).⁴

There were differences between males and females in post-school educational plans. Around 68% of females and 55% of males intended some form of post-school education. Just under 25% of females, compared with 31% of males, did not know if they would undertake any post-school study. Of those intending post-school study, just over 55% of females planned to go to university compared with 44% of males. Similar proportions of females (36.4%) and males (32.4%) intended to study at a TAFE, but more males (36.8%) intended an apprenticeship or traineeship compared with females (19.5%).

Vocational interests only significantly influenced plans for post-school study for those with Realistic interests. Around 17% had no plans for further study (compared with around 8% for other interest types). Only 50% planned further study, compared with other interest types, of whom 60% or more planned post-school study.

Figure 3 Whether it is planned to do any study after leaving school for each level of perceived school achievement (%)



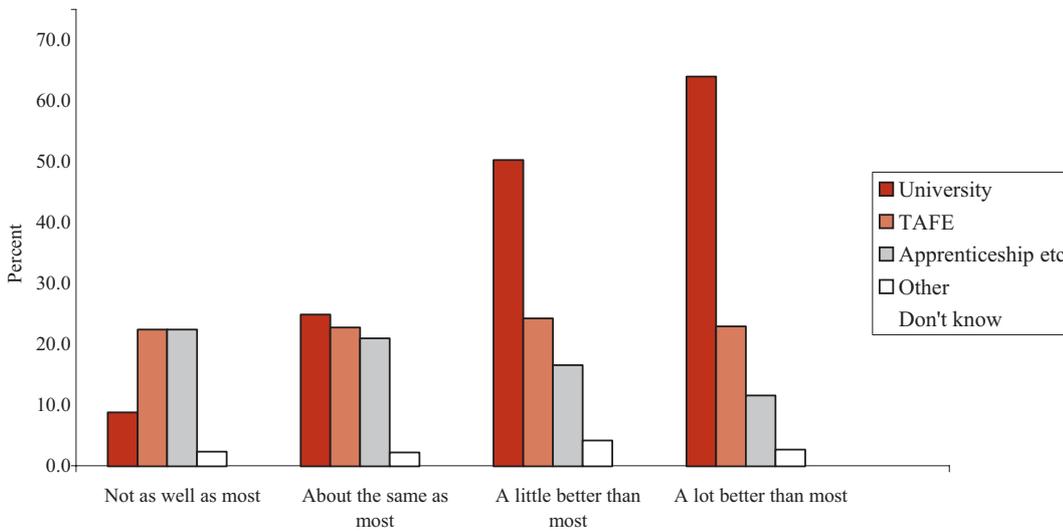
4. There was some double counting in these figures as respondents could indicate more than one post-school educational destination.



The perceived ability of young people clearly influences their post-school educational plans. Figure 3 shows that those who perceive that they are below average are more likely to have no plans for post-school education or to not know what they would like to do. As the perceived level of ability rises, so also does the proportion of those planning post-school education.

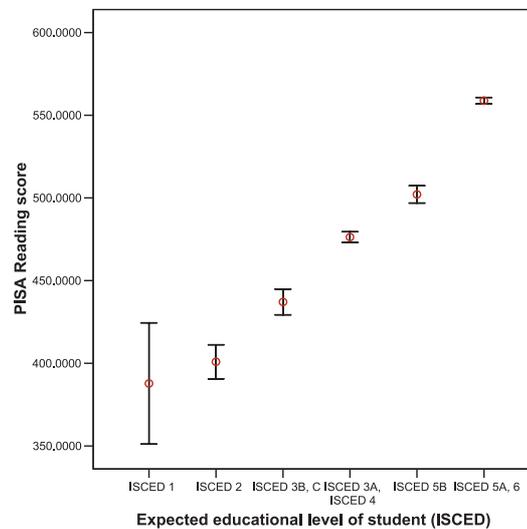
Figure 4 shows that for those intending post-school study, their planned destination varies according to their perceived school achievement. In particular, whether they planned study at university or not appears to be strongly associated with these perceptions. Interestingly, the proportion intending 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.

Figure 4 Planned post-school education for each level of perceived school achievement (%)



Similar patterns are seen in PISA data. Figure 5⁵ shows for example, that those who expected to leave school at the end of Year 10 (ISCED level 1⁶) achieved the lowest reading literacy scores while those who intended to go to university (ISCED level 5a) had the highest average scores.

Figure 5 Mean PISA reading literacy scores and highest planned level of education, showing 95% Confidence Intervals



5. In Figure 5 the mean is indicated by the small circle midway along each vertical bar. The vertical bar shows the 95% Confidence Intervals – that is, the range along which we would expect to find the mean from repeatedly drawn samples of the size used in this study. Where these intervals do not lap, it can be concluded that at a 95% level of certainty that the different levels found in this sample, will also be found in the population from which the sample was drawn.

6. ISCED – the International Standard Classification of Education, is the classification used by the PISA project to define educational levels.



Finally, an analysis of variance, contrasting those who planned study with those who do not, indicated that perceived ability was statistically significant, gender marginally significant and occupational interests were not significant.

SUMMARY

The educational plans of the Year 8 and 9 students in the *Learning for Life* program appear to be influenced by their gender, their perceived ability and to a lesser extent, their interests. Males, those who perceive themselves as below average in school achievement and those with predominantly Realistic interests, are more inclined to plan to leave school early, and to have no plans for post-school education. They are also less likely to know what they want to do following their schooling.

School and plans for work

This section of the report examines the relations between gender, interests and ability, and plans for entry into the world of work. The survey asked what job would the respondent most like at age 25. This job title was classified using the Australian Standard Classification of Occupations (ASCO) (Australian Bureau of Statistics, 1996). This classification then allowed the occupations to be reclassified into skill levels and occupational status.

ASCO is a skill-based classification with nine categories at its highest level of generality. These are:

- Managers and Administrators (coded 1 in ASCO)
- Professionals (coded 2)
- Associate Professionals (coded 3)
- Trades (coded 4)
- Advanced clerical and service workers (coded 5)
- Intermediate clerical and service workers (coded 6)
- Intermediate production and transport workers (coded 7)
- Elementary clerical sales and service workers (coded 8)
- Labourers and related workers (coded 9).

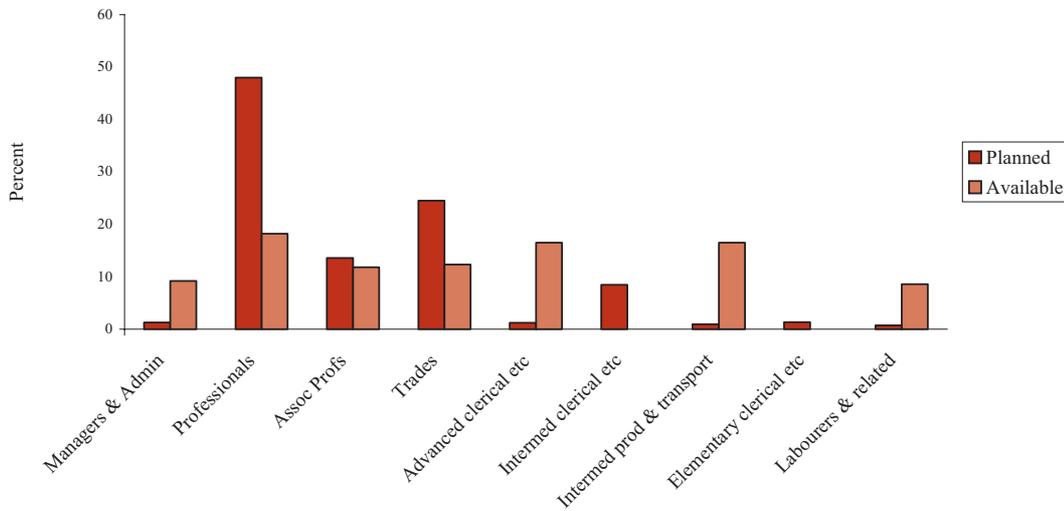
Figure 6 shows at what skill level the respondents would like to be working at age 25.

(Note about 30% of respondents did not provide information that could be classified as a job. Most who did not give a job title did not know what they would like to do at age 25. Other responses were not occupational titles – for example, ‘media’ – and others gave no response.) It can be seen in Figure 6 that nearly 50% would like a professional occupation and around 25% would like a trade. Figure 6 also shows the proportion of persons who were working at each of these skill levels at the time of the 2001 Census of Housing and Population⁷. It is clear that, proportionally, many more of the *Learning for Life* young people want professional and trade level occupations than are available in the Australian labour market. A comparison with PISA data shows that proportionally fewer PISA students indicated that they ‘expected’ a professional occupation (around 9%) than *Learning for Life* students. (Note however, the *Learning for Life* students were asked what job they would ‘like’, so this comparison needs to be treated with some caution. There were also age differences between the participants in both studies, the students in PISA were older.)

7. <http://www.abs.gov.au/ausstats/abs@census.nsf/ddc9b4f92657325cca256c3e000bdbaf/7dd97c937216e32fca256bbe008371f0!OpenDocument#Occupation>. Sourced February 2005

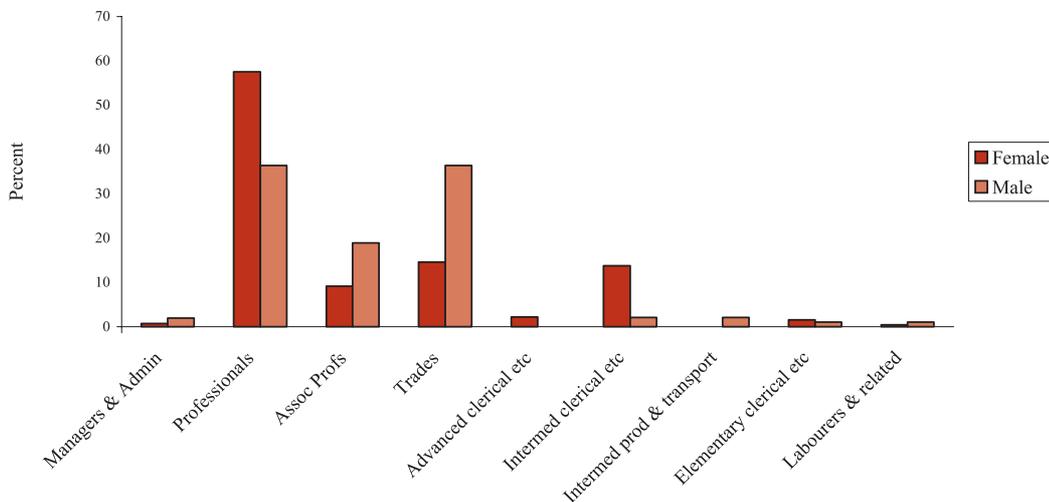


Figure 6 Skill level of occupations that respondents would most like to do at age 25 and proportion of persons employed in each level in Australia



An examination of Figure 7 shows that female respondents were more likely to prefer a professional occupation than boys, and that boys are more likely to prefer associate-professional occupations and trades.

Figure 7 Skill level of occupations most liked to do at age 25 by gender



Interests affect the liking for an occupation of a given skill level. For example, 60% of those with Realistic interests would like a trade and around 16% would like a professional level job. In contrast, for the other interest types, over 50% would like a professional job and 20% or less would like a trade level job.

Figure 8 shows how, at Years 8 and 9, students' perceptions of their achievement 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 a trade occupation.

The survey asked respondents if they expected to get their most liked job, and if not, why they might not get that job. Around 75% believed that they would get their preferred job, 24% did not

expect to get it, but they did expect to get a job. Less than 1% expected to be unemployed. This compares with a national unemployment rate as at January 2005 of around 5% for those over 20 years of age (Australian Bureau of Statistics, Labour Force Survey 2005). There were no statistically significant differences between males and females and only small differences between the different interest types on this variable. There were, however, large differences based upon perceived ability. Figure 9 shows, for example, that those who perceived themselves as having the lowest level of ability were more likely to expect to be unemployed and to not get their most liked job. As perceived ability levels rise so too does the expectation that occupational plans will be able to be successfully implemented.

Figure 8 Skill level of occupations most liked to do at age 25 by levels of perceived ability

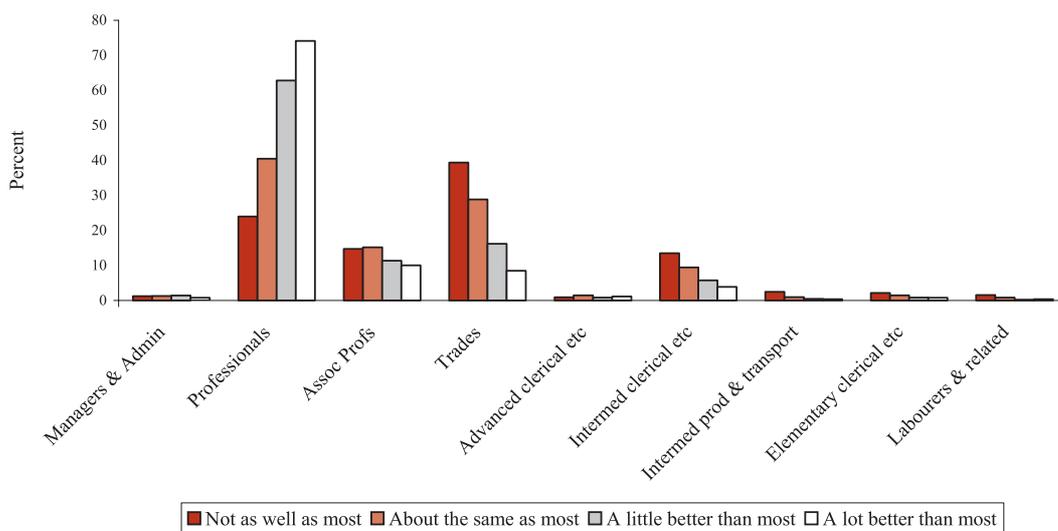
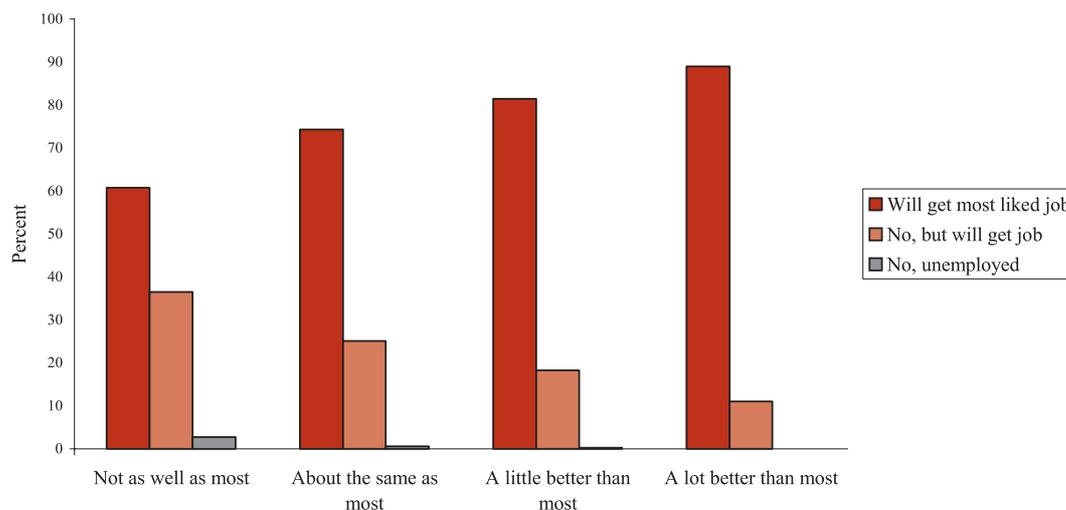
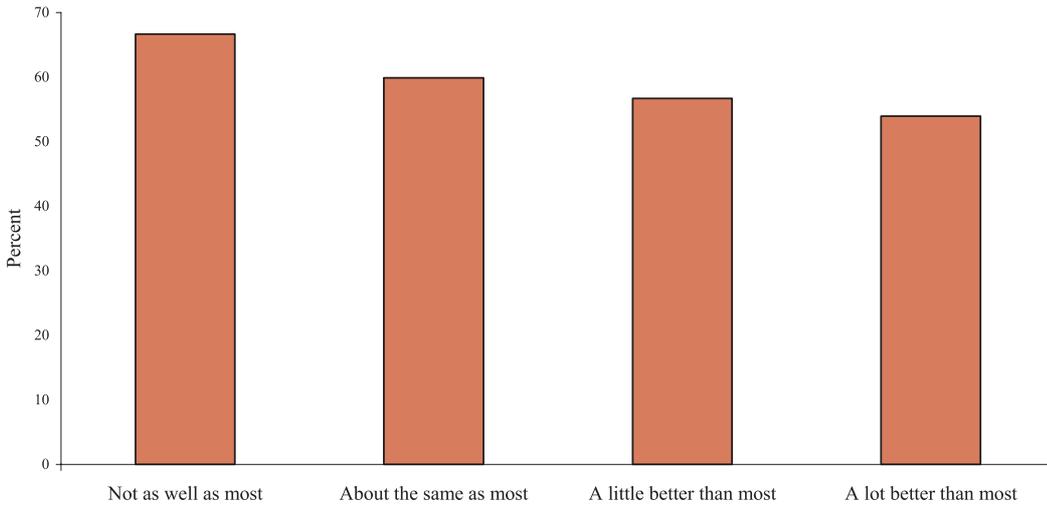


Figure 9 Whether or not the most liked job will be obtained, and if not, whether another job will be found or not



Respondents were asked to indicate the importance of a range of reasons for not getting their most liked job. For all students, ability – or the lack of ability – was seen to be an important explanation. Just over 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 low levels of perceived ability at school than others. As Figure 10 shows, the lower the student perceives their ability at school, the more important ability is seen to be as an explanation for a failure to implement their vocational aspirations.

Figure 10 Proportion of students who saw ability as important or very important as an explanation for why they might not get their most liked job by perceived levels of achievement

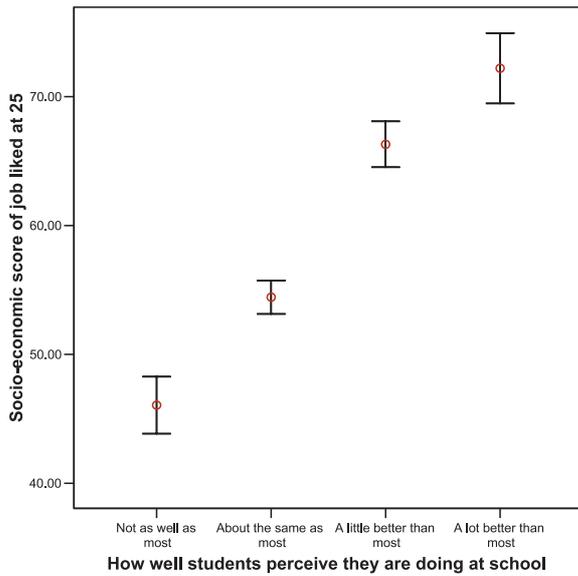


It is also possible to link ASCO categories to an index of socio-economic status – the ANU4 scale (Jones & McMillan, 2001). This provides a scale ranging from 0 – the lowest level of socio-economic status – to a high of 100.

Girls aspired for higher status occupations than boys. On average the social status score of their aspired for occupations was 62.7 (SD = 24.7) compared with the boys average of 53.2 (SD = 23.3). This difference is statistically significant. Students with Realistic interests aspired for occupations with a mean score of just over 40, compared with other interest types with a mean ranging from 58 to 72. This difference between Realistic and other occupational types is statistically significant.

Perceived ability is also associated with the socio-economic status of the most liked occupation. Figure 11 shows those who perceive themselves as achieving below average would most like occupations with an average level of socio-economic status of 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).

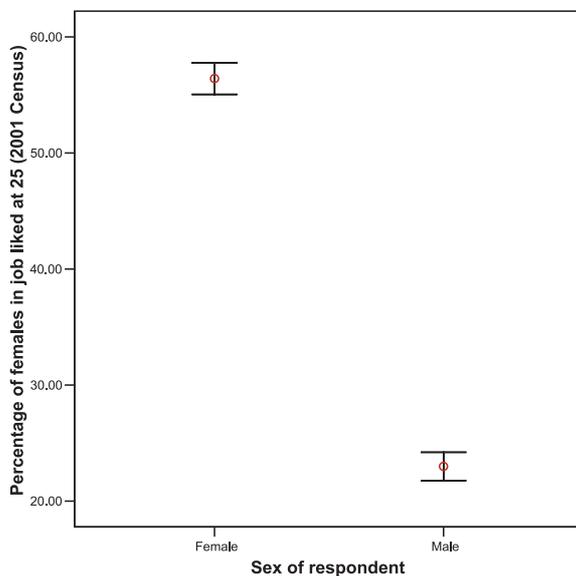
Figure 11 Mean levels of socio-economic status of occupation liked at age 25 by levels of perceived achievement at school



Thus, perceived ability at school appears to be associated with the socio-economic status of occupations that these young people would like to have at age 25.

Finally, it is also possible to link ASCO titles to the proportion of males and females working in each occupation. This was calculated and the average proportion of females working in occupations was calculated for those occupations that the *Learning for Life* students would like at age 25. There was strong evidence that girls would like occupations where more women work than men, and conversely that boys would like jobs where men are predominant. Figure 12 shows that girls liked occupations where the average female participation rate was around 55%. That is the average proportion of women working in the jobs preferred by the girls was 55%. In contrast, for boys the average female participation rate in the jobs they would like was around 20%. That is, boys liked jobs which, on average, have many more men than women working in them.

Figure 12 Mean levels of female participation within occupation liked at age 25 by gender



SUMMARY

The students who replied to the survey have vocational aspirations that appear to be shaped by their gender and perceived ability. Girls are more interested in the professions, and boys in trades. There was evidence also that girls prefer jobs in which more women than men work, and conversely boys prefer jobs where males are predominant. Perceived ability tends to influence job aspirations. Those with the lowest levels of perceived ability are least likely to prefer a professional level job and most likely to prefer a trades level job. They are also more likely to prefer a lower status occupation than other students.

There appears to be a gap between what the students would like to do and the availability of these jobs in the Australian labour market. In particular, proportionally more students would like a professional level or a trade level occupation than are available. These young people appear to be less attuned to the supply of jobs at different levels than the slightly older students who participated in PISA. The *Learning for Life* respondents also appear to not fully appreciate the level of risk that unemployment presents. It is likely around 5% will be unemployed, at current rates, but only 1% are expecting to be unemployed.

These findings suggest that Year 8 and 9 students in the *Learning for Life* program see entry into further education and the world of work as based upon educational achievement or ability. They also appear, to a certain extent, to be self selecting so that their perceived ability matches that required to successfully acquire the education and the job they would like. This appears to override social background because those students in the *Learning for Life* program who perceive themselves as having high ability, would like to attain, on average, higher levels of education, higher skilled jobs, and jobs with higher levels of socio-economic status than other students in the program. Despite this, there appears to be a mismatch between what these students would like to do – especially in terms of skill levels – and the availability of these jobs in the labour market. These students are not representative of all Australian Year 8 and 9 students, but this finding does raise questions about the extent to which these young people correctly understand the skill levels required for various occupations, and whether they know how and where these skills need to be acquired. It is to these questions that the report now turns.



Chapter Three

Understandings of education and work

This chapter examines the following questions:

- How accurate are young peoples' understandings of the educational requirements for occupations?
- Is the accuracy of these understandings evenly distributed across various sub-groups of young people?
- What is the nature and significance for post-school plans of any inaccuracies in these understandings of young people?

HOW ACCURATE ARE YOUNG PEOPLES' UNDERSTANDINGS OF THE EDUCATIONAL REQUIREMENTS FOR OCCUPATIONS?

The accuracy of young peoples' understanding of educational requirements was examined using the skill concordance between their educational intentions and their preferred occupation.

ASCO is a skill-based typology of occupations. Skills are defined in terms of educational requirements and years of experience. Thus it is possible to use ASCO to define the skill level needed for a job and match this to an educational level (Australian Bureau of Statistics, 1996).

The skill level of students' intended level of post-school education, if any, was determined by recoding data from Questions 9 and 10 of the survey (see Appendix 2). These asked if any post-school study was planned, and if so, at what level (university, TAFE, apprenticeship or 'other').⁸

The degree of agreement between the skill level of students' study plans and their intended occupation is shown in Table 7, for all students, and for boys and for girls. The table only includes those 2330 students who nominated both a desired occupation and a planned level of education.

Table 7 ASCO Skill levels for preferred occupation and intended level of education, all students and females and males

Planned education level		Skill level required for preferred occupation					Total	Percent
		Uni degree	TAFE diploma	TAFE Cert. 3 or 4	Lower Cert. or Year 12	Less than Yr 12		
Uni degree	All	765	78	66	40	6	955	41.0
	F	504	35	36	32	5	612	48.6
	M	261	43	30	8	1	343	32.0
TAFE diploma	All	117	68	147	68	9	409	17.6
	F	73	21	54	62	7	217	17.2
	M	44	47	93	6	2	192	17.9
TAFE Cert. 3/4	All	45	40	157	23	7	272	11.7
	F	20	10	42	16	3	91	7.2
	M	25	30	115	7	4	181	16.9
Lower Cert. or Year 12	All	176	87	148	66	12	489	21.0
	F	115	41	58	48	6	268	21.3
	M	61	46	90	18	6	221	20.6
Less than Yr 12	All	42	39	92	18	14	205	8.8
	F	19	10	26	11	4	70	5.6
	M	23	29	66	7	10	135	12.6
Total	All	1145	312	610	215	48	2330	
	F	731	117	216	169	25	1258	
	M	414	195	394	46	23	1072	
Percent	All	49.1	13.4	26.2	9.2	2.1		100.0
	F	58.1	9.3	17.2	13.4	2.0		
	M	38.6	18.2	36.8	4.3	2.1		

8. Respondents could indicate more than one destination, to take account of possibilities such as doing a TAFE diploma for credit towards a university degree (so saving on university fees). Where a respondent indicated more than one level of study was planned, the highest level was selected for the analyses reported here.



Table 8 shows a simplified version of Table 7, using percentages for all students only (that is, data for males and females are not shown). It comes from within the section bordered by a heavy line in Table 7.

Table 8 ASCO Skill levels for preferred occupation and intended level of education, shown as percentages

Planned education level	Skill level required for preferred occupation				
	Uni degree	TAFE diploma	TAFE Cert. 3 or 4	Lower Cert. or Year 12	Less than Yr 12
Uni degree	66.8	25.0	10.8	18.6	12.5
TAFE diploma	10.2	21.8	24.1	31.6	18.8
TAFE Cert. 3/4	3.9	12.8	25.7	10.7	14.6
Lower Cert. or Year 12	15.4	27.9	24.3	30.7	25.0
Less than Yr 12	3.7	12.5	15.1	8.4	29.2
Total	1145	312	610	215	48

In an ideal situation where students were fully informed about the level of education required to achieve their occupational goals, students might be expected to plan for a level of education that matches the level required by their preferred occupation. In such a case, cells on the table diagonal (marked in bold in Table 7) would be populated and other cells would be blank. Inspection of Table 7 shows that this is not the case. If students consistently wanted to undertake more education than is minimally required for their preferred occupation, cells above the diagonal would be more populated than those below it. This is not apparent, so it can be concluded that there is no strong bias towards seeking more education than minimally necessary.ⁱ

From a policy perspective, it is those students whose data appear below the diagonal in Table 7 (and Table 8) who are of most interest. They plan less education than is required to obtain the job they say they would most like to do. These students can be seen to be, therefore, at risk of making educational plans that will not allow them to achieve their vocational goals. Given this, the next task is to establish to what extent these apparent misunderstandings are distributed disproportionately across sub-groups of these students.

The distribution of misunderstandings across various sub-groups

Table 9 shows the number of respondents who planned less education than was needed for their most preferred job, those whose educational levels matched the requirements of the job, and those who were planning higher levels of education than were needed for their most liked job. It can be seen that 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.

Table 9 Number of Year 8 and 9 participants in *Learning for Life* program who plan too low a level, the correct level or too high a level of education for the job they would most like at age 25

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ed lower than needed	804	21.6	34.5	34.5
	Ed matches level needed	1071	28.8	45.9	80.4
	Ed higher than needed	456	12.3	19.6	100.0
	Total	2331	62.6	100.0	
	Missing	1390	37.4		
Total		3721	100.0		

However, as Table 10 shows, those who plan lower levels of education are much more likely to expect that they will not get the job which they would like to have at age 25. This suggests these students may have an understanding of the relevant pathways. Consequently, it is that group of respondents who both expect to get their liked job but who plan lower levels of education than are required for it that are investigated in this section of the report. There were 555 of these young people representing 23.8% of the respondents.

Table 10 Match of education and occupational levels by expectations of getting most liked job (%)

		Whether level of education planned is the same as level of education needed			
		Ed lower than needed	Ed matches level needed	Ed higher than needed	Total
Q13 Expect to get this job?	Yes	70.4	83.7	84.2	79.3
	No, but will get job	28.8	16.1	15.6	20.3
	No, unemployed	0.8	0.2	0.2	0.4
Total		100.0	100.0	100.0	100.0

While this group were the focus of the reporting which follows it should be noted that around 65% of this group recognized that their most preferred job required ‘a lot of education’ (Q15d). (They were asked how important education would be if they did not get the job they would most like.) However this was still at a lower rate than other students, indicating that even when asked to think about the amount of education required, this group, on average, was more inclined not to see the importance of education than other 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 Smith Family survey of *Learning for Life* participants asked them, not only about their educational and occupational plans and preferences but also about (a) their self-efficacy concerning schoolwork (Q3), (b) their feelings about school (Q4) and (c) the number of extra-curricular activities that they participated in through the school (Q7).

These variables are used in this section 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.

The survey also asked students about the extent to which they were vocationally aware and the extent to which they were decided about a job they would like in the future (Q17).⁹

All of these variables, plus those already described – gender, perceived ability and interests – are examined in an attempt to understand the errors that a large proportion of students appear to be making about the amount of education needed for jobs they would like to do.

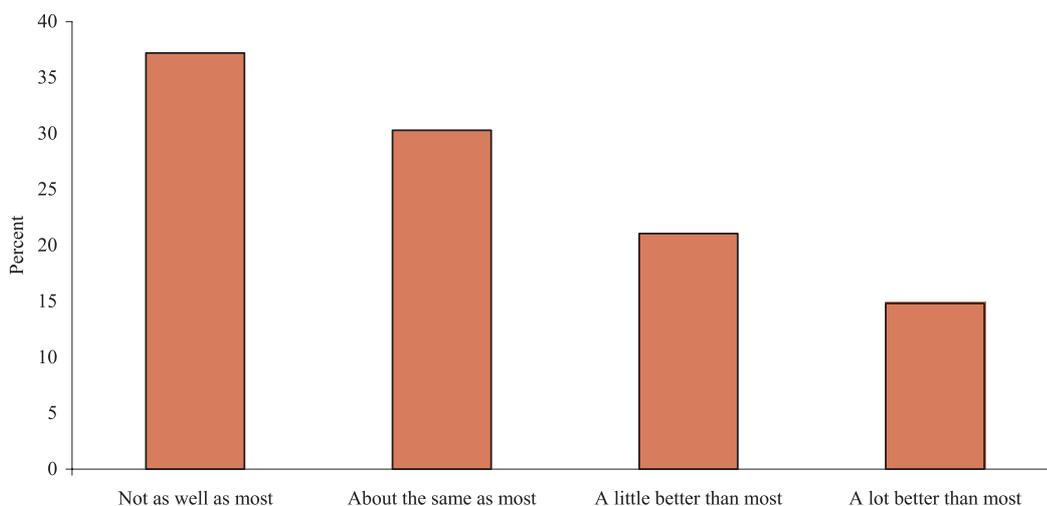
Gender

Of all females, 21.9% appear to misunderstand the required level of education for their most liked job. In contrast, 32.2% of males have this misunderstanding.

Perceived ability

Figure 13 shows 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 perceive that they 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.

Figure 13 Proportion of respondents who plan an education level too low for their preferred job and who expect to get this job, by level of self-reported ability at school

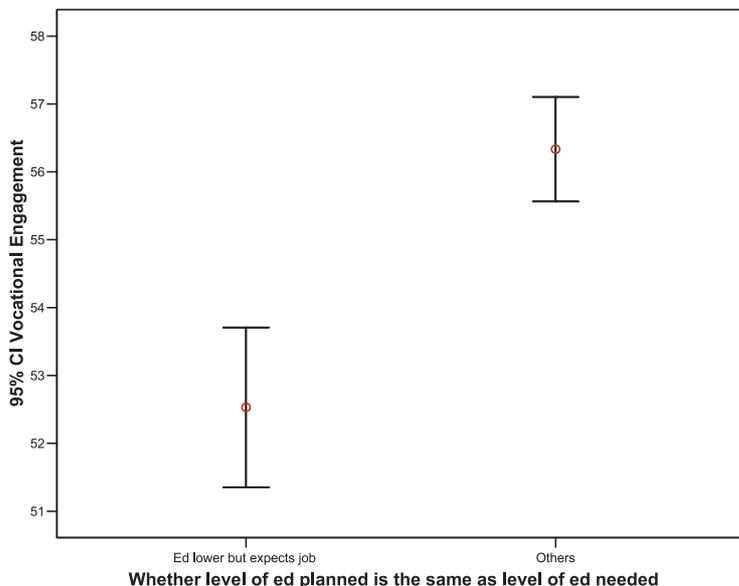


9. See Appendix 2 for the wording of these questions.

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.

Figure 14 Mean levels of vocational engagement contrasting those who plan an education level too low for their preferred job and who expect to get this job, with those who do not exhibit this apparent misunderstanding



However, using the interest data, it was also possible to construct a measure of ‘vocational engagement’. All responses on all the interest items (Q11) were summed and those with the lowest scores were seen to have the lowest levels of vocational engagement. As Figure 14 shows, on average, those who appear to misunderstand the educational level required for their most liked job are less vocationally engaged than other students.

Self-efficacy

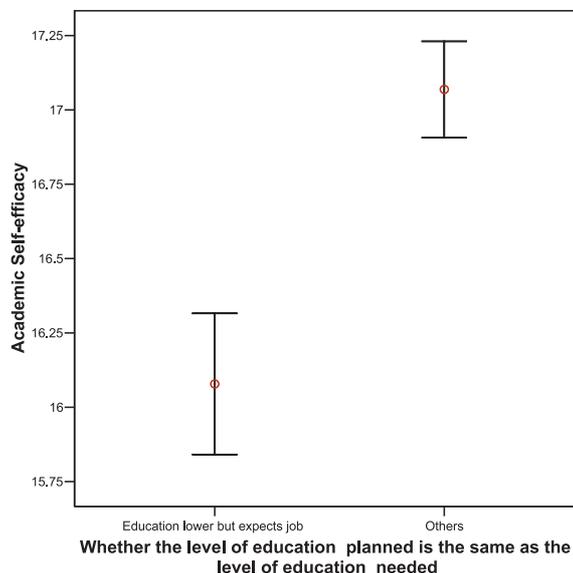
Self-efficacy refers to ‘the belief in one’s capabilities to organise and execute the sources of action required to manage prospective situations...’ (Bandura, 1997). The context to which self-efficacy refers in the questionnaire is schoolwork. Self-efficacy is associated with success in school.

Figure 15 Mean levels of self-efficacy contrasting those who plan an education level too low for their preferred job and who expect to get this job, with those who do not exhibit this apparent misunderstanding

Figure 15 shows that those who had planned a lower level of education than is needed for their preferred job have, on average, lower levels of self-efficacy than other Year 8 and 9 *Learning for Life* 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. The set of responses to these questions were summed creating a single score measuring school affect.

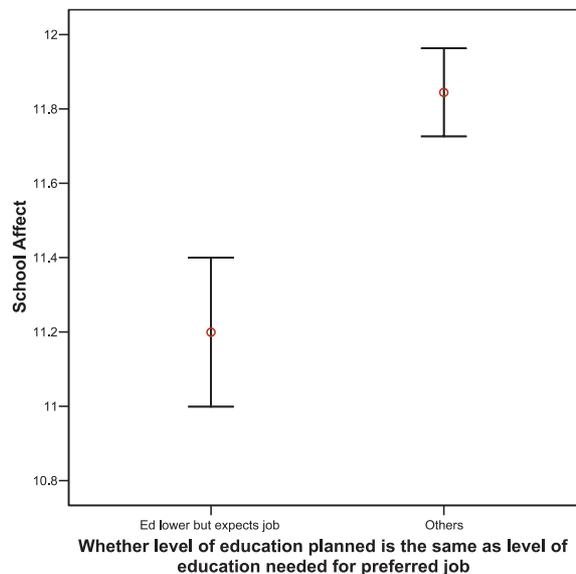
Figure 16 shows that those students who appear to misunderstand the pathways to their preferred job have less liking, on average, than other students, for school. The difference between these means is statistically significant.

Figure 16 Mean levels of school affect (liking for school) contrasting those who plan an education level too low for their preferred job and who expect to get this job, with those who do not exhibit this apparent misunderstanding

Number of extra-curricular activities

Students were asked about a range of extra-curricular activities that their school may have offered them. Marsh and Kleitman (2002) argue that students who participate in extracurricular activities – an index of engagement with school – generally display higher occupational aspirations. With the *Learning for Life* Year 8 and 9 students, however, there was no evidence of a difference between those who misunderstood 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 extra curricular activities are taken as an indicator of engagement with school, this finding suggests that level of engagement may not always be associated with more accurate information about the relationship between education and work.



Vocational readiness

Students were asked a number of questions about job choice and their thinking or level of engagement with this thinking. Those who believed that they would make a good choice 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 they preferred. This suggests that those who do misunderstand the educational requirements of their preferred job may have an inkling that they do need more information. They were more likely to acknowledge, for example, that they were not making good decisions and that they needed to do more thinking about their future career. In this assessment they are correct.

Overview

Just under half of the Year 8 and 9 *Learning for Life* 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 are needed and over one third plan to obtain a level of skill too low for their most preferred job. It is this last group which has been examined in detail. It shows this group has higher proportions of:

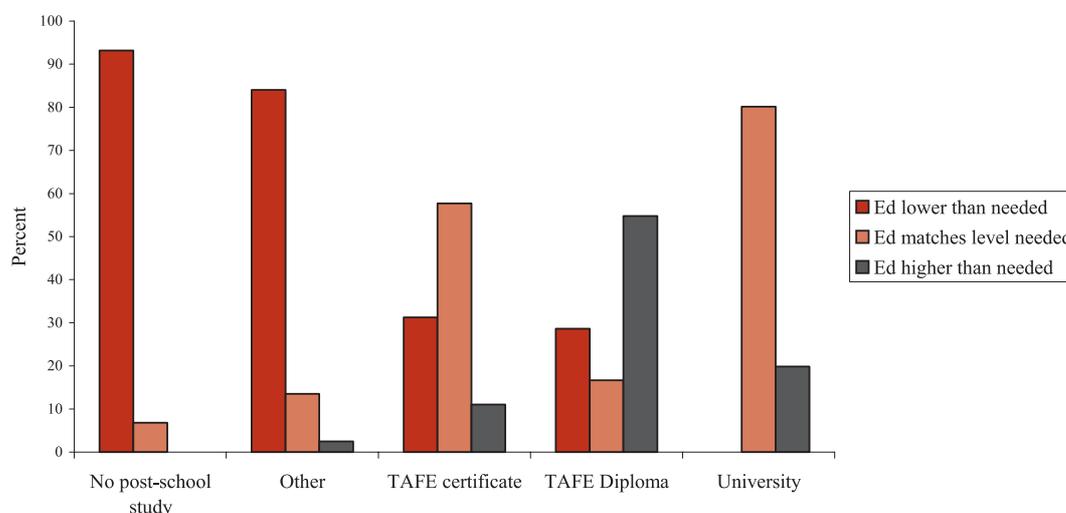
- boys than girls
- students reporting below average achievement in school
- students with low levels of vocational engagement
- students who, on average, do not like school as much as other students.

Vocational interests and the amount of extra-curricular activity were not associated with this group in any systematic or significant ways.

Overall, these appear to be students who do not like being in school, who do not do well there and hence, it might be expected, are keen to leave. Indeed, of those whose planned education was lower than needed for their jobs, only 58% intended to complete Year 12, compared with 81.5% whose planned educational and occupational levels matched. This group was also much more likely to be uncertain about when they would leave school, 25.8% did not know compared with 11% for those whose plans matched skill levels.

Finally, this group of students, whose educational and vocational plans mismatch, appear to be particularly keen to disengage from education. As Figure 17 shows, they are particularly likely to plan no post-school study. This may not be a problem if their most preferred job did not require this education, but on the basis of the evidence they have provided, it seems likely that they do need this education to achieve their goals. Their plans are likely to lead to outcomes they do not appear to desire.¹⁰

Figure 17 Highest level of planned education by each level of skill match between planned education and preferred occupation



THE SIGNIFICANCE OF ANY INACCURACIES FOR POST-SCHOOL PLANS

The students who answered the survey were in the early years of secondary school. The world of work may appear to them a long way off, and so it might be expected that educational and occupational plans are ill-defined. According to Gottfredson's (1981; 1996; 2002) theory of the development of occupational aspirations, however, the rudiments of these plans should be laid by these years. In particular, it would be expected that students would have located their destinations broadly in the world of work, taking account of their gender and the amount of effort required to obtain a job in this location. Thus, these data show that these students have largely done this, and in fact many were able to nominate a specific occupation that they would like to do as an adult. The relative unimportance of interests in the data is consistent with Gottfredson's arguments that

10. Schools, it should be noted, do more than give young people a chance to acquire skills. They provide, for example, a legitimate place and space for children and youth. Additionally, involvement with school reduces chances of engagement with the juvenile justice system and subsequent criminality. However, for those students with a strong sense of vocation, there is little reason to expect that early school leaving will lead to an increased risk of criminality or other forms of marginalisation.

these are, chronologically, the last aspects of the self and the world of work to develop because of their cognitive complexity.

So, broadly, these students appear 'on track' in developmental terms, towards acquiring an understanding of themselves and the world of work. What is less clear, however, is *the extent to which they understand the routes into this world – how to get to where they want to go.*

Less than 50% of these students had plans which optimally matched their preferred occupation to the skill levels they were planning to achieve via their education. Some were planning 'too much' education. (This should not be seen as a problem if the students view their education for its intrinsic worth and not the extrinsic benefits. Nor is too much education likely to preclude them from their preferred job.) However, 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 centrality of work in the lives of people (Holland, 1985, 1997) as well as the importance of distributing people to occupations and employment as efficiently as possible to society, this mismatch is of concern at a number of levels including family, school, community and nation. Furthermore, the employment choices available to those whose educational level is too low for their preferred job are likely to become limited. This may also increase their risk of unemployment or under-employment.

The examination of the characteristics of those whose educational plans do not appear to provide the correct pathway to the destination planned, 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 their future involve active engagement in the world. The course they are setting will not enable them to implement these vocational plans. This suggests a need to assist these students to adjust their plans – or redefine their destinations.





Chapter Four

Conclusion

This report examined the educational and occupational plans and aspirations of young people in Years 8 and 9 who were participants in The Smith Family's *Learning for Life* program. It aimed to describe how these young people are preparing for their later years of education and their entry into the world of work and the factors that shape these plans. A previous Smith Family report, *Post-school plans*, has already shown that the plans of young people are important. These plans indicate the kinds of opportunities that young people envisage, and the pathways they are likely to take from education into the world of work.

There appears to be little research on the educational and vocational plans of students in the early years of secondary schooling in Australia. Using Gottfredson's (1981; 1996; 2002) theory of the development of occupational aspirations as a guide, it can be expected that these plans will, in broad outline, predict later plans. In particular, it is likely that students of this age will have identified a sense of their overall ability and what jobs are suited to this level of ability. These students would, according to Gottfredson's theory, also be guided in their thinking by their gender. The girls will tend to prefer occupations typically attracting more women than men, and the boys will tend to prefer occupations attracting more men than women. However, some young peoples' plans will not have begun to crystallise, and they will not know what they will want to do.

This study aimed to describe the plans of these Year 8 and 9 students in the *Learning for Life* program, and to see to what extent they correctly understand pathways from education to work. This was achieved by asking about their educational plans and the job that they would most like to do at age 25 and then examining if their educational plans, if implemented, would provide the necessary skill levels required to take up this job. Some consideration was also given to how well they understood the realities of job availability in the labour market. Once these plans were described, how and why they varied was also investigated. There was a special focus on those students whose plans appeared to involve a misunderstanding of the educational

requirements required for the job they would like to do.

THE RESEARCH QUESTIONS

The specific research questions addressed were:

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

This last question was extended to consider the characteristics of those who appear to have a poor understanding of the pathways they need to take into the world of work.

THE THEORY

According to Gottfredson's (1981; 1996; 2002) theory, young people seek to identify their preferred destinations in the world of work using three aspects of occupations to guide them: ability required, the typical gender in the job and interest type associated with the job. The research questions were, therefore, addressed by considering the effects of: (1) ability, or in the case of these data, self-perceived ability; (2) gender; and (3) occupational interests, on educational and occupational plans.

THE DATA

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.

EDUCATIONAL PLANS

The key findings from the study concerning educational plans were:

- Around 21% of students did not know if they would complete school at Year 12.



- Two thirds of students did plan to complete Year 12.
- Girls were more likely to plan to complete Year 12 (72%) than boys (61%).
- Students with Realistic interests were more likely to plan to leave at the end of Year 10 and were more likely to not know at what level they will leave school.
- Students who perceived themselves as below average in how well they do at school were more likely to plan to leave school at the end of Year 10, and were more likely to not know at what level they will leave school.
- Around 10% of students planned to do no further study after leaving school, a little over 60% planned post-school study and 28% did not know if they would study after school.
- Just over half of those intending post-school study planned to go to university, 37% planned to go to TAFE and over 30% planned to do an apprenticeship or traineeship. (Note, because of structure of the question, there was some unavoidable double counting in these figures.)
- More girls (68%) than boys (55%) planned post-school study, and more girls planned to go to university than boys but more boys (36%) planned to do an apprenticeship or traineeship than girls (19.5%).
- Those who perceived they had below average levels of achievement at school were more likely to have planned no post-school education, and if they were planning post-school education, more likely to plan an apprenticeship or traineeship.
- An analysis of variance contrasting those who planned study with those who do not, indicated that perceived ability was statistically significant, gender marginally significant and occupational interests were not significant.

An examination of the educational plans of these students indicates that there is a substantial minority who do not know what they want to do. Boys and those students who perceive themselves as below average in their school work, were more likely to not know what they will do, or if they did know, to plan lower levels of education than others.

Those students who perceived themselves as below average and who were planning a lower

level of education than other students, appeared to be acknowledging the constraints imposed by their perceived level of ability. This implies that they have appraised their chances of success.

OCCUPATIONAL PLANS

The key findings from the study concerning occupational plans were:

- Around 70% of students could nominate an occupation that they would like at the age of 25.
- Of those nominating an occupation, 50% indicated they would like a professional level job and 25% would like a trade level job.
- Girls were more likely to prefer a professional job than boys, and boys were more likely to prefer a trade than girls.
- Around 75% of students expected to get the job that they would like to do at age 25.
- The expectation that the student would get their most liked job was associated with perceived ability. Those who perceived themselves as achieving below average at school were less inclined to expect to get their preferred job.
- Some 60% of students saw lack of ability as an important explanation for a failure to obtain a job, with those who perceived themselves as below average at school as more likely to see this as an important explanation.
- A little over 50% of students indicated that one of the reasons that they might not get the job they most liked was that they did not know how to get it.
- Girls aspired, on average, for higher socio-economic status jobs than boys.
- Girls aspired for jobs which have more women than men working in them and boys aspired for jobs which have more men than women working in them.

The *Learning for Life* students have vocational aspirations that appear to be shaped by their gender and perceived ability. There was little evidence of vocational interests being important. There was evidence also of a lack of understanding about the availability of professional and trade level jobs in the labour market.

The importance of ability, or perceived ability, that these students see in both their educational and occupational plans suggest that they view entry into further education and the world of work as governed by an individual's capacity. They also appear, perhaps as a consequence, to match their perceived ability to their educational and vocational goals. This tendency appears to override their socio-economic background because those students in the *Learning for Life* program who perceive themselves as having high ability, would like to attain, on average, higher levels of education, higher skilled jobs, and jobs with higher levels of socio-economic status than other students in the program.

THE ACCURACY OF EDUCATIONAL AND OCCUPATIONAL PLANS: FINDINGS AND IMPLICATIONS

The key findings from the study concerning the accuracy of educational and occupational plans were:

- Around 35% of students planned education that would be at too low a level for the occupation that they would like at the age of 25.
 - Just over 45% of students planned an education that would provide them with a level required for the job they would like.
 - Of those whose educational level was too low for their preferred job, 70% expected that they would get this job.
 - Boys were more likely than girls to have a mismatch between their planned educational level and the skill level of their preferred job.
 - Those who perceived themselves as below average at school were more likely to have a mismatch between their planned educational level and the skill level of their preferred job.
 - Self-efficacy (having the belief that one is able to do school work) and happiness at school were also associated with educational and occupational skill level mismatches. Those who had lower self-efficacy and were less happy at school were more likely to plan an educational level too low for the skill level of their preferred job.
- Of those whose educational and vocational plans mismatched, 58% intended to complete Year 12 (compared with 81.5% whose educational and occupational plans matched).
 - Of those whose educational and vocational plans mismatched, more were likely to be uncertain about when they would leave school.
 - Those students whose educational and vocational plans mismatched were likely to plan no post-school study.

In general, students whose educational and vocational plans mismatch, appear to be keen to disengage from education. If their most preferred job did not require more education than they planned, this disengagement might not represent a problem (which is not to argue that school disengagement is not important for other reasons, especially for those who do not have a strong sense of vocation). However, currently, their plans to disengage from education appear likely to lead either to outcomes they may not desire or away from the outcomes they desire.

FINAL COMMENTS

For many of the students in this study, the world of work may seem a long way off.

But, according to Gottfredson's (1981; 1996; 2002) well supported and researched theory of the development of occupational aspirations, these students should be starting to make those plans. This study shows that these students in *Learning for Life* have, indeed, begun to locate parts of the world of work that they like – guided by their gender and constrained by perceptions of their ability. Some students are beginning to identify paths that they will need to follow in order to enter the world of work. However, it appears a sizeable proportion of them do not properly understand 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 that 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, 1985, 1997), this mismatch is of concern.



The students whose educational plans do not appear to provide the correct pathway to their planned destination, tend to be those who are not happy at school, and who think they do not do well there. However they should not be seen as marginalised nor dispirited – most of these students plan an active engagement in the world of work, across a wide range of occupations. The directions they are setting, 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. At this point, it is likely that their families, schools, communities and society more generally could be expected to play an important role. Labour and educational ‘markets’ do not work as well on ‘imperfect knowledge’.

Many of 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 more accurate. For others, there is only a short period of time before they leave school. For these, the provision of information and support may be more quickly needed, especially if these early leavers do not have a strong sense of vocation.

Students 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.

This research also raises further questions:

- How do students acquire their accurate, or inaccurate, perceptions of the world of work, especially concerning the level of education required?
- What further can be learnt about school disengagement and the distribution of its effects? For example, is a young person who has a strong sense of vocation and does not require high levels of education at the same risk as others who are disengaged from education? Is it school rather than education or learning from which they disengaged? Do they see the world of work as an opportunity to learn in a way better suited to them? For those

who do appear to be at risk of the negative effects of school disengagement, what can be done by organisations such as The Smith Family to address the problem? In brief, what are the (policy malleable) predictors of risky disengagement from school?

- Why do girls appear to be more informed about the nexus between education and the world of work than boys? What support, if needed, might work for boys?

Overall, it is clear that Year 8 and 9 students in the *Learning for Life* program of The Smith Family are developing educational and vocational plans and preferences. Many will not yet have had a chance to implement choices because much of the curriculum is fixed, schooling is compulsory and so options are few. However, it does appear as if they are evaluating themselves in preparation for these future decisions. Their perceived ability and their gender appear, at this stage, to be the two main dimensions by which they undertake this assessment, and it is these which are guiding the formation of plans for their future education and work. These plans, however, are not always informed by a sound understanding of the ways needed to realise them.

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Appendix 1: Methodology and Response Rate

This section of the report describes the study's methodology and response rate of The Smith Family survey of *Learning for Life* young people who, in 2004, were in Years 8 or 9 at secondary school.

METHODOLOGY

The data collected specifically for this study came from two sources:

- A survey was mailed to the families of young people, who were participants in the *Learning for Life* program.
- The collation of de-identified administrative data, collected as part of the *Learning for Life* program and held by The Smith Family.

The survey was mailed to families after The Smith Family had advised Education Support Workers and Community Program Managers that the survey was to be conducted. These staff were asked to encourage families to respond to the survey.

Accompanying the survey was a reply paid envelope. Respondents were assured of confidentiality, and de-identification to maintain privacy.

All families with young people in the *Learning for Life* program, attending Years 8 or 9, were sent a survey to their home address. The survey forms were posted late in Term 3 and early in Term 4, 2004.

THE DATA COLLECTION

A short questionnaire was constructed, guided by research issues arising from the *Post-school plans* report, in close consultation with staff at The Smith Family. Appendix 2 provides a copy of the survey.

Other data were collected from administrative records under conditions of anonymity using an identity number as a link between the records and the survey data. These data provided information on the gender of the respondent, their favourite school subjects and what they would like to do after school. These data were collected prior to the administration of the survey.

RESPONSE RATE

A total of 3721 completed surveys were returned, representing a response rate of just under 75%. This is an excellent response rate. It was achieved, at least in part, because of the support given to the survey by Education Support Workers, Community Program Managers and other Smith Family staff, including the Chief Executive Officer.

Appendix 2: Survey Instrument

This appendix contains a copy of the survey instrument and the accompanying covering letter and instructions sheet.

COVERING LETTER

Dear *Learning for Life* Family,

The Smith Family has commissioned the Australian Council for Educational Research to survey some of our *Learning for Life* families. We would like you to help us by distributing the enclosed survey forms to any *Learning for Life* students in your household. There is one survey form for each *Learning for Life* student in Years 8 to 12. (Each survey indicates the student who should complete it.)

The survey will help The Smith Family better understand *Learning for Life* students' experience of education and their job plans. The findings will guide us in working more effectively with our students and their families by identifying factors that help students understand connections between school, work and their choice of a vocation or career.

The survey and instructions on how to complete it are enclosed. A postage paid, addressed envelope is also provided for posting the completed survey. Responses to the survey will be treated in strictest confidence and no one will be identified in any of the associated findings or analysis. A report, utilising the findings from the survey, *Student perceptions of the world of work, school and vocation*, will be published in March 2005. It will be available through our website at www.smithfamily.com.au.

We thank you very much for helping us carry out this important research.

Yours sincerely,



Elaine Henry
Chief Executive Office
The Smith Family

INSTRUCTIONS

In the envelope you have just opened you will find one or more surveys, each accompanied by a reply paid envelope.

Please give out these surveys and envelopes following the instructions below.

On the front of each survey you will find the name of one of your household who is a *Learning for Life* student.

1. Please give the survey to the student whose name appears on the front of the survey, along with one reply paid envelope.

It is very important that the student who completes the survey does so using the one with their name on it.

2. Ask the student to complete the surveys and, when finished, it should be put straight in the envelope and posted as soon as possible.

As soon as the surveys are returned, the name of the *Learning for Life* student will be immediately removed. We only need their name on it so we know to send reminders if they forget to return the survey.

If you have any questions please contact your Education Support Worker.



everyone's family

The Smith Family Survey

conducted by the
Australian Council for Educational Research
2004



ABOUT THIS QUESTIONNAIRE

Who?	This survey is intended for selected families who receive <i>Learning for Life</i> support from <i>The Smith Family</i> .
Why?	The survey is collecting information about young people, their education and job plans. This information will help <i>The Smith Family</i> to better understand how it can best work with young people and their families.
How?	For most questions you only need to tick a box.
When?	Please complete and return the survey within the next seven days.
How long?	Do not spend too much time on any one question.
Where?	Use the envelope that comes with this questionnaire to return it to the <i>Australian Council for Educational Research (ACER)</i> . They are conducting the survey for <i>The Smith Family</i> . If you lose the envelope, then please send the completed survey to: <i>Australian Council for Educational Research</i> <i>The Smith Family Study</i> <i>Reply Paid 63589</i> <i>Private Bag 55</i> <i>CAMBERWELL Vic 3124</i> If you use this address, you don't need to pay postage.
About ACER?	ACER is a non-government, not-for-profit company that does educational research. You can find out more about ACER at www.acer.edu.au .
Use of the data?	The data collected from this survey will be analysed for <i>The Smith Family</i> by the <i>Australian Council for Educational Research</i> . No one will be identified and no one's name will be used in any way. Please do <u>not</u> put your name on this questionnaire.
Any questions?	If you have any questions please contact your Education Support Worker.

If you prefer not to do the survey, please leave it blank and return it to ACER. If you do this we will not send you reminders and this will save both of us time!

Thank you very much for your help.



PART 1: SCHOOL AND HOMEWORK

Q1 What year are you in at school?

Please tick one box only.

Year 8

Year 9

Other *Please tell us.....*

Q2 Think of students in your year level, at your school.

Generally how well do you do in your school subjects compared with them?

Please tick one box only.

Not as well as most

About the same as most

A little bit better than most

A lot better than most

Q3 How much do you disagree or agree with the following statements about how you feel when doing schoolwork?

Please tick one box on each row.

	Strongly disagree	Disagree	Agree	Strongly agree
a. I believe I can get good results.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. I can do homework even when it is difficult.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. I am confident that I can get good results at school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. I am sure that I can master the most difficult schoolwork.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. I am certain that I can understand even the most difficult problems at school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q 4 My school is a place where ...*Please tick one box on each row.*

	Strongly disagree	Disagree	Agree	Strongly agree
a. I feel happy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. I really like to go each day.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. I get enjoyment from being there.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. I enjoy what I do in class.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q5 About how long did you spend doing homework after school yesterday (or the last day you were at school)?*If you did no homework on this day, then please write 0 and go to Q 7.*

..... Minutes

Q6 Were you able to complete all of the set homework?No Yes **Q 7 As well as the subjects they teach, schools sometimes organise different activities for students. How often do you take part in the following school-organised activities?***Please tick one box on each row.*

	Not available	Never	Once a year or less	At least once a month	At least once a week
a. Sport	<input type="checkbox"/>				
b. Music, band or orchestra	<input type="checkbox"/>				
c. Debating	<input type="checkbox"/>				
d. Drama, theatre, dance or the school play	<input type="checkbox"/>				
e. Chess	<input type="checkbox"/>				
f. Community or support work at school	<input type="checkbox"/>				

PART 2: YOUR FUTURE PLANS

Q8 When do you plan to leave school?

Please tick one box only.

- Before the end of Year 10
- At the end of Year 10
- During Year 11
- At the end of Year 11
- During Year 12
- At the end of Year 12
- I don't know, or, I have not made up my mind yet

Q9 Do you plan any further study after you leave school?

Please tick one box only.

- No *Please go to Q11.*
- Yes
- Don't know *Please go to Q11.*

Q10 If you think you may do further study after school, do you plan to ...

Please tick as many boxes as apply. (For example if you plan to go to TAFE then to University you should tick boxes 'a' and 'b'.)

- a. go to university for a Degree.
- b. go to TAFE for a Diploma or Certificate.
- c. do an apprenticeship or traineeship.
- d. do other study. *Please tell us.*
-
- e. I don't know what I plan to do.

PART 3: YOUR INTERESTS

Q11 Look at each of the following activities. Tick the box that shows how **INTERESTED** you are in each activity.

Work quickly here. Your first answer is best.

Please tick one box on each row.

Please make sure you do each row.

	Not interested	A little interested	Interested	Very interested
01. Have a garage workshop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
02. Program a computer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
03. Paint pictures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
04. Mind children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
05. Campaign politically	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
06. Prepare reports and graphs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
07. Replace a tap washer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
08. Solve a scientific problem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
09. Make bronze sculptures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Go doorknocking for charity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Address a crowd	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Translate important documents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Maintain tools and equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Find a new vaccine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Do drawings and sketches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Comfort a distressed person	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Run for election	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Organise files and records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Tune a car engine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Make a major scientific discovery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Create animated cartoons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Help people cope with emergencies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Make public speeches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Be in charge of a large office	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. Install new light fittings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. Direct scientific research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. Paint landscapes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Help rehabilitate accident victims	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Be a parliamentarian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. Design a new accounting form	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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PART 4: WORK AND FUTURE JOBS

Q 12 What job would you most like to do when you are 25?

If you do not know what you would like to do, just write 'Don't know' and go to Q 17.

a) Name of job:

b) What are the main tasks you would do in this job?.....

.....

Sometimes it is not always possible for us to get the job we would like to do.

Q 13 Do you expect you will be able to get the job you would like?

Yes *If yes, please go to Q 15.*

No, but I expect I will get a job *Please go to Q 14.*

No, I expect to be unemployed *Please go to Q 15.*

Q 14 What job do you expect to have when you are 25?

If you do not know, just write 'Don't know'.

a) Name of job:

b) What are the main tasks you would do in this job?.....

.....

Q 15 Below are a number of reasons people may give for not getting a job.

If you do not get the job you would most like, how important do you think each reason would be?

Please tick one box on each row.

	Not at all important	Unimportant	Important	Very important
a. It is a job that members of the other sex usually do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. I do not think I have enough ability to get the job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. It will require too much effort to get the job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. It needs a lot of education.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. There are not many of these jobs about.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. I do not know how to get this job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Other. <i>Please tell us.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Q 16 Thinking about the job you would like to have when you are 25, what level of education do you need for this job?

Please tick only one box.

- Before the end of Year 10
- Completed Year 10
- Completed Year 12
- Certificate or diploma level (TAFE), includes apprenticeship or traineeship qualifications
- University degree
- Other. *Please tell us:*.....

Q 17 How much do you disagree or agree with the following statements about work?

Please tick one box on each row.

	Strongly disagree	Disagree	Agree	Strongly agree
a. If I had to make a choice about jobs now, I would make a good choice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Deciding about a career is one of the most important decisions I will have to make.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. I enjoy thinking about and making plans for my future working life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. If I had to work now, I could still enjoy myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. I am quite clear in my thinking about choosing a career.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. I can't understand how some people can be so sure about what they want to do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. It would be easy to find satisfaction with life if you enjoy your job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Thank you for completing this questionnaire
Your help is very much appreciated.**

See inside the front cover for where to send the survey.



Appendix 3: Ability and Self-Perceived Ability

This appendix discusses the use of students' self-reported levels of achievement at school as an index of their actual ability.

The Smith Family survey asked students to rate how well they do in their school subjects compared with students at their year level and in their school. There are two main issues in using these data as an index of actual ability:

- a. The accuracy of these self-reports.
- b. The effect of using the school as the reference point or standard for measuring this ability when it is known that schools vary in the average level of ability of students (there is between-school variation).

The view argued here is that:

- a. These self-reports are largely accurate.
- b. The use of the school as a reference point will not lead to large errors across the sample of students, and in any case, it is their perceived ability rather than their actual ability which is more likely to influence their plans.
- c. A student can provide a fair estimate of their general ability, even though their performance will vary over different areas of the curriculum.

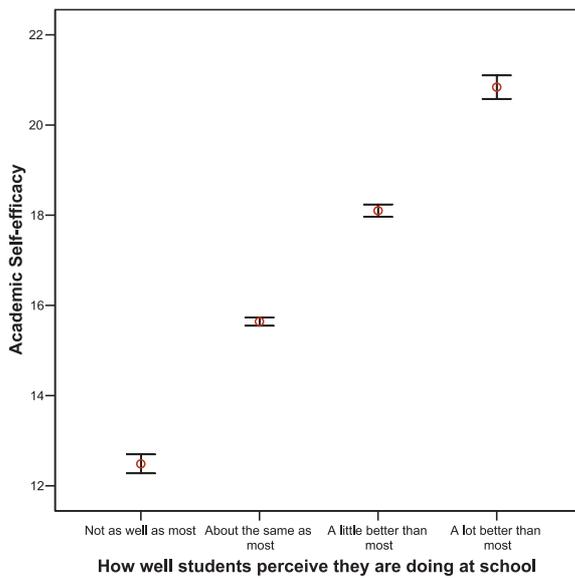
It was not possible to collect objective measures of ability using The Smith Family survey, but ability (as indexed, for example, by educational tests) is an important variable in explaining educational and occupational plans and destinations. This is because schools are guided by principles of merit (G. Marks, McMillan, & Hillman, 2001) – and the world of work too, appears to operate on similar meritocratic principles. For example, educational achievement is a strong predictor of the socio-economic status attained by individuals in Australia (Broom et al., 1980; Jones, 1971; G. N. Marks & Jones, 1991). Because of the importance of both ability and perceived self-ability, a self-estimate of ability was asked of students in The Smith Family survey.

THE ACCURACY OF SELF-REPORTS OF ABILITY

The best method of assessing the accuracy of a self-report is to compare this report with an objective measure. This was not possible for this study. However a number of variables were available from the study with which it might reasonably be expected that actual ability would vary. Those available on The Smith Family survey included: (1) self-efficacy, (2) the socio-economic status of their preferred job, and (3) the highest level of education they plan to achieve. If the self-estimates of ability varied in a similar way, then this is some evidence that self-estimates are similar to objective measures of ability. It would be expected that as ability increases so also would levels of each of these variables.

In PISA 2003, the correlation between mathematics self-efficacy and mathematics ability as measured, using the PISA tests, was around 0.5. This is a strong association. A similar association was found in The Smith Family data between students' perceived ability and their self-efficacy concerning school work. This is shown in Figure 18 – there are statistically significant differences between the mean for self-efficacy for each level of perceived ability.

Figure 18 Mean levels of self-efficacy concerning school work and reported levels of achievement at school, showing 95% Confidence Intervals



The educational plans of students are also associated with their perceived ability at school. Figure 19 shows that as their perceived ability rises so also, on average, does their planned educational level.

Figure 19 Mean levels of planned highest level of education, and reported levels of achievement at school, showing 95% Confidence Intervals

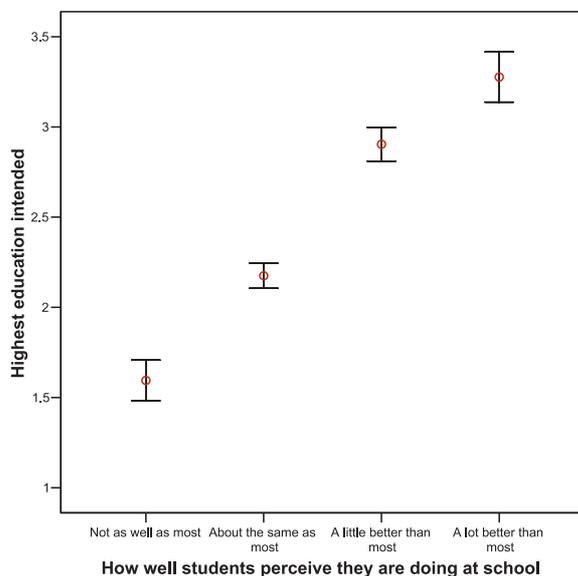
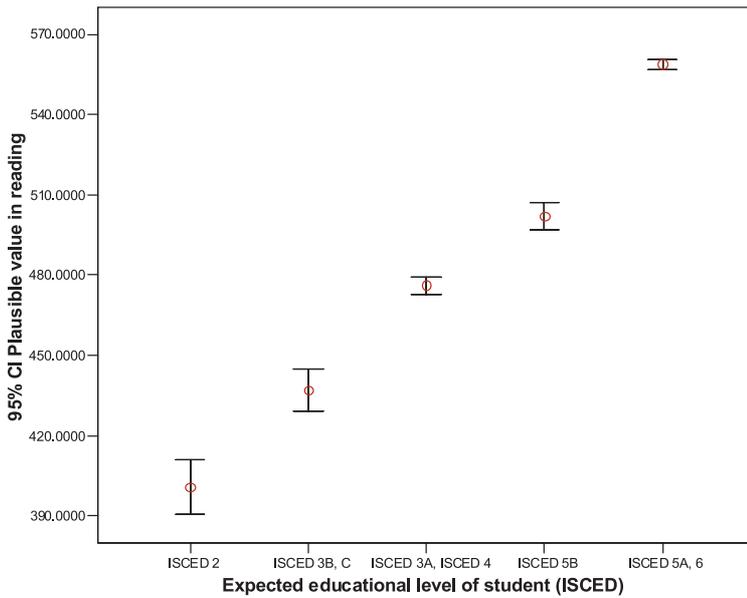


Figure 20 shows that, with the PISA data, the same pattern can be seen – the higher the level of planned education, the higher, on average was ability, as indexed by the PISA reading literacy score.

Figure 20 Mean PISA reading achievement score by level of planned education

In conclusion, because of the way in which perceived ability varies in ways parallel to objectively measured ability in the PISA data, self-reported ability is probably a fair proxy for a direct measure of ability.

THE EFFECT OF BETWEEN-SCHOOL VARIATION

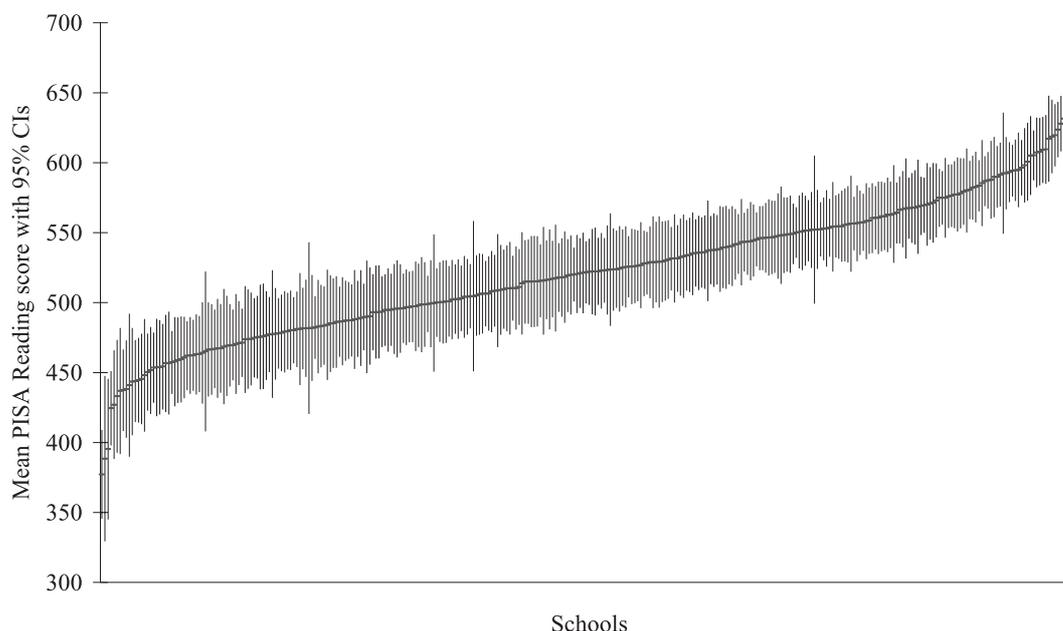
The respondents to The Smith Family survey were asked to assess how well the student did at school by reference to those at their year level within their school. Thus the standard by which they assessed themselves was based upon the school. If schools vary widely in the average levels of achievement or ability, then these assessments will not be based upon a common standard. This will make them of little value. (The brightest student in one school may well be a lower achiever than the lowest achiever in another school. The student from the higher achieving school would then be classified as lower achieving than the student from the lower achieving school using The Smith Family question, when objectively the student would not be.)

The PISA data were used to examine the extent to which there is between-school variation in achievement in Australia. Under the null model – no explanatory variables being included in the model – 20% of the variance in student achievement was between schools (Thomson et al., 2004, p. 201). Thus a great deal of the variance – 80% – is at the individual student level. This 20% at school level is, nevertheless, important because schools are especially amenable to policy interventions.

Figure 21 shows the mean reading literacy score (with 95% Confidence Intervals) for each school in Australia that participated in PISA 2003, in ascending order of average reading literacy. An examination of this figure shows that there is a long and somewhat flat group of schools across most of the plot indicating that the differences between any two schools is often not statistically significant. Most schools are, more or less, like each other in the average levels of ability of their students.

On these data, the effect of the school context is unlikely to make students' assessment of their ability differ markedly. (It is improbable that the *Learning for Life* students come predominantly from opposite ends of the distribution seen in Figure 21.) The students' assessments can be treated, cautiously, as in general not bounded by the particularities of the school.

Figure 21 Mean reading literacy score with 95% Confidence Intervals for each school in Australia that participated in PISA 2003, in ascending order of average reading literacy



It can also be argued that it is not the objective ability of the student which is, in any case, important here, but rather their beliefs about their ability. Students will tend to form their plans on the basis of their beliefs about their ability rather than on the basis of test results. If this is so, then the association between perceived and actual ability is of lesser importance in the context of this study. It is perceived ability which is more important.

SCHOOL ACHIEVEMENT AS AN INDICATOR OF GENERAL ABILITY

The curriculum offered by schools covers many different areas and students will vary in how well they do across different parts of the curriculum. For example, a student who excels at mathematics may do poorly in the visual arts. So, is it reasonable to ask students to generalise over these diverse areas to give an assessment of their general ability? It is our view that students can give a global assessment, and that this assessment probably taps a generalised ability that underlies various forms of performance that are assessed in schools. Put another way, there is probably less variation within students across subject areas than there is between subject areas, and this permits them to make reasonably accurate judgements about their general ability.

Overall, students' decisions are not random. Test statistics for the table show a non-random pattern of choices, with a chi-square value of 740.17 (df=16, $p < .001$) for all students. The Kendall tau is 0.368 ($p < .001$), which indicates a moderate correlation between planned education and preferred occupation. The Kendall tau for girls was 0.353 ($p < 0.001$) and for boys 0.374 ($p < 0.001$). Greater concordance would be expected from students who were well informed about the educational requirements of possible careers, and who made decisions that were 'economically rational'. That is, they would plan for a level of education that met the requirements of the desired occupation but did not represent an over-investment of their time and effort.

- Achievement 2, 3, 6, 16, 18, 19, 20, 21, 23, 24, 25, 31, 34, 39, 42, 43, 55, 56, 57, 58
- ANU4 scale 23
- Apprenticeship 6, 18, 19, 28, 39
- ASCO 2, 5, 20, 23, 24, 28, 29, 42
- Australian Interest Measure 5, 14
- Cognitive complexity 35
- Degree 18, 28, 29
- Destinations 10, 11, 29, 34, 35, 38, 41, 55
- Disengage 8, 34, 40
- Disengagement 8, 40, 41
- Educational requirements 1, 28, 32, 33, 38, 59
- Effort 34, 59
- Extra-curricular activities 1, 31, 33
- Extra-curricular activity 34
- Failure 7, 23, 39
- Family background of low socio-economic status 14
- Female participation rate 24
- Further research 11
- Generic interests 43
- Gottfredson 11, 34, 38, 40, 42
- Holland 5, 10, 14, 15, 35, 40, 42
- ISCED 5, 19
- Labour market 4, 7, 10, 20, 25, 38, 39, 41
- Levels of engagement 11
- LSAY 5
- Mathematics 42, 55, 58
- Mismatch 4, 7, 8, 25, 31, 34, 35, 40
- Misunderstandings 1, 11, 29
- Naylor 10, 17, 42, 43
- Numeracy 42
- Occupational interests 6, 11, 20, 38, 39, 43
- Occupational plans 1, 2, 4, 6, 7, 8, 10, 11, 22, 31, 33, 34, 38, 39, 40, 55
- Occupational stereotypes 10
- Participation 3, 24, 42
- Perceived-ability 1, 2, 3, 6, 7, 11, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 31, 38, 39, 40, 41, 55, 56, 57, 58
- PISA 3, 5, 11, 16, 17, 19, 20, 25, 43, 55, 56, 57, 58
- Policy 4, 5, 10, 29, 41, 57
- Post-school plans 1, 4, 5, 10, 11, 28, 34, 38, 44
- Preferred destinations 11, 38
- Preferred job 3, 4, 7, 21, 29, 30, 31, 32, 33, 34, 35, 39, 40, 55
- Reading 3, 17, 19, 56, 57, 58
- Reading literacy 3, 17, 19, 56, 57, 58
- Relations 11, 20
- Relations between occupations 11
- Research 1, 2, 4, 5, 6, 10, 11, 14, 38, 41, 42, 43, 44, 45
- RIASEC 2, 5, 14, 15
- School affect 1, 3, 32, 33
- Schoolwork 31, 32
- Self efficacy 3, 32
- Sociology 4, 10, 42, 43
- TAFE 5, 6, 18, 19, 28, 29, 39
- Training 4, 5
- Transition 4, 5, 10, 42
- University 6, 18, 19, 28, 39, 42, 43
- Vocational engagement 3, 32, 34
- Vocational interests 1, 7, 14, 18, 32, 34, 39
- Vocational psychology 4, 10
- Vocational readiness 1, 33

