

Research Series

**Queensland Year 12
students' experiences
of access to
information about
post-school options:
Are there equity
issues?**



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EXECUTIVE SUMMARY

Aim

The Tertiary Entrance Procedures Authority conducted this project as part of its legislated responsibility to identify equity groups with difficulty accessing information about tertiary entrance procedures and processes. The research examines whether differences exist in provision of and satisfaction with information about post-school options for students from rural and remote and low-SES schools compared to students not in these categories. The existence of such differences may help to explain the lower participation rates of these students in higher education. Redressing any inequity in access to information about students' post-school options may broaden the opportunities of students from rural and remote areas and low-SES backgrounds and increase their access to tertiary study.

Method

Surveys asking questions pertaining to post-school activities, choices and post-school options information provision were distributed in early 1998 to all students who completed Year 12 in 1997 (n = 33 259). A total of 12 915 (38.8%) responses was received. Student responses were classified according to whether they attended identified rural and remote schools (n = 376:2.9%), schools identified as having high proportions of students from low-SES backgrounds (n = 1 888:14.6%), or students who did not attend schools falling into either of these two categories (comparison group; n = 10 651:82.5%). Almost 60 per cent of respondents attended government schools, with students who attended Catholic and independent schools comprising a further 20 per cent of the sample each.

Findings

The analyses of the survey data indicated that, for senior school students, the primary site of information acquisition is within the school environment, irrespective of their equity status. There were some apparent group differences in the family context in terms of exposure to post-school activities and use of family members (parents, siblings) as sources of information on post-school activity. Students from Priority Country Area Program (PCAP) and low-SES schools were less likely to have been exposed within the family environment to further study experiences after school, especially university study, compared to the comparison group. This was further reflected in lower ratings of parents and siblings as sources of post-school information for PCAP and low-SES students.

It was in relation to students' post-school activities that the clearest differences between equity groups emerged. Low-SES and PCAP students were more likely to be OP-ineligible than their peers and were less likely to undertake tertiary study in 1998. Students from PCAP and low-SES schools who were

OP-eligible were more likely to receive a higher OP than their comparison group peers. While the overall participation (including intention to participate in the coming years) in tertiary education of respondents was quite high (approximately 83 per cent), projected participation rates of students from PCAP and low-SES schools were much lower (71 per cent and 79 per cent respectively) compared to comparison group students (85 per cent).

Analyses of the data revealed few significant differences between the two equity groups and the comparison group in relation to access to and satisfaction with post-school options information. This is perhaps due to issues of measurement and definitions of equity group status.

There are several matters falling within TEPA's sphere of influence that may assist with making equity group students fully aware of their tertiary entrance and post-school options. The key issues which emerged from the findings related to:

- provision of basic information about post-school options;
- professional development of Guidance Officers;
- dissemination of information to target students; and
- teacher awareness of equity issues and tertiary options.

Recommendations

- Students be made fully aware at Year 10 regarding the ramifications of choosing certain programs of study.
- Students be provided with additional information at Year 10 about future options and the existence of support programs and services for those who are disadvantaged.
- Guidance Officers and career counsellors be provided with a resource detailing all relevant equity programs and services available to students.
- Teachers be provided with pre-service and in-service opportunities to improve their awareness of the services and programs available for students in equity groups.
- The provision of information relating to general matters impacting on entrance to tertiary courses for all Year 12 students be reviewed.
- Additional research be undertaken to determine whether the timing of information released to students is appropriate.

CONTENTS

1: Introduction.....	1
1.1 Emergence of the equity agenda.....	1
1.2 Participation of rural and remote and low socio-economic status students in tertiary education.....	3
2: Aims of the study.....	6
3: Method	7
3.1 Sample selection	7
3.2 Materials	8
3.3 Procedure.....	8
4: Results	9
4.1 Students' demographic characteristics.....	9
4.2 Students' post-school activities	12
4.3 Applying for tertiary study in the future	14
4.4 How do students acquire information about tertiary entrance and tertiary courses?.....	15
4.5 Satisfaction with information provision	20
5: Discussion	22
6: Recommendations	26
7: References	28

List of Tables and Figures

Tables

Table 1.	Father's highest level of education for all respondents.	10
Table 2.	Mother's highest level of education for all respondents.	11
Table 3.	Per centage of males and females in each group.	12
Table 4.	Outcomes of applications for tertiary places.	12
Table 5.	Current activities of students who did not accept a QTAC offer.	13

Figures

Figure 1.	OP and OP-eligibility by target groups.	9
Figure 2.	Intention to apply for a tertiary place in the future.	15
Figure 3.	Within-school information sources accessed by PCAP, low-SES and comparison groups.	16
Figure 4.	Additional information sources accessed by PCAP, low-SES and comparison groups.	17
Figure 5.	Within-school information sources accessed by gender.	17
Figure 6.	Additional information sources accessed by gender.	18
Figure 7.	Within-school information sources accessed by OP-eligibility.	19
Figure 8.	Additional information sources accessed by OP-eligibility.	19

1: INTRODUCTION

The investigation documented in this report was initiated in the context of findings from research conducted in the 1990s that confirms students from rural and isolated schools and those from low socio-economic backgrounds continue to be under-represented in Australian higher education. The lower patterns of participation in higher education of these groups have continued into the 1990s despite specific national and state government policies and practices attempting to achieve proportional representation of these groups and the enactment of these policies and practices by Australian universities since the late 1980s (e.g. DETYA 1999; NBEET 1996). As a Queensland statutory body with legislated responsibility to ensure information about tertiary entrance procedures and processes is made available to all Queensland school students, the Tertiary Entrance Procedures Authority (TEPA) was concerned that disparities may exist in this information provision to students from rural and isolated and low socio-economic backgrounds. In particular, TEPA wished to determine whether any limitations or inadequacies in the availability or dissemination of information on post-school options to these groups existed, as these differences may contribute to their lower participation in university study.

To investigate these concerns, TEPA initiated a two-phase project in conjunction with the Queensland Office of Higher Education. The first phase sampled a representative cross-section of 2 490 students who had completed Year 12 in 1997 at rural and isolated schools, schools with relatively higher numbers of students from low socio-economic backgrounds, and a comparison group of students who did not attend schools in either of these two categories. The analysis of this data has been reported in an interim report presented as a conference paper at the Australian Association for Research in Education 1998 national conference (Whiteley & Neil, 1998). The second phase of the study, which is reported in this document, sampled all students who completed school in Queensland in 1997.

1.1

Emergence of the equity agenda

In the period of economic growth following the second world war, the focus of Australian education shifted from the provision of education as a privilege to education as a right. This approach resulted in the development of initiatives directed towards increasing the length of post-compulsory study and improving access to tertiary education (Graetz 1988). It was during this period of change that the purpose of education and the extent to which current systems were able to cater for an increasingly diverse student group began to be questioned (Karmel 1996).

The *Murray Report* (1957), to a large extent, initiated the debate on the social composition of higher education institutions. These issues were expanded on by Radford (1962). A subsequent review of tertiary education by the Martin

Committee (Commonwealth of Australia, 1964) specifically identified able, working class students as a group which was excluded from university study and used the low participation rates of these students as a justification for increasing the number of available places. Policy directions in the 1970s attempted to capitalise on the increasing orientation towards equal opportunity and the belief that ability was not dependent on social origin.

Further reports commissioned by the Commonwealth government during the 1980s referred to the under-representation of specific members of the community in the tertiary education sector and attempted to build on the equality of opportunity foundations provided by earlier reports and the social justice commitment of the then current Labor government. In particular, the 'White Paper' (Dawkins 1988) acknowledged that policy directions needed to focus on specific implementation strategies and guidelines to ensure that disadvantaged groups were more proportionally represented in the higher education sector.

Anderson (1990) found that there was some evidence that the equity agenda of the 60s and 70s facilitated an increasing trend towards more equal representation of disadvantaged groups in higher education. These small gains appear to have been lost in the 80s as university study again became highly valued and places failed to keep pace with demand. Concomitantly, the schools sector began to implement programs to improve post-compulsory retention rates, resulting in a flow-on demand for further education (NBEET 1996). As the move towards a mass education system accelerated, it became increasingly obvious that the distribution of opportunity continued to be determined by more than ability (Marginson 1997).

The observation that the strategy of increasing tertiary places to provide for all sectors of the community was not resulting in proportional representation pushed the government to provide policy implementation guidelines to tertiary institutions for improving access to and participation in tertiary education. *A Fair Chance for All* (DEET & NBEET 1990) attempted to outline a meaningful policy framework and targets to provide some form to largely inconsequential efforts to facilitate tertiary education opportunities for all potential students.

Throughout the 1990s, issues associated with accurately defining the target groups began to create difficulties across the secondary and tertiary education sectors as reporting and accountability requirements increased. These difficulties to some extent reflected the limitations of assessing individual disadvantage on the basis of group membership given that, especially in relation to target groups:

"Individual applicants are cases, contextually and conditionally unique, with multi-dimensional characteristics".
(McNamee & Maxwell 1993:219)

This debate intensified as it became evident that the two groups which were most poorly represented in the tertiary sector also appeared to be the most

difficult to define: rural and isolated students and those from low socio-economic backgrounds. Recent attempts have been made to address some of the difficulties associated with measuring the two most problematic categories of disadvantage (see DETYA 1999; Western, McMillan & Durrington 1998).

1.2

Participation of rural and remote and low socio-economic status students in tertiary education

In 1996, the National Board of Employment, Education and Training (NBEET) published a review of the National Higher Education Equity Framework, evaluating the effectiveness of tertiary equity programs in meeting national targets of access, success and retention for equity groups. Professor Gordon Stanley, the then Chair of the Higher Education Council, in his letter of introduction to the review, stated that:

“...in particular there are two groups in Australian society which are still severely under-represented in higher education — rural and remote students and students from socio-economically disadvantaged backgrounds” (NBEET 1996:iv).

This theme was reconsidered by Professor Lynn Meek, co-author of the report entitled *Managing higher education diversity in a climate of public sector reform*, who was quoted in the *Sydney Morning Herald* as saying:

“...every major study in the last few years has concluded, as we have, that kids from working class families are still missing out on a university education” (Garcia 1998:3).

The report by Meek & Wood (1998) also found that students from poorer backgrounds were under-represented in higher education, as are students from rural and remote areas. Subsequent articles in *The Australian's Higher Education Supplement* have reported on student enrolment patterns in higher education. Healy's (1998) contribution provided figures on an increase in the share of private school-leavers entering tertiary study in Victoria, South Australia and Queensland, while the share of government school-leavers decreased. Another article, written by Illing, presented the findings of a Monash University report entitled *Equity and university entrance: A 1997 update*. The study confirms the findings of earlier reviews with low socio-economic status (SES) students still the most under-represented equity group in Australian universities, making up only 15 per cent of national enrolments while being 25 per cent of society (Illing 1998). These findings are linked to the private/state school phenomenon discussed by Healy, where tertiary institutions with a larger percentage of private school student enrolments have smaller percentages of students from low-SES backgrounds.

Not only are students from rural and remote areas and low-SES backgrounds under-represented in participation in tertiary study, their success at tertiary level and retention to completion is also disappointing (NBEET 1996). The

NBEET review suggests that the inequalities observed in access, success and retention of low-SES students and those from rural and remote areas reflect inequalities that begin at school level. Students in these groups have lower rates of success and retention at school (Dusseldorp Skills Forum 1998). The problems faced by these students were graphically illustrated in the September 1998 edition of *PEDALS* magazine, published by the Isolated Children's Parents Association, which reports that Year 12 completion rates of remote boys has plummeted to 44 per cent, a rate 26 per cent below the national average for boys and girls. Not surprisingly, students who both live in remote areas and are from low-SES backgrounds have the bleakest outlook in terms of access, success and retention in higher education.

More recent figures and research published by the Commonwealth Department of Education, Training and Youth Affairs have continued to document the under-representation of both of these equity groups (e.g. Andrews, 1999; DETYA, 1999; James, Wyn, Baldwin, Hepworth, McInnis & Stephanou; Ramsay, Trantor, Charlton & Sumner, 1998; Stevenson, Maclachlan & Karmel, 1999). In fact, DETYA's *Higher education report for the 2000 to 2002 triennium* (1999), quoting figures up until 1998, indicates a slight downturn in the participation of students from rural and remote regions since the NBEET review in 1996. The participation of students from low socio-economic backgrounds has remained relatively stable.

Researchers offer a range of possible reasons for the low participation rates of rural and remote and low-SES students in higher education, with considerable overlap between these two groups. Investigations focusing on low-SES students have offered a number of hypotheses for the low participation rate, including:

- an absence of a distinct lobby group for low-SES students (Illing 1998);
- a lack of exposure to and orientation towards tertiary study within the family environment (Patton & McMahon 1997);
- subject choices in secondary school which may limit post-secondary options (Teese, Davies, Charlton & Polesel 1995);
- financial constraints and decreased support from peers (NBEET 1996); and
- an absence of an observable link for low-SES students between tertiary study and future careers (Patton & McMahon 1997).

While the difficulties faced by students in rural and remote areas are similar in many cases to those experienced by low-SES students, researchers have attributed lower participation rates of this group to a range of factors, including:

- lack of role models and awareness of career opportunities that exist outside their community (Patton & McMahon 1997);

- limited opportunities for pre-service and in-service training to improve teacher awareness of issues affecting rural and remote students (PCAP 1997);
- inability of schools to offer a broad range of senior secondary subjects, potentially affecting the ability of students to fulfil prerequisites (NBEET 1996);
- lack of targeted information specifically designed for rural and remote students (NBEET 1996); and
- movement of academically able students away from schools in rural and remote areas (Patton & McMahon 1997).

2: AIMS OF THE STUDY

This study aimed to assess whether there are equity issues in the dissemination and availability of information relating to post-school options, especially that pertaining to accessing and participating in tertiary education, across Queensland secondary schools. A scan of the practices and programs currently available in Queensland to inform students in equity groups about their post-school options, carried out in the first phase of this investigation (Whiteley & Neil 1998), indicated that there was a significant effort from both the secondary and tertiary sectors to provide services and resources to these groups. As limited research had been undertaken to determine whether the information needs of these groups differed in any way from students outside equity groups, TEPA had not yet developed a targeted resource aimed at equity students as part of its suite of information materials. Preliminary discussions at the planning stage of the study suggested that students in equity groups may experience specific information deficits that TEPA can address as part of its Information Program.

Students who completed Year 12 at rural and remote schools and at schools identified as having high proportions of students from low-SES backgrounds were targeted by this research, with the inclusion of a comparison group of students who did not attend schools falling into either of these two categories. Students from Non-English Speaking Backgrounds (NESB) and of indigenous descent also self-identified from within this sample. The identified equity group of students with disabilities was not included in this research as a number of relevant issues were addressed by a previous TEPA research project (O'Connor, Hartley and Charnley 1994). It was also decided that the type of questions required to ensure the survey was relevant to this group were overly intrusive. Gender differences with regard to information satisfaction and acquisition were also explored, with additional analyses focusing on study in non-traditional fields planned for future investigation of the sample.

The Tertiary Entrance Procedures Authority conducted this project as part of its legislated responsibility to identify equity groups with difficulty accessing information about tertiary entrance procedures and processes. The research examines whether differences exist in provision of and satisfaction with information about post-school options for students from rural and remote and low-SES schools compared to students not in these categories. The existence of such differences may help to explain the lower participation rates of these students in higher education. Redressing any inequity in access to information about students' post-school options may broaden the opportunities of students from rural and remote areas and low-SES backgrounds and increase their access to tertiary study.

3: METHOD

3.1 Sample selection

During the first phase of this investigation (Whiteley & Neil 1998), the researchers attempted to obtain a representative cross-sectional sample of students from rural and remote and low-SES backgrounds, as well as students who do not fall under either of these definitions. In the search for a sample meaningful to the equity activities of Queensland secondary and tertiary institutions, consideration was initially given to the (then) DEETYA definitions of these two equity groups. In practical terms, the indices used by secondary and tertiary institution equity programs were deemed to be more relevant to the stakeholder groups involved in the current investigation. This approach appears to have been appropriate given that the DEETYA definitions have recently been the subject of a major review (Western, McMillan & Durrington 1998).

Secondary schools targeted by the Priority Country Areas Program (PCAP) in 1997 were selected as representative of rural and remote Queensland schools. This definition was highly relevant to current program provision in Queensland, with PCAP schools benefiting from targeted funding due to their rural and remote locations. Schools located more than 75 kilometres from centres of 10 000 people or more within identified shire boundaries are targeted by the PCAP program. In 1997, 31 secondary schools throughout Queensland were PCAP schools.

Institutions participating in the Special Program Schools Scheme (now the Literacy Enhancement for Special Program Schools Scheme or LESPSS) in 1997 were selected as representative of low-SES schools. As with the PCAP example, this definition is meaningful in terms of current program provision across the secondary and tertiary sectors in Queensland. The Index of Relative Socio-economic Disadvantage (IRSED), on which the LESPSS schools are selected, is a complex combination of at least 15 demographic variables, including income, employment status, educational attainment, population density, and motor vehicle ownership. The students' address data is mapped back to the Collectors' Districts and the ratio of low to high socio-economic background students in each school is determined. Many of the major equity programs at Queensland tertiary institutions are targeted at schools that fall under the LESPSS definition.

As would be expected, there was a small overlap between schools that met the criteria for both rurality and low-SES. The number of students who had attended PCAP schools in 1997 was smaller than those in the low-SES group and, as such, the PCAP sample was selected first and the students who met both definitions were excluded from the low-SES sample.

In the second phase of the investigation (reported in this document), where all students who finished Year 12 in 1997 were surveyed, students were classified as rural and remote and from low socio-economic backgrounds on the basis of these PCAP and IRSED definitions. Comparison students were all those students who did not attend schools that meet the PCAP and IRSED criteria.

3.2 Materials

A survey composed of closed and open questions was developed based largely on previous collaborative research undertaken by TEPA. General information regarding the students' current activities, intentions with regard to further study and demographic data were included. Other questions attempted to identify reasons for deciding not to participate in further study, access to information sources, satisfaction with information obtained about post-school options, and additional information requirements. Respondents were also given the option to request additional information about TEPA's research program and feedback on completion of the project. The four-page questionnaire was accompanied by a covering letter explaining the purpose and parameters of the research. It was anticipated that the majority of respondents would have completed the questionnaire in less than 20 minutes, depending on the number of free response questions they chose to answer.

3.3 Procedure

In the first phase of the research, students in this sample were sent the surveys and covering letters in late January/early February 1998. A reminder letter and a copy of the survey were sent to all non-responders in early March 1998. Surveys in the second phase of the study were mailed to all students who completed Year 12 in 1997, except for those already sent a survey as part of phase one, over a three-day period during early March 1998. Reminder letters requesting return of the questionnaire were sent to all non-responders at the beginning of April 1998. All responses to the survey received before July 1998 were included in the analyses.

4: RESULTS

4.1

Students' demographic characteristics

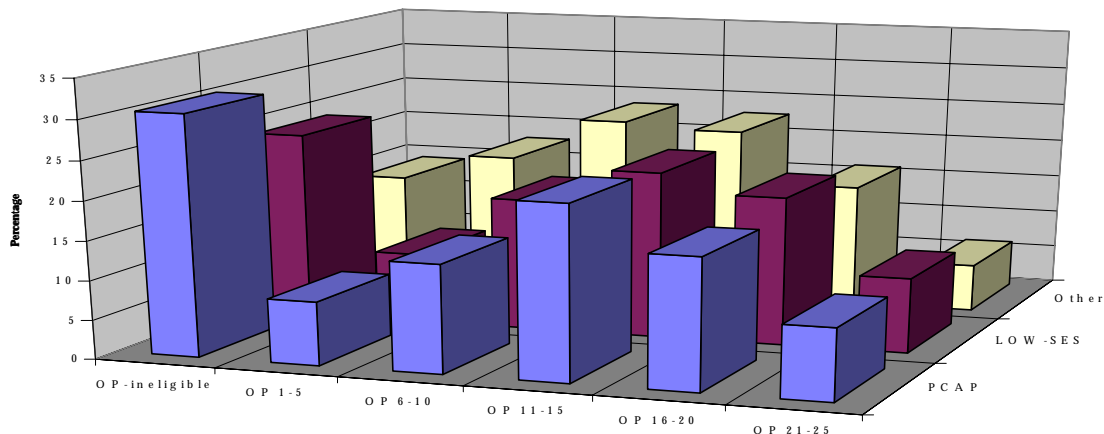
In total, 33 259 surveys were mailed to students who completed their schooling in 1997. The responses collected as part of the first phase of the project were included in the final analyses reported here. One thousand and eighty-eight (3%) surveys were unable to be delivered as students had already changed their addresses. Of the 12 915 (38.8%) who returned the questionnaire, 376 (2.9%) were from PCAP schools, 2 008 (15.5%) attended schools designated as low-SES, and 10 651 (82.5%) students who returned the survey fell outside these two categories. The figures and percentages do not equal 100 per cent because there was some overlap between the PCAP and low socio-economic status categories with 120 students belonging to both groups. As mentioned earlier, students belonging to both groups were designated PCAP. This reduces the low-SES group to 1 888 (14.6%).

School background

The majority of respondents had attended government schools during their senior years (7 698: 59.6%). Fewer respondents had undertaken post-compulsory studies at independent schools (2 548: 19.7%) or Catholic schools (2 477: 19.2%). Data were unavailable for 192 (1.5%) students.

Overall, more PCAP and low-SES students who responded to the questionnaire were ineligible for an OP than the comparison group students, as can be seen from Figure 1. It was also observed that students who responded from both the PCAP and low-SES groups were more likely to have achieved a lower OP than the comparison group.

Figure 1. OP and OP-eligibility by target groups.



Language background

Of the total number of respondents, 12 077 (93.5%) indicated that the primary language spoken at home was English, with 357 (2.8%) speaking an Asian language, 140 (1.1%) a European language, and 22 (0.2%) an Indigenous Australian dialect. The remaining students either specified another language or a mixed language environment at home (263: 2.0%) or did not have information available (56: 0.4%).

A greater number of students appeared to identify with certain cultural groups even if they spoke English at home. Of the total number of respondents who specified an ethnic or cultural group (1 554: 12%), 584 (37.6%) indicated that they identified with a European-based cultural group, 435 (28.0%) an Asian cultural group, 109 (7.0%) Indigenous Australian, 106 (6.8%) Indian and Sri Lankan, and the balance (320: 20.6%) identifying with Middle Eastern, Indigenous Islander and a mix of the previously mentioned cultural and ethnic groups. Interestingly, 1 284 (9.9%) of the respondents specified 'Australian' as the cultural or ethnic group with which they were most closely aligned.

Parents' educational background

As part of the survey, recent students were also asked to provide details regarding their parents' highest level of education. As shown in Table 1, across the PCAP, low-SES and comparison groups, the highest qualification attained by the majority of respondents' fathers was a trade certificate or an apprenticeship. Fathers of those in the comparison group were more likely than those in either of the other groups to have achieved a university qualification (4:1 compared to PCAP and 2.4:1 for low-SES). Fathers of PCAP students were slightly more likely to have a non-university tertiary qualification, especially compared to parents of comparison group students.

It can also be seen from Table 2 that mothers of the respondents were less likely to have undertaken post-compulsory education than the fathers of the respondents (almost a 1:2 ratio for each group); substantially more respondents reported their mother's highest educational attainment as a school-level qualification compared to their father's. For most mothers the highest reported level of education was Year 10.

Table 1. Father's highest level of education for all respondents.

	PCAP (%)	Low-SES (%)	Comparison (%)
Primary school	19	11	7
Year 10	26	25	19
High school	4	8	11
Total school qualification	49	44	37
Trade/Apprenticeship	32	27	23

	PCAP (%)	Low-SES (%)	Comparison (%)
Diploma/Associate Diploma	4	8	9
<i>Total non-university tertiary qualification</i>	<i>36</i>	<i>35</i>	<i>32</i>
Degree	4	7	15
Postgraduate	2	3	9
<i>Total university qualification</i>	<i>6</i>	<i>10</i>	<i>24</i>
Total post-school qualification	42	45	56
Unsure	9	11	7

More fathers (Table 1) than mothers (Table 2) appear to have completed university qualifications. As would be expected, very few students indicated that their mothers had completed trade certificates or trade apprenticeships (7% for all groups). Taken together, the figures in Tables 1 and 2 indicate that PCAP and low-SES families, in relation to the comparison group, were less likely to have been exposed to further study experiences after school, especially university qualifications.

Table 2. Mother's highest level of education for all respondents.

	PCAP (%)	Low-SES (%)	Comparison (%)
Primary school	17	10	5
Year 10	44	41	35
High school	6	13	16
Total school qualification	67	64	56
Trade/Apprenticeship	7	7	7
Diploma/Associate Diploma	8	10	12
<i>Total non-university tertiary qualification</i>	<i>15</i>	<i>17</i>	<i>19</i>
Degree	6	8	14
Postgraduate	2	3	6
<i>Total university qualification</i>	<i>8</i>	<i>11</i>	<i>20</i>
Total post-school qualification	22	28	39
Unsure	10	9	5

Gender

Those who responded to the questionnaire were disproportionately female across all groups, as shown in Table 3.

Table 3. Percentage of males and females in each group.

PCAP		Low-SES		Comparison	
Males	Females	Males	Females	Males	Females
34%	66%	38%	62%	39%	61%

4.2 Students' post-school activities

Based on survey responses, 44 per cent of PCAP students, 51 per cent of low-SES students and 64 per cent of those in the comparison group accepted a place in a tertiary course in 1997. As can be seen from Table 4, PCAP students appeared to be less likely than the other groups to accept an offer and more likely not to make an application or to reject the offer of a place. A similar response pattern was also evident for low-SES students, differing in that they were slightly more likely to have accepted an offer or submitted an application, and that they were less likely to have rejected the offer of a place. Those respondents in the comparison group accepted offers and made applications more frequently than the Queensland averages for 1997. This strongly suggests that students who could be identified in terms of rural and remote and low-SES equity groups are less likely to apply for tertiary places and less likely to accept an offer.

Table 4. Outcomes of applications for tertiary places.

	PCAP	Low-SES	Comparison	QLD 1997*
Accepted	44%	52%	64%	49%
Rejected	11%	8%	9%	12%
Deferred	5%	5%	5%	3%
No offer	4%	5%	5%	8%
No application	30%	24%	16%	31%
Other	7%	6%	1%	-
Total	100%	100%	100%	100%

* Figures expressed as per centage of all Year 12 students in 1997 (QTAC Annual Report 1997-98).

Table 5 details the activities of those students who did not accept a place at a tertiary institution as part of the intake managed by the Queensland Tertiary Admissions Centre Ltd (QTAC). Students from low-SES schools were more likely than those in other groups to be unemployed, with many specifically stating that they were in the process of looking for work. PCAP students were more likely than others to be apprentices or trainees. Those in the comparison

group appeared to be more likely to be employed than the equity groups in the study. Interestingly, a similar percentage of 'other students' across all groups were currently engaged in study either at private colleges or undertaking TAFE courses not offered through the QTAC admissions round.

Table 5. Current activities of students who did not accept a QTAC offer.

	PCAP	Low-SES	Comparison
'Other student'	15%	17%	20%
Wage/salary earner	38%	39%	38%
Apprenticeship/traineeship	24%	13%	16%
Unemployed	13%	18%	12%
Travel/holidays	1%	2%	2%
Home duties	2%	2%	2%
Other	7%	9%	10%

Reasons for not undertaking tertiary study

As part of the questionnaire, students who were not currently studying were asked to indicate the extent to which they agreed with a number of possible explanations as to why they had decided not to pursue tertiary study. Responses were made on a five-point scale (an option to indicate that the statement was not applicable was also included) with a rating of 'five' indicating strong agreement and 'one' suggesting strong disagreement.

Students who did not submit an application

"I would have liked to receive more information on studying at TAFE as well as work/employment because these were what I was more interested in than university information. All the information we ever received at school was mainly about university options but no-one considered those students who didn't want to go to uni."
(Student who did not apply)

Students who did not submit an application for a tertiary place, when asked why they were not currently studying, mostly agreed that they wanted to look for a job (mean = 4.2). Many also agreed (mean = 3.6) that they did not submit an application because they already had a job. Those respondents who did not submit an application to QTAC for a place in a tertiary course (2 215: 17%) also agreed that they needed a break (mean = 3.8), that they were not interested in further study (mean = 3.7), that the expense of tertiary education was too great (mean = 3.8), and that the cost of HECS was too high (mean = 3.7).

Students who rejected an offer

Students who rejected an offer at a tertiary institution (1 110: 7%) tended to agree that tertiary study was too expensive (mean = 3.5), the cost of HECS was too high (mean = 3.5), that they wanted to look for a job (mean = 3.7), or that they needed a break from study (mean = 3.8). This group of respondents who rejected an offer also disagreed that they did not like the course offered (mean = 2.3) or that they wanted to study at a different institution (mean = 2.4). These

students appeared to have a somewhat ambivalent orientation towards lifelong learning as suggested by neutral responses to a questions relating to interest in future study (mean = 3.2) and desire to engage in further education (mean = 2.9).

Students not offered a place

For those students who were not offered a place (652: 7%), the primary reason that they were not studying at a tertiary institution was, overwhelmingly, the absence of an offer (mean = 4.4). These students also suggested that tertiary study was too expensive (mean = 3.7), or that they wanted to look for a job (mean = 3.5).

Students who deferred

Students who chose to defer a tertiary place (618: 5%) agreed that they did so because they needed a break (mean = 4.2), wanted to look for a job (mean = 3.5), or thought tertiary education was too expensive (mean = 3.5). Those who deferred disagreed that they did not like the course in which they were they were offered a place (mean = 1.9) and disagreed that they would have preferred to study at a different institution (mean = 2.3).

“I would have liked to receive heaps more information on deferment and job prospects. Because I was thinking of deferment at the time I wanted information and it seemed no pamphlets could tell me. This would have been of good use to my decisions. I am still unsure about what procedures, if any, I have to take.”
(Student who deferred)

4.3

Applying for tertiary study in the future

Of those respondents who were not studying in 1998 and provided information on their future study intentions (4 462:34.5% of total sample), 1 937 (43.4%) indicated that they did not intend to apply to QTAC for a place in a tertiary institution in the future, as can be seen from Figure 2. Five hundred and thirty-nine (12.1%) indicated that they would apply to QTAC mid-year (1998), 1 141 (25.6%) would apply for a tertiary place in 1999, and 690 (15.5%) felt that they would submit an application in 2000 or later. One hundred and fifty-five respondents (3.5%) were unsure as to whether they would study in the future.

Figure 2. Intention to apply for a tertiary place in the future.

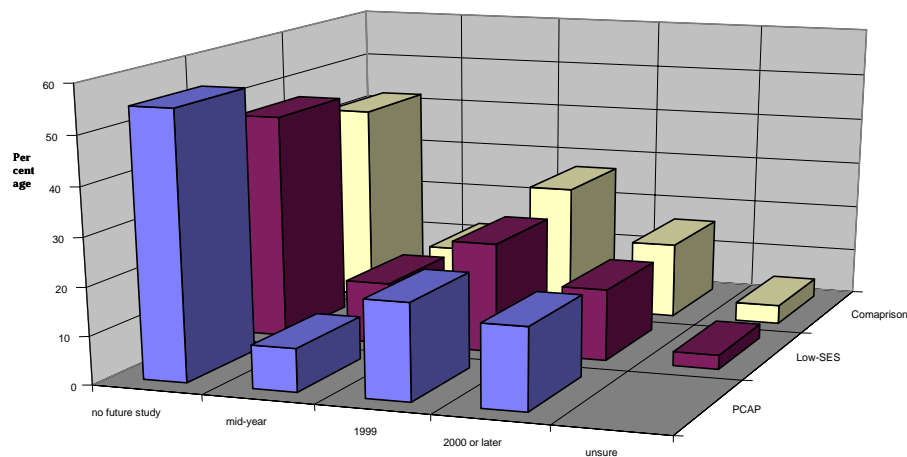


Figure 2 also illustrates that a higher percentage of PCAP students, and to a somewhat lesser extent those from low-SES backgrounds, believed that they would not apply for tertiary study in the future compared to the comparison group. A greater number of students from the comparison group indicated that they would apply in 1999 than either of the two equity groups.

From this data, it can be concluded that while approximately 65 per cent of 1997 Year 12 school-leavers progressed directly to tertiary education in 1998, approximately a further 50 per cent of those not undertaking tertiary study in 1998 intend to do so in the future. This represents about 83 per cent of 1997 Year 12 students responding to this survey engaging (or intending to engage) in some form of tertiary education. When considering each of the three groups, 85 per cent of comparison group students, 79 per cent of low-SES students, and 71 per cent of PCAP students are engaged (or intend to engage) in tertiary education.

4.4

How do students acquire information about tertiary entrance and tertiary courses?

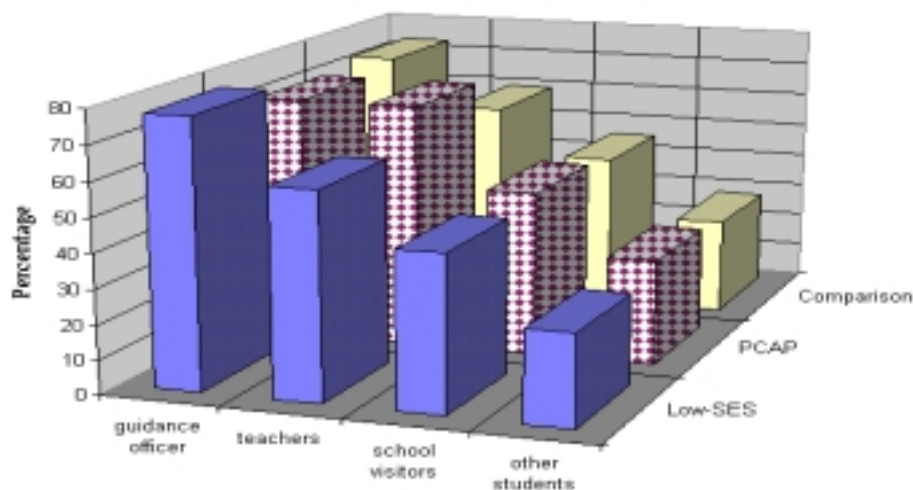
Respondents were provided with a list of potential information sources relating to post-school options and asked to indicate those they had accessed while at school. Overall, students appeared to receive most of their information within the school environment from either Guidance Officers, teachers, visitors to the school or other students.

As shown in Figure 3, low-SES, PCAP and comparison group students exhibited similar patterns of responses with regard to information obtained while at school. Students from schools in low-SES areas overwhelmingly view Guidance Officers as the primary information source in

“The most useful information I received was from the guidance officer who told me which subjects I should take, which university would offer the best course for my particular areas of interest, and who found out an estimate of what OP I was going to get.”

relation to post-school options; they consulted teachers and school visitors to a lesser extent than their PCAP and comparison peers. Students attending PCAP schools were equally as likely to nominate teachers as Guidance Officers when identifying information sources. Considering that a smaller percentage of PCAP students indicated that Guidance Officers were a source of information than low-SES and comparison students, it may be that the higher teacher percentage reflects the absence in many rural and isolated schools of a full-time Guidance Officer.

Figure 3. Within school information sources accessed by PCAP, low-SES and comparison groups.



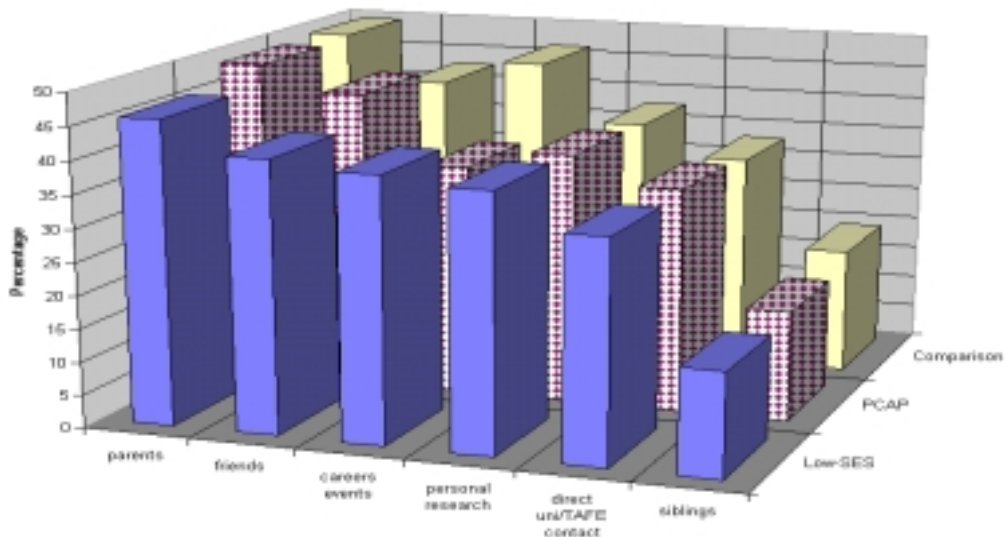
“Careers markets and tertiary study expos are extremely helpful in opening up the broad range of studies/careers available after school. Not only are your eyes opened to many fields you may never have heard of before, there are people with first-hand experience in the various fields to probe for extra information. Schools should make a conscious effort to escort students and encourage them to attend these expos.”

All three groups appeared to obtain information from a similar range of sources outside the school, as can be seen from Figure 4. Comparison group students indicated more frequently than other groups that careers events had been a useful source of information. Higher levels of attendance at tertiary information events could be expected for this group given that students in the comparison group were more likely to have had the opportunity to attend careers markets and tertiary expositions. Student comments highlighted the usefulness of these events and the value of exposure to a range of areas of study and career directions that may not have been previously considered. Of concern is the substantially lower percentage of PCAP students who indicated careers events as an information source, again probably reflecting ease of access to these events.

Also of interest from Figure 4 is the overall low rating of siblings as sources of information on post-school options, with comparison group students finding siblings a useful source of information slightly more than both other groups. Students from PCAP schools are also more likely to indicate friends as sources of post-school information than other respondents. Those respondents from

low-SES schools were less likely than their peers to rate their parents as sources of post-school information.

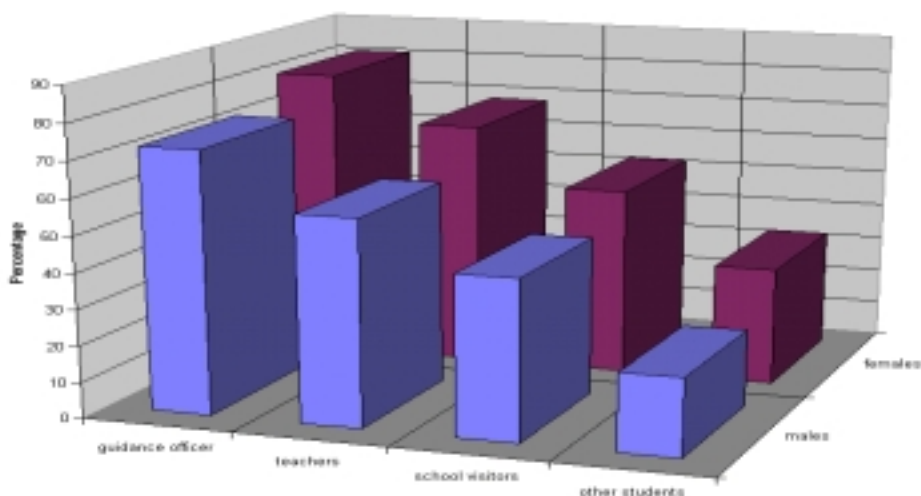
Figure 4. Additional information sources accessed by PCAP, low-SES and comparison groups.



As shown in Figure 5, males and females indicated that, while they obtained information from similar sources within the school, overall a greater percentage of females accessed information relating to post-school options. In particular, female students appeared to have been more likely to access other students and teachers as sources of information than male students.

“Mostly from teachers, I got on well with them and they understood me and tried to help me in any way they could.”
(female student)

Figure 5. Within-school information sources accessed by gender.

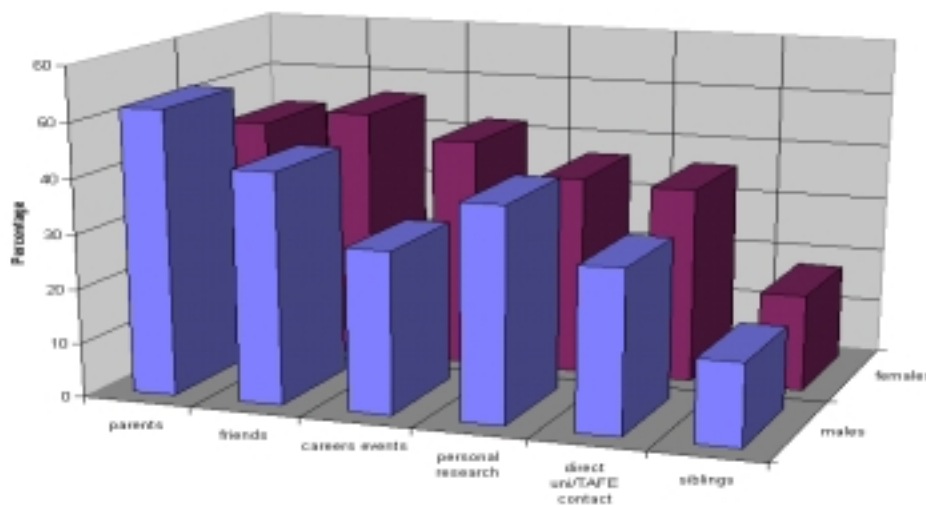


“I just got told my options but the most useful information I got was from my father. He said ‘...go and do a TAFE course. I don’t care what it is as long as you enjoy it...’.”
(male student)

When considering sources of information outside the school, there is much more diversity in ratings between males and females, as shown in Figure 6. The graph suggests that males are more likely than females to indicate that they obtained information from parents and, to a lesser extent, as a result of personal research. Female students also appeared to be more likely than males to use friends, direct contact with tertiary institutions, careers events and siblings as information sources when investigating post-school options.

From the responses to the survey, OP-ineligible students were less likely overall than those who were eligible for an OP to respond that they had obtained information relating to post-school options within the school environment (Figure 7).

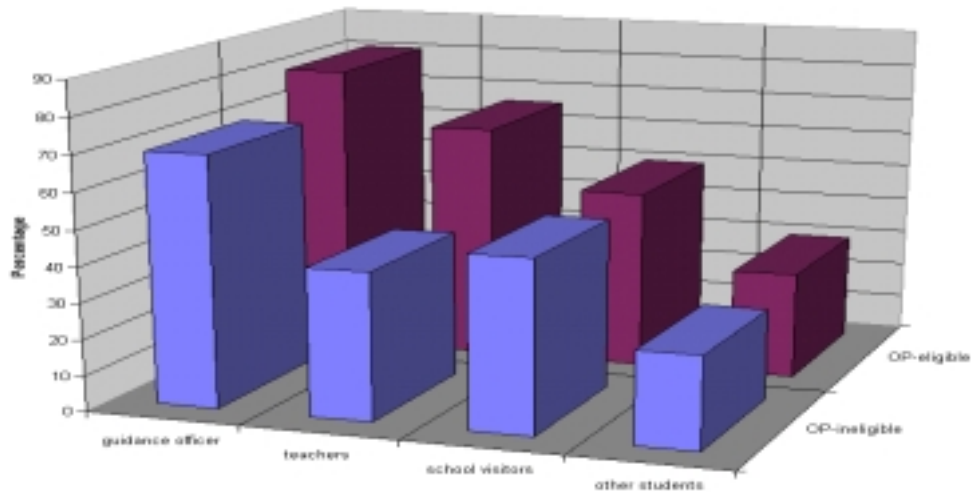
Figure 6. Additional information sources accessed by gender.



As was the case with other groups, the Guidance Officer was consulted by the majority of students, with somewhat fewer OP-ineligible students specifying they had accessed information via this source. Most notably, as can be seen from Figure 7, OP-ineligible students consulted teachers less frequently than students who were eligible for an OP. It is also evident that visitors to the school were accessed by all students to obtain information about post-school options.

“Whilst our guidance counsellor offered us a lot of help and was there to answer questions I didn’t really understand how uni or the OP system worked in great detail. I would have liked to have known more as when you don’t understand OPs and university in detail it is hard to strive for a goal, i.e. courses.”

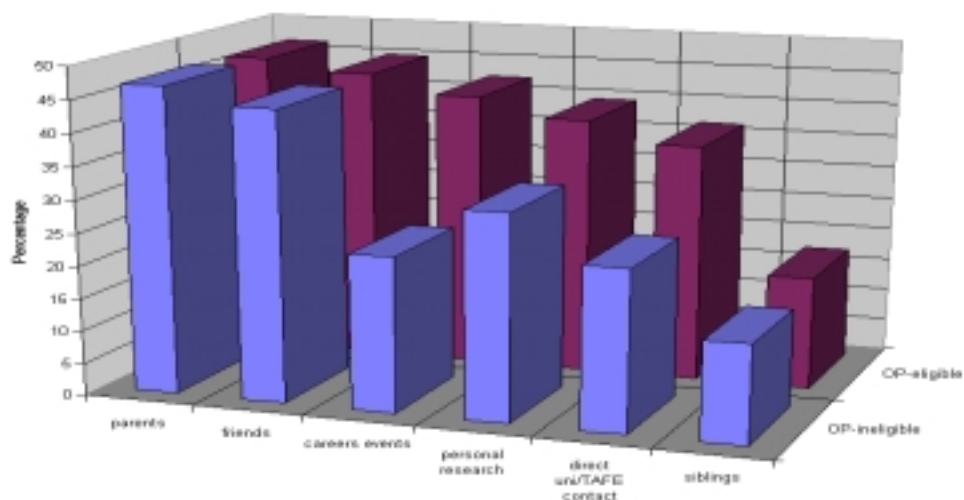
Figure 7. Within-school information sources accessed by OP-eligibility.



“The most useful information I received was when I enquired to TAFE about a course... I also felt that someone talking from TAFE was a great help. She told us the importance of having even just basic office skills and why short TAFE courses like that could be a help in gaining employment. I had not considered this before.”
(OP-eligible student)

Parents and friends were regarded as important information sources irrespective of OP-eligibility as can be seen from Figure 8. OP-ineligible students did not appear to have attended careers events, conducted personal research or directly contacted universities or TAFEs to the same extent as OP-eligible students. This pattern of responses suggests that OP-ineligible students may not be as motivated or encouraged to consider career issues or future study options prior to leaving school.

Figure 8. Additional information sources accessed by OP-eligibility.



“Some things our school never discussed. Most information pressure was put on making university decisions. HECS, Austudy, etc. was more or less ‘well when you apply you will be sent more information’. This is why a lot of people have to defer as they don’t have Year 12 to prepare to move away from home.”

Students were questioned about their satisfaction with information they may have received while at school regarding OP-eligibility, tertiary applications, employment, financial assistance, special programs, alternative entry, and subject selection for senior studies. As shown in Table 10, more than two-thirds of respondents across all groups were either satisfied or very satisfied with the information they received about qualifying for an OP or applying for tertiary study. Levels of satisfaction differed more markedly across groups in relation to information provided regarding selection of school subjects and university study but still indicated that at least half or more of the students were satisfied or very satisfied.

Fewer than half of the students from all groups expressed some degree of satisfaction with information about other post-school options such as studying at TAFE, employment or apprenticeships. Satisfaction appeared to be lowest in relation to alternative tertiary entrance pathways such as those for students without an OP or those from disadvantaged backgrounds. Overall, these results strongly suggest that all students, not just those from equity groups, are not satisfied with the information available to them regarding the full range of options available after they complete their senior studies. Provision of information appears to them to focus almost exclusively on pathways to university study for those students who qualify for an OP.

Table 10. Percentage of students who were satisfied or very satisfied with information about post-school options.

	% satisfied or very satisfied		
	PCAP	Low-SES	Comparison
Qualifying for an OP	71%	66%	72%
Applying for tertiary study	69%	68%	73%
Selecting senior subjects	62%	50%	55%
University study	60%	58%	63%
Studying at TAFE	50%	48%	42%
Work/employment	44%	35%	30%
HECS	40%	35%	36%
Apprenticeships/traineeships	42%	27%	24%
Austudy	29%	37%	26%
Special entry for disadvantaged students	26%	26%	20%
Tertiary entry without an OP	20%	22%	19%

When asked to indicate the degree to which they were satisfied with information received relating to aspects of post-school study and career options, only a small number of differences emerged across the equity groups in this study. With regard to the other equity groups, surprisingly only a limited number of significant differences emerged. PCAP students were significantly more satisfied than the comparison group with the information they received about apprenticeships ($F=16.2$, $p<.01$). It is also interesting to note that those from a low-SES background were significantly

more satisfied than the comparison group with the information received while at school regarding Austudy ($F=21.0$, $p<.01$). No other substantial significant differences were observed when comparing these equity groups.

Satisfaction for OP-eligible students vs OP-ineligible students

The majority of differences observed in relation to satisfaction with information provided about post-school options were observed between OP-eligible and OP-ineligible students. As would probably be expected, students who were eligible for an OP were significantly more likely to be satisfied with

the information they had received about qualifying for an OP ($F=229.1$, $p<.01$), applying for tertiary study ($F=235.1$, $p<.01$), and university study ($F=43.5$, $p<.01$). Students who had not qualified for an OP expressed significantly higher levels of satisfaction with the information they had received about apprenticeships ($F=152.8$, $p<.01$), studying at TAFE ($F=143.6$, $p<.01$), Austudy ($F=141.6$, $p<.01$), and employment opportunities ($F=135.9$, $p<.01$).

“I was not told about TAFE or university if I did not get an OP. I was disappointed because now I would like to attend TAFE.”

Satisfaction for QTAC applicants vs non-applicants

A number of differences in relation to student satisfaction with post-school options information emerged when comparing those who had submitted a QTAC application with those who had not. Students who applied to QTAC for a tertiary place were significantly more likely to be satisfied with the information they had received about HECS. Satisfaction with information provided with regard to qualifying for an OP was significantly higher for those students who had applied to QTAC. It is also not surprising that students who did not apply for tertiary study were significantly more dissatisfied than those who did with the information they had received about applying through QTAC.

5: DISCUSSION

Based on the results, it is clearly evident that the primary site of information acquisition is within the school environment for all students, irrespective of their equity status. However, there do appear to be some equity group differences in the family context in terms of exposure to post-school activities and use of family members (parents, siblings) as sources of information on post-school activity, as suggested by Patton and McMahon (1997). Students from the comparison group have a greater percentage of mothers and fathers who have completed university qualifications than either the low-SES or PCAP groups. These students also rated their parents and siblings as useful sources of information on post-school options more frequently than their equity group peers. Students from the comparison group were also less likely to be unsure of their fathers' and mothers' highest educational attainment, perhaps reflecting more discussion of such issues in the home.

Interestingly, the pattern of trade and apprenticeship qualifications for the fathers of the three equity groups was the reverse of the university qualifications. PCAP students reported their fathers' highest educational attainment as trade/apprenticeship more frequently than students from low-SES schools, and even more frequently than comparison group students. This is perhaps reflected in the greater likelihood that students from PCAP schools would be undertaking an apprenticeship or traineeship after school than their peers.

It was in relation to students' post-school activities that the clearest differences between equity groups emerged. While recognising that the sample may be skewed more towards students who entered tertiary education, particularly with reference to the comparison (largest) group (see Table 8), low-SES and PCAP (even more so) students were more likely to be OP-ineligible than their peers and were less likely to undertake tertiary study in 1998. Students from PCAP and low-SES schools who were OP-eligible were more likely to receive a higher OP than their comparison group peers. It was also concerning that, of those students not engaged in tertiary education in early 1998, more low-SES students were unemployed than their peers. In the context of lifelong learning, while overall the participation (including intention to participate in the coming years) in tertiary education was quite high (approximately 83 per cent), projected participation rates of students from PCAP and low-SES schools were much lower (71 per cent and 79 per cent respectively) compared to comparison group students (85 per cent).

While it is perhaps surprising that few significant differences emerged between the two equity groups and the comparison group in relation to the access to, and satisfaction with, post-school options information, issues of measurement and definitions of equity group status perhaps play a role in these findings.

Overall it is apparent that there are several fundamental issues that need to be addressed, such as ensuring all students have adequate access to information about applications for tertiary study and the costs of further education, before the specific needs of equity groups prior to entering tertiary study can be identified.

There are several matters falling within TEPA's sphere of influence that may assist with making equity group students fully aware of their tertiary entrance and post-school options. The key issues which emerged from the findings related to:

- provision of basic information about post-school options;
- professional development of Guidance Officers;
- dissemination of information to target students; and
- teacher awareness of equity issues and tertiary options.

Provision of basic information about tertiary study to all students

It was surprising to find that few significant differences were evident between the comparison and the equity groups in relation to satisfaction with the provision of information about post-school options. However, it was apparent that all students required additional information about general issues such as financial assistance and HECS and detail about tertiary courses. It is possible that dissatisfaction with information relating to these basic issues could discourage equity students from considering tertiary study as a viable option.

Professional development of Guidance Officers

The evidence overwhelmingly suggests that Guidance Officers are students' primary sources of information about post-school options throughout their senior years and, as such, they are the main conduits through which equity-related information can be disseminated within schools. When providing Guidance Officers with access and equity information, the varying roles of these professionals within the school need to be taken into account as they impinge on the time available to advise students regarding tertiary options. In addition, many PCAP and low-SES schools do not have a full-time Guidance Officer available at their school, complicating information distribution and communication strategies. Given these restrictions, up-to-date resources need to be provided in a format that is easy to access, decreasing the amount of time required to research, integrate and collate data relating to equity and access programs offered by tertiary institutions.

As suggested by respondent requests, students appear to be asking questions of Guidance Officers that require them to provide a greater depth of information on topics somewhat tangential to specific tertiary entrance and access issues. Matters relating to financial assistance for PCAP students and the availability of apprenticeship/traineeship programs for low-SES students may

impact significantly on decisions to apply for study and accept offers. In addition to these information requirements, many students also expect Guidance Officers to be in a position to identify links between prospective courses and careers, as well as being aware of the availability of employment on completion of certain programs of study. These concerns may be especially relevant to equity groups who feel pressured to enter the workforce as soon as possible and could also impact on their orientation to tertiary study and willingness to make an application.

Teacher awareness of equity issues and tertiary options

As teachers appear to be consulted widely by all students, especially at PCAP schools where a full-time Guidance Officer is rare, these educators should be made aware of general tertiary entrance matters and specific equity issues. TEPA has developed a training module to improve teacher understanding of senior schooling and tertiary entrance at a pre-service level and has also developed a professional development package for current school personnel. These resources are aimed at improving teacher confidence when discussing such matters with students and colleagues, as well as making them aware of the associated procedures, processes and relevant information sources that are available.

In addition to this information, teachers also need to be made aware of the range and scope of equity and access programs available to all students. If such information is introduced as part of undergraduate education programs, teachers may be encouraged to discuss such issues within the school environment and consider these options with students who may or may not be intending to undertake further study. Making teachers aware of these matters encourages their inclusion in the culture of the classroom.

Dissemination of information to target students

Based on the results, students across all groups appear to access information about post-school options primarily within the school environment, with a greatly reduced number indicating they sought information or assistance beyond the school or home. Specifically in relation to target groups, it appears that these students access information and services differentially when compared to other groups. As would be expected, PCAP students are less likely to have consulted a Guidance Officer, low-SES students are less likely to access information from family members, female students appear to attend careers markets more frequently than males, and NESB students appear to consult their friends when considering post-school options. While providing the school directly with information is an appropriate distribution strategy for all groups, there are differences within the groups that may contribute to the effective dissemination of information to all equity students.

Timing of information distribution to target groups must also be taken into account when attempting to ensure that all students have access to complete, useful and meaningful information about post-school options. Student comments suggest that additional information required to make informed decisions about both post-compulsory and tertiary education needs to be available earlier than Year 12.

“You need to have an idea about what you want to do after Year 12 before you even start Year 11. More information is needed on subjects available in Years 11 and 12 and what they lead to.”

As the findings of this project suggest, information needs about post-school options appear to be greatest for those students who are ineligible for an OP or who did not apply to QTAC for admission to further study. It would seem to be the case that, to ensure equity of opportunity, the focus of tertiary equity programs may need to be shifted from the end of secondary school to the completion of junior studies.

6: RECOMMENDATIONS

While there are several of recommendations that could be made as a result of this research, they will be limited to those that relate directly to TEPA's legislated responsibilities. Based on the findings of the current investigation it is recommended that:

1. Students be made fully aware at Year 10 regarding the ramifications of choosing certain programs of study

It appears to be the case that students who are part of the PCAP and low-SES target groups are significantly less likely to make themselves eligible for an OP, possibly inadvertently restricting their range of options after Year 12. Prior to making a decision about OP-eligibility in Year 10, students should be made aware of the pathway options that are available to them on completion of Year 12. These students may also benefit from communication of information relating to tertiary study opportunities for which they do not require an OP. Case studies may be useful, decreasing the emphasis on technical information and focusing attention on the variety of study pathways available.

2. Students be provided with additional information at Year 10 about future options and the existence of support programs and services for those who are disadvantaged

In response to this research the current TEPA publication *What Now?* has been enhanced to accommodate a limited amount of additional information relevant to the target groups. This publication now outlines options beyond Year 10, but could be further expanded to include the existence of equity programs and how to access them, case studies of students through mainstream and equity programs involved in various post-school activities (include apprenticeships and traineeships), and information on the costs of tertiary study (e.g. HECS). This is justified in the context of lifelong learning and a broader concept of tertiary education to include vocationally-oriented training.

3. Guidance Officers and careers counsellors be provided with a resource detailing all relevant equity programs and services available for students

As a result of this research and needs identified elsewhere, a comprehensive, integrated resource for Guidance Officers and careers counsellors has been developed to provide information on post-school options, including equity programs, and contact details for further information. A Guidance Officer resource of this nature was distributed in the second half of 2000. A comprehensive Website might also be maintained to allow ready access to this information by other stakeholder groups. This component of the recommendation has also been explored through collaborative research with the Queensland branch of the National Union of Students.

4. Teachers be provided with pre-service and in-service opportunities to improve their awareness of the services and programs available for students in equity groups

In response to this research, a resource similar in nature to the pre-service teacher training module developed by TEPA has been developed to inform teachers about tertiary entrance processes and procedures. This short training package, in conjunction with written materials, can be used either within the professional experience component of practicum work or as a practical aspect when discussing theories of social justice pertaining to education. As Education Queensland already offers professional development opportunities to improve the awareness of school personnel in relation to equity issues, it may be beneficial to liaise with departmental officers to determine whether it is possible to include additional information addressing tertiary entrance matters.

5. The provision of information relating to general matters impacting on entrance to tertiary courses for all Year 12 students be reviewed

Students across all groups appeared to have difficulty accessing information about general issues pertaining to further study. Pragmatic matters such as HECS, Austudy (now Youth Allowance), course detail and life at university were concerns for all students surveyed. As it may be the case that lack of information about general issues impacting on tertiary entrance and progression to further study may affect both student application and acceptance rates, it appears to be timely to review the nature and scope of the information received by schools. Such a review would ensure that all students have access to similar information when making decisions about entry to tertiary courses.

These issues have also been explored in a collaborative research project with the Queensland branch of the National Union of Students to develop a suite of resources on tertiary student life.

6. Additional research be undertaken to determine whether the timing of information released to students is appropriate

The current study did not specifically address issues relating to timing of distribution and whether information requested retrospectively by students is appropriate and meaningful for students currently at school. Additional research would seek to determine whether organisations with an information provision brief are attempting to supply students with answers before they have conceived the questions.

7: REFERENCES

- Anderson, D. (1990). Access to university education in Australia 1852–1990: Changes in the undergraduate social mix. *Australian Universities Review*, 1 & 2, 37-50.
- Andrews, L. (1999). Does HECS deter? Factors affecting university participation by low-SES groups, Occasional Paper Series 99F, Higher Education Division, DETYA, Canberra: AGPS.
- Australia, Committee on Australian Universities, K.A.H. Murray, Chairman. (1957). *Report*, Canberra: Commonwealth Government Printer.
- Australian Committee on the Future of Tertiary Education in Australia, L.H. Martin, Chairman (1964). *Tertiary Education in Australia*. Melbourne: Government Printer.
- Commonwealth of Australia (1964). Tertiary education in Australia, (Martin Committee) Report of the Committee on the Future of Tertiary Education in Australia, Vol. 1, Canberra: AGPS.
- Dawkins, J. S. (1988). Higher education: A policy statement, Canberra: AGPS.
- Department of Education, Training and Youth Affairs (1999). Higher education report for the 2000 to 2002 triennium, Canberra: AGPS.
- Department of Employment, Education and Training and the National Board of Employment, Education and Training (1990). A fair chance for all: Higher education that's within everyone's reach, Canberra: AGPS.
- Dusseldorp Skills Forum (1998). Australia's youth: Reality and risk, Dusseldorp Skills Forum, Sydney.
- Garcia, L. M. (1998). University enrolment boom leaves poor students behind, Sydney Morning Herald, Tuesday 2 June, p3.
- Healy, G. (1998). Privates gain in race for tertiary places, Higher Education Supplement, The Australian, Wednesday 23 September, p45
- Illing, D. (1998). No place for the poor, Higher Education Supplement, The Australian, Wednesday 23 September, p37.
- Isolated Childrens' Parents Association (1998). Parents galvanised by poor school completion rates, PEDALS Magazine, September, p3.

- James, R., Wyn, J., Baldwin, G., Hepworth, G., McInnis, C., & Stephanou, A. (1999). Rural and isolated school students and their higher education choices: A re-examination of student location, socio-economic background, and educational advantage and disadvantage, NBEET, Higher Education Council, Canberra: AGPS.
- Latham, G. & Green, P. (1997). The journey to university: A study of 'the first year experience', RMIT, ultiBASE, <http://ultibase.rmit.edu.au/Articles/greenlath1.html>
- Marginson, S. (1997). Markets in higher education, Allen & Unwin, Sydney.
- McNamee, P. & Maxwell, G. (1993). Access and equity: a case analysis for local implementation under the Higher Education Equity Program. Higher Education Research and Development 12, p 207-223.
- Meek, V. L. & Wood, F. Q. (1998). Managing higher education diversity in a climate of public sector reform, Evaluations and Investigations Programme 98/5, Higher Education Division, DEETYA, Canberra: AGPS.
- National Board of Employment, Education and Training (1996). Equality, diversity and excellence: Advancing the national higher education equity framework, Higher Education Council, Canberra: AGPS.
- O'Connor B, Hartley, J & Charnley, B. (1994). Gaining access to tertiary education: Perceptions of students with disabilities and tertiary education disability advisers, TEPA Research Report, No. 7, Tertiary Entrance Procedures Authority.
- Patton, W. & McMahon, M. (1997). Career development in practice: A systems theory perspective, New Hobsons Press, North Sydney.
- Priority Country Area Program (PCAP) (1997). Rural strategies project report, Education Queensland.
- Radford, W.C. (1962). *School leavers in Australia, 1959-1960*. Melbourne: Australian Council for Educational Research.
- Ramsay, E., Trantor, D., Charlton, S., & Sumner, R. (1998). Higher education access and equity for low-SES school leavers, Evaluations and Investigations Programme 98/18, DETYA, Canberra: AGPS.
- Stevenson, S., Maclachlan, M., & Karmel, T. (1999). Regional participation in higher education and the distribution of higher education resources across regions, Occasional Paper Series 99B, Higher Education Division, DETYA, Canberra: AGPS

Teese, R., Davies, M., Charlton, M., & Polesel, J. (1995). Who wins at school? Boys and girls in Australian secondary education, University of Melbourne.

Western, J., McMillan, J. & Durrington, D. (1998). Differential access to higher education: The measurement of socio-economic status, rurality and isolation, Evaluations and Investigations Programme 98/14, Higher Education Division, DEETYA, Canberra: AGPS.

Whiteley, S. & Neil, C. (1998). Queensland Year 12 students' experiences of access to information about post-school options: Are there equity issues? Paper presented at the Australian Association for Research in Education Conference, November 1998.