What do students know about work?

SENIOR SECONDARY SCHOOL STUDENTS' PERCEPTIONS OF THE WORLD OF WORK

A report prepared for
The Smith Family

Adrian Beavis
David Curtis
Niola Curtis

ACER

THE SMITH FAMILY

everyone's family

What do students know about work?
Senior secondary school students' perceptions
of the world of work

A report prepared for
The Smith Family

Adrian Beavis
David Curtis
Niola Curtis

September 2005

photos courtesy of photolibrary.com

Contents

Tables

Figures

Preface

High quality career advice plays an essential role for young people, helping them identify and draw out their strengths and aspirations as they plan their future. Our previous report, *What do students think of work? Junior secondary school students' perceptions of the world of work*, affirmed the importance of quality career counselling in assisting *Learning for Life* students in Years 8 and 9 make realistic decisions about career options relating to the level of schooling and or training they planned to undertake. Hence, it was good to read of the Commonwealth's budget allocation of a further $800,000 to strengthen the provision of professional career advice in Australia; an important increment to earlier allocations of $108.4 million to establish an Australian Network of Industry Career Advisers.

What do students know about work? Senior secondary school students' perceptions of the world of work, compiled for The Smith Family by Adrian Beavis and his colleagues, David Curtis and Niola Curtis, at the Australian Council for Educational Research, has posed a similar set of questions to *Learning for Life* students in Years 10, 11 and 12 as were addressed to *Learning for Life* junior secondary students in our previous report. Since students surveyed for the current report are closer to the world of work and to making decisions about post-school plans and destinations, its messages are more urgent for policy development.

The current report introduces new work examining the role of part-time work, school-based work experience and enrolment in Technical and Further Education (TAFE) or Vocational Education and Training (VET) subjects, on educational and occupational plans. This data is particularly relevant in relation to how Australia begins to more effectively address problems of skill shortages in the workplace. A major concern raised by our previous report was the sizeable proportion of students who expressed incompatible education and career intentions. It might be expected that older students would make better informed choices as they have had more time to learn about available education and career options. However, the research shows that *additional career development support* needs to be established for students who choose to undertake vocational study and various forms of organised work experience.

In contrast, it does not appear as important for students who undertake paid part-time work.

The Junior report showed more males than females misunderstood the level of education required for their preferred job. This current report indicates that males and females undertake similar levels of vocational learning in courses, as expressed through school VET participation and undertaking TAFE studies. However, on three indicators of engagement with work, namely, workplace learning, work experience and part-time work, females consistently demonstrate a greater level of participation. These data are interesting in relation to the recently released report by the Australian Institute of Family Studies (AIFS) entitled *Growing Up in Australia*. The report notes that differences in learning between boys and girls emerge very early in life. Boys begin falling behind at an early stage in the 0 - 3 year age group and by 4 - 5 years old the differences are far more pronounced. The AIFS research has important implications for assessing school readiness and transitions from home to school. Similarly, differences in outcomes between junior and senior secondary males and females have implications for how we assist successful transitions from school to work and/or further education and training.

Data for the Senior Report has been collected from a survey of 3018 *Learning for Life* students in Years 10, 11 and 12. These data were also matched to administrative data under strict conditions of confidentiality, including de-identification, to ensure individual student and family anonymity. The number of completed returns provided a response rate of around 75%, an excellent outcome ensuring the study had a robust set of data on which to base its analyses. Along with our Junior Report, the Senior Report contributes to the evidence base which guides The Smith Family's *Learning for Life* program development. It is hoped this research will drive policy development to facilitate the development of a broad skill base among Australia's young people and our present and future workforce.

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

AQTF   Australian Quality Training Framework

ASCO   The Australian Standard Classification of Occupations

LSAY   Longitudinal Surveys of Australian Youth

PISA   Programme for International Student Assessment

OECD   Organisation for Economic Co-operation and Development

RIASEC   Realistic, Investigative, Artistic, Social, Enterprising and Conventional vocational interest types, so named by Holland (1985, 1997)

SES   Socioeconomic status

TAFE   Technical and Further Education

VET   Vocational and Educational Training

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 reports *Post-School Plans* (2004) and *What do students think of work?* (2005).

David Curtis worked as a lecturer in higher education for 25 years then as a consultant before recently joining ACER. He is particularly interested in both flexible delivery of higher education courses and educational measurement. Since 2000, he has been involved in projects to develop and assess students' generic employability 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* (Curtis & McKenzie, 2002). He was a contributing author to The Smith Family report *What do students think of work?* (2005).

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. She was also a contributing author to The Smith Family report *What do students think of work?* (2005).

Acknowledgments

Executive Summary

This report examined the educational and occupational plans and aspirations of young people in Years 10, 11 and 12 who are participants in The Smith Family's *Learning for Life* program.

The data for the study came from 3018 responses to a self-completed mailed questionnaire. This represented a response rate of around 75%.

The study addressed the following questions:

a. What are the educational and occupational plans and aspirations of *Learning for Life* Year 10 to 12 students?

b. What factors shape these plans and aspirations?

c. How accurate are the understandings that these *Learning for Life* students bring to their plans?

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

THE EDUCATIONAL AND OCCUPATIONAL PLANS AND ASPIRATIONS OF *LEARNING FOR LIFE* YEAR 10 TO 12 STUDENTS

Most students in Years 10, 11 and 12 appear to have vocational plans in place, although a sizeable minority (around 30 per cent) appear to remain undecided.

Learning for Life students planned many different destinations in the world of work and many different routes to these destinations. In general, the following may be said:

- most students want a professional level job

- very few students want low-skilled jobs

- more girls than boys would like a professional job

- more boys than girls would like a trade-level job

- around 80 per cent of students expect to get the job they would most like at age 25

- very few expect to be unemployed.

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

FACTORS WHICH SHAPE EDUCATIONAL AND OCCUPATIONAL PLANS AND ASPIRATIONS

The educational plans of Year 10, 11 and 12 students in the *Learning for Life* program appear to be influenced by their gender, their interests and their perceived ability. Specifically:

- different types of vocational interests are associated with liking jobs of different skill levels

- perceived ability at school was strongly associated with expectations about getting the most liked job, with those having self-perceived low ability least likely to expect to get the job they most like

- perceived ability at school strongly shapes the skill level of the job most liked at age 25

- participation in VET or studying a TAFE subject at school is associated with a poorer match between educational plans and occupation preferences

- those in paid work tend to have higher educational aspirations and a better match between their education and job plans.

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

THE ACCURACY OF UNDERSTANDINGS BROUGHT TO EDUCATIONAL AND OCCUPATIONAL PLANS

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

Many students seemed not to understand the educational requirements of jobs. Half of the Year 10, 11 and 12 *Learning for Life* students

who provided information about their educational and occupational plans matched the skill levels they planned to achieve and the skill level needed for their preferred job. Around a quarter planned higher levels of education than needed and a quarter planned a level of education too low for their preferred job. Further, 13.5 per cent of the *Learning for Life* students in the senior years expected to get their most liked job despite planning too little education for entry to it.

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

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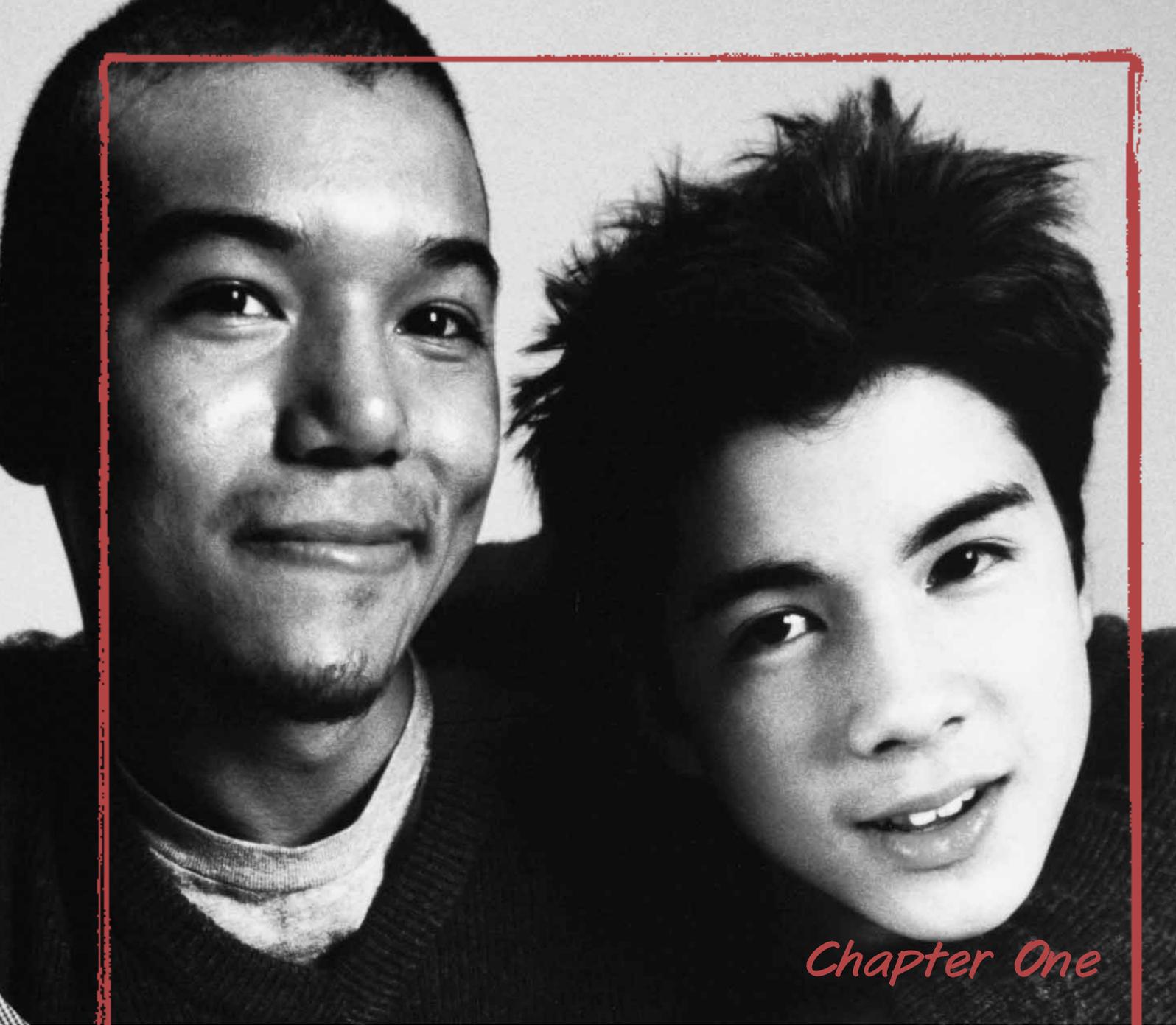
Chapter One

Introduction

BACKGROUND

This report stems from 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 educational and occupational aspirations.

Reflection on the *Post-school Plans* report suggests there are two elements needed to sustain programs providing both financial and educational support for young people:

a. The provision of educational opportunities and the support to ensure those opportunities are taken

b. Support so that this education is turned to good purpose.

Support programs need to complement the educational and occupational plans of young people.

The *Post-school Plans* report showed that students' plans appeared to reflect their understandings of: (a) themselves (b) the world of work (c) the nexus between education or training and the world of work, and (d) the location in that world to which they perceive themselves as best suited.

These findings were important to The Smith Family. They suggested that policies designed to enhance student outcomes need to consider the gender, interests and abilities of young people. Any program that takes these into account will be more likely to succeed compared with one which seeks to direct young people into destinations that are defined as 'good' by the program. In effect, the *Post-School Plans* report was calling for a deeper understanding of what it means to facilitate enhanced student outcomes.

This report explores this issue in more detail. It examines the educational and occupational plans and aspirations of young people in the later years of secondary school – Years 10, 11 and 12 – who are participants in The Smith Family's *Learning for Life* program.[i] It also builds upon an earlier report by The Smith Family – *What do students think of work?* (Beavis, Curtis, & Curtis, 2005) – which described the educational and occupational plans of *Learning for Life* students in Years 8 and 9.

The current report follows on from *What do students think of work?* repeating with different data many of the analyses and addressing many of the same questions and issues. The students in Years 10, 11 and 12 are closer to the world of work, indeed many students are already involved through part-time employment, and closer to making decisions about post-school plans and destinations. For this reason, the report carries more pressing messages for policy development. It also introduces new considerations by examining the role of: (a) part-time work (b) school-based work experience and (c) enrolment in Technical and Further Education (TAFE) or Vocational Education and Training (VET) subjects, on educational and occupational plans.

The current report also builds upon the research literature. A review of the literature is included as Appendix 3. This review describes what is known about young peoples' perceptions of the world of work and the factors that may influence these perceptions. The main features of this literature are that:

- There is remarkable uniformity in young peoples' views of the world of work in Western societies, including Australia (Daniel, 1983; Holland, 1985, 1997). There is, however, some evidence of interplay between interest types, socioeconomic status background and gender, giving rise to some apparently small variations in the perceptions of the world of work.

- Involvement in extracurricular activities may lead to productive engagement with school. The provision of extracurricular activities by schools appears to be particularly advantageous to students from lower socioeconomic status backgrounds.

- There is some evidence for thinking that work experience and work placement programs may lead to changes in perceptions of the world of work, but the research that has been conducted does not describe what these changes might be.

- Part-time work appears to provide students with a clearer or more accurate picture of the world of work than those who do not engage in part-time work.

- How young people perceive adulthood – especially in terms of autonomy or financial independence – may influence their perceptions of the world of work.

RESEARCH QUESTIONS

The major research questions addressed are:

a. What are the educational and occupational plans and aspirations of *Learning for Life* Year 10 to 12 students?

b. What factors shape these plans and aspirations?

c. How accurate are the understandings that these *Learning for Life* students bring to their plans?

In addressing these questions, this study investigates the extent to which the accuracy of these understandings is evenly distributed across various sub-groups of young people such as, males and females, those with different levels of (self-reported) ability, and those with different types of interests. This approach is designed to identify the character and significance of 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.

SOURCES OF DATA

Data for this study were taken from a survey of high school students in Years 10, 11 and 12 participating in the *Learning for Life* program. See Appendix 1 for the questionnaire used in the survey. 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 2 provides information about the methodology used, and the response rate achieved.

STRUCTURE OF THE REPORT

The substantive part of this report – Chapter 2 – begins by investigating 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. Chapter 3 examines the effect of work experience, part-time work, enrolment in TAFE and enrolment in VET subjects on educational and occupational plans. Chapter 4 provides a description of the gender, perceived abilities and interests of survey respondents and how these intersect with educational and occupational plans. The final chapter of the report concludes with an overview, summarising the main findings and suggesting some directions for further research and policy implications.

Chapter two

Understanding of Education and Work

This chapter addresses the following questions:

- How accurate are Year 10, 11 and 12 *Learning for Life* students' understandings of the educational requirements for occupations?

- How is the accuracy of these understandings distributed across various sub-groups of these young people?

- What are effects of inaccuracies in understandings of these young people on their post-school plans?

BACKGROUND CHARACTERISTICS

All the respondents were young people who participated in The Smith Family's *Learning for Life* program. They all come from a low socioeconomic family background.

Of the 3018 respondents, around 48 per cent were in Year 10, 27 per cent were in Year 11, and 23 per cent indicated that they were in Year 12. Around 2 per cent indicated their year level as 'Other'.[ii] Table 1 shows that responses came from all states and territories except Tasmania and the Northern Territory.[iii]

Table 1 Distribution of respondents by state or territory of residence

	Frequency	%
Australian Capital Territory	91	3.0
New South Wales	904	30.0
Victoria	745	24.7
Queensland	724	24.0
South Australia	382	12.7
Western Australia	172	5.7
Total	3018	100.0

Gender

Of all the respondents, around 52 per cent were female and 48 per cent were male.

Vocational interests

The vocational interests of respondents were measured using the research form of the Australian Interest Measure (AIM).[iv] This instrument measures the six types of vocational interest classified by Holland (1962; 1985; 1997).[v] 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.

Everyone has a mix of interests, but most people have one type of interest which is dominant. In this study, it is the area of most interest that is used to classify *Learning for Life* students. Such an approach is needed to keep the data analysis simple and efficient, and is justified given that the research uses a fairly broad brush.[vi]

Table 2 shows the distribution of each of the RIASEC types among the *Learning for Life* students. There are relatively few students with Enterprising or Conventional interests, but more with Realistic and Investigative interests. Social and Artistic interests are the most common types amongst these students. This pattern is fairly typical except for the high proportion of students with Artistic interests and the low proportion with Conventional type interests. It is not clear why The Smith Family students differ in this way.

Table 2 Distribution of RIASEC types

		Frequency	%	Valid %
Valid	Realistic	537	17.8	19.3
	Investigative	459	15.2	16.5
	Artistic	630	20.9	22.6
	Social	804	26.6	28.8
	Enterprising	166	5.5	6.0
	Conventional	192	6.4	6.9
	Total	2788	92.4	100.0
	Missing	230	7.6	
Total		3018	100.0	

Interests are known to be associated closely with gender (Holland, 1985, 1997) and this was seen in the responses 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 few have Social interests.

Table 3 Distribution of RIASEC types by gender

		Sex of respondent		
		Female %	Male %	Total %
Interest	Realistic	3.7	36.7	19.3
	Investigative	10.6	23.0	16.5
	Artistic	26.0	18.8	22.6
	Social	45.5	10.1	28.8
	Enterprising	6.0	5.9	6.0
	Conventional	8.1	5.6	6.9
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 around 11 per cent 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	%	Valid %
Not as well as most	341	11.3	11.4
About the same as most	1555	51.5	52.1
A little better than most	819	27.1	27.4
A lot better than most	271	9.0	9.1
Total number of valid cases	2986	98.9	100.0
Missing	32	1.1	
Total number of all cases	3018	100.0	

The distribution of sexes was very similar across each of the categories of reported ability. Boys, for example, were only a little more likely than girls to indicate they did not achieve as well as most other students. There was 12.6 per cent of boys and 10.3 per cent of girls who described themselves as doing 'Not as well as most'.

HOW ACCURATE IS YOUNG PEOPLES' UNDERSTANDING OF THE EDUCATIONAL REQUIREMENTS FOR OCCUPATIONS?

The accuracy of young peoples' understanding of educational requirements of occupations was examined using the extent to which their planned educational level matched the educational level required for the job they would most like at age 25.[vii]

The skill level of students' intended level of post-school education, if any, was determined by recoding data from Questions 16, 17 and 18 of the survey (see Appendix 1). These questions asked (a) at what year level of school was the respondent planning to leave (b) if any post-school study was planned, and if so (c) at what level (university, TAFE, apprenticeship or 'other').[viii]

The extent of agreement between students' planned educational level and their intended occupation is shown in Table 5, for all students, and for boys and for girls. The Table only includes those 1954 students (out of 3018) who nominated both a desired occupation and a planned level of education.

Table 5 **Skill levels of preferred occupation and intended level of education, all students and females and males at Years 10, 11 and 12**

Planned education level		Skill level required for preferred occupation					Total	%
		Uni degree	TAFE diploma	TAFE Cert. 3 or 4	Lower Cert. or Year 12	Less than Yr 12		
Uni degree	All	**673**	104	39	59	3	878	44.9
	F	439	52	23	51	1	566	51.9
	M	234	52	16	8	2	312	36.1
TAFE diploma	All	109	**98**	86	100	15	408	20.9
	F	69	55	35	88	9	256	23.5
	M	40	43	51	12	6	152	17.9
TAFE Cert. 3/4	All	17	32	**132**	23	3	207	10.6
	F	6	12	28	15	2	63	5.8
	M	11	20	104	8	1	144	16.7
Lower Cert. or Year 12	All	106	65	137	**71**	16	395	20.2
	F	63	24	28	58	9	182	16.7
	M	43	41	109	13	7	213	24.7
Less than Yr 12	All	13	9	32	9	**3**	66	3.4
	F	5	0	8	8	2	23	2.1
	M	8	9	24	1	1	43	5.0
Total	All	918	308	426	262	40	1954	
	F	582	143	122	220	23	1090	
	M	336	165	304	42	17	864	
%	All	47.0	15.8	21.8	13.4	2.0		100.0
	F	53.4	13.1	11.2	20.2	2.1		
	M	38.9	19.1	35.2	4.9	2.0		

Table 6 shows a simplified version of Table 5, using only the percentages for all students. It is derived from within the section bordered by a heavy line in Table 5.

Students who were fully informed about the level of education required to achieve their occupational goals and wished only this level of education would plan accordingly. If all students did this, cells on the Table diagonal (marked in bold type in Table 5) would be populated and other cells would be blank. It is clear that in Table 5 this is not the case. Only 50 per cent of students sit on the diagonal, matching their planned educational level to their most liked job. A further 23 per cent of students plan a higher level of education than is required for their most preferred job. These appear above the diagonal in Table 5. The remaining 27 per cent of students plan too little education for the job they would most like. These are located below the diagonal in Table 5.

Table 6 **Skill levels of preferred occupation and intended level of education at Years 10, 11 and 12, shown as percentages**

Planned Education Level	Skill level required for preferred occupation				
	University degree	TAFE diploma	TAFE Cert. 3 or 4	Lower Cert. or Year 12	Less than Year 12
University degree	73.3	33.8	9.2	22.5	7.5
TAFE diploma	11.9	31.8	20.2	38.2	37.5
TAFE Cert. 3/4	1.9	10.4	31.0	8.8	7.5
Lower Cert. or Year 12	11.5	21.1	32.2	27.1	40.0
Less than Yr 12	1.4	2.9	7.5	3.4	7.5
Total	918	308	426	262	40

From a policy perspective, it is the students who appear below the diagonal in Table 5 who are of most interest. These students are at risk of making educational plans that will not allow them to achieve their vocational goals. Given this, the next task of the study is to map to what extent, if any, these apparent misunderstandings are distributed disproportionately across sub-groups of these students.

THE DISTRIBUTION OF MISMATCHED EDUCATIONAL AND OCCUPATIONAL LEVELS ACROSS VARIOUS SUB-GROUPS

Students were asked if they expected to get the job they most liked. Figure 1 shows the percentage of *Learning for Life* students at each year level who expect to get their preferred job according to the match of planned educational level and educational requirements. There is little difference across year levels between those who plan too little education and other students in expectations about getting a job. Generally, around 80 per cent of students expect to get their preferred job. Thus there is a group of *Learning for Life* students who expect to get their most liked job but who plan lower levels of education than are required for it. It is this group which is now considered.

Figure 1 Proportion of *Learning for Life* students who expect to get their preferred job according to the match of planned educational level and educational requirements (for their most liked job) at each year level
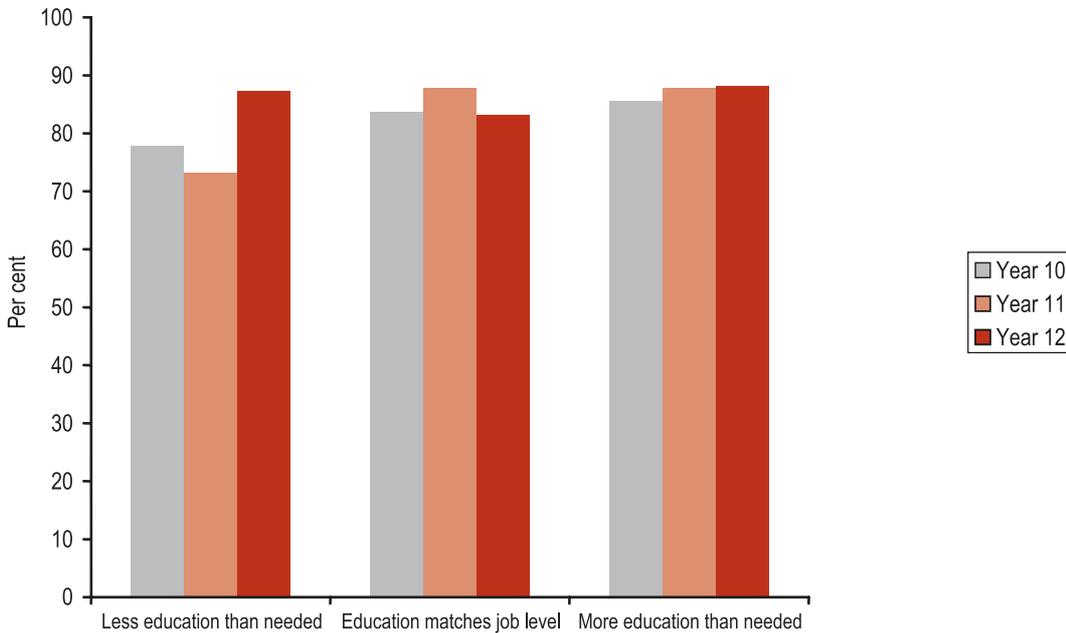
Of those students who expect to get their preferred job despite planning an education level that is too low for this job:

- 214 were in Year 10 representing 16.5 per cent of Year 10 students
- 106 were in Year 11 representing 13.1 per cent of Year 11 students
- 76 were at Year 12 representing 11 per cent of Year 12 students
- 10 were students who did not identify their year level at school or described it as 'Other'.

Thus, there were 406 students representing 13.5 per cent of all the *Learning for Life* students in the senior years' sample who expected to get their most liked job despite planning too little education for entry to it.

Gender

Of those surveyed at Year 10 around 10 per cent of all females planned an educational level too low for their preferred job. In contrast, just under 20 per cent of males planned an education that was too low. Across Years 11 and 12, the proportion of females remained around 10 per cent, while the proportion of males declined to just over 15 per cent at Year 11 and about 13 per cent at Year 12. This can be seen in Figure 2. The differences between the sexes are statistically significant at Year 10, but not at Years 11 and 12.

Figure 2 **Percentage of female and male *Learning for Life* students planning an education too low for their preferred job, by year level at school**
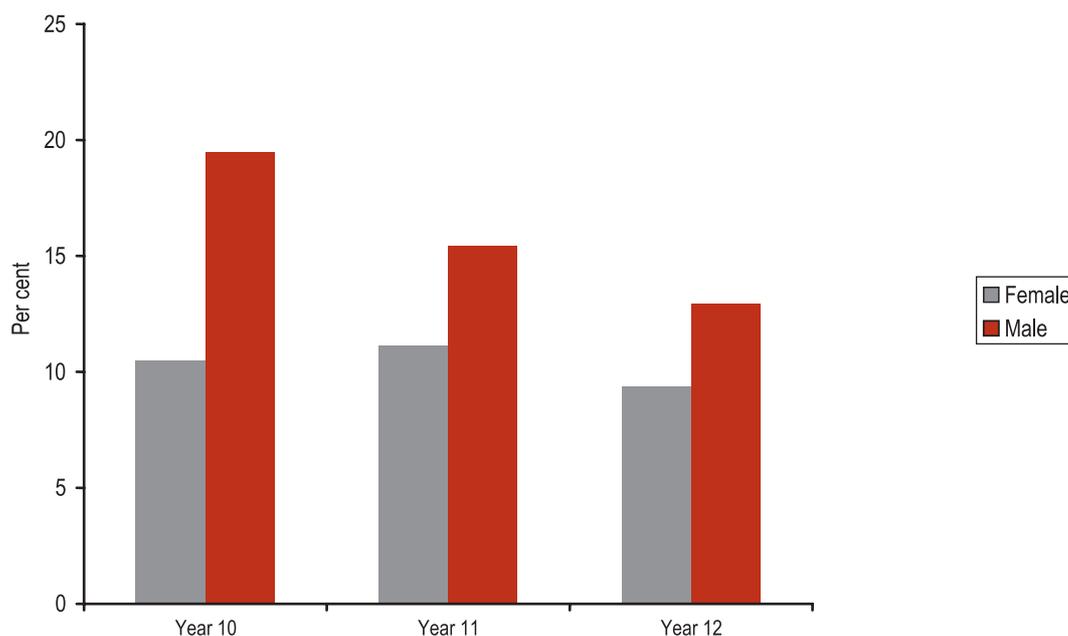
Perceived ability

There was no association, at either Years 10, 11 or 12, between perceived ability and planning an education too low for the most preferred job. Students who perceived themselves as below average at school were no more likely to plan too little education than other students.

Vocational interests

There was some 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. Around 20 per cent of those with Realistic interests, especially at Years 10 and 11 were more likely to plan too little education. In comparison, only 10 per cent of students at Year 10 and around 6 per cent of students at Years 11 and 12 with Investigative interests planned too little education.

Other factors

In the companion report *What do students think of work?* (Beavis et al., 2005) it was found that for Year 8 and 9 *Learning for Life* students, increasing levels of self-efficacy, liking of school and vocational readiness were associated with a reduced likelihood of planning too little education for the most preferred occupation. With the Year 10, 11 and 12 *Learning for Life* students there was no association found between these variables and planning for too little education. This effect may not have been observed among the senior students because those with low self-efficacy concerning schoolwork, and who did not like school in Years 8 and 9, had left school.

THE SIGNIFICANCE OF ANY INACCURACIES FOR POST-SCHOOL PLANS

The students who answered the survey were in the final years of their schooling. About 70 per cent of them could nominate a preferred job. This may suggest that a substantial minority remain uncertain about their future plans. (Appendix 4 provides further information about this group of students who do not know what job they would like.)

According to Gottfredson's (1981; 1996; 2002) theory of the development of occupational aspirations, their plans should be close to being established. This study finds that this is so – a large majority of *Learning for Life* students have identified preferred locations in the world of work. They seem to have done this by taking account of their gender, their interests and the amount of effort required to obtain a job (a function of their perceived ability).

What is less clear, however, is the extent to which these students understand the routes into this world. Only 50 per cent of the students had plans which optimally matched their education to their preferred occupation. This suggests some misunderstanding of routes into preferred employment, and a need for more information. (This is not to assume that too much education is bad – indeed, it may give potential employees an 'edge' during times of tight labour supply. However, planning too much education does suggest that these young people may be overestimating the skill requirements for their preferred job, and if this is the case they will be incurring unnecessary delays and costs.)

Even where plans for education match occupational requirements there is evidence suggesting that students do not grasp the availability of jobs in the labour market and how difficult it may be to gain entry even with the appropriate qualifications. It is possible that students equate appropriate qualifications with employment. This may explain the finding that a greater proportion of these students seek professional and trades jobs than are likely to be available to their cohort.

Failure to appreciate the extent to which work of particular types is available suggests that these students have yet to begin the process that Gottfredson (1981; 1996; 2002) calls 'compromise'. Compromise occurs when the difficulty of obtaining a preferred job becomes recognised as insurmountable and alternatives have to be identified and sought.

In this study it was possible to examine the extent to which some students had begun compromising by asking them what job they expected to get if they did not get their preferred job. There were only 394 responses to this question, which suggests that many students are not ready to acknowledge the need for compromise. The small number of respondents available also means that caution needs to be exercised with these data.

Students who posit an alternative occupation, on average:

- chose an alternative with lower social status.[1] See Table 7.

- chose an alternative, if they were female, which had higher female sex composition, while the sex composition for males remained unchanged.[2] See Table 8.

- chose an alternative occupation which was very likely to be of the same type. Just over 70 per cent of students selected an alternative occupation of the same type and a further 12 per cent selected an occupation of similar type. See Table 9.

Table 7 Mean socioeconomic status of most liked and expected jobs by gender

		Socioeconomic status of job liked at 25	Socioeconomic status of job expected at 25
Female	Mean	63.0	58.7
	N	242	242
	Std. Deviation	24.1	24.5
Male	Mean	51.3	45.8
	N	191	191
	Std. Deviation	22.0	20.0

1. For both males and females the difference in socioeconomic status between the liked and expected job is statistically significant (P<0.001).

2. For females the difference is statistically significant (P<0.001). It was not statistically significant for males (P = 0.76).

Table 8 Mean sex composition of most liked and expected jobs by gender

		Sex composition of job liked at 25	Sex composition of job expected at 25
Female	Mean	55.5	62.3
	N?	241	241
	Std. Deviation	27.4	26.9
Male	Mean	24.3	24.8
	N	185	185
	Std. Deviation	24.2	24.5

Table 9 Occupational type of most liked and expected jobs, shown as per cent of grand total

	Expected job						
Liked job	R	I	A	S	E	C	Total
R	**26.3**	*1.7*	0.6	0	0.6	0.6	105
I	*1.1*	**11.3**	*0.8*	2.8	0.6	0.8	62
A	2	*0.3*	**10.7**	*4.2*	0	0.3	62
S	1.1	0.3	*1.1*	**15**	*0.3*	0	63
E	4.2	0.3	1.1	*0.3*	**5.4**	*0.8*	43
C	0.6	0.3	0.3	0.3	*1.4*	**2.5**	19
Total	125	50	52	80	29	18	354

In Table 9, the cells marked in the dark shading and bold font indicate the proportions of students who want exactly the same type of occupation should they not get their most liked job. The cells in light shading are occupations which are most similar in type to their most liked job. This can be represented graphically as a surface chart (see Figure 3). It depicts the same data as Table 9. In it, the darker the shading, the more concentrated are the responses. It can be seen how strongly the responses line up along the diagonal indicating the extent to which these students seek to preserve the field of work of most interest to them.

Figure 3 Surface chart showing distribution of persons across the type of liked and expected occupations (per cent of grand total)
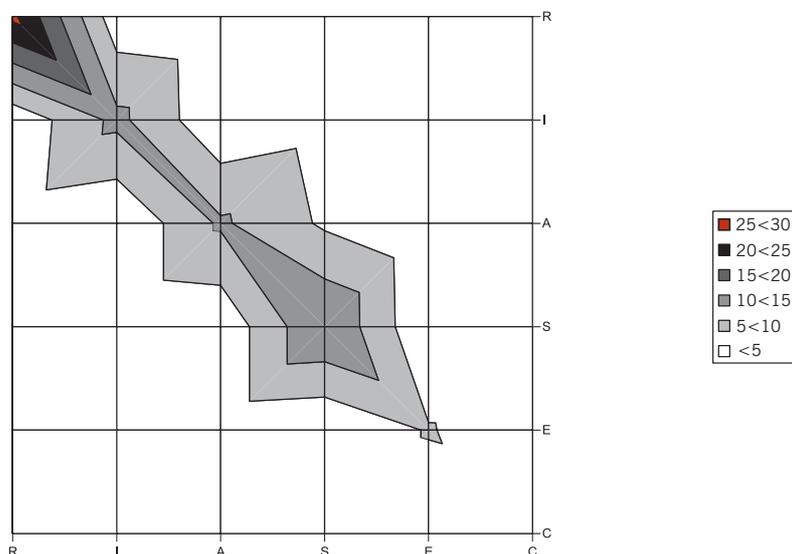
These patterns of compromise are consistent with Gottfredson's theory suggesting that these students – remembering they are only a small subset of all the *Learning for Life* students – have begun to compromise their occupational aspirations. However, school is a difficult place to begin this process for it is, largely, set apart from the world of work.[ix] Yet there have been attempts to bridge these worlds and it is to these that the report now turns. In the next chapter the report examines vocational education and training, and part-time work.

Overview

Half of the Year 10, 11 and 12 *Learning for Life* students who provided information about their educational and occupational plans matched the skill levels they planned to achieve and the skill level needed for their preferred job. Around a quarter planned higher levels of education than needed and a quarter planned a level of education too low for their preferred job. There was little to distinguish these three groups from each other. There was some evidence that boys at Year 10 were more likely to plan too little education than girls, and that those with Realistic vocational interests across all year levels were also likely to plan too little education. This contrasts with the findings reported in *What do students think about work?* (Beavis et al., 2005). In that study, Year 8 and 9 students planning too little education seemed much more disengaged from school and education. It is not clear why there are these differences between the Year 8 and 9 students and the Year 10, 11 and 12 students.

Most students in Years 10, 11 and 12 appear to have their vocational plans in place, although a sizeable minority (around 30 per cent) appear to remain undecided. Many appear to be misunderstanding the availability of some jobs, especially those interested in Professional and Trade jobs. This suggests that many have not begun compromising their vocational aspirations. An examination of those who appear to have considered alternatives – and their numbers were small, so some caution is required – revealed they chose occupations of lower socioeconomic status, but of the same type. Girls select occupations as a second choice which are more strongly feminine. This suggests compromise on socioeconomic status has begun and lower 'risk' options in terms of gender are being considered, but that interests are being preserved.

Vocational Education and Training, TAFE and Work

One of the outcomes identified in the previous report *What do students think of work?* (Beavis et al., 2005) was the existence of a sizeable proportion of Year 8 and 9 students who expressed incompatible education and career intentions. It might be expected that Year 10, 11 and 12 students of the present study would make better informed choices than the Year 8 and 9 students, because these older students have had more time to mature and gather information about available education and career options. Senior students may also have had greater opportunities to engage with various forms of vocational learning and with work. These opportunities might provide students with career relevant information. This information would help them to make better decisions about their careers and the training or education they will require in order to realise their career aspirations.

The retention of students to Year 12 increased – with peaks and troughs – from 35 per cent in 1980 to around 75.7 per cent in 2004. Those students, who in earlier times would have left school to take up employment, were required to study a curriculum designed for their more academically inclined peers. Dissatisfaction with what schools offered these students was recognised as a problem. Many of the students who remained at school had no intention of post-school academic study. Their intentions were directed to employment, and they required skills that would enable them to enter the labour force. For these students, various vocational education options have been added to the senior school curriculum. In most jurisdictions, these include vocational subjects that form part of the senior secondary certificate. In Victoria, an alternative qualification, the Victorian Certificate of Applied Learning was accredited in 2002.

In this chapter the effects of students' involvement in the following is examined.

- the study of Vocational education and training (VET) subjects
- participation in workplace learning
- the study of TAFE subjects
- participation in school-organised work experience
- involvement in part-time or casual paid work.

The chapter begins by describing the level of engagement with each of these work-related activities among the *Learning for Life* students. It then examines how this engagement varies by gender. Finally, it examines the effects of vocational learning and experience of work on educational and career plans.

VET STUDY

Participation in VET at school involves enrolment in those subjects that are recognised as part of the Australian Quality Training Framework (AQTF). Typically, these subjects contribute credit towards recognised Certificate I or II AQTF awards.

Table 10 Proportion of students who had undertaken any VET study at school by year level

	% doing VET	N
Year 10	15.5	1401
Year 11	36.6	792
Year 12	38.2	681
All	26.7	2874

As Table 10 shows, just over one quarter of all students reported having studied VET subjects at school. The proportion of Year 11 and 12 students who reported having taken VET subjects is considerably greater than the proportion of Year 10 students, suggesting that VET subjects are more readily available in the senior secondary years, or that their uptake by senior students is greater or both. The trend in school VET participation has shown rapid growth since 1996, when Commonwealth funding was made available to support the delivery of VET programs in schools. In 2003, 48 per cent of senior secondary students were involved in school VET subjects (Woods, 2005, p. 3).[x] The levels of participation reported here are approximately ten percentage points below that figure. It is possible that there is a degree of under-reporting, as some students may not be aware that some subjects delivered at school by their teachers are VET subjects (Fullarton, 2001).

WORK-BASED LEARNING

As Table 11 shows, for those students who reported taking VET subjects, about two-thirds of senior secondary students reported a component of work-based learning associated with their VET study. For Year 10 students, half reported a component of work-based learning.

Table 11 Proportion of students who had undertaken any work-based learning in association with VET study by year level

	% doing work based learning	N
Year 10	50.0	294
Year 11	65.6	311
Year 12	67.6	281
All	61.1	886

Caution needs to be exercised in interpreting the reported involvement in work-based learning. The growth in school VET availability has been accompanied by some challenges for schools, one of which is finding appropriate work placements. The average number of hours of student involvement in structured workplace learning has declined since 2000. In 2003 it stood at approximately 1.5 hours per week (Woods, 2005, p. 6), so it would be unwise to expect this factor to exert a strong influence on some of the outcomes attributed to structured workplace learning.

TAFE SUBJECTS

Less than one-fifth of students reported undertaking TAFE subjects. Senior students were more likely to have taken them, but still fewer than a quarter of them reported taking these subjects.

Table 12 Proportion of students who had undertaken any TAFE subjects at school by year level

	% doing TAFE subjects	N
Year 10	13.7	1404
Year 11	22.9	794
Year 12	23.3	681
All	18.5	2879

No baseline data have been found with which to compare the reported levels of *Learning for Life* students' involvement in TAFE subjects.

WORK EXPERIENCE

Work experience – usually short placements of one week in a workplace organised through schools – may contribute to students' knowledge of the world of work and of work that may interest them as a potential career. As Table 13 shows, more than three quarters of all students reported having had some work experience.

Table 13 Proportion of students who had undertaken any work experience by year level

	% doing work experience	N
Year 10	79.6	1141
Year 11	76.1	800
Year 12	73.6	686
All	77.2	2897

What is notable about these data is the slightly lower incidence of work experience among the more senior students compared with younger ones, when the opposite might have been expected. The question asked whether students had been involved in work experience, not whether they had done it in the current year. Several possible explanations are available to account for this observation. It could be that opportunities for work experience have improved recently and that current Year 10 students have had more opportunities than current Year 11 and 12 students. Another possible explanation is that those students who have had a work experience placement are more likely to perceive the value of work and may have chosen to leave school to pursue work opportunities. It is also possible that senior students may have assumed the survey referred to the last year (even though this was not stated). Alternatively, the decision not to participate in work experience may be made by students who have definite intentions to undertake higher level study in preparation for a professional or managerial career and who believe that the experience available to them through work experience, for example merely observing work or discharging simple tasks such as photocopying, will not give them an authentic exposure to their desired careers.

PART-TIME AND CASUAL WORK

Overall, about one-third of all *Learning for Life* students undertook part-time or casual work. The tendency to do this was greater among senior secondary students, with almost 40 per cent having some form of paid employment at Year 12. This can be seen in Table 14.

Table 14 Proportion of students who had undertaken any part-time or casual work by year level, showing average number of hours worked per week

	% doing P/T or casual work	Avg hours per week*	N
Year 10	28	11.04	1418
Year 11	39.1	11.11	798
Year 12	38.7	12.30	690
All	33.6	11.41	2906

* Average hours worked per week for students who reported working part-time

The mean number of hours worked per week for all students who reported an involvement in part-time work is just over 11 hours. This was more than double the threshold figure of five hours that Vickers, Lamb and Hinkley (2003) found was beginning to impact on students' likelihood of continuing with their study. This suggests that students from financially disadvantaged backgrounds probably need to undertake more work than other students. This occurs despite the financial assistance these students receive through their participation in the *Learning for Life* program.

GENDER AND VOCATIONAL LEARNING AND EXPERIENCE OF WORK

Because of the possibility that girls and boys may be differentially involved in vocational learning and experience of work, the influence of gender on participation in school VET, workplace learning, TAFE study, work experience and part-time work was also investigated.

School VET

As Table 15 shows, participation in school VET is similar for males and females with the exception that at Year 11 males participate somewhat less than Year 11 females.

Table 15 Proportion of students by gender who had undertaken any VET study at school by year level

	% Females	% Males
Year 10	14.1	16.9
Year 11	39.9	32.8
Year 12	37.7	38.7
Total	27.3	26.0

Fullarton (2001) also found similar levels of participation. She noted, too, that the particular courses that were taken differed by gender. (These data were not available for the *Learning for Life* students.)

Workplace Learning

Students who indicated that they undertook school VET studies were asked if this involved workplace learning.

Table 16 Proportion of students by gender who had undertaken any work-based learning in association with VET study by year level

	% Females	% Males
Year 10	53.7	47.4
Year 11	70.3	59.6
Year 12	74.1	60.4
Total	67.0	55.1

As Table 16 shows, females doing VET subjects were consistently more likely to undertake workplace learning. This is probably associated with the particular fields of study that they choose. Fullarton (2001, p. 28) found the most common VET fields for males were computer science, electrical trades and accountancy, while for females the most common fields were travel and tourism, child care and humanities. It is possible that the more popular fields for females were also those for which workplace learning opportunities are more readily available. This would help explain the greater level of participation in workplace learning for females.

TAFE Study

As Table 17 shows, males and females have similar participation in TAFE study, however it is slightly greater for boys at Year 10 and slightly less for boys in Years 11 and 12. These differences might be attributable to the different fields of study that appeal to males and females. It may also be related to the greater number of males who commence their trades training after Year 10.

Table 17 Proportion of students by gender who had undertaken any TAFE subjects at school by year level

	% Females	% Males
Year 10	12.0	15.3
Year 11	23.9	21.7
Year 12	25.3	20.9
Total	18.8	18.3

Participation in work experience

While more than three quarters of all students participate in work experience, the participation by females is about six percentage points greater than that of males at all year levels. This can be seen in Table 18.

Table 18 Proportion of students by gender who had undertaken any work experience by year level

	% Females	% Males
Year 10	82.4	76.8
Year 11	79.7	72.0
Year 12	76.7	69.7
Total	80.2	74.0

Participation in part-time paid work

At all year levels, and especially at Year 10, more females report involvement in paid part-time work than do males, but the males who work do so for slightly more hours. On average, females who held part-time jobs reported working 11.2 hours per week and males reported working 11.6 hours per week.

Table 19 **Proportion of students by gender who had undertaken any part-time or casual work by year level**

	% Females	% Males
Year 10	30.1	25.9
Year 11	39.7	38.4
Year 12	39.7	37.5
Total	35.2	31.8

Overview

In summary, males and females undertake similar levels of vocational learning in courses, as expressed through school VET participation and undertaking TAFE studies. On the three indicators of engagement with work, namely workplace learning, work experience and paid part-time work, females consistently demonstrate greater levels of participation than males. The differences are not great but they are consistent with females being approximately five percentage points more likely to be involved in these activities than males.

RELATIONSHIP BETWEEN STUDENT CHARACTERISTICS AND VOCATIONAL LEARNING AND EXPERIENCE OF WORK

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

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

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

RELATIONSHIPS BETWEEN VOCATIONAL LEARNING AND EXPERIENCE OF WORK AND EDUCATIONAL AND CAREER INTENTIONS

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

The educational intentions of students taking VET in school were compared with those who were not taking these studies. An index of the match between the skill demands of the desired job at age 25 and educational plans can be found by examining the concordance between these two variables and this is provided by Kendall's Tau.[3] In analyses summarised below, the Tau statistic is compared for subgroups who have, or have not, undertaken vocational learning and experience of work.

Participation in School VET

With increasing school year level, there is an increase in the highest level of education intended. This is an expected finding, since most students in lower years who intended to leave school before attaining the higher levels have done so (Khoo, Ainley, & Rothman, forthcoming). Those who are taking VET in school studies plan lower levels of education than those who do not take these studies. Thus, the decision to take school VET subjects appears to be associated with decisions either to pursue no post-school study or to undertake post-school vocational studies. Those who do take these studies have a lower level of concordance between educational intentions and the skill requirements of their preferred jobs.[4] These results indicate that these students were more likely to plan either too much or too little education.

Further investigation revealed a complex set of associations, pointing to the fact that students who have studied VET subjects more often have a mismatch plan encompassing too little education, except at Year 12. This can be seen in Figure 4. In this figure, the dark bar represents those students who plan a match between their education and job levels. It can be seen at each year level those with no VET studies are more likely to have a match. The grey shaded box indicates the proportion planning too little education. At Years 10 and 11, both groups – those who have and those who have not studied VET – more often plan too low a level rather than too high a level of education. However, at Year 12, this position is reversed for both groups.

Figure 4 **Concordance of educational and occupational levels for *Learning for Life* students who have or have not studied VET, by year level**

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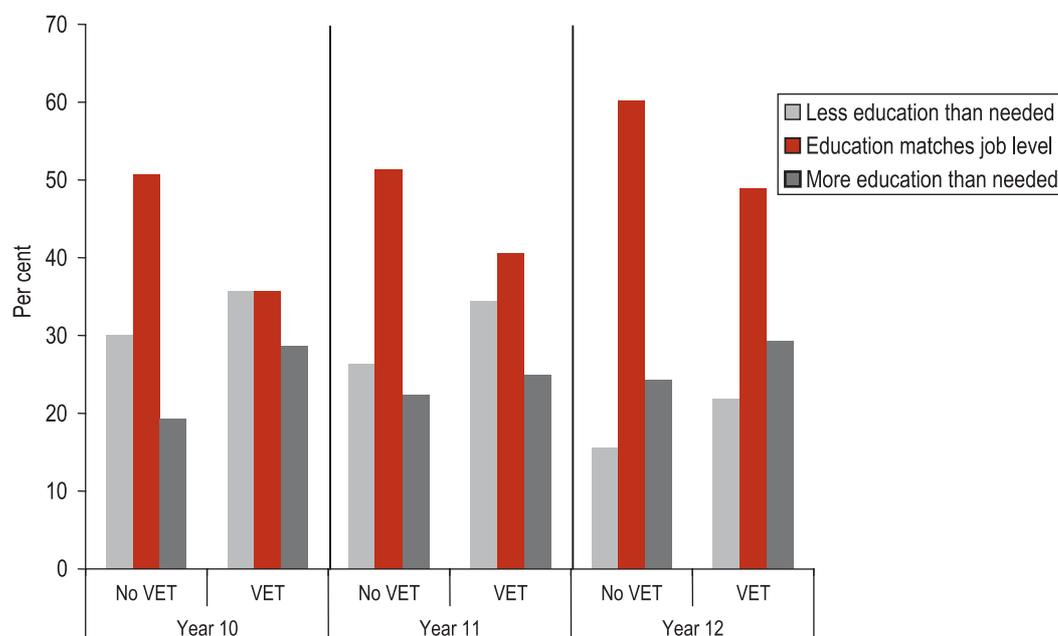
3. Kendall's Tau has a value ranging from -1 through 0 to +1, and may be interpreted in a manner similar to the more common correlation statistic Pearson's r. The larger the value the stronger the association found in the data. Values of around 0.3 and higher are especially interesting.

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

Workplace Learning

Where VET students participate in workplace based learning as part of their VET studies, there is no evidence that this form of learning influences their education plans. However, those who do undertake workplace based learning seem to have a lower concordance between the skill requirements of their desired job at age 25 and their educational intentions compared with students who do not participate in workplace learning.[5] This finding is at odds with claims that structured workplace learning leads to better career planning decisions (Woods, 2005). However, the limited opportunities for work placements has meant that the intensity of students' involvement in workplace learning is quite limited and high expectations probably should not be placed on this limited exposure to authentic and structured work placements.

TAFE study

Students in the study who take TAFE subjects plan for a lower level of study than those who do not. This association is quite strong.[6] Students who take TAFE subjects also have a lower level of agreement between the skill requirements of their preferred job and their intended educational goals.[7]

Work experience

Students who undertake work experience plan lower levels of education than those who do not.[8]

These students also have a lower level of concordance between the skills requirements of their preferred jobs and their intended level of education than those who do not participate in work experience.[9] This difference is statistically significant, although it should not be interpreted to mean that work experience leads to this effect. It may be the case that those students who are most uncertain about their plans elect to participate in work experience programs while those who have a clear idea choose not to participate.

Paid work

Participation in paid work is associated with a different pattern of relationships than the above work variables. An analysis of variance of educational aspiration by year level and participation in paid work revealed that those students undertaking paid work had higher educational aspirations than those who did not work on a part-time or casual basis.[10] Part-time workers revealed a slightly greater concordance between the skill requirements of their preferred jobs and their educational plans.[11] This difference is marginally significant. However, the fact that the direction of this difference is opposite to other experience-of-work variables is notable. Thus, part-time or casual paid work seems to be associated with 'better' career planning than does vocational learning or, usually short term, work experience placements.

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

---

5. Kendall's Tau = 0.28 and 0.44 respectively.

6. $P < 0.001$.

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

8. $P = 0.015$.

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

10. $P = 0.05$.

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

Discussion

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

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

Summary

Participation in VET is associated with a poorer match between educational plans and occupation preferences, with those in Years 10 and 11 planning too little education for their preferred job, and those in Year 12 planning more than is required for their job.

Participation in work place learning is also associated with a mismatch between educational plans and occupational preferences (although this finding needs to be treated with some caution).

For those studying a TAFE subject at school, there is a slightly increased tendency for there to be a mismatch between educational and occupational plans compared with those not studying a TAFE subject.

Those in paid work tend to have higher educational aspirations and a slightly greater concordance between their planned education and their job preferences compared with those who are not working.

These findings suggest there is need for career counselling for many of the *Learning for Life* students, especially for those involved in vocational learning. Those with work experience seem to have a better understanding of the educational requirements of jobs.

Chapter Four

Gender, interests, ability and future plans

This chapter describes:

• the school and post-school educational plans of *Learning for Life* students

• the occupational aspirations and plans of these students.

SCHOOL AND FUTURE EDUCATIONAL PLANS

There were a number of aspects of school and educational plans for which data were available including:

• the year level at which the student planned to leave school

• whether any study was planned post-school

• the type and level of planned post-school education.

Year level planned to leave school

Students were asked at what year level they intended to leave school. Table 20 shows that 76.1 per cent of Year 10 students planned to complete Year 12, 82.9 per cent of Year 11 students planned to complete Year 12, and 95 per cent of Year 12 students planned to complete the year. This suggests that nearly all Year 12 students enrol with an intention to complete the year, and not, for example, as a filler while seeking employment. More Year 10 students do not know when they will leave school compared with students in higher year levels.

Table 20 Year level at which it is planned to leave school, as a percentage of each year level at which currently enrolled

	Year 10	Year 11	Year 12
Before end Year 10	0.4	-	-
End of Year 10	7.2	-	-
During Year 11	0.5	1.3	-
End of Year 11	1.9	4.7	-
During Year 12	0.4	1.3	0.4
End of Year 12	76.1	82.9	95.2
Don't know	13.6	9.7	4.4

Gender affects the year level at which students plan to leave school. Figure 5 shows that just over 13 per cent of Year 10 boys planned not to complete Year 12, compared with just over 7 per cent of girls. At Year 11, around 5 per cent of girls planned to leave before the end of Year 12, compared with 10 per cent of boys. By Year 12 nearly all boys intended to complete the year; every female respondent intended to complete Year 12.

Figure 5 **Percentage of females and males planning to leave school before Year 12 by year level**
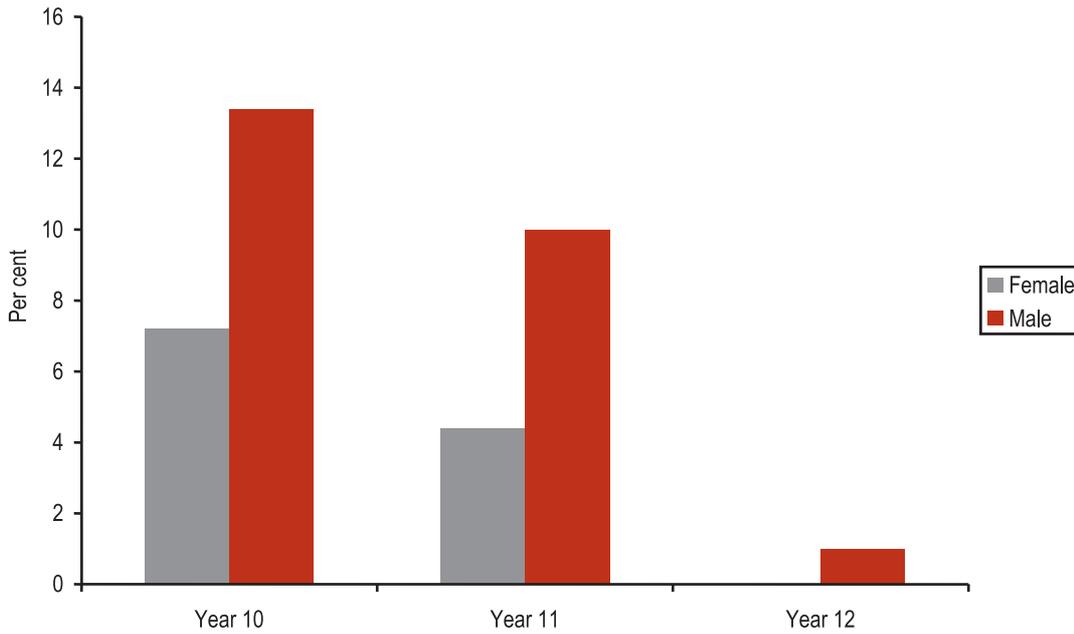
Vocational interests are known to shape school plans (Ainley & Elsworth, 1997; Ainley, Jones, & Navaratnam, 1990; Ainley, Robinson, Harvey-Beavis, Elsworth, & Fleming, 1994; Naylor, 1984; Naylor, Elsworth, Care, & Harvey-Beavis, 1997). At Year 10, 35 per cent of students with Realistic interests planned to leave before the end of Year 12. In contrast, students with other types of interest were much less likely to plan to leave school. A similar pattern was seen amongst the Year 11 students. By Year 12, so few students were planning to leave before the end of the year that no patterns could be seen in the data. Thus, having Realistic interests appears to predispose students to leave school early, while other interests appear to have little effect.

Perceived ability does appear to influence when students plan to leave school. Those who perceive themselves as below average were more likely to plan to leave school before the end of Year 12 (including those students already enrolled in Year 12). Figure 6 shows that just over 20 per cent of Year 10 students who perceived themselves as doing not as well as most in their schoolwork planned to leave school before the end of Year 12. Just under 25 per cent of students in Year 11 were also planning to leave before the end of Year 12. In contrast, under 5 per cent at Years 10, 11 and 12 who reported they achieved a lot better than most, planned to leave before the end of Year 12.

Figure 6 Percentage of students planning to leave school before the end of Year 12 by year level of enrolment according to their perceived level of ability
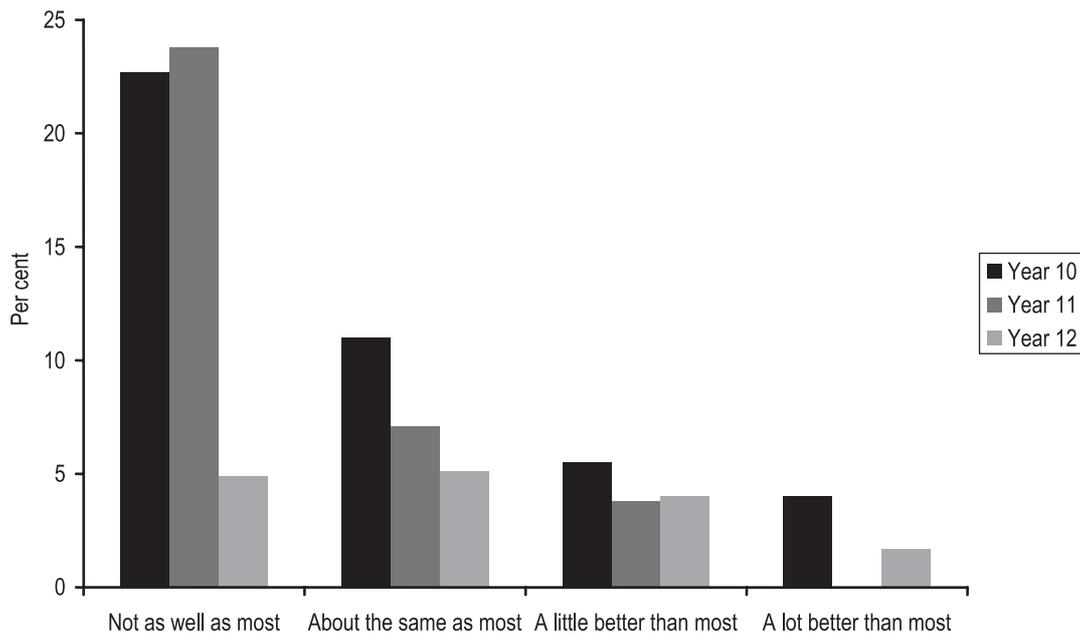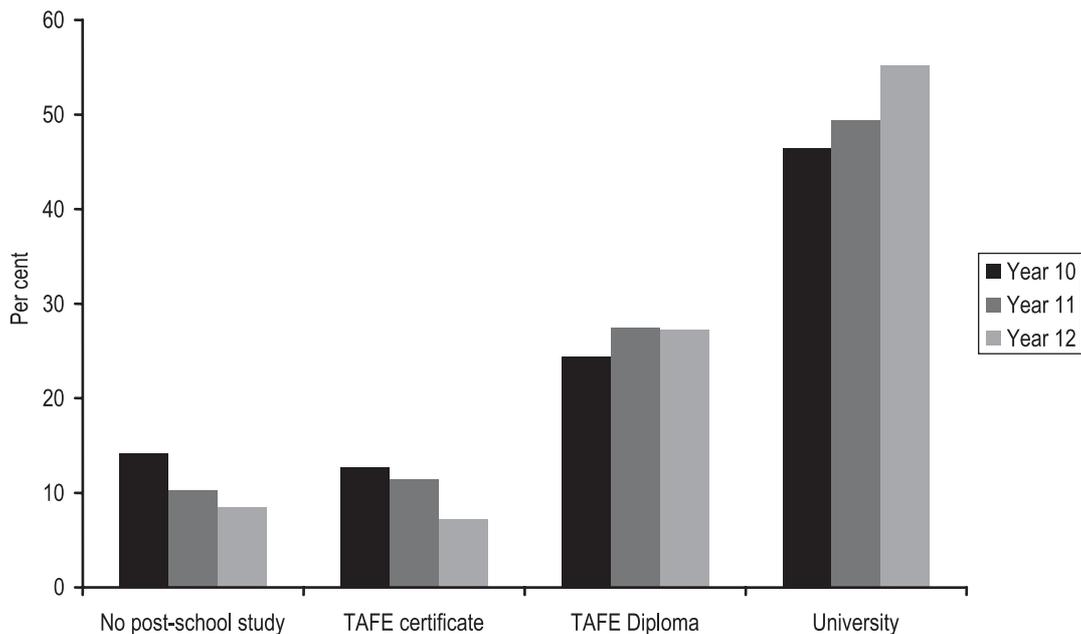

Post-school educational plans

The survey asked families of students if they intended to study after leaving school, and if so, at what level. Around 85 per cent of Year 10 students, 90 per cent of Year 11 students and a little over 90 per cent of Year 12 students planned some form of post-school study.

Figure 7 shows that overall about 50 per cent of all students planned to go to university. The proportion is slightly higher for each successive year level, with the highest proportion being at Year 12.

Figure 7 Post-school educational plans of students at each year level

There were differences between males and females in post-school educational plans. Figure 8 shows that at Years 10, 11 and 12 there was a greater proportion of boys than girls who were planning no post-school study or a TAFE certificate. In contrast, a greater proportion of girls were planning a TAFE diploma or a university degree compared with boys. These differences are greatest in Year 10 but persist across the other year levels.

Figure 8 **Post-school educational plans of students at each year level by gender**
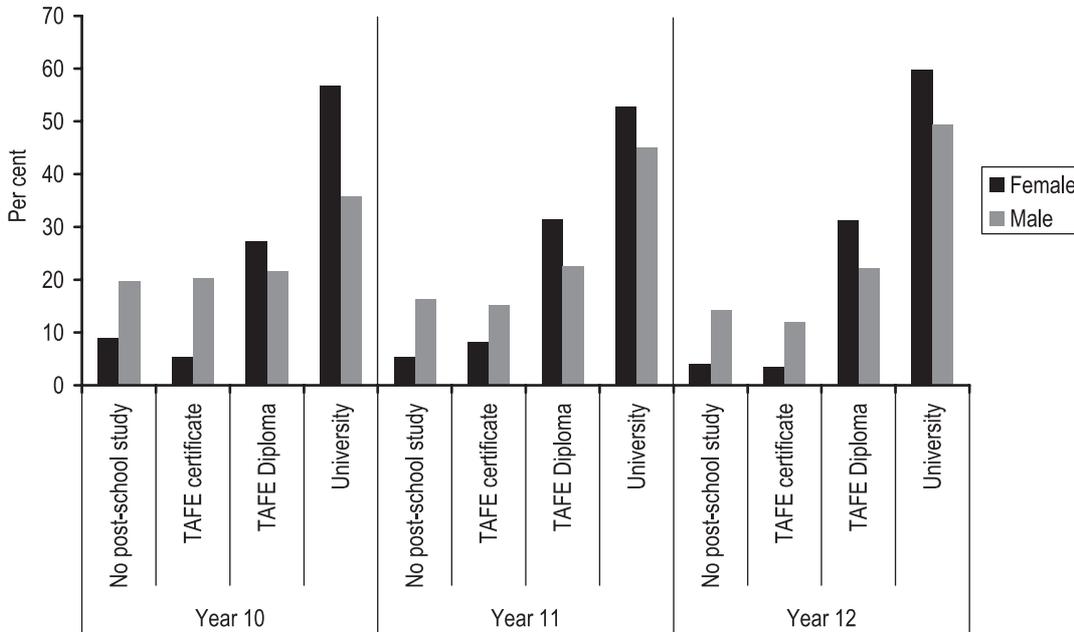
Vocational interests appear to be associated with the highest level of education planned by *Learning for Life* students. Figure 9 shows that at Year 10:

- over 30 per cent of those with Realistic interests planned to complete Year 12 or an apprenticeship. Less than 10 per cent planned to do a university degree

- all other interest types had a high proportion planning to go to university, especially Investigative and Enterprising

- those with Artistic and Social interests also frequently planned to complete Year 12 or an equivalent level diploma.

At Year 10, the Realistic group is noticeably different from other interest types, and there also appear to be differences between Investigative and Enterprising groups compared with the Artistic and Social groups. Similar patterns were seen for Year 11 and Year 12. Figure 10 shows Year 12. These findings suggest that vocational interests are important influences on the level of education planned by these students.

Figure 9 Highest level of education planned for Year 10 *Learning for Life* students by type of vocational interest
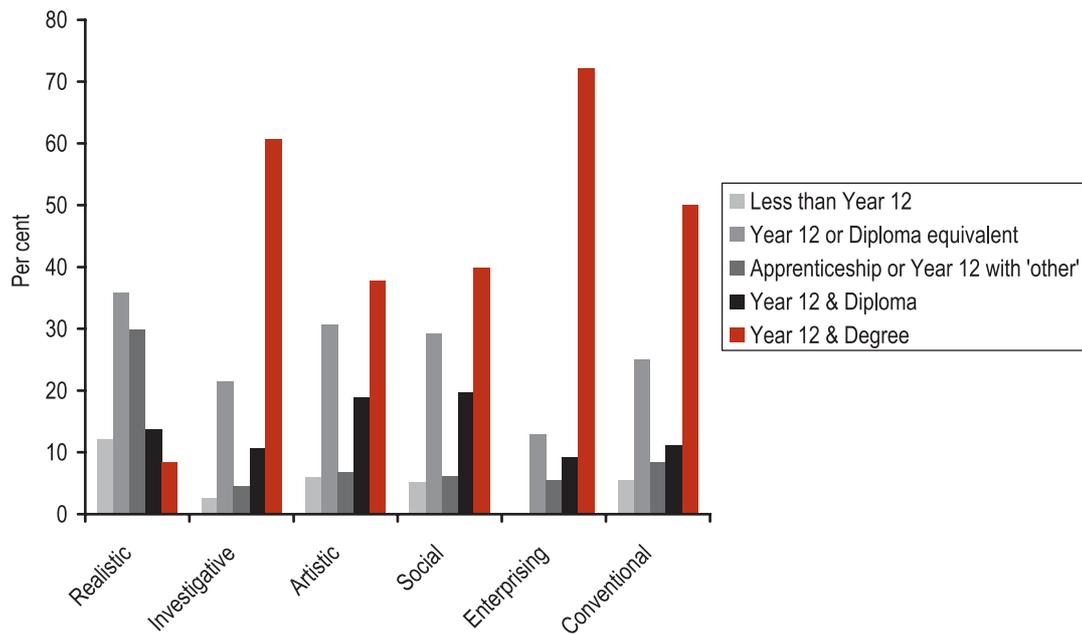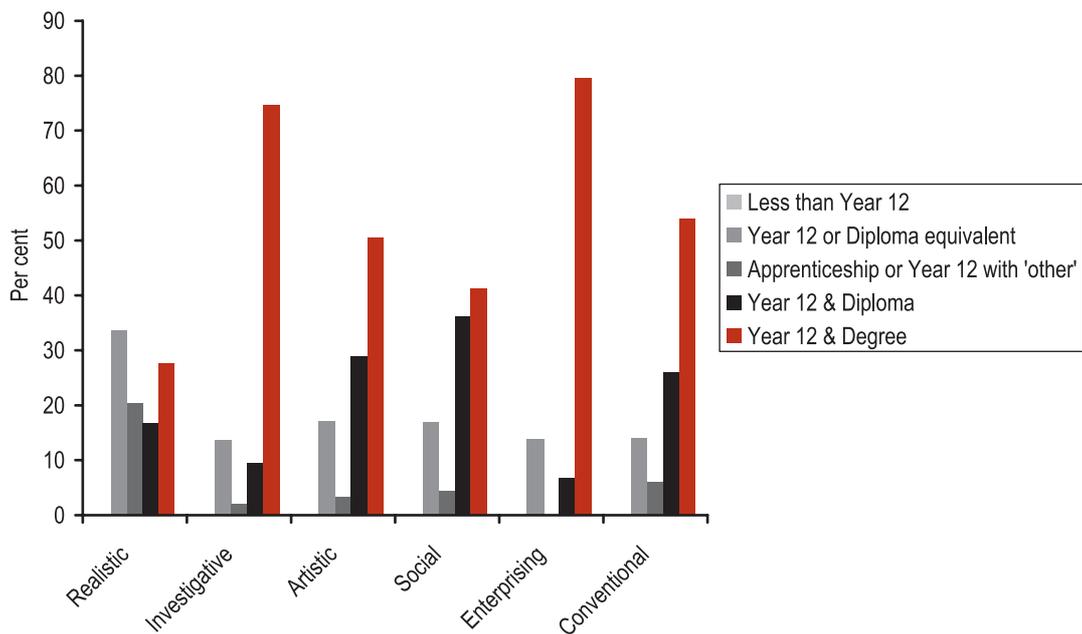

Figure 10 Highest level of education planned for Year 12 *Learning for Life* students by type of vocational interest

Perceptions of ability appear to strongly influence the highest level of education planned by *Learning for Life* students. Figure 11 shows that at Year 10 the higher the self-perceived ability the higher the probability of planning to complete a university degree and the lower the probability of undertaking an apprenticeship, or of aiming to complete Year 12 or its equivalent. For example, just over 10 per cent of those who reported they do not do as well as others planned to do a university degree. In contrast over 75 per cent of those who reported they do a lot better than most students plan to undertake a degree and none planned an apprenticeship.

Figure 11 **Highest level of education planned for Year 10** *Learning for Life* **students by level of perceived ability**
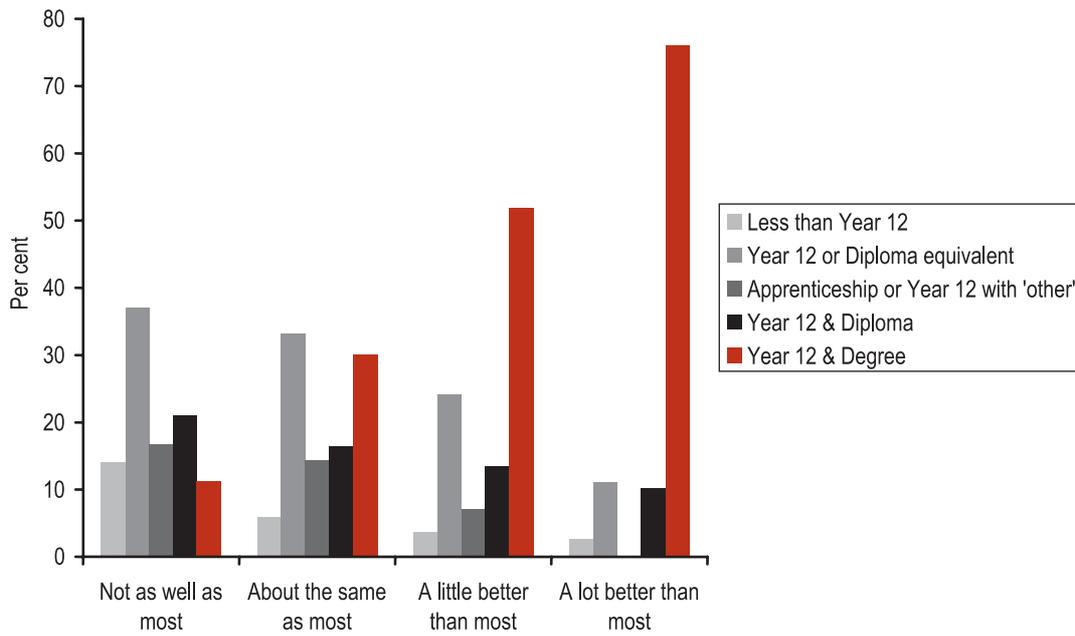
Figure 12 **Highest level of education planned for Year 11** *Learning for Life* **students by level of perceived ability**
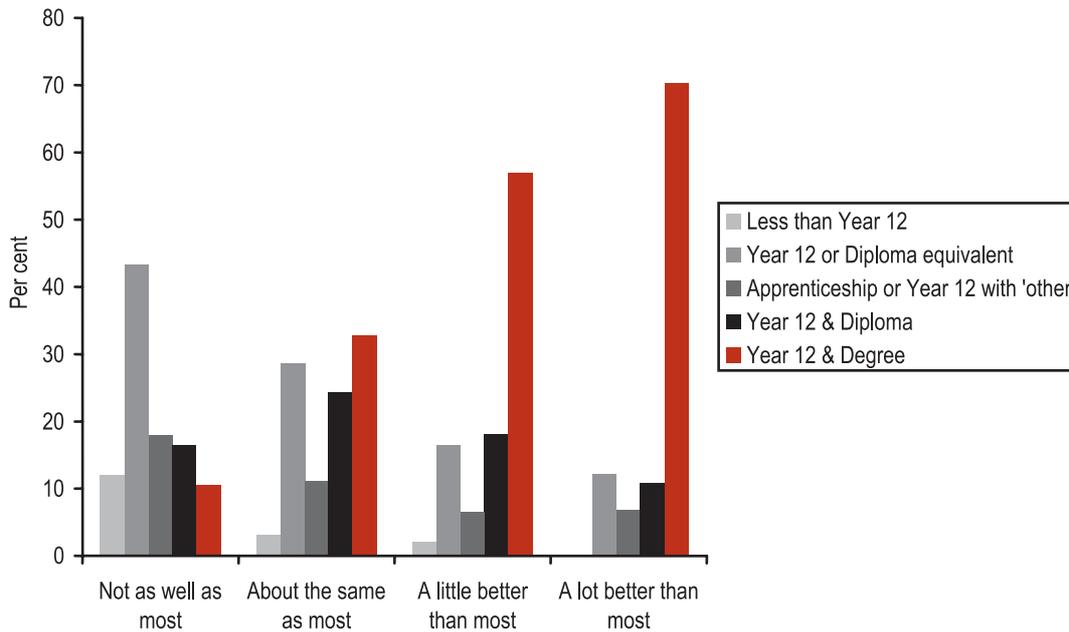
A similar pattern can be seen in Figure 12 for Year 11, except for those who described themselves as achieving about the same as most. This group was more likely to plan to complete Year 12 plus a diploma. At Year 12, the pattern seen at Year 10 is re-established – increasingly higher levels of education are planned as the level of perceived ability rises. This can be seen in Figure 13.

Figure 13 **Highest level of education planned for Year 12 *Learning for Life* students by level of perceived ability**
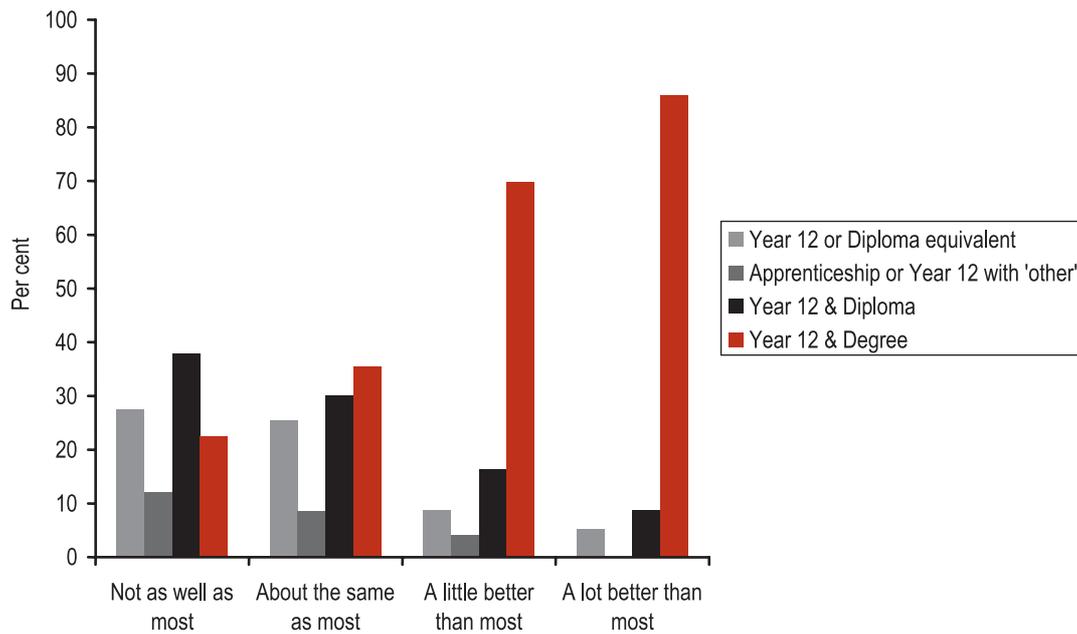
Overview

The educational plans of Year 10, 11 and 12 students in the *Learning for Life* program appear to be influenced by their gender, their interests and their perceived ability. Male students, students with predominantly Realistic interests, and those who perceive themselves as below average in school achievement, are more inclined to plan lower levels of education.

Further analyses

To explore educational plans further, in light of the above findings, a regression analysis was conducted. This was designed to show which of these factors have the strongest effect on the level of post-school education planned.[xiv] The analysis explained 25 per cent of the variance – a substantial amount – in the level of education planned. It showed that Realistic, Investigative, Social, and Conventional interests, gender, year level and perceived ability were statistically significant effects. The strongest effect was perceived ability – the higher the perceived ability the higher the level of education planned. This can be seen in Table 21 with a moderately strong standardized coefficient of 0.206. Realistic and Investigative interests had the next strongest effects, with an increase in the level of Realistic interests being associated with a decrease in the level of education planned. Investigative interests had the opposite effect. The higher the level of Investigative interests, the higher the level of education planned. The next most important effect was the year level of the student. This had around half the effect of ability. Social and Conventional interests had a weak effect. These were associated with a slight positive effect on the level of education planned. Artistic and Enterprising interests were not statistically significant so it must be assumed that they do not differ from zero in their effect. Gender did not have a strong effect. Being female was weakly associated with planning higher levels of education. Perceived ability, for example, had around two and half times the effect of gender on planned level of education.

Table 21 The relative importance of interests, gender, year level and self-perceived ability in predicting the highest level of education planned

	Standardized Coefficients	Sig.
Realistic interests	-.180	.000
Investigative interests	.197	.000
Artistic interests	.017	.378
Social interests	.066	.003
Enterprising interests	.043	.057
Conventional interests	.108	.000
Gender (Female = 0, Male = 1)*	-.088	.000
Year level at school	.115	.000
How well doing in school subjects (self-perceived ability)	.206	.000

* In the data 'female' was coded as a 0 and 'male' was coded as 1. Thus, a negative coefficient indicates that being female has a positive effect on the independent variable. In this table, the coefficient –.088 indicates that being female, net of other attributes such as self perceived ability or interests, is slightly more strongly associated with plans for higher levels of education than for boys.

These results are consistent with earlier findings that indicate interests, gender and ability, as well as the year level in which the student is studying, all influence plans for the level of their future education. Self-perceived ability and vocational interests are the most important factors affecting these plans.

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. It focuses upon the job which *Learning for Life* students nominated as the one they would most like to have at age 25. This job is seen as the one towards which the students aspire.

This section of the report examines the following attributes of the job for which these young people aspire:

• its skill level

• its socioeconomic status

• its sex composition.

It also examines:

• the expectations *Learning for Life* students have about securing this job

• the possible reasons these students see for not being able to get the job.

Skill level of the most liked job

Students were asked what job they would most like at age 25. Their answers were classified into occupational titles using the Australian Standard Classification of Occupations (ASCO) (Australian Bureau of Statistics, 1996). ASCO categories were then used to generate measures of occupational skill level and occupational status.

ASCO is a skill-based classification with nine major categories. These nine categories are grouped into five skill levels reflecting educational requirements and years of work experience required beyond formal education. These skill levels are:

- Skill level 1 (the highest skill level) which is made up of occupations from the Managers and administrators and Professionals categories of ASCO

- Skill level 2 which is made up of occupations from the Associate Professionals category of ASCO

- Skill level 3 which is made up of occupations from the Trades and Advanced clerical and service workers categories of ASCO

- Skill level 4 which is made up of occupations from the Intermediate clerical and service workers and Intermediate production and transport workers categories of ASCO

- Skill level 5 (the lowest skill level) which is made up of occupations from the Elementary clerical sales and service workers and Labourers and related workers categories of ASCO.

For the analyses that follow, the nine ASCO categories have been used because there were important differences between these categories which would have been lost had the five skill levels been used. For example, in Figure 14, it can be seen for Skill level 3 – Trades plus Advanced clerical - most students were interested in Trades, not in Advanced Clerical work. Also, routes into Trades and into Intermediate clerical work are very different, so it is more informative to use the nine ASCO categories.[xv]

Figure 14 shows the skill level of the occupation the *Learning for Life* students would like to have at age 25.[xvi] At Year 10, just over 40 per cent would like a professional occupation, and by Year 12 this rises to around 50 per cent. In contrast, at Year 10 about 25 per cent would like a Trade which falls to around 10 per cent by Year 12. This shift in proportions probably reflects the changing composition of *Learning for Life* students at each year level, with those wanting a trade having left school by Year 12.[xvii]

Figure 14 Skill level of occupations that respondents would most like to do at age 25 for each year level, showing proportion of persons employed (supply in the labour market) at each level in Australia in 2001
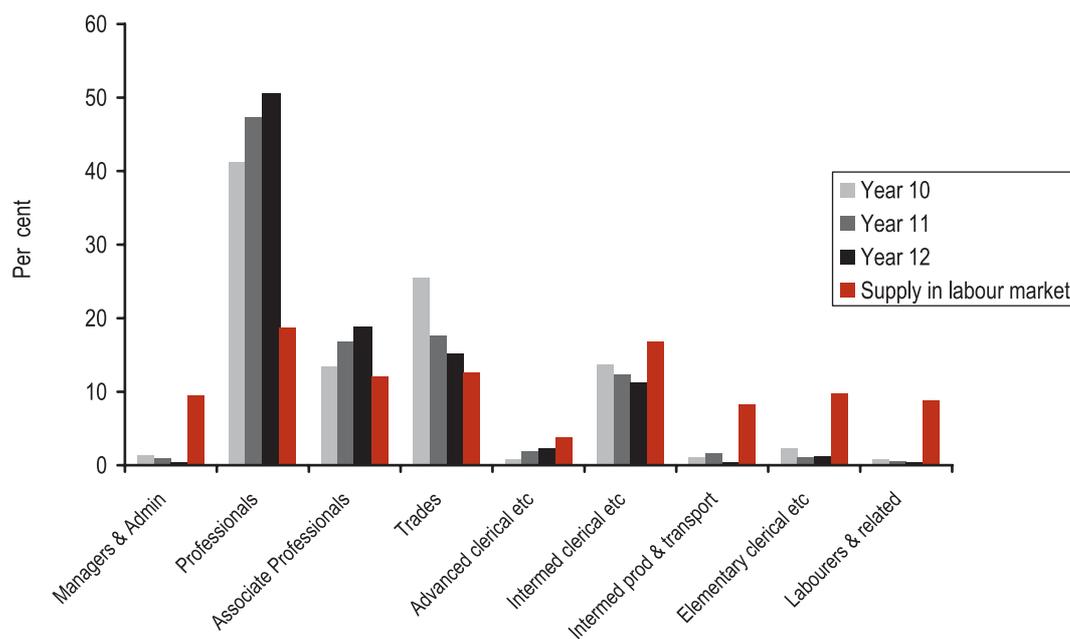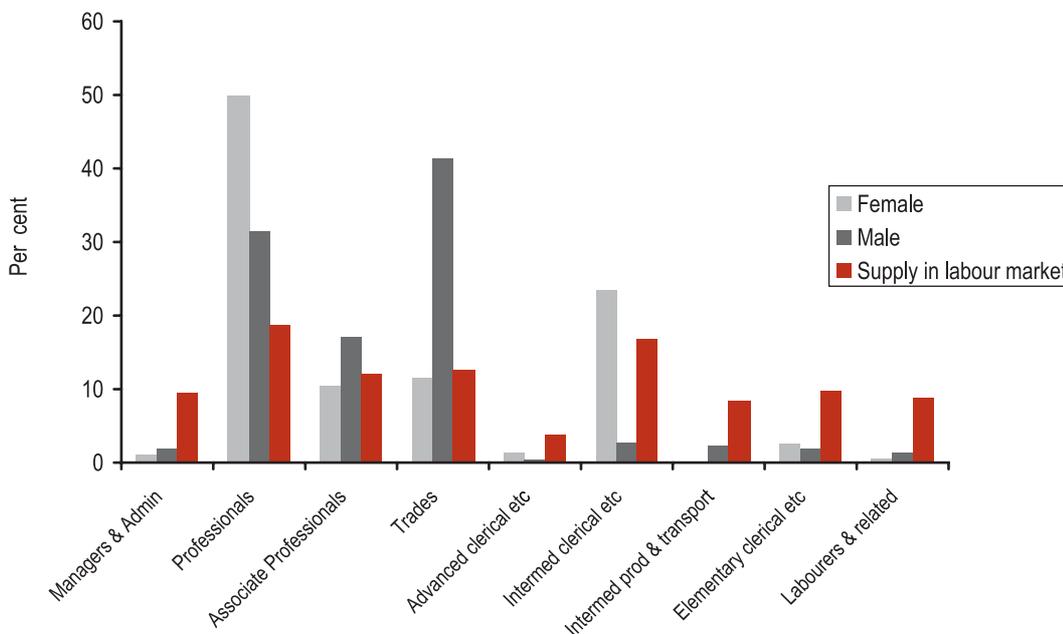
Figure 14 also shows the proportion of persons in Australia who were working at each of these skill levels in 2001.[12] A higher proportion of the *Learning for Life* young people want professional occupations than are currently available in the Australian labour market. Far fewer express a liking for an occupation from the lowest skill levels.[xviii] To phrase it another way, a high proportion of students aspire to high level jobs and a low proportion of students aspire to low level jobs. This pattern is incommensurate with present labour market offerings.

Figure 15 shows the proportion of female and male Year 10 *Learning for Life* students at each skill level as well as the proportion of persons employed at each level in Australia in 2001. Figure 16 shows the same information for Year 12 students. It can be seen in both figures that girls are more likely to prefer professional occupations than boys, and that boys are more likely to prefer trade occupations. The mismatch in the distribution of what students would like to do and the supply of jobs in the Australian labour market is also apparent in these figures – both genders are seeking jobs at selected skill levels in greater proportions than are probably available.

Figure 15 **Skill level of occupations most liked to do at age 25 of Year 10 *Learning for Life* students by gender showing the proportion of persons employed at each level (supply in the labour market) in Australia in 2001**

Figure 16 Skill level of occupations most liked to do at age 25 of Year 12 *Learning for Life* students by gender, showing the proportion of persons employed at each level (supply in the labour market) in Australia in 2001
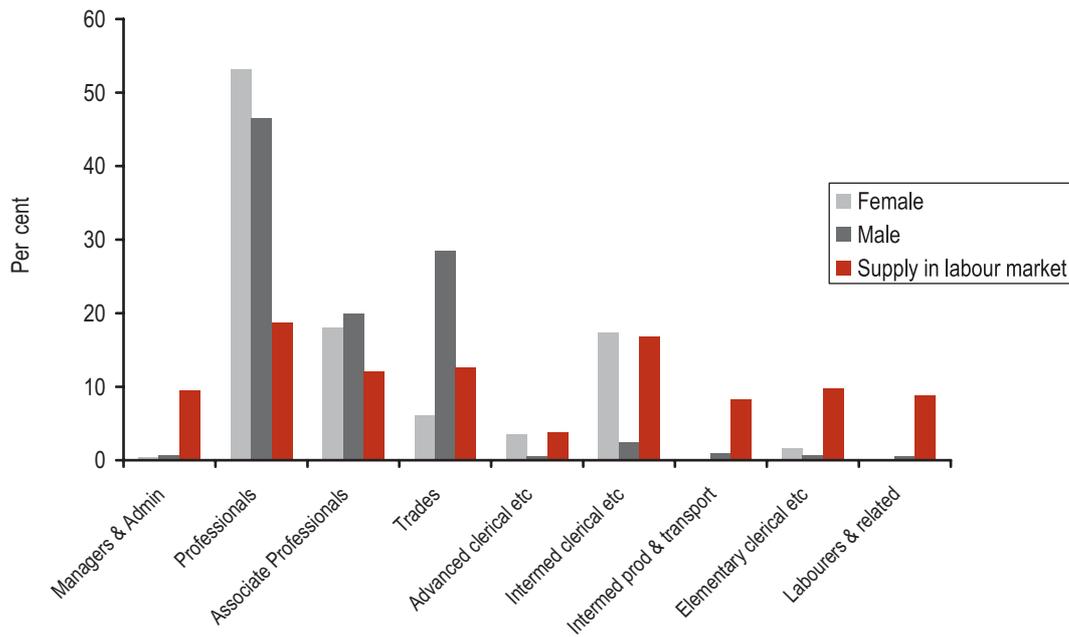
Vocational interests affect aspirations for an occupation of a given skill level, especially for those with Realistic interests. At each year level around 60 per cent of *Learning for Life* students with Realistic interests would like a trade compared with fewer than 20 per cent who would like a professional level job. Between 50 per cent and 70 per cent of students with Investigative, Enterprising or Conventional interests would like a professional job compared with about 10 per cent who would like a trade level job.

Figure 17 shows how, at Year 10, students' perceptions of their achievement at school are associated with their preferences for occupations of different skill levels. Those who perceive themselves as below average achievers are least likely to prefer a professional occupation and most likely to prefer a trade occupation. Conversely, those who perceive themselves as a lot better than most in their school subjects are most likely to prefer a professional job and least likely to prefer a trade.

Figure 17 Skill level of occupations most liked to do at age 25 by levels of perceived ability – Year 10
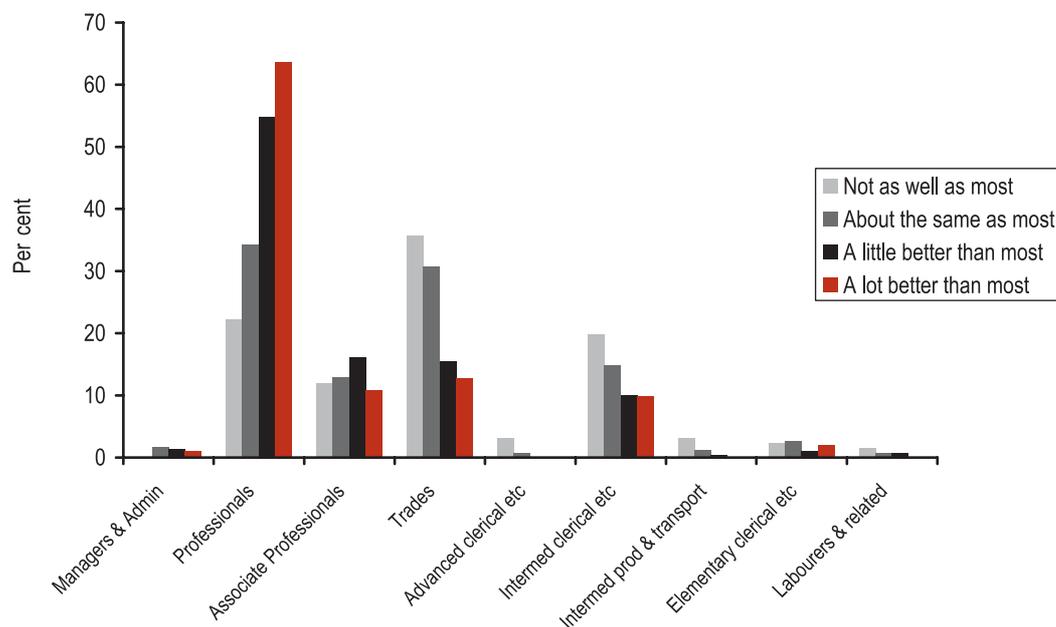
Figure 18 shows the same information for Year 12 *Learning for Life* students. The patterns remain broadly the same as those seen at Year 10. However there are some small differences. For example, at Year 12, 30 per cent of those who perceived themselves as below average most liked a job at the intermediate clerical level. This compares with 20 per cent at Year 10.

Figure 18 **Skill level of occupations most liked to do at age 25 by levels of perceived ability –**
Year 12
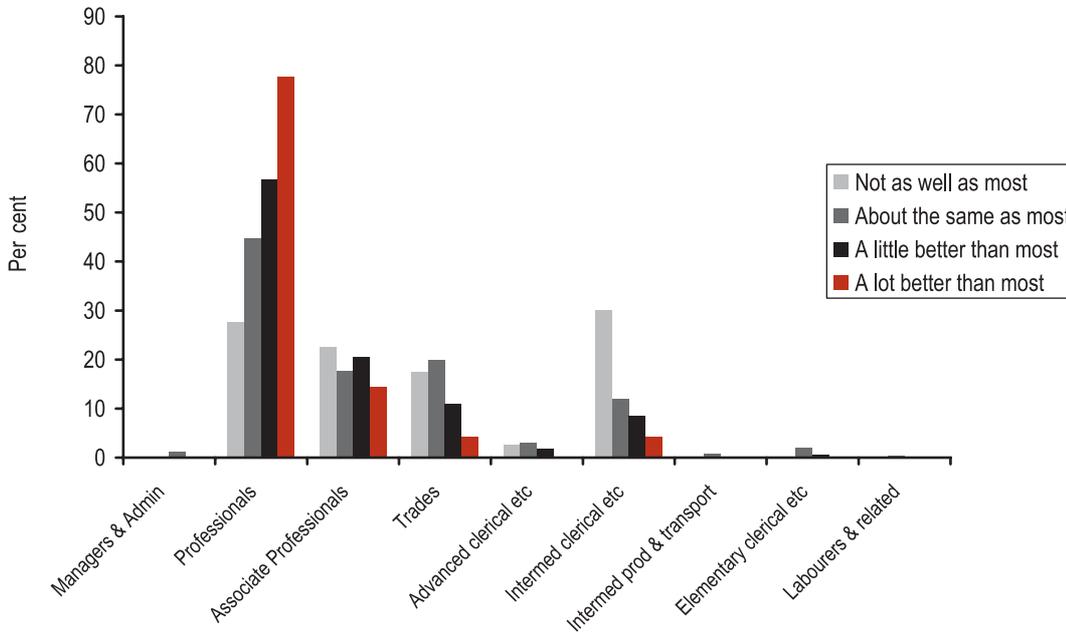
In summary the data suggest that among *Learning for Life* students:

- most want a professional level job
- very few want low-skilled jobs (ASCO categories 7, 8 or 9)
- more girls than boys would like a professional job
- more boys than girls would like a trade-level job
- different types of vocational interests are associated with liking jobs of different skill levels
- perceived ability at school strongly shapes the skill level of the job most liked at age 25.

As a group, these *Learning for Life* students' aspirational patterns are quite different from the patterns of availability in the current Australian labour market. The proportion of students aspiring to higher level jobs is higher than the proportion of jobs in the market, while the proportion of students aspiring to lower level jobs is relatively lower than the proportion of these jobs in the labour market.

It is thus fair to conclude that most of these students will need some post-school education or training if they are to obtain the job they would most like. There also appears to be a disjuncture between the proportion of jobs available at different levels and the proportion of students seeking jobs at these levels. This is especially true of professional level jobs.

Expectations about getting the aspired for job

The *Learning for Life* students were asked if they expected to get their most liked job. At Years 10, 11 and 12, around 80 per cent indicated that they expected to get their preferred job. Less than 1 per cent expected to be unemployed, however the national unemployment rate as of February 2005 was 8.8 per cent for those 20-24 years of age (Australian Bureau of Statistics, Labour Force Survey). This rate would be even higher for early school leavers.

There were no statistically significant differences between males and females – both were equally likely to expect to get the job they most liked. There were small differences between students with different interests except for Artistic types (who more frequently expected to not be able to get the job they most liked). Given the small number of artistic occupations this is probably a fairly accurate assessment of the labour market and hence of their chances.[xix]

There were, however, large differences in expectations stemming from students' perceptions of their ability. These can be seen in Figure 19. For example, it indicates that 60 per cent of those who perceived themselves as having the lowest level of ability at Year 10 expected to get the job which they most liked, compared with over 80 per cent of those who perceived themselves as a lot better than most of their peers.

Figure 19 **Percentage of *Learning for Life* students who expect to get their most liked job by level of self-perceived ability for each year level**
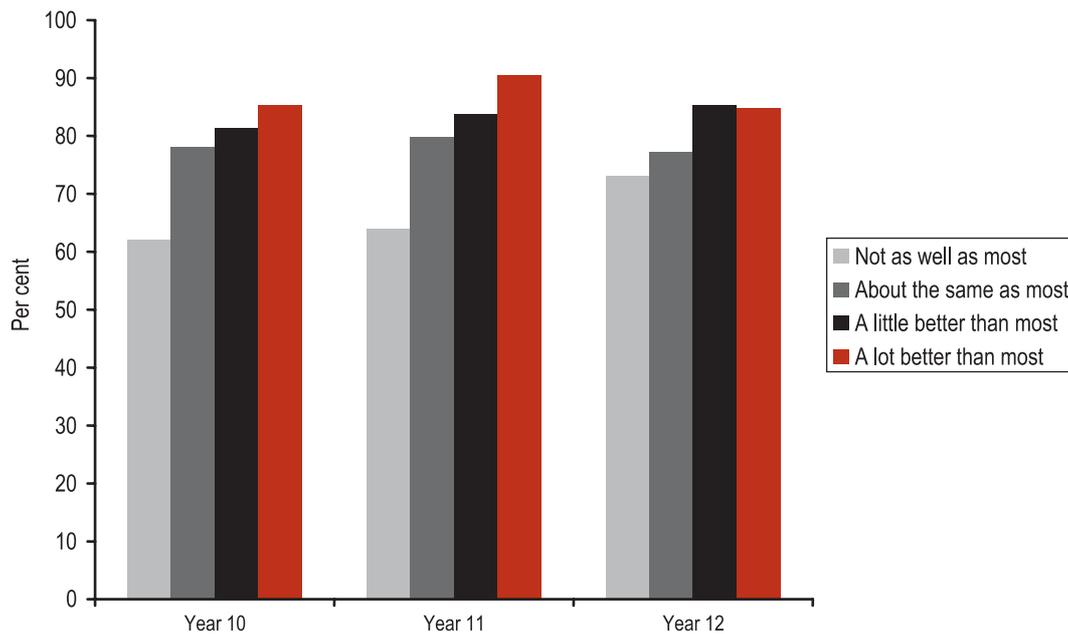
The differences between the groups across year levels can be seen more clearly by mapping these, as based upon the overall distribution of responses. Figure 20 shows these data. It represents the expectations of students, in each Year level, regarding their most liked job and their level of self-perceived ability. If self-perceived ability were not a factor influencing expectations, no marking would appear above or below the line in Figure 20. However, it can be seen that at Year 10, those students who perceived themselves as below average in their school subjects were around 23 points below this line, indicating that perceived ability is influencing their expectations of obtaining their most liked job. These students were less likely to expect to get their most liked job.

It is also interesting to note that as students move into the higher year levels at school the group's expectations regarding the possibility of obtaining their most liked job narrows. Students become more likely to expect to be able to obtain their preferred job. However the effect of perceiving oneself as below average persists on expectations, but it is less pronounced. This may suggest that students are compromising their occupational aspirations as they mature. Or it may mean that students who perceive themselves as below average at Year 12, do not perceive themselves as below average in the pool of all young people in the labour market (which would include those who did not complete Year 12 at school). Or it may be a combination of both factors.

Figure 20 *Learning for Life* **students who expect to get their most liked job by level of self-perceived ability for each year level**
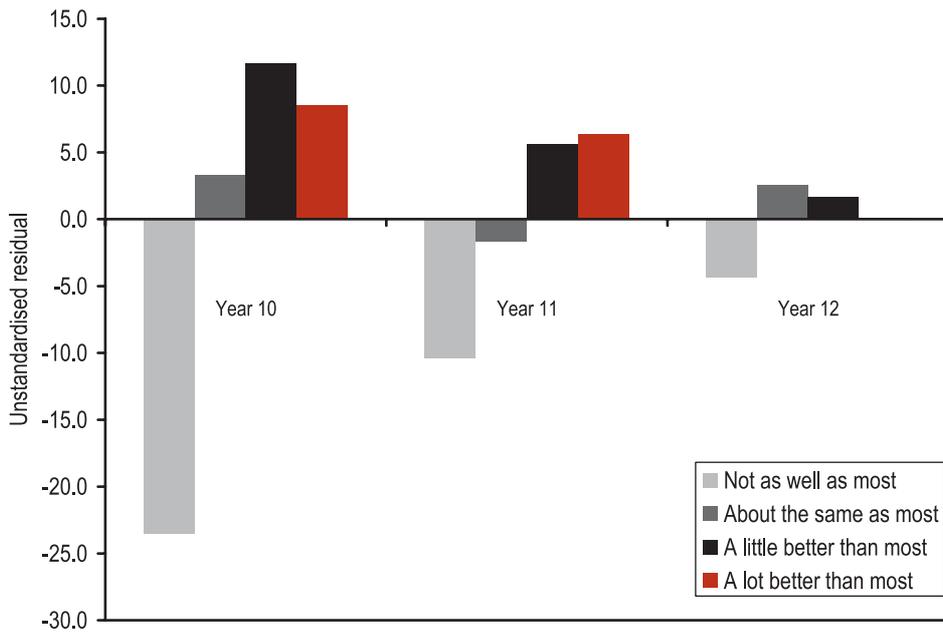
In summary:

• around 80 per cent of students expect to get the job they would most like at age 25

• very few expect to be unemployed

• perceived ability at school was strongly associated with expectations about getting the most liked job, with those having self-perceived low ability least likely to expect to get the job. This was strongest at Year 10 and weakest at Year 12.

These students are, on this information, confident about being able to implement their vocational plans.

Reasons for not getting the aspired for job

Respondents were asked to indicate the importance of a range of reasons for not getting their most liked job. Few students saw their gender as an important explanation. This is despite the strong gender based distinctions in the world of work (see Figure 27, page 54).

For all students, ability was seen to be an important explanation for not getting a job. Just over 50 per cent of respondents – irrespective of year level – thought this would be an important or very important reason. However, this reason was seen as more important for those with low levels of perceived ability. This can be seen in Figure 21 – the lower the student perceived their ability at school, the more important ability was seen to be as an explanation for a failure to get the job they most like. This view was held despite adjustments these students appear to have made to their occupational aspirations – those with lower self-perceived ability, on average, aspired for jobs with lower skill levels.

At Year 12, nearly 70 per cent of those students who perceived themselves as a little better than most, appear to attach greater significance to ability than this group at other year levels. It is possible that at Year 12 these students have assessed themselves as close to a boundary, defined by ability, between job levels in the world of work – a boundary they are uncertain about being able to cross. The other group to note in Figure 21 consists of those who assess their ability as about the same as most at Year 12. Under 30 per cent of this group see ability as important for explaining why they might not get their most liked job. It is not clear why this effect is occurring.

Figure 21 **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 for each year level**
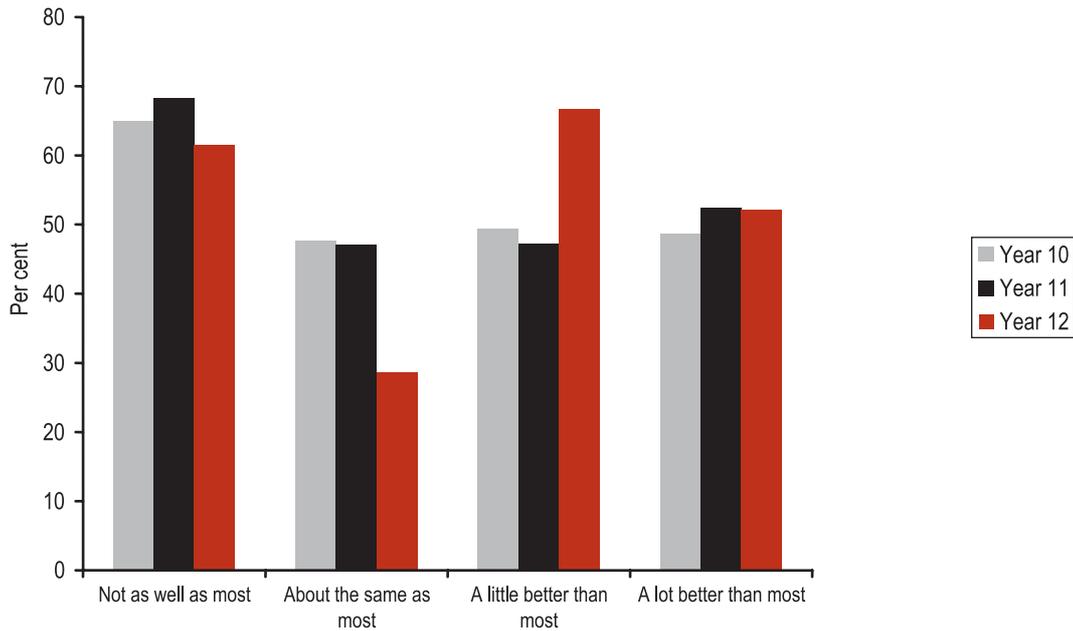
Figure 22 **Proportion of students who saw the effort required as important or very important as an explanation for why they might not get their most liked job by perceived levels of achievement for each year level**
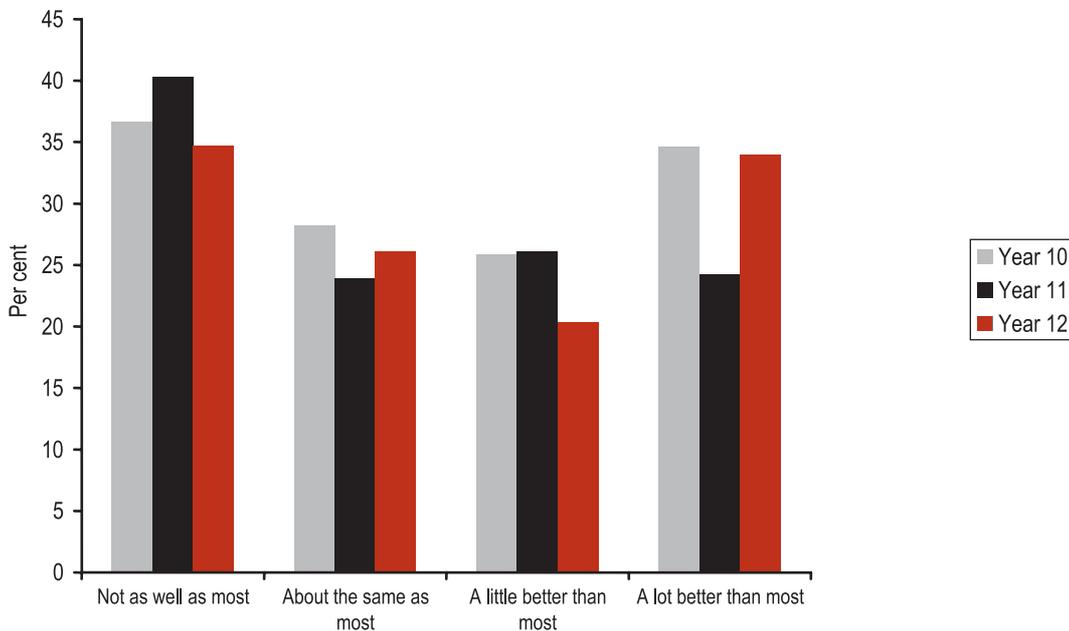
The amount of effort made by the student was seen to be important by around 35 per cent of students who perceived themselves as not doing as well in their school subjects as most others. This falls to between 20 per cent and 25 per cent for those who perceived themselves as about the same as or a little better than most (see Figure 22).

Around 60 per cent of students, irrespective of their year level, saw the amount of education required for a job as an explanation for not getting their most liked job. Further investigation showed that there were moderately strong correlations between:

- the amount of effort and the level of education required as an explanation for not getting a job,

- the amount of effort and the amount of ability that students saw as required for the job.[13]

This suggests that a sizeable proportion of the perceived effort required for a job is linked, by these students, to educational requirements and the ability required to undertake this education. In short, achieving a desired job requires education and education requires ability and effort.

Figure 23 **Proportion of students who saw the availability of jobs as important or very important as an explanation for why they might not get their most liked job for each year level**
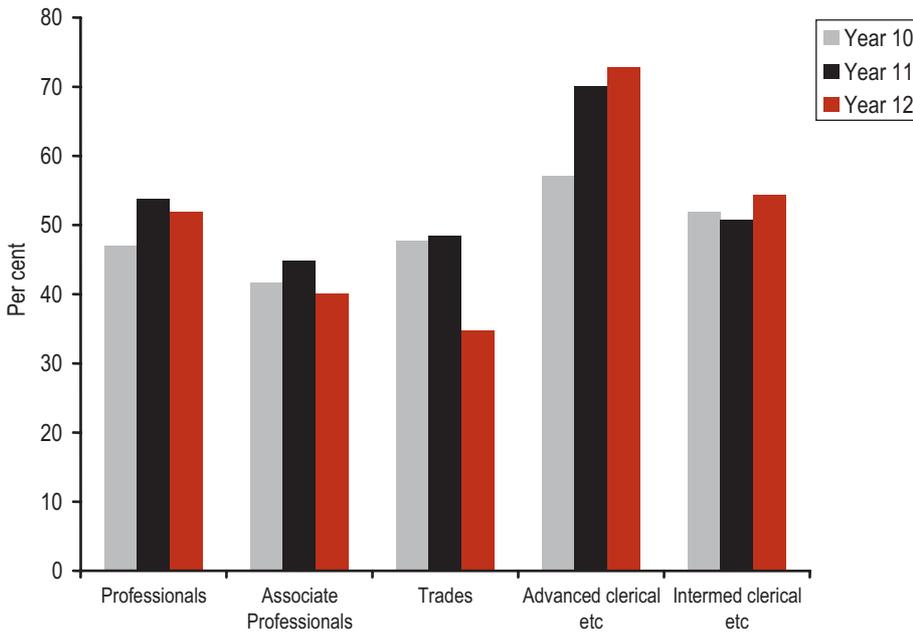

Around 50 per cent of students, regardless of year level or level of perceived ability, saw the availability of jobs as an important or very important explanation for why they might not get their most liked job. This percentage was roughly similar across year levels but varied according to the various skill levels of occupations. This can be seen in Figure 23. This figure only includes those categories of occupation where large numbers of students express an interest in working. A feature of Figure 23 is that only 40 per cent of students seeking a professional occupation see shortages as an explanation for not getting their most liked job. This compares with around 60 – 70 per cent who would like an advanced clerical job. Figure 15 and Figure 16 show there is a close match between the proportion of students interested in advanced clerical jobs and the proportion of people working in them. In contrast, there is a far higher proportion of students seeking professional occupations than there is available in the world of work.

A large proportion of students indicated they did not know how to get the job they would most like. As Figure 24 shows, this is strongly associated with the perceived ability of the students. Nearly 60 per cent of students who perceive themselves as below average indicated that this factor was important or very important for explaining why they might not get the job they most liked. In contrast, around 30 per cent of those who saw themselves doing a lot better than most reported a lack of knowledge as an important or very important reason for not getting their most liked job.

---

13. Pearson's r = 0.44, P<0.001, r = 0.43, P < 0.001, respectively. Pearson's r is a measure of the strength of linear association between two variables. It ranges in value from -1, a perfect negative association through to +1, a perfect positive association. For a negative association, an increase in the value of one variable is associated with a decrease in the other variable. Values above 0.3 are typically regarded as sufficiently strong in the social sciences to warrant comment.

Figure 24 **Proportion of students who reported not knowing how to get their most liked job was important or very important as an explanation for why they might not get this job, for each year level**
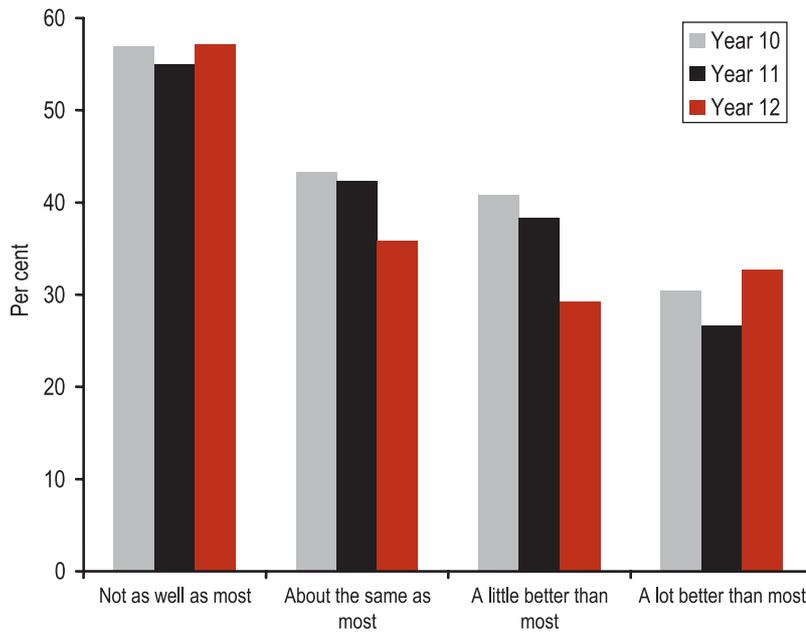
In summary:

- ability, the amount of education needed, the availability of jobs in the labour market and not having sufficient information were seen as important explanations for not getting a job by most students

- effort required was seen as important by only about 30 per cent of students, and seems to be associated with the level of education needed for a job.

There appears to be a need to provide students with more information about how to get the job they would most like, especially for those students who perceive themselves low in ability at school. All students may also need more information about the availability of jobs of various types in the labour market.
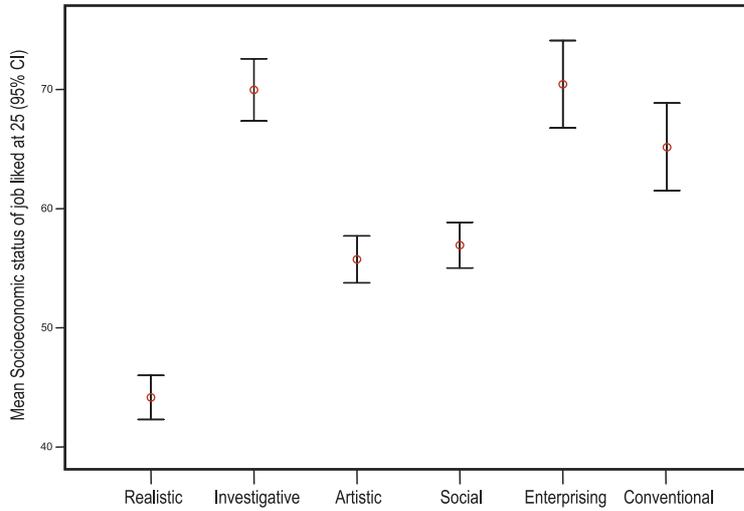
Socioeconomic status of most liked job

ASCO categories can be linked to an index of socioeconomic status – the ANU4 scale (Jones & McMillan, 2001). The ANU4 scale ranges from 0 – the lowest level of socioeconomic status – to 100.

Girls aspire for higher status occupations than boys. On average the social status score of their aspired for occupations was 60.3 (SD = 24.0) compared to boys with an average of 53.6 (SD = 22.6). This difference is statistically significant.

Vocational interests are associated with the socioeconomic status of the occupation most liked at age 25. This can be seen in Figure 25. Students with Realistic interests aspired for occupations with a mean score of 44.2 (SD = 18.4). In contrast, students with Investigative interests aspired for occupations with a mean socioeconomic score of 70 (SD = 23.2). Students with Enterprising and Conventional interests had similarly high averages. Those students with Artistic and Social interests aspired for occupations with mean socioeconomic scores of around 55.

Figure 25 Mean socioeconomic status of the occupation most liked at age 25 for students grouped by their main vocational interest type

Perceived ability is also associated with the socioeconomic status of the most liked occupation. Figure 26 shows those who perceive themselves as achieving below average would most like occupations with an average level of socioeconomic status of 44.8 (SD = 18.6). In contrast those who perceive themselves as well above average would like occupations with an average level of socioeconomic status of 70.8 (SD = 23.7) – about 25 points higher. These differences were similar across each of Years 10, 11 and 12.

Figure 26 Mean levels of socioeconomic status of occupation liked at age 25 by levels of perceived achievement at school (showing 95% Confidence Intervals)
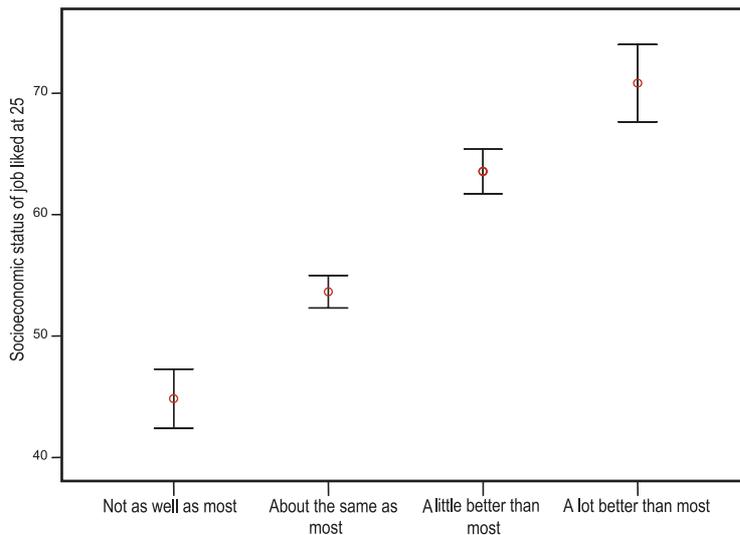
Thus, perceived ability at school appears to be associated with the socioeconomic status of occupations that these young people would like to have at age 25. The extent to which this effect is muted by their socioeconomic background was investigated by comparing these data with data from the PISA survey. It was found that there was virtually no muting effect. The correlation between the socioeconomic status of the job planned at 30 and measured ability (PISA mathematics score) was 0.29 for the students from families in the lowest quintile of socioeconomic status. This compared with 0.30 for the third, fourth and fifth highest quintiles. For students from the second lowest quintile of socioeconomic status there was a correlation of 0.35. This suggests that young people from this family background aim a little higher for their ability than other students. Overall, however, the differences are negligible to small, so family background does not appear to mute the effect of ability.

In summary, gender, vocational interests, and perceived ability are associated with the socioeconomic status of the occupation students would most like at age 25. There was no evidence from PISA that family background mutes these effects.

Sex composition of most liked job

It is also possible to link ASCO titles to the proportion of males and females working in each occupation using Census data.[xx] 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 27 shows that girls liked occupations where the average female participation rate was around 58 per cent. In contrast, for boys the average female participation rate in the jobs they would like was 24.8 per cent.

Figure 27 **Mean levels of female participation within occupation liked at age 25 by gender of** *Learning for Life* **students (showing 95% Confidence Intervals)**
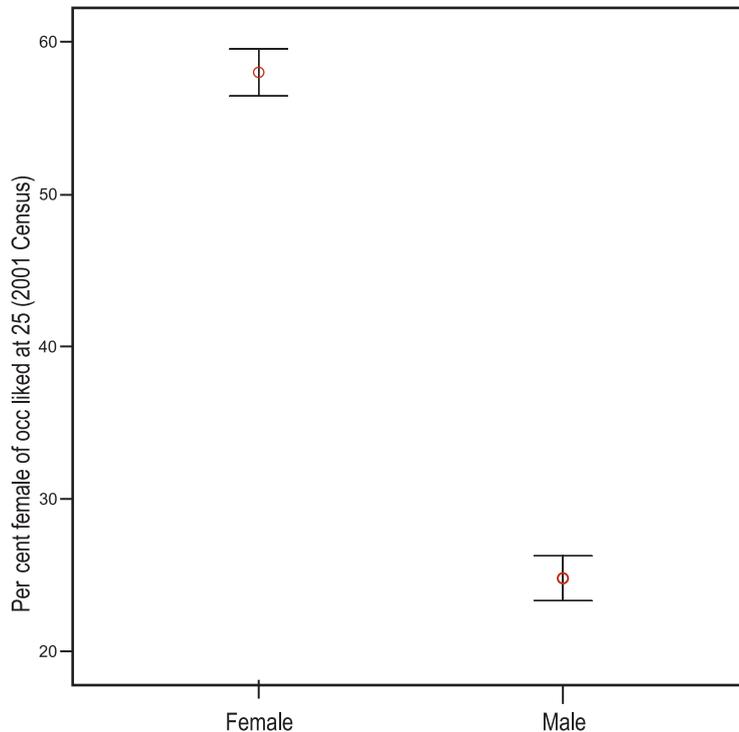
The clear preference for jobs in which the same gender predominates may explain why *Learning for Life* students do not see gender as a barrier to getting the job they most like.

In summary, gender is an important factor in shaping vocational plans.

Overview

The vocational plans and aspirations of Year 10, 11 and 12 *Learning for Life* students appear to be shaped by their gender, interests and perceived ability.

Further analyses

A series of regression analyses were conducted to investigate the relative importance of each of the main factors shaping vocational plans.

The first analysis investigated the skill level of the occupation students reported that they would most like at age 25. The results can be seen in Table 22.[14] This analysis accounted for 12.7 per cent of the variance, so it is only moderately useful – other unidentified factors are also involved in predicting the skill level. However, these results do show that perceived ability, interests (especially Realistic and Investigative) and gender all affect the level of the job to which *Learning for Life* students aspire. A similar but stronger set of results (Table 23) can be seen for the socioeconomic status of the job *Learning for Life* students would most like at age 25. This model accounts for 24 per cent of the variance, which is a moderately strong result. It is interesting to note that gender is not statistically significant – it is interests and perceived ability which have the strongest effects on the socioeconomic status of the job. This analysis shows that an increase in the level of Realistic interests is associated with a reduction in the socioeconomic status of the job, while an increase in Investigative interests is associated with an increase in socioeconomic status. This fits with the expected patterns, given that Realistic jobs are typically low and Investigative jobs high in socioeconomic status (Gottfredson, 1980, 1981, 2002).

Table 22 The relative importance of interests, gender, year level and self-perceived ability in predicting the level of skill of most liked occupation

	Standardized Coefficients	Sig.
Realistic interests	-.166	.000
Investigative interests	.134	.000
Artistic interests	.040	.088
Social interests	-.022	.402
Enterprising interests	.081	.003
Conventional interests	.084	.004
Gender (Female = 0, Male = 1)	.111	.000
Year level at school	.054	.012
How well doing in school subjects (self-perceived ability)	.157	.000

14. For assistance in interpreting the tables of standardised coefficients and their related statistical significance, see End Note xiv.

Table 23 The relative importance of interests, gender, year level and self-perceived ability in predicting the occupational status of most liked occupation

	Standardized Coefficients	Sig.
Realistic interests	-.259	.000
Investigative interests	.240	.000
Artistic interests	-.043	.050
Social interests	.052	.037
Enterprising interests	.033	.193
Conventional interests	.131	.000
Gender (Female = 0, Male = 1)	-.004	.882
Year level at school	.037	.064
How well doing in school subjects (self-perceived ability)	.175	.000

Table 24 shows the results of a regression analysis using interests, gender, ability and year level to predict the sex composition of the job *Learning for Life* students would most like. This analysis accounted for 36 per cent of the variance. It can be seen that interests and especially gender are important but that perceived ability is not statistically significant. Year level is also significant, suggesting that as the student population changes between Years 10 and 12, so students are a little more likely to prefer occupations in which members of their gender predominate.

Table 24 The relative importance of interests, gender, year level and self-perceived ability in predicting the sex composition of most liked occupation

	Standardized Coefficients	Sig.
Realistic interests	-.286	.000
Investigative interests	-.051	.000
Artistic interests	.026	.028
Social interests	.185	.191
Enterprising interests	-.062	.000
Conventional interests	.046	.008
Gender (Female = 0, Male = 1)	-.308	.068
Year level at school	.019	.000
How well doing in school subjects (self-perceived ability)	-.030	.297

These findings point to the importance of gender, perceived ability and vocational interests in shaping the vocational aspirations of *Learning for Life* students. It seems as if these students seek jobs that they will like – in accord with their gender and interests – and then within this pool of jobs, they select a job which matches their perceived ability. This suggests these students have a complex appreciation of the terrain making up the world of work and their future locations in this world. They still, however, have to learn how much space is available for them to stake their claim for this job. There was some evidence of a mismatch between what Year 10, 11 and 12 *Learning for Life* students would like for a job and the availability of these jobs in the labour market. This finding suggests that at least some of these young people may not correctly understand the skill levels required for various occupations and how to obtain them. Nor do they appear to understand the likelihood of obtaining jobs once they have the requisite skills. (Just over 50 per cent did not see that not getting a job would be related to availability, and for those aspiring for professional occupations just under 70% did not see availability as important.)

These findings also suggest that *Learning for Life* students see entry into further education and the world of work as largely based upon educational achievement or ability or both. To this extent they do not appear to allow their background to hinder their plans. All of these students come from low socioeconomic families, yet those who perceive themselves as having high ability (a) plan higher levels of education (b) like jobs with higher skill levels and (c) like jobs with higher levels of socioeconomic status.

Conclusion

This chapter provides an overview of the study. It summarises the main findings and suggests some directions for further research.

This report examined the educational and occupational plans and aspirations of young people in Years 10, 11 and 12 who are participants in The Smith Family's *Learning for Life* program.

The study addressed the following questions:

a. What are the educational and occupational plans and aspirations of Learning for Life Year 10 to 12 students?

b. What factors shape these plans and aspirations?

c. How accurate are the understandings that these Learning for Life students bring to their plans?

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

The approach adopted in addressing the research questions was guided by the research literature, findings from the earlier study – *What do students think of work?* – and by Gottfredson's (1981; 1996; 2002) theory of the development of vocational aspirations. Under this theory, young people seek to identify their preferred job by seeking to match three aspects of themselves to a job. These aspects are ability, gender and interests. The research questions were, therefore, addressed by considering the extent to which (1) ability (2) gender and (3) occupational interests shape educational and occupational plans.

THE EDUCATIONAL AND OCCUPATIONAL PLANS AND ASPIRATIONS OF LEARNING FOR LIFE YEAR 10 TO 12 STUDENTS

Most students in Years 10, 11 and 12 appear to have vocational plans in place, although a sizeable minority (around 30 per cent) appear to remain undecided.

Learning for Life students planned many different destinations in the world of work and many different routes to these destinations. In general, the following may be said:

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

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

FACTORS WHICH SHAPE EDUCATIONAL AND OCCUPATIONAL PLANS AND ASPIRATIONS

Consistent with Gottfredson's theory, the educational plans of Year 10, 11 and 12 students in the *Learning for Life* program appear to be influenced by gender, interests and self-perceived ability. Specifically:

- different types of vocational interests are associated with liking jobs of different skill levels
- perceived ability at school was strongly associated with expectations about getting the most liked job, with those having self-perceived low ability least likely to expect to get the job
- perceived ability at school strongly shapes the skill level of the job most liked at age 25
- participation in VET is associated with a poorer match between educational plans and occupation preferences

- participation in work place learning is also associated with a poorer match between educational plans and occupational preferences (although this finding needs to be treated with some caution)

- studying a TAFE subject at school slightly increases the chance of a poor match between educational and occupational plans

- those in paid work tend to have higher educational aspirations and a better match between their education and job plans.

Overall, it appears likely that these students seek jobs that they expect to like – in accord with their gender and interests – and then within this pool of jobs, they select a job which matches their perceived ability. This finding implies these students have a rich appreciation of the world of work.

THE ACCURACY OF UNDERSTANDINGS BROUGHT TO EDUCATIONAL AND OCCUPATIONAL PLANS

While the *Learning for Life* students appear to have a good understanding of the contents of the world of work, this study found evidence they have more to learn about how to get these jobs, and the probabilities of them doing so even if qualified. Many appear to misunderstand the availability of some jobs, especially those interested in the Professions and Trades. These students saw ability, the amount of education needed, the availability of jobs in the labour market and not having sufficient information as important explanations for not getting a job, yet nearly all expected to get their preferred job.

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

This indicates a need to provide students with more information about how to get the job they would most like. The study suggests that this is especially for those students who perceive themselves low in ability at school. All students may also need more information about the availability of jobs of various types in the labour market. This is reinforced by the finding that a large proportion of students indicated they did not know how to get the job they would most like. (This, too, was strongly associated with the perceived ability of the students. The lower their perceived ability, the less likely they were to know how to get their preferred job.)

OTHER FINDINGS

There were a number of other findings of interest from this study:

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

- for the *Learning for Life* students, a sizeable proportion of the perceived effort required for a job is linked to educational requirements and the ability required to undertake this education. In short, for them, achieving a desired job requires education and education requires ability and effort.

- for these *Learning for Life* students, and possibly their families, appear to perceive, irrespective of their academic achievement, greater value in including vocational learning in their school programs.

WHERE TO NEXT

This study reveals that young people are preparing, somewhat optimistically, to enter the world of work. They are optimistic because few seem to appreciate the difficulty of obtaining their preferred job. Most expect to get their preferred job. Few expect to be unemployed. It is possible that many of these students are yet to compromise. When they do, the pattern of demand they exhibit may be closer to the pattern of supply in the labour market. But this is unknown, and that it is unknown points to a need for longitudinal data. With such data:

- the outcome of post-school plans could be observed

- the factors which were associated with these outcomes could be identified

- the value of post-school plans of indicators of achieved outcomes could be assessed.

Given this information the effectiveness and contribution of the *Learning for Life* program could be assessed, and perhaps improved.

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

FINAL COMMENTS

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

References

Ainley, J., & Elsworth, G. (1997). *Measured interests, gender, socioeconomic status and participation in Science and Technology.* Paper presented at the European Association for Research on Learning and Instruction, Athens.

Ainley, J., Jones, W., & Navaratnam, K. (1990). *Subject Choice in Senior Secondary School*. Canberra: Australian Government Printing Service (AGPS).

Ainley, J., Robinson, L., Harvey-Beavis, A., Elsworth, G., & Fleming, M. (1994). *Subject Choice in Years 11 and 12*. Canberra: Australian Government Printing Service.

Australian Bureau of Statistics. (1996). *ASCO-Australian Standard Classification of Occupations* (2nd ed.). Catalogue No. 122.0, Canberra.

Beavis, A. P., Curtis, D., & Curtis, N. (2005). *What do students think of work?* Sydney: The Smith Family.

Beavis, A. P., Murphy, M., Bryce, J., & Corrigan, M. (2004). *Post school plans: aspirations, expectations and implementation*. Sydney: The Smith Family.

Black, S. (2002). The well-rounded student. *. American School Board Journal, 189*(6), Retrieved 29 July. 2004 from the World Wide Web http://www.asbj.com/2002/2006/0602research.html.

Curtis, D. D., & McKenzie, P. (2002). *Employability skills for Australian industry: Literature review and framework development*. Canberra: Department of Education, Science and Training.

Daniel, A. (1983). *Power, Privilege and Prestige*. Sydney: Longman Cheshire.

Finn, J. (1989). Withdrawing from school. *Review of Educational Research, 59*, 117-142.

Forster, K. (1999). Homework: A bridge too far.: Paper presented a the Australian Association for Research in Education National Conference, December, Melbourne.

Fullarton, S. (1999). *Work experience and work placements in secondary school education* (Longitudinal Surveys of Australian Youth, Report 10). Melbourne: Australian Council for Educational Research.

Fullarton, S. (2001). *VET in Schools: participation and pathways* (Longitudinal Surveys of Australian Youth No. Report No. 21). Melbourne: Australian Council for Educational Research.

Fullarton, S. (2002). *Student Engagement with School: individual and school level influences* (Longitudinal Surveys of Australian Youth No. Report No. 27). Melbourne: Australian Council for Educational Research.

Gottfredson, L. S. (1980). *Change and Development in Careers, Final Report*. Baltimore: Centre for Social Organisation of Schools, The John Hopkins University (ERIC Document ED 106699).

Gottfredson, L. S. (1981). Circumscription and compromise: a developmental theory of occupational aspirations. *Journal of Counseling Psychology Monograph, 28*(No. 6, November), 545-579.

Gottfredson, L. S. (1996). Gottfredson's Theory of Circumscription and Compromise. In D. Brown & L. Brooks (Eds.), *Career Choice and Development* (3rd ed.). San Francisco: Jossey-Bass.

Gottfredson, L. S. (2002). Gottfredson's theory of circumscription, compromise, and self-creation. In D. Brown (Ed.), *Career Choice and Development* (4th ed., pp. 85-148). San Francisco: Jossey-Bass.

Holland, J. L. (1962). Some explorations of a theory of vocational choice: 1. One-and-two year longitudinal studies. *Psychological Monographs, 76*(26).

Holland, J. L. (1985). *Making Vocational Choices: A Theory of Vocational Personalities and Work Environments* (2nd ed.). Englewood Cliffs, New Jersey: Prentice-Hall.

Holland, J. L. (1997). *Making Vocational Choices. A Theory of Vocational Personalities and Work Environments* (3rd ed.). Odessa: PAR Psychological Assessment Resources Inc.

Jones, F. L., & McMillan, J. (2001). Scoring occupational categories for social research: a review of current practice, with Australian examples. *Work, Employment and Society, 15*(3), 539 - 563.

Kerlinger, F. N., & Pedhazur, E. J. (1973). *Multiple Regression in Behavioral Research*. New York: Holt, Rinehart and Winston.

Khoo, S. T., Ainley, J., & Rothman, S. (forthcoming). *Attitudes, intentions and participation*. Melbourne: Australian Council for Educational Research.

Lokan, J., & Fleming, M. (1994). Perceptions of barriers to career choice: do they lead to compromise. AERA Annual Conference, New Orleans, April 1994.

Marsh, H. W. (1992). Extracurricular school activities: Beneficial extension of the traditional curriculum or subversion of academic goals? *Harvard Educational Psychology, 84*, 553-562.

Marsh, H. W., & Kleitman, S. (2002). Extracurricular school activities: The good, the bad, and the nonlinear. *Harvard Educational Review, 72*(4), 464-511.

McNeal, R. B. (1999). Participation in high school extracurricular activities: Investigating school effects. *Social Science Quarterly, 80*(2), 291-309.

Naylor, F. D. (1984). Sex, school and emerging occupational interests. In I. Palmer (Ed.), *Melbourne Studies in Education*. Melbourne: Melbourne University Press.

Naylor, F. D., Elsworth, G. R., Care, E., & Harvey-Beavis, A. (1997). Sex, status, and generic interests in fields of work, parents and offspring, and fields of study. *Australian Psychologist, 32*(1), 12-18.

Robinson, L. (1999). *The Effects of Part-time Work on School Students* (Longitudinal Surveys of Australian Youth, Report 9). Melbourne: Australian Council for Educational Research.

Smith, E. (2000). Teenagers' full-time work and learning: A case study in what research findings say about policy, practice, theory and further research possibilities [Conference paper]. AVETRA.: Retrieved 07 June, 2001, from the World Wide Web: http://www.avetra.org.au/papers%202000/smithe.PDF.

Smith, E., & Green, A. (2001). *School students' learning from their paid and unpaid work*. Adelaide: National Centre for Vocational Education Research.

The Mayer Committee. (1992). *Key Competencies*. Canberra: Australian Government Printing Service.

Trent, F., & Slade, M. (2001). *Declining rates of achievement and retention: the perceptions of adolescent males* (EIP Report 01/6). Canberra: Department of Education, Training and Youth Affairs.

Turner, S. L., & Lapan, R. T. (2003). The measurement of career interests among at-risk inner-city and middle-class suburban adolescents. *Journal of Career Assessment, 11*(4), 405-420.

Vickers, M., Lamb, S., & Hinkley, J. (2003). *Student workers in high school and beyond: The effects of part-time employment on participation in education, training and work.* (LSAY Research Report 30). Melbourne: Australian Council for Educational Research.

Warton, P. M. (2001). The forgotten voices in homework: Views of students. *Educational Psychologist, 3*(3), 155-165.

Woods, D. (2005). *Young people and vocational education and training options*. Adelaide: National Centre for Vocational Education Research.

THE SMITH FAMILY

everyone's family

The Smith Family Survey

**for Year 10, 11 and 12 students
conducted by the
Australian Council for Educational Research
September 2004**

ABOUT THIS QUESTIONNAIRE

Who?	This survey is intended for selected families who receive *Learning for Life* support from *The Smith Family*.
Why?	The survey is collecting information about young people, their education and job plans. This information will help *The Smith Family* 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 *Australian Council for Educational Research (ACER)*. They are conducting the survey for *The Smith Family*. If you lose the envelope, then please send the completed survey to: *Australian Council for Educational Research* *The Smith Family Study* *Reply Paid 63589* *Private Bag 55* *CAMBERWELL Vic 3124* **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 *The Smith Family* by the *Australian Council for Educational Research*. No one will be identified and no one's name will be used in any way. **Please do not 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 10 ☐

Year 11 ☐

Year 12 ☐

Other ☐ *Please tell us………………*

Q2 *Thinking of students in your year, 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 ☐

Q 3 **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.	☐	☐	☐	☐
b. I can do homework even when it is difficult.	☐	☐	☐	☐
c. I am confident that I can get good results at school.	☐	☐	☐	☐
d. I am sure that I can master the most difficult schoolwork.	☐	☐	☐	☐
e. I am certain that I can understand even the most difficult problems at school.	☐	☐	☐	☐

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.	☐	☐	☐	☐
b. I really like to go each day.	☐	☐	☐	☐
c. I get enjoyment from being there.	☐	☐	☐	☐
d. I enjoy what I do in class.	☐	☐	☐	☐

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 13***

.... *Minutes*

Q6 Were you able to complete all of the set homework?

No ☐

Yes ☐

Q 7 Please indicate how often each of these applies to you.

Please tick one box on each row.

	Never	Sometimes	Most of the time	Always
a. I complete my homework on time.	☐	☐	☐	☐
b. My teachers grade my homework.	☐	☐	☐	☐
c. I finish my homework during the school day.	☐	☐	☐	☐
d. My teachers make useful comments on my homework.	☐	☐	☐	☐
e. I am given interesting homework.	☐	☐	☐	☐
f. My homework is counted as part of my marks.	☐	☐	☐	☐

Q 8 On average, how much time do you spend _each week_ on homework and study in these subject areas?

Please tick one box on each row. When answering include time at the weekend too.

	No time	Less than one hour per week	Between 1 & 3 hours per week	3 or more hours per week
a. English	☐	☐	☐	☐
b. Mathematics	☐	☐	☐	☐
c. Science	☐	☐	☐	☐
d. Computing	☐	☐	☐	☐

Q9 Have you done, or are you doing, any Vocational Education and Training (VET) subjects or courses at school?

No ☐ _Please go to Q11._

Yes ☐

Q10 Does this VET study involve any time spent learning in a workplace away from your school?

No ☐

Yes ☐

Q11 Have you done, or are you doing, any TAFE subjects?

No ☐

Yes ☐

Q12 As part of your schooling, have you done or will you be doing any work experience?

No ☐

Yes ☐

Q 13 As well as the subjects they teach, schools sometimes organise many 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 lease once a month	At least once a week
a. Sport	☐	☐	☐	☐	☐
b. Music, band or orchestra	☐	☐	☐	☐	☐
c. Debating	☐	☐	☐	☐	☐
d. Drama, theatre, dance or the school play	☐	☐	☐	☐	☐
e. Community or support work at school	☐	☐	☐	☐	☐

Q14 Are you in Year 12 this year, or if not, do you plan to complete Year 12 in the future?

No ☐ *If No, please go to Q16.*

Yes ☐

Q 15 If you are studying Year 12 this year, or if you plan to complete it in the future, how important is each of the following for doing so? …

Please tick one box on each row.

	Not at all important	Unimportant	Important	Very important
a. I would not get a job if I left school before Year 12.	☐	☐	☐	☐
b. I need Year 12 to do further study.	☐	☐	☐	☐
c. It will help me get a job after I leave school.	☐	☐	☐	☐
d. My family want me to complete Year 12.	☐	☐	☐	☐
e. There is nothing better to do.	☐	☐	☐	☐
f. I would not get a good job if I left school before I completed Year 12.	☐	☐	☐	☐
g. I don't know why I wish to study at Year 12	☐			

PART 2: YOUR FUTURE PLANS

Q16 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	☐

Q17 Do you plan any further study after you leave school?

Please tick one box only.

No ☐ *Please go to Q19.*

Yes ☐

Don't know ☐

Q18 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

Q19   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	☐	☐	☐	☐
02. Program a computer	☐	☐	☐	☐
03. Paint pictures	☐	☐	☐	☐
04. Mind children	☐	☐	☐	☐
05. Campaign politically	☐	☐	☐	☐
06. Prepare reports and graphs	☐	☐	☐	☐
07. Replace a tap washer	☐	☐	☐	☐
08. Solve a scientific problem	☐	☐	☐	☐
09. Make bronze sculptures	☐	☐	☐	☐
10. Go doorknocking for charity	☐	☐	☐	☐
11. Address a crowd	☐	☐	☐	☐
12. Translate important documents	☐	☐	☐	☐
13. Maintain tools and equipment	☐	☐	☐	☐
14. Find a new vaccine	☐	☐	☐	☐
15. Do drawings and sketches	☐	☐	☐	☐
16. Comfort a distressed person	☐	☐	☐	☐
17. Run for election	☐	☐	☐	☐
18. Organise files and records	☐	☐	☐	☐
19. Tune a car engine	☐	☐	☐	☐
20. Make a major scientific discovery	☐	☐	☐	☐
21. Create animated cartoons	☐	☐	☐	☐
22. Help people cope with emergencies	☐	☐	☐	☐
23. Make public speeches	☐	☐	☐	☐
24. Be in charge of a large office	☐	☐	☐	☐
25. Install new light fittings	☐	☐	☐	☐
26. Direct scientific research	☐	☐	☐	☐
27. Paint landscapes	☐	☐	☐	☐
28. Help rehabilitate accident victims	☐	☐	☐	☐
29. Be a parliamentarian	☐	☐	☐	☐
30. Design a new accounting form	☐	☐	☐	☐

Q19 is a research version of the Australian Interest Measure (AIM) *copyright Career-Wise P/L, 1997. Used here with permission.*

PART 4: WORK AND FUTURE JOBS

Q20 Do you currently have a part-time or casual job?

Do not include jobs that you have only during school holidays, or do around the house for pocket money.

No ☐ *Please go to Q 23.*

Yes ☐

Q21 On average, how many hours a week do you work at this job?

.... *Hours per week*

Q 22 What are your reasons for working?

I work because …

Please tick one box on each row.

	Strongly disagree	Disagree	Agree	Strongly agree
a. it is the kind of work I want to do as a career.	☐	☐	☐	☐
b. I enjoy the work.	☐	☐	☐	☐
c. my family needs the money.	☐	☐	☐	☐
d. I like the sense of independence the job provides.	☐	☐	☐	☐
e. it will help me get a job when I finish studying.	☐	☐	☐	☐
f. it is in the family business and I am expected to help.	☐	☐	☐	☐
g. I need money to help support myself while I'm at school.	☐	☐	☐	☐

Q 23 What job would you most <u>like</u> 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 28.

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

Yes ☐   *If yes, please go to Q 26.*

No ☐

Q 25 What job do you <u>expect</u> to have when you are 25?

If you do not know, just write 'Don't know'.
If you expect to be unemployed, just write 'Unemployed'.

a) Name of job: ....

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

....

Q 26 *Below are a number of reasons people may give for not getting a job.* **If you do not get the job you would <u>most like</u>, 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.	☐	☐	☐	☐
b. I do not think I have enough ability to get the job.	☐	☐	☐	☐
c. It will require too much effort to get the job.	☐	☐	☐	☐
d. It needs a lot of education.	☐	☐	☐	☐
e. There are not many of these jobs about.	☐	☐	☐	☐
f. I do not know how to get this job.	☐	☐	☐	☐
g. Other. *Please tell us.*	☐	☐	☐	☐

Q 27 Thinking about the job you would <u>like</u> to have when you are 25, what level of education do you need for this job?

Please tick only one box.

a. Basic education up to Year 10 ☐

b. Completed Year 12 at school ☐

c. Certificate or diploma level (TAFE), includes apprenticeship or traineeship qualifications ☐

d. University degree ☐

e. Other. *Please tell us*:………………………………… ☐

Q 28 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.	☐	☐	☐	☐
b. Deciding about a career is one of the most important decisions I will have to make.	☐	☐	☐	☐
c. I enjoy thinking about and making plans for my future working life.	☐	☐	☐	☐
d. If I had to work now, I could still enjoy myself.	☐	☐	☐	☐
e. I am quite clear in my thinking about choosing a career.	☐	☐	☐	☐
f. I can't understand how some people can be so sure about what they want to do.	☐	☐	☐	☐
g. It would be easy to find satisfaction with life if you enjoy your job.	☐	☐	☐	☐

Thank you for completing this questionnaire

Your help is very much appreciated.

See above for where to send the survey

Appendix 2: Methodology

The study used a self-completed, post delivered survey to collect the data for the study. The instructions accompanying the survey are shown below. It will be noted that careful attention was paid to ensuring that the correct respondent completed each survey form so that the administrative data could be properly merged with the survey data. (See below for more information about this merging.)

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.

The surveys were mailed out during late September and early October 2004. There was one round of reminder letters sent out.

The response rate was around 75%. This good response rate can be attributed in large measure to the likely salience of the questionnaire to the families to whom it was sent. They are all participants in The Smith Family's *Learning for Life* program. The survey administration was supported by the network of mentors and other members of The Smith Family team which would have also increased the response rate.

Administrative data held by The Smith Family were also merged with the survey data. This was undertaken to reduce the response burden required to complete the survey form. There were complex procedures developed so that the respondents' anonymity was preserved outside of The Smith Family. The researchers could not identify any respondents from any of the data that they used. All completed survey forms will be confidentially destroyed in the near future.

Appendix 3: Literature review

This review aims to describe what is known about young people's perceptions of the world of work and the factors that may influence these perceptions. In particular, it is concerned with describing what is known about the perceptions of young people from a disadvantaged background.

The review starts by looking at the literature on how young people view the world of work. It then examines the literature on engagement with school and how this may influence perceptions of the world of work.

PERCEPTIONS OF WORK

Vocational psychology offers a substantial literature on perceptions of the world of work. This section begins with describing the key features of some of this literature.

Outside of vocational psychology, most Australian research on students' perceptions of work is concentrated on the three ways in which students engage or interact most commonly with the workforce:

a. work experience programs conducted through schools

b. work placement programs also organised through schools

c. part-time work that students undertake while at school.

The contribution of vocational psychology

The *Post-School Plans* report, which drew heavily on the traditions of vocational psychology, indicated that the key aspects that students use to define their perceptions of work are gender distribution within occupations, the socioeconomic status attached to occupations and the types of tasks and persons associated with particular occupations (Beavis et al., 2004, p.68). These conclusions confirmed the key elements of Gottfredson's (1981; 1996; 2002) theory of the development of vocational aspirations.

The *Post-School Plans* report also suggested that how young people construe the world of work is associated with different types of vocational orientation. (Types of vocational orientation were described by Holland's RIASEC categories.) In the United States, Turner and Lapan (2003), also using the RIASEC typology, found that middle-class adolescents living in suburban areas had a better understanding of career pathways than poor, inner-city adolescents. As the authors noted:

> *For both the Enterprising and Conventional Themes, the results of post hoc analyses indicated that the suburban adolescents seemed to have a more complex construal of the relationships between Enterprising and Conventional occupations than did the inner-city adolescents. (pp. 417-8)*

This is an interesting finding because many of the low socioeconomic status jobs with a high proportion of female workers are classified as Conventional-type occupations (Gottfredson, 1981, 1996, 2002; Naylor et al., 1997). This suggests that female students – perhaps, especially, those from a low socioeconomic status background – may have a somewhat limited view of locations in the world of work of most interest to them.

Turner and Lapan (2003, p. 419) use their findings to argue that the social and cultural contexts in which young peoples' career interests develop need to be considered by those planning interventions. This argument implies that students from a low socioeconomic status background may see the world of work in different ways from other students. (Note, however, this difference may not be caused by errors in these perceptions, but by different emphases in their perception, or by having less information about the world of work.)

Also using Holland's RIASEC categories, Lokan and Fleming (1994) found some evidence of variation in perceptions of the world of work between groups of young people. They showed, for example, that students with Realistic interests were more likely to explain a change of preferred

occupation in terms of their ability or their interests than other interest types (Table 5 Lokan & Fleming, 1994). As well, those with Realistic interests were more often inclined to explain a change of occupational aspiration in terms of their background (Very few people with my background go into that occupation). Given that Realistic interests are strongly associated with males (Holland, 1985; 1997), it is likely that this variation is also associated with gender. Lokan and Fleming did find evidence of this in their study:

a. males often cited pay, job security or a desire to travel as a reason to work

b. males were more open to being influenced by their teachers, family or peers in choosing an occupation

c. female students were more responsive to their own areas of interest and abilities

d. females were more likely to be influenced by work experience placements and career lessons (Lokan & Fleming, 1994, p.10).

The recent report from The Smith Family – *What do students think of work?* (Beavis et al., 2005) – suggested that for students in the early years of secondary school, vocational interests play little part in shaping educational plans compared with the effect of gender and perceived ability. Those who perceived themselves as having lower ability were more likely to plan an educational level too low to qualify for the job that they most wanted at age 25. This may suggest that these students have a different perception of the world of work from other students.

In summary, the vocational psychology tradition, which emphasises the similarity of the views held by people of the world of work (Gottfredson, 1981, 1996, 2002; Holland, 1985, 1997), does find evidence of an interplay between interest types, socioeconomic status background and gender, giving rise to some variation in the perceptions of the world of work. These effects, however, appear to be small.

Work experience and work placement

Students in Australian secondary schools are increasingly being provided with knowledge of the world of work through work experience programs and student work placement learning programs or vocational education and training (VET) in schools.

These programs are important for it is with them that education formally and explicitly intersects with the world of work. Indeed, for many students, they offer a first contact with the world of work (E. Smith & Green, 2001, p. 13).

Work experience programs are incorporated into the study programs of students usually in Year 10 or Year 11 and offer students a taste of the world of work by encouraging and supporting them to take up one- or two-week placements in a workplace, observing operations and undertaking various minor tasks under supervision.

Work placement or workplace learning programs are of longer duration than work experience. These placements are designed to assist students in developing occupational specific skills and knowledge and often lead to a qualification or assessment that can continue toward a position in the labour market or a vocational studies course. These programs are often designed to engage students who may not be academically oriented.

Fullarton (1999, pp. 13-14), with data from LSAY, used logistic regression to examine the probabilities of students undertaking a workplace training program. Her research found:

a. students who were more likely to take up a workplace training program come from rural or remote areas, or tended to be low achievers at school

b. students who were less likely to take up a workplace training program came from non-English speaking backgrounds, or had fathers in upper professional jobs or tended to be high achievers at school.

This suggests that there may be some systematic variation between groups of students who participate in these programs. Further, if these programs influence students' perceptions of the world of work, then they may produce varying amounts of change in these perceptions according to levels of participation.

Smith and Green (2001), in their study of student learning from paid and unpaid work, note that it is assumed that these programs give students an opportunity to learn. But, they argue, it remains unclear what is learnt because most of the studies are scoping studies or focus upon organisational issues (p.13). They also argue that much of the workplace learning literature assumes the learners are adults (p.23) but that adolescents probably learn in different ways from adults. Smith and Green also note how the credibility of this literature is undermined by its almost 'evangelical rhetoric' (p. 21). This weakness in the literature is further compounded by a lack of clarity about the purposes of many programs. They argue that this makes many reported evaluations unsatisfactory sources of information about student learning in the workplace (p. 22).

Smith and Green's study examined generic and specific skills that students reported they had acquired during their participation in these programs. Generic skills were defined using the Mayer Key Competencies (1992). While these competencies are seen as underpinning employability (as well as other aspects of life in the community), there was no indication in the Smith and Green study of the extent to which the students had learned about relations within the world of work through the acquisition of these skills. (In fact, the reported effects of these programs on the acquisition of the competencies were weak.) Smith and Green's examination of specific skills (for example, operating a cash register) did not include any information about how perceptions of the world of work were changed as a consequence of their attainment. The authors did report that around 20 per cent of students said that work experience 'had helped clarify their career path', and about 10 per cent said it had 'made them decide to stay on at school' (p. 6). There was no explanation given for these outcomes.

In summary, there is some evidence for thinking that work experience and work placement programs may lead to changes in perceptions of the world of work, but the research that has been conducted does not clarify what these changes may be.

Paid work

Paid work represents formal engagement with the world of work. In 1999 Robinson, studying the 1975 birth cohort of the Youth in Transition project reported that in Australia around 25 to 30 per cent of senior students work in part-time jobs during the school year.[xxi] They worked, on average, nine hours per week. The most common job for female students was sales, and for males it was labouring (Robinson, 1999). Most of these students did not regard these jobs as entry to their future career. Robinson (1999, p. 9), for example, found that only 12 per cent of these students said that their job was the same kind as they wanted for a career.

Nearly all students working part-time believe that the experience of part-time work is beneficial for attaining a subsequent full-time job at the completion of their studies (Robinson, 1999). Robinsons' analysis of longitudinal data supports this view, with those students who had worked part-time while at school having a lower probability of unemployment in their early post-school years (Robinson, 1999, p. 29). This suggests that part-time work does provide students with a clearer or more accurate picture of the world of work, despite this work being in a location that differs from the occupation upon which they plan to build their careers.

ENGAGEMENT WITH SCHOOL

Engagement with school is important when considering how understandings of the world of work may vary between groups of young people. Trent and Slade (2001), for example, suggest these students have an 'idealised' view of the world of work. It is known that students who participated in extracurricular activities – an index of engagement with school – generally display higher occupational aspirations (Marsh & Kleitman, 2002, p.79). This suggests that different levels of engagement may be associated with differing perceptions of the self and of the world of work.

Engagement with school comes in two forms:

a. *Involvement in the school community.* This engagement extends the range of school offerings, is usually optional and may cater for a greater diversity of interests and abilities than curriculum based activities. This type of involvement is commonly referred to as 'extracurricular'.

b. *Commitment to learning.* Here engagement is more formally structured and includes classroom and subject choice commitment as well as out of class activities such as homework and academic clubs and groups related to specific subject areas.

Involvement in the school community (extracurricular activities)

Involvement with the school community refers to more informal structures and activities that are not included in the curriculum. These may include sports, school bands, drama groups, school government, chess clubs, community groups or even academic clubs (for example politics club where the school may not have this subject on their teaching curriculum). Though less formal than the classroom atmosphere, these are organised activities that require effort from those students who choose to participate in them.

A range of benefits appear to accrue for students who engage in extracurricular activities, including increased levels of:

a. human capital; for example skills, years of schooling completed and levels of achievement (Marsh & Kleitman, 2002; McNeal, 1999)

b. cultural capital; for example, specific attitudes and values and access to art and literature (McNeal, 1999)

c. social capital; for example, extended sets of social relationships and networks, and access to adult supervised activities (McNeal, 1999).

Importantly, from the point of view of this study, students from lower socioeconomic backgrounds appear to benefit more from involvement in extracurricular activities than students from higher socioeconomic backgrounds (Marsh & Kleitman, 2002, p. 467 and 508). This effect is largely independent of the type of activity, but it is worth noting that engagement with sporting activities, controlling for socioeconomic status and ability leads to higher educational achievement and occupational aspirations. Finn (1989) also found that higher levels of participation in extracurricular activities improved the academic success of at-risk students.

There has been some speculation that these effects arise from an increased sense of belonging and identification with the school and greater valuing of academic aspects of school (Black, 2002; Fullarton, 2002; McNeal, 1999). Marsh and Kleitman (2002) systematically tested a number of theories and provide strong evidence to support this view, namely that extracurricular activities enhance school identification and commitment. They note that this effect appears to be independent of the type of extracurricular activity involved with the exception of vocational activities – an effect previously reported by Marsh (1992). Marsh and Kleitman (2002, p.505) can only speculate that these activities encourage engagement with the world of work and hence diminish identification with the school.

None of the research reviewed provided any insights into how engagement with the school via extracurricular activity influenced perceptions of the world of work. One possibility is that these experiences change perceptions of the self that may lead to changes in perceptions of where students see themselves as best located in the world of work. Fullarton (2002, p. 1), for example, argues that these extracurricular activities may lead to 'the development of students' personal and social skills, as well as positive self-concept, self-discipline and self worth'. Additionally, she claims engagement with school through particular school-based extracurricular activities can 'help to promote a feeling of self worth and assist students to become resilient learners (Fullarton, 2002, p. v).

In summary, extracurricular activities lead to many educational and individual benefits. It seems, too, that students from low socioeconomic status backgrounds accrue greater benefits than other

students from these activities. What remains unclear is how this engagement leads to changes – if indeed it does – in perceptions of the world of work.

Academic

The second form of school engagement is academic. This includes both classroom based learning and homework, those school subject related tasks assigned by teachers for students to complete in their own time, generally at home. Reflecting the policy interests of The Smith Family, this review focuses upon homework.

Typically, homework is set by a teacher to assist students' revision of work already done in class, or as preparation for further class work (such as reading a novel prior to its study). Despite these simple objectives, homework provokes a wide range of responses in the literature. Forster (1999, pp. 2-3) summarised the competing views. On the one hand homework is said to contribute to the development of 'habits of mind and character traits that will promote self direction, self-discipline and effective lifelong learning'. On the other hand, homework can lead to the development of negative attitudes towards school and schooling, limit time available for involvement in extracurricular activities, disrupt family life and promote dysfunctional learning such as copying and cheating just to complete the task and avoid the ire of the teacher.

Research on students' perceptions of homework typically reports a strong negative reaction against it. For example, Warton (2001, p. 157) claimed that for students the cost of doing homework far outweighs its benefits. Trent and Slade (2001, p. ix) reported that boys found homework to be 'intrusive, destructive and ultimately unachievable without sacrificing more valued aspects of their lives'.

Homework, it seems, is widely regarded by students as an onerous task that intrudes upon other activities. The demands of homework – for which there is no obvious corollary in the world of work – may influence students to view the world of work more positively than school. This inference can be drawn from the work of Trent and Slade (2001) who found that boys who were not achieving satisfactorily, or were not engaged with school, often presented an 'idealised' view of work (or TAFE) as a solution to their school-related problems. They noted how:

> *The possibility of pursuing TAFE, the world of work … offers boys genuine hope from as early as Year 9, often enough to preserve their self-esteem along with confidence in an early judgement that the world beyond school can only be better. (p. 41)*

Trent and Slade argue that these boys were attracted to the world of work because it offered them the chance to take on an adult role. This suggests that how young people understand the role of adulthood will also colour their view of the world of work. It is unclear how important homework requirements are in shaping these views.

SUMMARY

This review aimed to describe what is known about young people's perceptions of the world of work and the factors that may influence these perceptions. It found that:

- There is some evidence of interplay between interest types, socioeconomic status background and gender giving rise to some apparently small variation in the perceptions of the world of work.

- Involvement in extracurricular activities leads to productive engagement with school. There is some evidence for thinking that work experience and work placement programs may lead to changes in perceptions of the world of work, but the research that has been conducted does not describe what these changes might be. The provision of extracurricular activities by schools is particularly advantageous to students from lower socioeconomic status backgrounds.

- Part-time work appears to provide students with a clearer or more accurate picture of the world of work.

- How young people perceive adulthood may influence their perceptions of the world of work.

Appendix 4: More about question 23

The survey of *Learning for Life* students asked them to name the job they would most like at age 25. If they did not know, they were asked to write 'Don't know'. There were 802 students (26.6%) who did not know what they would like to do. There were 2160 who could name a job that they would like, and there were 56 who left the question blank. This appendix examines the characteristics of these 802 students who did not know what they would like to do.

It should not be assumed that this uncertainty about a job is reason for concern. Keeping options open and giving time to explore the world of work can provide young people with the chance to discover new possibilities.

Of those who did not know what job they would like at age 25:

- 55.7% were males and 44.3% were females[15]

- fewer had a part-time job (27.9%) compared with those who knew what job they would like (35.5%)[16]

- more perceived themselves as below average or about the same as most compared with those students who perceived themselves as above average at school

- more planned to complete less than Year 12 or no further education past Year 12. Figure 28 clearly shows this effect. (In this figure, the lower the score on the vertical axis, the less likely respondents know what job they would like at age 25.)

Figure 28 **Whether respondent knows or does not know what job they would like at age 25 by highest level of intended education**

---
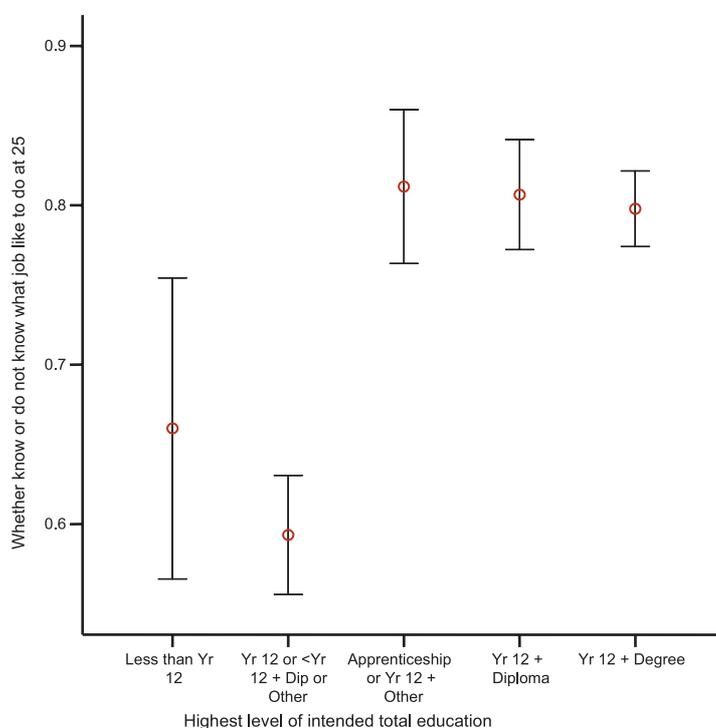
15. P<0.001 computed for a two by two table: gender by whether the job was known or not known.

16. P<0.001 computed for a two by two table: part-time job (Yes/No) by whether the job was known or not known.

Index

End Notes

i   *Learning for Life* scholarships are offered to students whose families meet The Smith Family eligibility criteria of low income and commitment to their children's education. The scholarship provides financial support, between $324 and $2000 per student per annum depending on year level at school, TAFE or university, and educational support from dedicated Smith Family staff.

ii   Students in 'Other' year levels were excluded from analyses which used year level.

iii   The Smith Family does not yet have a major presence in Tasmania or the Northern Territory although this is at the planning stage.

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

v   Appendix 2 contains the survey form. In this survey, the AIM items make up question number 19.

vi   This approach would not be justified in a counselling setting where an individual requires much richer and more complex information.

vii   The age of 25 is chosen as this allows for sufficient time for tertiary education courses to have been completed and hence it represents a time when most young people might be expected to be in the workforce.

viii   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.

ix   It is also possible that disadvantaged students are less likely to have families or other networks with close ties to employment.

x   Woods' data comes from NCVER data collections on enrolments.

xi   For part-time work, an interaction effect was found in which Year 10 students who worked had higher self-efficacy than those who did not, but for Year 12 students, the relationship was the reverse.

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

being drawn are getting close to requiring longitudinal data to sustain them.

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

xiv   According to Kerlinger and Pedhazur (1973, p. 3), regression is a method for investigating "the collective and separate contribution of two or more independent variables ... to the variance of a dependent variable." It is, essentially, an elaboration of correlational studies using the product moment coefficient of correlation (r). This coefficient, Kerlinger and Pedhazur (1973, pp. 11-12) argue, is an 'index' of the strength and direction of relations between 'sets of ordered pairs'. This index is expressed as an equation in which an estimate of the unique contribution of each independent variable to the prediction of the dependent variable. These values help to establish whether an independent variable makes a real (statistically significant) contribution, and if real, the strength of its contribution. By comparing the strength of each independent variable it is possible to show their relative importance.

When examining the results presented in the tables there are two columns to consider. The first column to examine is the one headed 'Sig' or 'Significance'. (This column appears on the extreme right-hand side of the table.) A figure at or below 0.05 is, by convention, deemed to be indicating a statistically significant result. Above 0.05, the result cannot be seen as any different from a zero effect. The other column to examine is the one headed 'Standardised coefficient'. This provides an index of the size of the unique effect of an independent variable upon a dependent variable. They are standardised so that comparisons can be made between variables to identify those which have the strongest effect on the dependent variable. For example, standardised coefficient of 0.2 is twice as strong in its effect as a coefficient of 0.1

The regression procedure provides not only information about the strength and direction of the relation, but also the coefficient of determination ($R2$). This coefficient indicates the proportion of the variance observed in a dependent variable that is accounted for by the independent variable(s) entered into the regression equation. More precisely, it shows what proportion of variance is attributed to the 'linear combination' of the dependent variable(s) (Kerlinger & Pedhazur, 1973, p. 39). This value helps to assess

the extent to which the set of independent variables provides an adequate account of changes in the dependent variable. For example, if the analysis shows that a group of dependent variables accounts for 1 per cent of the variance in the independent variable, then these variables are not likely to be useful or to provide an adequate account. In the social sciences, beyond 10 per cent or so of the variance being explained is often seen as an interesting finding.

xv   For ease of the reader, these nine categories are referred to as skill levels in the report.

xvi   Just under 30 per cent of respondents did not provide information that could be classified into a job title. The characteristics of this group are examined later in the report.

xvii   When school VET was first introduced, cooperation between schools and nearby TAFE colleges was identified as a factor in the success of that introduction. More recently, however, some challenges, including cost and timetabling, have emerged for both the TAFE providers and their secondary school partners.

xviii   The most liked professional occupations, in order most frequently cited were: (1) Computing professional, (2) Legal professional, (3) Designer and Illustrator, (4) Secondary teacher, (5) Actor and related, (6) Primary teacher, (7) Nurse, (8) Accountant, (9) Psychologist and (10) Medical Scientist. The most frequently liked associate professional jobs were: (1) Chefs, (2) Police and (3) Defence force, non commissioned officer. The most liked trades jobs were (1) Motor mechanic, (2) Hairdresser, (3) Carpenter, (4) Electrician and (5) Defence force work. The most commonly cited occupations from the set of all ASCO titles were: (1) Child care worker, (2) Motor mechanic, (3) Chef, (4) Computing Professionals, and (5) Legal Professionals.

xix   There are only 18 Artistic occupations in Australia (when classified at ASCO 4-digit level) employing around 2 per cent of all full-time employed persons in Australia (ABS Census of housing and population, 2001). The apparent ability of young people with Artistic interests to better understand their chances in the labour market may, anecdotally, be related to the view that success as an artist is determined more by ability than hard work. Thus, to get a job requires high ability, effectively turning away most contenders from this segment of the labour market.

xx   Data from the 2001 Census of Housing and Population were used to calculate the percentages for this study.

xxi   The Youth in Transition project forms part of the Longitudinal Surveys of Australian Youth program.