Student Aspirations for Higher Education in Central Queensland

A survey of school students' navigational capacities

June 2013

Trevor Gale, Stephen Parker, Piper Rodd, Greg Stratton and Tim Sealey
(Deakin University), with Teresa Moore (CQ University)

CENTRE FOR RESEARCH IN EDUCATIONAL FUTURES AND INNOVATION (CREFI)

DEAKIN UNIVERSITY, AUSTRALIA

CITATION FOR THIS REPORT

Gale, T., Parker, S., Rodd, P., Stratton, G. & Sealey, T. with T. Moore (2013) *Student Aspirations for Higher Education in Central Queensland: A survey of school students' navigational capacities*. Report submitted to CQ University, Australia. Centre for Research in Education Futures and Innovation (CREFI), Deakin University, Melbourne, Australia.

ACKNOWLEDGEMENTS

The authors are grateful to Brian Doig for his statistical advice during the course of the project.

For more information about this report please contact Anne Savige:
221 Burwood Highway, Burwood VIC 3125 Australia
T: +61 3 9244 6384 anne.savige@deakin.edu.au
www.deakin.edu.au/arts-ed/efi/

CREFI is a designated strategic research centre of Deakin University, Australia.

Contents

1| Executive summary

In recent times, student aspiration for higher education has become the subject of Australian Government policy and school/university partnerships. A perceived shortfall in aspiration for higher education – particularly by under-represented groups – is seen to be frustrating the achievement of the Government's targets for universities.

Announced in 2009, the targets stipulate that: (1) by 2020, 20 per cent of students participating in university should be from low socioeconomic status (SES) backgrounds; and (2) by 2025, 40 per cent of 25-34 year olds should hold a bachelor degree (Australian Government, 2009, pp. 12-13). Progress towards these targets has been slow and, given current trajectories, there is some doubt that they can be achieved (Sellar et al. 2011; Gale & Parker 2013). Increasing students' aspirations for higher education is seen to be a way in which to address this problem, although very little is known about actual levels of student aspiration for higher education among various populations or about the nature of student aspiration itself.

This report documents research commissioned by Central Queensland University (CQ University), on the aspirations for higher education (HE) of approximately 250 students from 14 government schools in Central Queensland (CQ). Data on these students' aspirations are derived from their participation during 2012-2013 in The Australian Survey of Student Aspirations (TASSA). Five of the participating students' 14 schools are located within a 50 kilometre radius of a university campus. Two of these five schools are at the outer limits of this radius. Nine schools are designated as low socioeconomic status (SES) schools; the other five schools are mid SES.

The research was undertaken in three stages: survey instrument development and refinement; implementation; and data analysis. These were informed by six concepts derived from the international research literature, emphasizing different aspects of aspiration. They are: social imaginary, taste/status, desire, possibility, sociocultural navigation and resources (financial and material but also cultural and social). Primary among these is the concept of navigational capacity.

The survey revealed that 67% of CQ school students desire to have a university degree in the future. This compares with other surveys (e.g. Bowden & Doughney, 2010) that suggest 70% of school students from low SES urban areas of Australia aspire to go to university. Differences in these results are slight, suggesting that regional/rural issues do not adversely affect the 'headline' level of student aspirations for higher education. However, the survey revealed some 'softness' in students' underlying aspirations. Compared with their desires, only 60% of CQ students believed that getting a university degree in the future was a possibility. For CQ males, the difference was even greater, with only 47% of male students believing that they will get a university degree in the future.

No appreciable difference in aspirations for higher education was identified between students from low and mid SES backgrounds or between the average student and Indigenous students, who comprised 10% of all respondents. The most significant demographic differences were between males and females, with females displaying higher levels of aspiration for higher education (71%).

A major finding from the research is that students' capacities to navigate pathways to higher education from their current locations in the education system, are 'patchy' and/or limited. This is a recurring theme throughout the report. The survey provides some good examples of the navigational capacities of students, particularly females. However, many students who aspire to get a university degree do not know what degree they want to study or what university they want to attend. Some students do not realize that they do not need a degree to achieve their career aspirations. Others aspire to attend universities that do not offer the courses they need to undertake in order to achieve their career goals. Several with aspirations for higher education do not appreciate that they will need to move location in order to attend university. A few do not know very much about TAFE and/or see no difference between university and TAFE. This is most evident among students located more than 50 kilometres from a university campus. Many limit their preferred choice of future university to regional geographical areas, irrespective of their course and career aspirations.

Many of these decisions about students' futures and how to get there, draw on a limited archive of experience and knowledge. While the advice of teachers and schools featured strongly, students identified their parents and families as their primary resource in the formation and pursuit of their aspirations for higher education and for the future more generally. 84% of students (94% of Indigenous students) said that the views of their parents were important or extremely important in influencing their decisions about the future and 96% said that they received encouragement from their parents/family to attend university. Yet very few parents and family members had direct experience and/or knowledge of university. Only 14% of mothers, 6% of fathers and 18% of siblings had a university degree or had studied at university. In brief, their aspirations are informed by a quite distant knowledge and experience of higher education.

There are at least two main implications that can be drawn from the data analyzed in this report. First, schools and university outreach programs seeking to increase the future participation of CQ school students in higher education need to focus more explicitly on developing students' navigational capacities to realize their higher education aspirations. In particular, their current 'tour' knowledge needs to be augmented with a 'map' knowledge of relevant pathways to higher education. Students who are most likely to aspire to higher education and to see these aspirations realized have access to 'knowledge from above' rather than rely on 'knowledge from below' (de Certeau 1984). Second, the resourcing of students' aspirations and navigational capacities – by university outreach programs and the like – needs to focus not just on discrete individuals or even on student groups but also on students' families and their sociocultural groups. Aspirations are formed "in interaction and in the thick of social life" (Appadurai 2004, p. 67). Focussing on whole populations is particularly important if the 'images', 'stories' and 'legends' of the 'social imaginary' (Taylor 2002) of CQ school students are to include realizable aspirations for higher education.

The results from this research suggest that this is where our energies with respect to students' aspirations for higher education should now be directed.

2| Conceptual framework

Sellar and Gale (2011) define aspiration as "the capacity to imagine futures". In this report, this is conceived as comprised of six interrelated concepts: social imaginary (Taylor 2004); taste (i.e. status) (Bourdieu 1984); desire (Butler, 1987); possibility (Bourdieu, 1984); sociocultural navigation (Appadurai 2004; de Certeau 1984) and resources (financial and material but also collective knowledges and experiences; Appadurai 2004). Derived from the international research literature, each of these concepts is understood to be socioculturally informed rather than simply the whim of disparate individuals. As anthropologist Arjun Appadurai (2004, p. 67) notes, while aspirations:

> ... have something to do with [individual] wants, preferences, choices and calculations … [they] form parts of wider ethical and metaphysical ideas which derive from larger cultural norms. Aspirations are never simply individual (as the language of wants and choices inclines us to think). They are always formed in interaction and in the thick of social life.

This chapter provides a brief overview of these six aspiration concepts, which form the conceptual framework of the research. It is this combination that informed the development of the survey instrument and the analysis of survey data (see Chapters 4 and 5). Each concept is reviewed for how it contributes to an understanding of aspiration and particularly student aspirations for higher education. In the past, aspirations for higher education were considered to be private matters for students and their families (Anderson et al., 1980). It has now become the subject of policy intervention by the Australian Government, and by governments of other OECD nations.

Given its importance in the current higher education context, an informed understanding of aspiration is needed by universities and schools seeking to encourage and enable more people from under-represented groups to enter university. The remainder of this chapter contributes to this more sophisticated understanding of aspiration and forms the basis for the research documented in this report.

2.1 *Social imaginary: a common understanding of collective social life*

Philosopher Charles Taylor (2004, p. 23) defines a social imaginary as "that common understanding that makes possible common practices and a widely shared sense of legitimacy." It recognises that people symbolically imagine their social existence: "how they fit together with others, how things go on between them and their fellows, the expectations that are normally met, and the deeper normative notions and images that underlie these expectations" (Taylor, 2004, p. 23). These are reflected in patterns, choice and consumption, "where matters of wealth and well-being, of taste and desire, of power and resistance" converge (Appadurai, 1996, p. 5). Put simply, social imaginary refers to the way "people imagine their collective social life" (Gaonkar 2002, p. 10).

It is only recently that nations such as Australia have entertained the possibility of universal higher education (Trow, 1974, 2006) and have encouraged all Australians, including those from previously under-represented groups, to imagine a higher education for themselves. This new social imaginary for higher education is of "a universe of possibles equally possible for any possible subject" (Bourdieu, 1990, p. 64). There is evidence of this new imagination taking hold in Australia. For example, aspiration for higher education is high among students

from low SES backgrounds in urban areas of Australia (Bowden & Doughney, 2010; Prosser et al., 2008). Yet there remains a sense of "the accessible and the inaccessible, of what is and is not 'for us'" (Bourdieu, 1990, p. 64), evident in how sociocultural groups differently imagine what futures (e.g. which institutions, fields of study, careers, etc.) are desirable and possible (discussed below).

The insight from Taylor's work is that students' aspirations for higher education are shaped by how they imagine themselves fitting in with others, i.e. by how they imagine their social position in relation to others. Mills & Gale (2010) note that students are skilled at reading the futures that they believe fit them. Zipin et al. (in press) similarly describe aspirations that conform to where people see themselves fitting, as "habituated aspirations". For example, research in the UK has identified that young people from low SES backgrounds demonstrate a resistance towards HE and a perception that it is for 'posher', 'cleverer' people, and for 'people with money' (Archer, Hollingworth, & Halsall, 2007, p. 231).

2.2 *Taste/Status: judgments about the relative merits of goods and practices*

Sociologist Pierre Bourdieu (1984) discusses taste in three important ways. First, a person's *preferences* for one thing over another are never simply expressions of individual whim. They are always informed by the cultural norms associated with particular social classes. Second, *taste* is a claim to status among all possible preferences. It is the positive assessment of the preferences by the dominant social classes; thus, other preferences are regarded as less tasteful or tasteless. Third, goods and practices are considered tasteful when they contribute to the attainment or maintenance of dominant social positions (Bourdieu, 1984, p. 466).

In the same way, students' aspirations reveal their *future* preferences (e.g. for higher education, career, lifestyle, etc.). They reflect sociocultural judgments about the relative merits of imagined *future* goods, practices and social positions. However, taste is ascribed only to student aspirations for dominant social positions (e.g. doctor, lawyer, etc.) and associated goods and practices (e.g. particular institutions and qualifications). Drawing on Bourdieu, Zipin et al. (in press) label these more tasteful aspirations as 'doxic aspirations'. In short, students' aspirations reflect structural differences and inequalities (Burke, 2006, p. 724), with some aspirations given more legitimacy and/or status than others.

2.3 *Desire: the promise of an appreciable life*

Informing aspiration, desire is future and positively orientated; it begins with "question[s] of what constitutes an appreciable life" (Feher 2009, p. 41). Objects of our desire comprise "a cluster of promises … [that we want to] make possible" (Berlant 2011, p. 23). Judith Butler thus describes desire as "the building of ourselves" (Butler, 1987, p. 97). Yet we do not build our desires in isolation from others. There are some objects "which we ought to desire, even if we do not, goods such that we show ourselves up as inferior or bad by our not desiring them" (Taylor 1985, p. 120).

For example, the Australian Government's current ambition is to "increase the aspirations of low SES students for higher education" (2009, p. 14). Higher education is now to be desired by all, but just by making it possible (e.g. through the removal of volume caps on student enrolments) does not in itself make HE desirable. In this context, having no desire for higher education can position students as having inappropriate, low or even no aspirations for the future at all. Hence, there is considerable work being undertaken by universities to 'build

aspirations' for higher education among people from previously under-represented groups; those whose aspirations are seen to be "in need of further cultivation" (Sellar 2013, p. 254).

2.4 *Possibility: the limits on desire*

In the context of aspiration, what is desirable and what is possible are not always the same, even though they are often related (e.g. an important aim of desire is to make promises – to oneself – possible). References to possible aspirations are often made in recognition of the 'limits' (Archer & Yamashita, 2003) on desire. As Bourdieu et al. (1990, p. 159) suggest, there can be "disparity between aspirations and their realisation". Some aspirations for some people are "an abstract and impossible possibility" (Bourdieu, et al., 1990, p. 16). What is a "reasonable possibility" for the dominant is often possible for marginalised groups only if they are placed in "different conditions of existence" (Bourdieu, et al., 1990, pp. 16-17). In short, there are structural limits on aspiration, which differently apply according to where a person is positioned within social, cultural and economic arrangements.

In the context of HE, aspirations are thus formed within "opportunity structures" (Roberts, 2009). These refer to "the inter-relationships between family origins, education, labour market processes and employers' recruitment practices" that influence people's decisions (Roberts, 2009, p. 355). Different conditions of existence in relation to these structures mean that different aspirations are possible for differently positioned social groups. This goes some way to explain why university students from low SES backgrounds tend to be concentrated in particular fields of study (Gale & Parker, 2013). More generally, marginalised groups can experience 'broken trajectories' when the promises of education systems – that all aspirations are equally achievable – are not realised.

2.5 *Navigational capacity: the ability to recognise and pursue pathways to achieve goals*

Appadurai (2004) likens planning and working towards future goals to 'navigation', which requires knowledge of both a destination and intermediate stops (or nodes) along the way. For Appadurai, this navigation is a capacity that relies on resources – economic, social and cultural – including knowledge and previous experiences of successful navigation (i.e. one's own knowledge and experiences as well as the knowledge and experiences of one's sociocultural group). For de Certeau (1984), the knowledge required to navigate towards one's aspirations, can be characterised in two ways: 'map' knowledge and 'tour' knowledge. Those with map knowledge have an appreciation of the whole and of the end from the beginning. They have it all mapped out for them and can choose alternative routes if obstacles appear in their way. They have not just been given the map; they are the cartographers themselves. Whereas those with tour knowledge are subject to the limitations of the 'tour guide'. They follow the tour, a pre-determined route, that they trust will lead them to their desired destination. When confronted with obstacles, the alternatives tend to be to choose another tour.

Navigational capacity is thus different for different social groups who have varying access to these resources. More privileged and advantaged groups have more resources at their disposal when planning for the future. For them the "dense combination of nodes and pathways" on the "map of aspirations" (Appadurai, 2004, p. 69) are readily apparent, accessible and well-trodden. Less advantaged groups have "a smaller number of aspirational nodes and a thinner, weaker sense of the pathways from concrete wants to intermediate contexts to general norms and back again" (Appadurai, 2004, p. 69). The result is that people

from disadvantaged backgrounds are less able to successfully navigate from where they are to where they want to be in the future, particularly if they are attempting to navigate pathways that are outside their experience or the experience of their sociocultural group. It is not uncommon for people with tour knowledge to alter or adjust their aspirations.

School students from disadvantaged backgrounds are similarly less able to realise their aspirations for the future. They may well aspire to attend higher education but the limited sociocultural and material resources available to them diminishes their capacity to attain that aspiration. For example, not having a close relative who has attended university to provide advice and understandings of the correct choice of subject or university, can lessen a student's capacity to navigate their way from secondary school to a particular university course. The often tacit knowledge shared by those with pre-existing networks and experiences with higher education are less readily available to those from disadvantaged backgrounds. In particular, limited knowledge of the intermediate steps or alternative pathways to the destination, should the original strategy not succeed, means that students from certain backgrounds are less capable of realising their aspirations for HE.

2.6 *Resources: the capital involved in forming & realising aspirations*

Resources play two important roles in relation to aspirations: they inform both the planning of and working towards aspirations. This includes financial and material resources but it also includes social and cultural resources. For example, previous experiences of aspiring – their articulation as well as their pursuit and achievement – are a resource on which individuals are able to draw when aspiring again. The opportunity to accumulate experiences – to build an 'archive' of experiences (Appadurai 2003, 2004) – of aspiring, is necessarily connected to financial and material resources.

Advantaged groups have a richer and more extensive "archive of concrete experiments with the good life" in part because they have greater opportunities to experiment with aspiration (Appadurai, 2004, p. 69). They "explore the future more frequently and more realistically, and … share this knowledge with one another more routinely than their poorer and weaker neighbours" (Appadurai, 2004, p. 69). Thus, one's archive of experience is not simply a record of one's own experiments and what has been learned from these. The archive also includes the experiences of one's sociocultural group.

While students' aspirations for HE are enabled by financial and material resources, they are also resourced by their archives of experience – their social and cultural resources. Research on student aspirations (e.g. Bok, 2010; Sellar et al., 2011; Smith, 2011) identify reduced access to resources and diminished archives of experience as being significant impediments to aspiration formation and attainment. This reduced capacity to aspire can also lead to adjusted or 'adaptive' preferences (Elster, 1983) for the future, reflecting an acceptance of one's conditions and sense of the possible.

2.7 *Summary*

These six concepts provide different insights into what it means to aspire, in this case, to higher education. Yet they are not 'stand alone' concepts, without connections with each other. Our collective social imagination of where we 'fit' in relation to others, is closely connected to our sense of taste (i.e. our appreciation of status) and what is seen to be worth aspiring to for someone in our position. Similarly, there is an interplay between what we

desire for the future and what we understand to be possible. Our aspirations are not simply ‘blue sky’ dreams. They are formed in relation to the circumstances in which we live. And our capacity to navigate our way towards our aspirations is very much dependent on the resources we are able to drawn on. Of course, these three couplets are also related to each other. The desirable is framed by social imagination and taste, and the possible by navigational capacities and resources.

While these relations are significant, one concept among the six stands out more than the others as central to a robust understanding of aspiration. As Appadurai (2004) suggests, aspiration is fundamentally a navigational capacity. It is not that these capacities are evoked after our aspirations are conceived. They are also involved in the formation of aspirations themselves. To navigate is central to what it means to aspire. It is this notion of navigational capacity that binds together the conceptual framework informing the research in this report.

3| Approach

The research project was conducted in three stages: (i) survey development and refinement, (ii) survey implementation and (iii) data analysis. An overview of these research activities follows, including a brief account of the discrepancies between the approach initially proposed and the changes that occurred throughout the research process.

3.1 *Survey development*

The initial stage of the project aimed to establish the conceptual and methodological tools required for the conduct of the research. This included the design of two surveys: (i) The Australian Survey of Student Aspirations (TASSA) and (ii) The Australian Survey of Co-curricula School Activities (TASSA-C). The surveys were designed to identify (i) the aspirations of Central Queensland University (CQUniversity) outreach program participants and (ii) the influence of their participation in these programs on their aspirations.

Previous surveys (e.g. Bowen & Doughney 2010; James 2002) have revealed high levels of aspiration for university study by students from low socioeconomic backgrounds. However, these do not articulate conceptions of aspiration beyond an abstract notion of 'desire' or in ways that might assist in the development of a more targeted approach to university outreach programs. In this study, a considerable amount of research literature was consulted in the development of a more nuanced understanding of aspiration to inform the development of the project's surveys and the analysis of data generated from these (see Chapter 2).

The student survey (TASSA) questions were developed using theoretically relevant and age appropriate language for the cohort. Consideration was given to the length of time the survey would take students to complete and the logical progression of the question layout. An initial pilot of the survey was administered, with ethical approval, to 26 students from North Mackay State High and Heights College in North Rockhampton. This process enabled the research team to assess the general ease of use of the survey for students. The potential for analysing the data was also a significant design consideration. For example, the use of Likert Scales limited the survey's use of open-ended, free form questions. This allowed survey respondents to nominate replies on a structured scale of agreement, enabling a more coherent coding for the purposes of data analysis.

The second survey (TASSA-C) sought to gain insight into the efficacy and limitations of various co-curricula programs in which the schools and their students were engaged. The survey was designed to be completed by school principals or their delegates, rather than students themselves, and sought to inform the project's understanding of the reach, intention and efficacy of the schools' participation in such programs.

Typically these programs are operated by a range of for-profit and not-for-profit educational and community organisations external to the school system. Their specific objectives and methods are diverse, in terms of the range of activities they offer, though generally they aim to provide students with co-curricular activities designed to promote the value of education and training opportunities following secondary school completion. A number of these programs are expressly designed to raise aspiration for university education and seek to engage with students for whom university education might not appear an obvious or easy future path to navigate.

3.2 *Survey implementation*

Ethical approval to conduct the survey was sought from three bodies with interests in the survey's implementation: (i) Deakin University's Human Research Ethics Committee (DUHREC), which acted as the primary approver; (ii) Central Queensland University's ethics committee, which provided reciprocal approval; and (iii) the Strategic Policy and Research branch of the Queensland Department of Education, Training and Employment (DETE). Initial approval was sought and provided to survey students with their parents' written consent. In implementing the survey this proved to be impracticable, with parent consent almost impossible to secure. For example, in one school with a large contingent of students willing to complete the survey, only two students returned a signed parent consent form on the scheduled day for the survey to be completed.

Further application was made to the three ethics committees above to vary the implementation of the survey so that parental consent could be assumed and students restricted from participating in the survey only when their parents provided written notice to this effect. This approval was granted for secondary school students only. In addition, the written approval of each school's principal was obtained to allow students in the school to participate and the survey was advertised in the school's newsletter to parents two weeks prior to its implementation.

The involvement of schools in the survey was also difficult to secure. In particular, schools not involved in CQ University outreach programs were reluctant to participate, citing little value for the school and its students in doing so. Some schools participating in CQ University outreach programs also declined to participate. In addition, all principals declined to complete the co-curricula program evaluation survey (TASSA-C), even at schools in which the student survey (TASSA) was completed. Further, the protracted ethics process (described above) combined with difficulties in securing a suitable location (with sufficient internet access and speed) and time (between school holidays, scheduled NAPLAN tests and other school activities) to undertake the survey, meant that the survey was able to be implemented once rather than twice as originally planned.

The survey was administered online to 258 students enrolled in 14 schools in Central Queensland. A full list of participating schools can be found in Appendix 1. Students completed the survey during scheduled visits to a CQ University campus, as part of their participation in a CQ University outreach program. A trained member of the research team who was available to guide students' completion of the survey and answer questions, clarifying what was being asked of participants in the context of the survey.

3.3 *Data analysis*

Findings from the survey are provided in the following chapter (Chapter 4). This involved statistical, descriptive and content analysis of both quantitative and qualitative survey data, informed by concepts from the research literature (see Chapter 2). Discussion of select quantitative and qualitative data and themes arising from these are provided in Chapter 5. Given the above restrictions on the generation of data, comparative analysis between different student population groups (e.g. socioeconomic status groups) and changes across time was considerably restricted.

4| Findings

This Chapter reports on the findings of a survey of school students in Central Queensland schools (see Appendix 1), using The Australian Survey of Student Aspirations (TASSA) (see Appendix 2). Data generated by the survey – both quantitative and qualitative – were subjected to statistical, descriptive and content analysis. The Chapter focuses on analysis of the quantitative survey data. The following Chapter extends this with analysis of the qualitative data. While the survey features a large number of questions, the analysis was restricted to key items that most directly relate to student aspirations for higher education.

4.1 *Survey respondents*

A total of 258 students completed the survey, 241 of whom provided usable data for analysis. Five of the participating students' 14 schools are located within a 50 kilometre radius of a university campus. Two of these five schools are at the outer limits of this radius (see Appendix 1). Nine schools are designated as low socioeconomic status (SES) schools; the other 5 schools are mid SES. Respondents were enrolled in Years 5 to 11. Their ages ranged from 9 to 18 years $(\bar{x} = 14.22, sd = 1.06)$. The age distributions were similar for males $(\bar{x} = 14.13, sd = 1.06)$ and females $(\bar{x} = 14.27, sd = 1.06)$. Histograms of Age by Gender are provided in Figure 1.

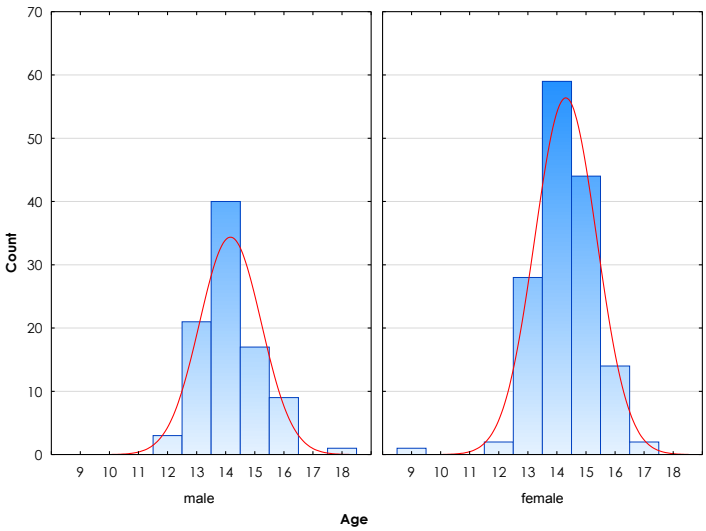

Figure 1: Histogram of Age by Gender

Of these 241 respondents, 91 (38%) were male and 150 (62%) were female. Almost half (46%) of respondents were in Year 9 at the time of the survey, more than twice the number in either Year 8 or 11. Their distribution by year level and gender is provided in Table 1.

Twenty-five respondents identified as Aboriginal or Torres Strait Islander, amounting to 10.4% of the total respondents. This proportion is significantly higher than for the Australian population in general (2.5%) and for the Central Queensland region in particular (3.8%; ABS, 2007). Results from Indigenous students are disaggregated in the following tables. It should be noted that 19 of the 25 Indigenous respondents (76%) were female. Their distribution by year level and gender is in Table 1.

Table 1: Respondents by Year Level and Gender

Year level	Gender		Row
	Male	Female	Total
ALL RESPONDENTS			
5	1	1	**2**
8	19	32	**51**
9	47	65	**111**
10	10	15	**24**
11	14	37	**51**
Total All	**91**	**150**	**241**
INDIGENOUS RESPONDENTS			
5	0	1	**1**
8	0	5	**5**
9	5	10	**15**
10	0	1	**1**
11	1	2	**3**
Total Indigenous	**6**	**19**	**25**

Based on the school they attended, students were classified as being either from low or medium socioeconomic status (SES) backgrounds.[1] As indicated in Table 2, nearly two-thirds (62%, 149) of students were from low SES schools. Females also constituted 62% of the total (150).

Table 2: All Respondents by SES and Gender

SES	Gender		Row
	Male	Female	Total SES
Low	55	94	**149**
Medium	36	56	**92**
Total Gender	**91**	**150**	**241**

Of all respondents, only nine were born overseas. Of these, three were born in New Zealand and one in England. Only one student indicated that English was not the main language spoken at home. The language spoken was Vietnamese. Only four students indicated that either they or their parents came to Australia as refugees. There were not enough responses to establish any conclusions about these groups. For these reasons, these groups have been incorporated into the broader discussion of trends in student responses to the survey.

4.2 *Parental educational attainment*

Table 3 sets out the range of parental occupational attainment among students. More than twice as many students' mothers (14%) had a university education than did students' fathers (6%) ($\chi^2(1) = 4.65$, $p < .05$). More mothers had completed secondary school than any other level of education (27%). The most common level of education for fathers was 'some secondary school' (30%).

A Mann Whitney test[2] indicated that mothers had a higher level of educational attainment (median = 4 – completed secondary school) than did fathers (median = 3 – some secondary school), z (128) = 3.55, $p < .000$. There is also a significant positive correlation between the

[1] Socioeconomic status was calculated according the Socioeconomic Index for Areas (SEIFA) Index of Education and Occupation (IEO) score for each school's postcode. See http://www.abs.gov.au/ausstats/abs@.nsf/mf/2033.0.55.001

[2] Put simply, a Mann-Whitney test is a way of determining statistical differences between two populations; in this case, respondents' mothers and fathers. For a more detailed account, see www.vassarstats.net/utest.html

educational attainment levels of mothers and fathers (r_t = 0.29, p < .001). Mothers' and fathers' levels of educational attainment are shown in Figure 2 below.

Table 3: Parental educational attainment

Parental educational attainment	Mother	Father
Did not attend school	0.4%	0.4%
Completed primary school	0.8%	2.9%
Some secondary school	20.3%	29.9%
Completed secondary school (Year 12)	27.0%	16.6%
Vocational certificate	2.9%	2.9%
Vocational diploma or associate diploma	1.7%	0.8%
University degree	12.9%	5.0%
University postgraduate degree	1.2%	1.2%
Do not know	32.8%	40.2%
Total	**100.0%**	**100.0%**

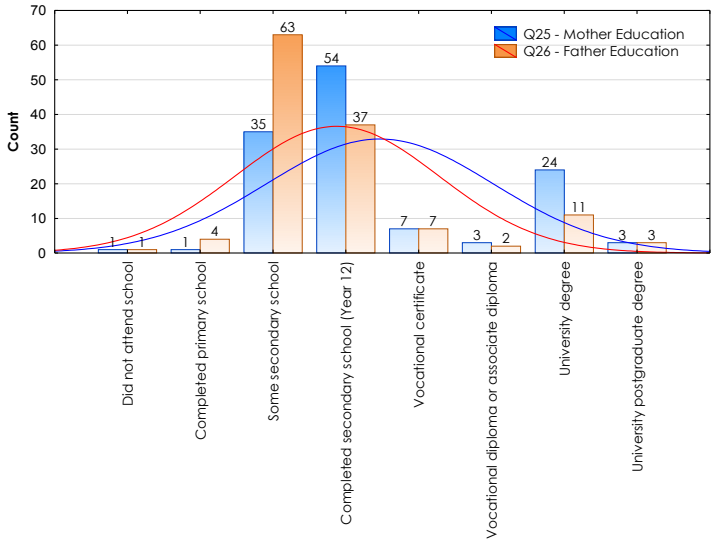

Figure 2: Parental educational attainment

The educational attainment levels of mothers and fathers of Indigenous respondents varied in total qualifications attained, although both mothers and fathers had a median education level of 3 (some secondary school) which is slightly lower than for mothers of the cohort as a whole (mean of 4). Only two mothers of Indigenous respondents had a university education. The educational attainment levels of mothers and fathers of Indigenous respondents are shown in Figure 3.

These data on Parental Educational Attainment and Indigenous Parental Attainment should be interpreted with some caution, as 79 respondents (33%) reported that they did not know their mother's highest education attainment. Similarly, 97 (40%) did not know their father's level of education.

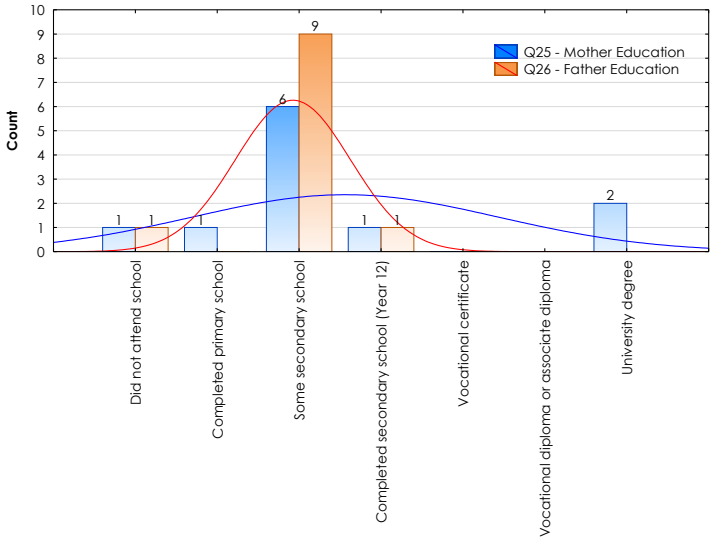

Figure 3: Indigenous parent educational attainment

4.3 *Parental occupational status*

Students were asked to indicate the occupations of their mother and father. The responses where then categorised according to the Australian Socioeconomic Index 2006 (AUSIE06), itself based on the Australian and New Zealand Standard Classification of Occupations (ANZSCO).

Mothers

In low SES schools, 19 students (13%) indicated that their mothers were not engaged in paid employment while 20 indicated that they did not know their mother's occupation. The most frequently reported occupation of mothers of students in low SES schools was retail (12) followed by teacher (11). In sum, these mothers had an average occupational prestige rating[3] of 46.16 with a standard deviation of 21.83. (The prestige score ranged from 17.7 to 93.6.)

In medium SES schools, 11 students (12%) reported that their mothers were not engaged in paid employment, while 20 did not know their mother's occupation. As with low SES schools, the most frequently reported occupations for this group were retail (12) and teacher (5). Mothers of students in medium SES schools had an average occupational prestige rating of 42.01 with a standard deviation of 17.57. (The prestige score ranged from 17.7 to 87.6).

In short, there was no statistical difference in the occupation prestige rating of mothers of students in low and medium SES schools. The prestige rating of mothers' occupation by SES is shown in Table 4. The most common occupation prestige for mothers of the total cohort was 21-40 (37%), followed by 41-60 (17% – the same proportion overall as 'don't know').

Only two Indigenous students reported that their mothers were not engaged in paid employment, one from a low SES school and the other from a medium SES school. Six Indigenous students from medium SES schools did not know their mother's occupation. The most common occupation responses were 'clerical worker' (2 from low SES schools) and 'Red Cross worker' (2 from medium SES schools). Mothers of Indigenous students in low

[3] The AUSIE06 scale ranks occupation types from 0 (least prestigious) to 100 (most prestigious). See http://www.acer.edu.au/ausei06

SES schools had an average occupational prestige rating of 49.31 with a standard deviation of 25.05. (The prestige score ranged from 28.1 to 93.6.) Mothers of Indigenous students in medium SES schools had an average occupational prestige rating of 42.30 with a standard deviation of 10.70. (The prestige score ranged from 32.9 to 58.9.)

Table 4: Mother occupation prestige by SES

AUSIE06	N		
	SES		Total
	Low	Medium	
Does not work	19	11	**30**
Do not know	20	20	**40**
Less than 21	6	4	**10**
21-40	54	33	**87**
41-60	27	13	**40**
61-80	3	3	**6**
81-100	19	5	**24**
Total	**148**	**89**	**237**

Fathers

In low SES schools, 4 students (3%) indicated that their fathers were not in paid employment while 27 students did not know their father's occupation. The most frequent occupation was farmer (26) followed by miner (9). Fathers of students from low SES schools had an average occupational prestige rating of 42.13 with a standard deviation of 20.32. (The prestige score ranged from 4.9 to 87.6.)

In medium SES schools, 1 student reported that their father was not engaged in paid employment while 20 students indicated that they did not know their father's occupation. The most frequent occupation was farmer (9) followed by truck driver (8). Fathers of students in medium SES schools had an average occupational prestige rating of 38.39 with a standard deviation of 22.32. (The prestige score ranged from 17.7 to 87.6.)

In short, there was no statistical difference in the occupation prestige rating of fathers of students in low and medium SES schools. The prestige rating of father's occupation by SES is shown in Table 5. The most common prestige range for fathers was 21-40 (45%), followed (excluding 'don't know) by 20 or less (10%). Overall respondents' fathers were in occupations of lower prestige than that of their mothers.

Table 5: Father occupation prestige by SES

AUSIE06	N		
	SES		Total
	Low	Medium	
Does not work	4	1	**5**
Do not know	27	20	**47**
Less than 21	10	13	**23**
21-40	68	37	**105**
41-60	15	6	**21**
61-80	10	7	**17**
81-100	12	5	**17**
Total	**146**	**89**	**235**

All fathers of Indigenous students were engaged in paid employment. Three Indigenous students in low SES schools and seven in medium SES schools did not know their father's occupation. No two fathers of Indigenous students were engaged in the same occupation. Fathers of Indigenous students in low SES schools had an average occupational prestige

rating of 47.23 with a standard deviation of 23.27. (The prestige score ranged from 23.4 to 84.1.)

Fathers of Indigenous students in medium SES schools had an average occupational prestige rating of 36.67 with a standard deviation of 21.71. (The prestige score ranged from 20.7 to 78.6.) Overall, there was little significant difference in occupational prestige between Indigenous students' mothers and fathers although, in general, their mothers' occupations were higher in prestige.

4.4 *Students' restricted occupational preferences*

Students were asked to order a restricted list of 10 occupations from highest to lowest according to their preferred future occupation. The list comprised two occupations from each decile of the AUSIE06 (Australian Bureau of Statistics rating of occupational prestige), starting from the second decile. Reasons given for their choices are detailed in Appendix 3. The distribution of respondents' highest selected occupation (listed below according to their prestige score, based on the AUSIE06) is as follows:

Table 6: Highest selected occupational preference and AUSIE06 rating

Highest Selected Occupation	Gender		Row	AUSIE06
	Male	Female	Total	
Medical doctor	5	36	41	100.0
Lawyer	3	33	36	90.7
TAFE Teacher	6	18	24	82.0
Social worker	7	30	37	80.2
Information technology support technician	14	2	16	63.6
Dental technician	2	3	5	58.9
Aircraft maintenance engineer	40	11	51	41.1
Data processing operator	5	0	5	39.3
Storeperson	7	10	17	20.8
Cleaner	1	4	5	20.4
Total	**90**	**147**	**237**	**-**

For the highest selected restricted choice occupation, male students $(\bar{x} = 53.78, sd = 21.74)$ indicated a preference for less prestigious occupations than female students $(\bar{x} = 78.37, sd = 24.22)$; $(t(235) = -7.88, p < .000)$. A series of χ^2 tests[4] on each occupational option showed that there were significant differences between males and females in terms of their most preferred occupation: higher proportions of males than females selected Aircraft Maintenance Engineer ($\chi^2(1) = 45.16$, $p < .000$); Data Processing Operator ($\chi^2(1) = 8.34$, $p < .05$); and IT Support Technician ($\chi^2(1) = 17.87$, $p < .000$). A higher proportion of females selected Lawyer ($\chi^2(1) = 15.83$, $p < .000$); Medical Doctor ($\chi^2(1) = 13.99$, $p < .000$); and Social Worker ($\chi^2(1) = 6.76$, $p < .05$).

The distribution of highest selected occupations by Indigenous respondents is provided in Table 7.

[4] A χ^2 test or chi-squared test is a distribution based test that measures how likely it is that the data observed could have occurred randomly or that the data represents a random sample.

Table 7: Indigenous highest selected occupational preference and AUSIE06 rating

Highest Selected Occupation	Gender		Row	AUSIE06
	Male	Female	Total	
Medical doctor		9	9	100.0
Lawyer				90.7
TAFE Teacher		1	1	82.0
Social worker	2	5	7	80.2
Information technology support technician	1		1	63.6
Dental technician				58.9
Aircraft maintenance engineer	1	2	3	41.1
Data processing operator	1		1	39.3
Storeperson	1	1	2	20.8
Cleaner		1	1	20.4
Total	**6**	**19**	**25**	**-**

For the highest selected occupation, Indigenous male students $(\bar{x} = 54.20, sd = 24.29)$ preferred less prestigious occupations than Indigenous female students $(\bar{x} = 79.28, sd = 27.57)$; $(t(23) = -1.99, p < .06)$. Female Indigenous students chose Medical Doctor more than did male Indigenous students ($\chi^2(1) = 4.44$, $p < .05$). These results follow a similar pattern to those of the total cohort.

The distribution of highest selected occupations by the socioeconomic status of students' school is provided in Table 8.

Table 8: SES Highest selected occupational preference and AUSIE06 rating

Highest Selected Occupation	SES		Row	AUSIE06
	Low	Medium	Totals	
Medical doctor	29	12	41	100.0
Lawyer	26	10	36	90.7
TAFE Teacher	11	13	24	82.0
Social worker	22	15	37	80.2
Information technology support technician	12	4	16	63.6
Dental technician	2	3	5	58.9
Aircraft maintenance engineer	31	20	51	41.1
Data processing operator	2	3	5	39.3
Storeperson	9	8	17	20.8
Cleaner	4	1	5	20.4
All Groups	**148**	**89**	**237**	**-**

There were no significant differences between students in low and medium SES schools on the mean overall occupation prestige choice, although responses from students in low SES schools had a slightly higher occupation prestige rating $(\bar{x} = 70.45, sd = 26.24)$ than did responses from students in medium SES schools $(\bar{x} = 66.67, sd = 25.99)$.

Respondents' first choice of occupation was compared with the ANZSCO list of occupation skill level and the indicative qualification required (Trewin & Pink, 2006). These are detailed in Appendix 4, Tables 4.8 and 4.9. Table 9 indicates that 58% of students selected as their first preference occupations that would require a university degree, while 40% chose occupations that require a TAFE qualification. The gender difference on this issue was quite marked. The majority (76%) of males selected an occupation requiring a TAFE course, while an even greater proportion of females (80%) opted for professions requiring a university qualification.

These data can also be compared with what respondents thought was required to obtain these occupations.[5] Table 9 also shows that less than half (47% or 100 students) agreed or

[5] These data are derived from students' responses to the question: 'If you were to get to do your first preference, what things between now and then would you need to do?'.

strongly agreed with the statement that they need to go to TAFE to achieve their aspirations, while 73% (168) indicated that they would need to go to university (see Appendix 5 for more detailed data). These perceptions are substantially higher than what students actually require in order to obtain their preferred occupation. This suggests that students have an inflated view of the education required to qualify for their desired career.

Table 9: First preference occupation and required qualifications, by gender

	Occupation preference requires university		Occupation preference requires TAFE	
	N	**%**	**N**	**%**
Male	21	23.3%	68	75.6%
Female	147	79.6%	26	17.7%
Total	**138**	**58.2%**	**94**	**39.7%**
	Perceived need to go to university to obtain occupation		**Perceived need to go to TAFE to obtain occupation**	
	N	**%**	**N**	**%**
Male	61	70.9%	42	51.2%
Female	107	74.3%	58	44.3%
Total	**168**	**73.0%**	**100**	**46.9%**

4.5 *Students' unrestricted occupational preferences*

Students were also provided with opportunity to indicate their own occupational preferences, without restrictions placed on the occupations selected. The responses were then coded according to AUSIE06 deciles. Figure 4 provides a comparison of respondents' restricted and unrestricted occupational preferences. Respondents' unrestricted occupational preferences had a median of 8 while their restricted occupational preferences had a median of 9. In other words, when students were able to select any preferred future occupation they tended to choose occupations of lower prestige than when required to select from a predetermined list.

This is further explained by the results of a Wilcoxon matched pairs test[6] performed on the data, which shows a significant difference between the two ratings of restricted and unrestricted occupational choices ($z = 3.14$, $p < .01$), such that students chose more decile 5 and 10 occupations when required to choose from a restricted range of occupations but more decile 4, 7 and 8 occupations when free to choose any occupation.

Female students made a significantly higher decile choice than did males for both restricted and unrestricted occupational preferences – that is, females tended to select more prestigious occupations than males. This was more pronounced in the restricted choice question – females $(\bar{x} = 8.51, sd = 2.27)$, males $(\bar{x} = 6.12, sd = 2.09)$; $t(235) = 8.11, p < .001$ – than it was in the unrestricted choice question – females $(\bar{x} = 7.32, sd = 2.38)$, males $(\bar{x} = 6.27, sd = 2.51)$ $t(224) = 3.16, p < .01$.

There were no significant differences in respondents' unrestricted occupation choices by the SES of their school.

[6] The Wilcoxon matched pairs test is used when comparing two related samples, matched samples, or repeated measurements on a single sample to assess whether their population mean ranks differ.

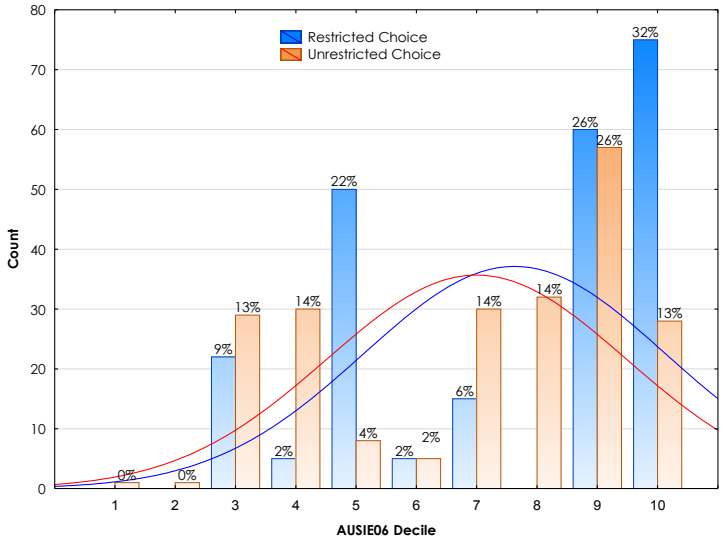

Figure 4: Histograms of restricted versus unrestricted occupational preference as per AUSIE06 decile rating of occupational prestige.

Similar to all student respondents, the median restricted occupation of choice for Indigenous respondents was decile 9 and the median unrestricted occupational of choice was 7 (Figure 5). A Wilcoxon matched pairs test performed on the data showed a significant difference between the two ratings ($z = 2.696$, $p < .01$) such that Indigenous students chose more decile 9 and 10 occupations when given a restricted choice of occupations but more decile 4, 7 and 8 occupations when given an unrestricted choice of occupations. Indigenous students (like the cohort as a whole) tended to prefer lower prestige occupations when given a free choice as opposed to selecting from a restricted list.

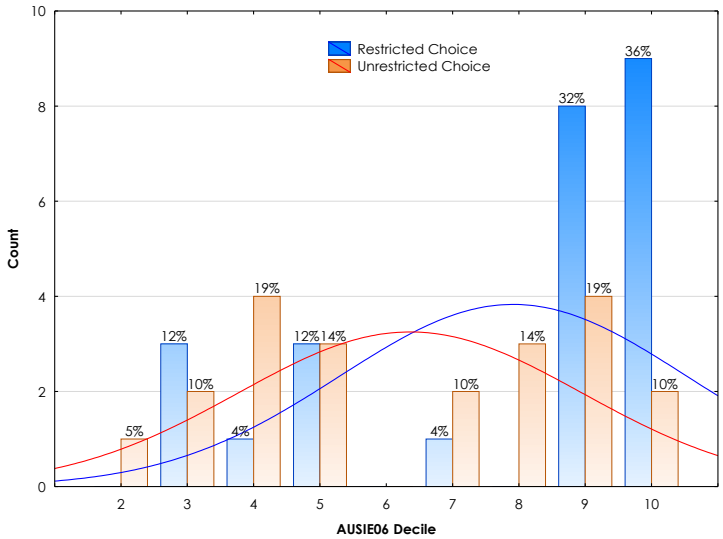

Figure 5: Histograms of Indigenous restricted versus unrestricted occupational preference as per AUSIE06 decile rating of occupational prestige

4.6 *Students'* desire *to have a university degree*

The survey also posed the question: 'In the future, when you are the same age as your parents or guardians are now, what would you LIKE TO have or own?' The discussion here is limited to responses to the reply: 'a university degree'.

Table 10 indicates that over two-thirds (67% or 141 students) of all students declared a desire to have a university degree (i.e. those who indicated either agree or strongly agree). This is consistent with other recent surveys that indicate that around 70% of students from low SES backgrounds aspire to go to university (Bowden & Doughney, 2009).

In this survey, females indicated a slightly higher rate of desire for a university degree (71%) than males (60%). The opposite was observed among Indigenous respondents. However, for all students and for Indigenous students, these differences between males and females are not statistically significant.

The proportion of respondents who either disagreed or strongly disagreed with the statement that they would like to have a university degree is low within the total cohort, and zero among Indigenous students (Table 10). However, 30% (64) of all respondents were neutral (indicating that they neither agreed nor disagreed) about having a university degree in the future. This was slightly lower for females (28%) than for males (35%).

For Indigenous respondents, the desire to have a university degree by the time they are the same age as their parents is very strong (68%, 15 students), for both males (80%, 4) and females (65%, 11).

Table 10: All students' desire for a university degree by gender

Aspire to a university degree	Gender		Row
	Male	Female	Totals
ALL RESPONDENTS			
Strongly Disagree	2	1	**3**
Disagree	2	0	**2**
Neither Agree nor Disagree	26	38	**64**
Agree	19	30	**49**
Strongly Agree	26	66	**92**
Total All	**75**	**135**	**210**
INDIGENOUS RESPONDENTS			
Strongly Disagree	0	0	**0**
Disagree	0	0	**0**
Neither Agree nor Disagree	1	6	**7**
Agree	3	2	**5**
Strongly Agree	1	9	**10**
Total Indigenous	**5**	**17**	**22**

4.7 *Students'* anticipation *of having a university degree*

Complementing the above question, students were also asked: 'In the future, when you are the same age as your parents or guardians are now, what WILL you have or own?' The discussion here is limited to responses to the reply: 'a university degree'.

In response, 60% (126) of students anticipated that they *would* have a degree at some time in the future (52% or 12 Indigenous students). Again, there was a difference in responses among males and females: 71% of female students indicated that they *anticipated* having a university degree in the future, which is identical to what they indicated they would *like* to have in the future. That is, for female students in the survey there was no distinction between their desire for a university degree and the perceived possibility of getting one. However, only 47% of male students anticipated that getting a university degree would be possible for them, down from 60% when asked about their desire for a university degree. That is, anticipation of getting a degree is significantly higher for female respondents ($\chi^2(1) = 8.47$, $p < .01$). These differences between males and females are illustrated in Table 11.

Table 11: All students' anticipation of getting a university degree, by gender

Aspire to a university degree	Gender		Row
	Male	Female	Totals
ALL RESPONDENTS			
Strongly Disagree	4	1	**5**
Disagree	5	11	**16**
Neither Agree nor Disagree	32	32	**64**
Agree	19	57	**76**
Strongly Agree	17	33	**50**
Total All	**77**	**134**	**211**
INDIGENOUS RESPONDENTS			
Strongly Disagree	0	0	**0**
Disagree	1	0	**1**
Neither Agree nor Disagree	1	9	**10**
Agree	2	3	**5**
Strongly Agree	1	6	**7**
Total Indigenous	**5**	**18**	**23**

There were no statistically significant differences regarding desire for and anticipation of getting a university degree, between all respondents (60%) and Indigenous respondents (52%). Like all participants, fewer Indigenous students in the survey anticipated that they would get a university degree, compared with their desire for a university degree. Table 11 shows that 60% of Indigenous males and 50% of Indigenous females anticipated getting a university degree in the future.

4.8 *University, field of study choices and the TAFE alternative*

University choice

Almost all students answered the question about their university of choice ('If you go to university, which university would you like to go to?').[7] Discounting 16 students who indicated that they did not plan to go to university, 79 (42%) of the remaining students with aspirations for higher education indicated that they had not made a decision about which university they would like to go ('I don't know').

From those who indicated a specific university (58.5%), the data suggest that most students select a university to attend based on its geographic proximity to their current residence, with Central Queensland University being the university of choice for 39 students (20.5%, the highest response for any university chosen). This response rate may also be influenced by the fact that students completed the survey while visiting a CQ University campus.

It is clear that while many students have aspirations to go to university – 67% desire to go to university in the future, 60% anticipate that they will go to university in the future (see sections 4.6 and 4.7 above) – a large number of these students (38%) are yet to decide on their preferred university. Table 12 shows the distribution of university choice by gender.

While not a significant difference, 42% (55) of female students were less certain of which university to choose, compared with only 32% (24) of male students. A greater percentage of males (34%) than females (10%) indicated Central Queensland University as their preferred choice. Only female students chose a Group of Eight (Go8) university (University of Queensland or University of New South Wales). Two of the three female students who desire

[7] Respondents were asked to choose from a list of all seven Queensland universities, but also had the choice of 'I don't know' and 'I don't plan on going to university' and the option to specify an option not on the list.

to attend the University of New South Wales (UNSW) indicated that they wanted to attend the Australian Defence Force Academy (ADFA), a college of UNSW, and pursue a military career. The other female student selected the National Institute of Dramatic Art (NIDA), until recently a college of UNSW.

Table 12: University choice by gender

University	Gender		Row
	Male	Female	Totals
I don't know	24	55	79
Central Queensland University	26	13	39
James Cook University	5	18	23
I don't plan on going to university	10	6	16
University of the Sunshine Coast	4	10	14
University of Queensland	0	11	11
Griffith University	2	7	9
Queensland University of Technology	3	4	7
University of New South Wales (2 ADFA, 1 NIDA)	0	3	3
A NZ University	0	2	2
University of the Southern Queensland	1	0	1
University of New England	0	1	1
University of Wollongong	1	0	1
All Groups	76	130	206

Field of study choice

The survey asked students about their preferred field of study if they went to university. The highest response was Creative Arts and Music (15%). Engineering and Surveying, and Veterinary Science were equal second with 11% of students indicating this preference. Only five (3%) indicated that they intended to study Business, Administration and Economics. The choice of field of study by gender is provided in Table 13. As per previous studies (AAUW, 2010; Mavriplis, Heller, Beil, Dam, Yassinskaya, Shaw & Sorensen, 2010; OECD, 2011), male students selected Engineering ($\chi^2(1) = 25.01$, $p < .000$), Architecture ($\chi^2(1) = 10.86$, $p < .01$) and Science ($\chi^2(1) = 5.95$, $p < .05$) more than females. Similarly, female students selected Veterinary Science ($\chi^2(1) = 5.51$, $p < .05$), Education ($\chi^2(1) = 5.47$, $p < .05$) and Health ($\chi^2(1) = 4.15$, $p < .05$) more than males. Notably, the gender balance in Engineering and Surveying, and Veterinary Science (both receiving the same response rate) is almost exactly reversed.

Table 13: Field of study by gender

Field of Study	Gender		Row
	Male	Female	Totals
Creative arts and music	8	15	23
Engineering, surveying	16	1	17
Veterinary science	2	15	17
Architecture, building	11	3	14
Agriculture, animal husbandry	4	10	14
Arts, humanities and social sciences	2	11	13
Science	9	4	13
Education	1	12	13
Health	1	10	11
Law, legal studies	3	7	10
Medicine	1	5	6
Business, administration, economics	1	4	5
All Groups	59	97	156

University and TAFE comparisons

Students were asked if they would consider going to TAFE instead of university: 47.5% (67) of all respondents (and 58% of Indigenous respondents) said they would. That is, 52.5% (74)

would *not* consider going to TAFE instead of university. As a follow-up question, participants were asked to indicate how much they agree or disagree with the following statements:

- I don't know what TAFE is
- University and TAFE are the same
- You learn more at university
- TAFE is more practical
- I plan to go to TAFE instead of university because TAFE is closer to my home
- Universities give you more subject choices
- TAFE doesn't have what I want to study
- Other, please specify.

For this survey item there was not a large enough Indigenous cohort for meaningful results. The reporting here is for the entire cohort.

Of those who indicated that they would *not* consider going to TAFE, over three-quarters (77%) either agreed or strongly agreed that you learn more at university (Table 14). A similar proportion (74%) agreed that universities provide students with greater choice of subjects, while half said that TAFE does not offer what they want to study. Fewer students (29%) thought that TAFE is more practical than university, while 36% said they do not know what TAFE is.

Table 14 also shows that of those who *would* consider TAFE, a majority (71%) agreed that TAFE is more practical. Around a third (34%) thought that students learn more at university, while just under half (47%) indicated that universities offer more subject choices. This last figure in particular seems high given the respondents' preference for VET. Also of interest is that only 39% of students agreed that they would go to TAFE because of its geographical proximity. Only a small number of students thought that university and TAFE are the same.

Table 14: Reasons for considering TAFE

Agree or strongly agree	Would not consider TAFE		Would consider TAFE	
	N	%	N	%
I don't know what TAFE is	22	36%	7	11%
University and TAFE are the same	6	10%	5	8%
You learn more at university	48	77%	21	34%
TAFE is more practical	18	29%	44	71%
I plan to go to TAFE instead of university because TAFE is closer to my home	3	5%	29	39%
Universities give you more subject choices	46	74%	29	47%
TAFE doesn't have what I want to study	31	50%	11	18%

Two-fifths (42%) of females and 55% of males would consider TAFE, while 47% of students from low SES schools and just under half of students from medium SES schools (49%) would also consider TAFE. Further discussion of this data, including disaggregation by gender and SES, can be found in Appendix 5.

4.9 *Resourcing university aspirations*

Ten students (4.7%) had never visited a university. Only 38 students (18%) (including two Indigenous students) had a brother or sister who had been to university. When asked if they knew anyone who had been to university, 75% of all respondents answered that they did, compared to 62% of Indigenous respondents (13). Asked whether they had any other

university experiences, 47% (100) of all respondents and 52% (11) of Indigenous respondents said they had. None of these differences were significant.

Students were asked to provide a text response to 'If you wanted to find out information about what to do after leaving school, where and who would you get that information from?' Analysis of the answers revealed six broad categories: university/TAFE, parents/family; teachers/school, friends; internet; and other. Table 15 sets out the response rates for each of these categories disaggregated by gender and Indigenous status.

Of all the students in the survey, 213 answered this item (81 males, 132 females and 21 Indigenous students). Many gave more than one source of information. Just over one-fifth (22%) of students (52) and 19% (4) of Indigenous students indicated that they would seek information from a university or TAFE. The most commonly reported source of information for all students, males and females, was parents and family (47% of each group). Although 48% Indigenous students also indicated parents/family as a source of information, slightly more (52%) thought that they would seek information from their teachers or school. In contrast, only about one-third (31%) of male students indicated that they would rely on information from this source.

Table 15: Sources of information, by Indigenous and gender

	All		Male		Female		Indigenous*	
	N	%**	N	%	N	%	N	%
University/TAFE	52	22.4%	17	21.0%	35	26.5%	4	19.0%
Parents/family	100	46.9%	38	46.9%	62	47.0%	10	47.6%
Teachers/school	86	40.4%	25	30.9%	61	46.2%	11	52.4%
Friends	30	14.1%	11	13.6%	19	14.4%	2	9.5%
Internet	68	31.9%	22	22.4%	46	34.8%	6	28.6%
Other	32	15.0%	13	16.0%	19	14.4%	2	9.5%

*19 (76%) of the 25 Indigenous respondents were female
**% does not total 100 as students gave more than one source of information

Generally, however, there was no significant difference between the groups reported here. For example, around 14% of each group (9.5% for Indigenous students) reported that they would ask friends, with similar patterns for information from the internet and other sources.

The greatest variation is between information sources rather than demographic groups. Almost twice as many students would seek information from their parents or family members (47% of the whole cohort) than from university or TAFE institutions directly (22%). Teachers and schools (40%) constitute another substantial source of information as does the internet (32% – although this may include institutions' web sites). Information from students' friends represents a minor source with only 14% of respondents reporting it, less than the response rate for the 'other' category.

Parents/guardians

When asked how important the views of parents or guardians were to planning for the future, 84% (179) of all respondents said it was important or extremely important as did 94% (20) of Indigenous respondents.

For all respondents, 96% (158 students) reported that their family thought it would be good for them to go to university; only 6 students did not (4%). For Indigenous respondents the positive response rate was similar at 94% (15 students). See Table 16.

Table 16: Parents/guardians views by Indigenous, SES and gender

Parents/guardians views about your future	SES		Gender		Row
ALL RESPONDENTS	**Low**	**High**	**Male**	**Female**	**Totals**
Definitely not important	2	1	1	2	**3**
Unimportant	2	1	1	2	**3**
Neither important nor unimportant	19	8	10	17	**27**
Important	68	36	39	65	**104**
Extremely important	48	27	29	46	**75**
Total All	**139**	**73**	**80**	**132**	**212**
INDIGENOUS RESPONDENTS					
Definitely not important	0	1	0	1	**1**
Unimportant	0	0	0	0	**0**
Neither important nor unimportant	0	0	0	0	**0**
Important	6	6	2	10	**12**
Extremely important	5	3	3	5	**8**
Total Indigenous	**11**	**10**	**5**	**16**	**21**

There is a strong correlation between the unrestricted occupational choice of respondents and the occupation the parents would like their child to have ($r_t(131) = 0.59$, $p < .001$). That is what students thought their parents would like them do as an occupation was closely associated with the open occupation responses they gave.

There are no correlations between students' unrestricted occupation choice and their mother's or father's occupation or education. The data suggest that parents are more interested in supporting their children than in having them follow in their footsteps.

Teachers

When asked how important the views of teachers were to planning for the future, 59% of all respondents (126 students) said it was important or extremely important as did 67% (14) of Indigenous respondents (Table 17).

A matched samples t-test performed on the data showed that parents/guardians views $(\bar{x} = 4.16, sd = 0.80)$ were seen by respondents as more important than teachers' views $(\bar{x} = 3.62, sd = 0.94)$; $t(211) = 8.24$, $p < .000$.

Table 17: Teachers views by Indigenous, SES and gender

Teachers views about your future	SES		Gender		Row
	Low	**High**	**Male**	**Female**	**Totals**
ALL RESPONDENTS					
Definitely not important	7	2	9	4	**9**
Unimportant	6	3	9	4	**9**
Neither important nor unimportant	48	21	69	44	**69**
Important	63	30	93	61	**93**
Extremely important			13	20	**33**
Total All	**16**	**17**	**33**	**133**	**213**
INDIGENOUS RESPONDENTS					
Definitely not important	0	0	0	0	**0**
Unimportant	1	0	1	0	**1**
Neither important nor unimportant	4	2	1	5	**6**
Important	5	5	3	7	**10**
Extremely important	1	3	0	4	**4**
Total Indigenous	**11**	**10**	**5**	**16**	**21**

4.10 *Trust*

Students were asked: 'What makes you trust the advice about the future from some people more than others?' and to indicate how much they agree or disagree with the following statements:

- I trust people who I know well
- I trust people who have experience of these kinds of things
- I trust people who are in positions of authority
- I trust people who have qualifications in these kind of things
- Other, please specify.

When asked about what sources of information they trusted, 92% (194) of all students either agreed or strongly agreed that they trusted information from people they knew well. Although not significantly different, responses from low SES schools were higher at 95% compared to 93% for medium SES.

As Table 18 shows, there is not a great deal of variation across the groups (low and medium SES, male and female), although students from medium SES schools agreed in slightly lower proportions. The main difference in agreement is between the different statements. Fewer students from all groups agreed that they trust information from those in positions of authority than any of the other statements. Over 90% of students agreed that they trust information from people they know (92%) and from people with experience (94%).

Table 18: Trusted sources of information, by SES and gender

Agree or Strongly Agree	SES		Gender		Total
	Low	Med	Male	Female	%
ALL RESPONDENTS					
I trust people I know well	94.2%	87.7%	93.8%	90.8%	**91.9%**
I trust people who have experience of these kinds of things	94.9%	93.2%	95.0%	93.9%	**94.3%**
I trust people who are in positions of authority	76.1%	69.4%	73.4%	74.0%	**73.8%**
I trust people who have qualifications in these kind of things	85.1%	80.6%	85.9%	74.0%	**83.5%**
INDIGENOUS RESPONDENTS					
I trust people I know well	-	-	-	-	**81.0%**
I trust people who have experience of these kinds of things	-	-	-	-	**85.7%**
I trust people who are in positions of authority	-	-	-	-	**71.4%**
I trust people who have qualifications in these kind of things	-	-	-	-	**85.0%**

The rates were lower for Indigenous students but the general trend of responses to the statements is broadly similar to the entire cohort (there were insufficient numbers of Indigenous students to disaggregate by SES and gender).

The following chapter identifies themes that transcend the findings identified in this chapter, combining analysis of both quantitative and qualitative data from the survey.

5| Discussion

The focus of this chapter is on students' capacities to navigate between desirable and possible aspirations for higher education, and also on their resourcing (financially and materially but also socially and culturally). It draws on analysis of select quantitative and qualitative data derived from the participation of Central Queensland (CQ) school students in The Australian Survey of Student Aspirations (TASSA).

Analysis of the survey data in Chapter 4 shows that 67% of students desire to attend university in the future. On its own, this is a partial account. Other data from the survey show that 41.5% of students with aspirations for higher education (HE) did not know which university they wanted to attend. This may be a reasonable response, given the age of the students involved. It may also suggest some limits on their capacities to navigate their way toward their aspirations for higher education.

Five major themes that draw out these issues of navigational capacity are explored in the chapter. The first deals with relations between career aspirations and university preferences; in particular, the extent to which students recognize universities and university offerings that fit their desired careers. The second theme examines how university preferences are influenced by the (un)availability of resources, particularly defined in terms of the knowledge and experiences of people significant to students. A third theme concerns differences between students' desires for the future and their sense of their possibility. The fourth theme highlights the social imaginary of students in the survey, particularly the gendered differences in relation to their higher education futures. The fifth theme explores the influence of regionality on students' mobility in pursuing their aspirations. For some students, where they live (e.g. regional and rural Central Queensland) influences what they view as their education options.

5.1 *Career aspirations and university preferences*

A prominent theme that emerged from the survey was a disconnection for some students between their career aspirations and their identification of universities and university courses. For example, one common aspiration among students in the survey was for a veterinary career (9%, 19 students), either as a Veterinarian, Veterinary Nurse, or related position (variously described by students as vet, zoologist and working with animals in some capacity). Most – although not all – of these students also indicated that they planned to go to university to get a Veterinary Science degree. However, some important differences in their navigational capacities were apparent. While many identified this specialist degree as necessary to achieve their aspiration, some appeared unaware that all universities do not offer such degrees. For example, universities such as CQ University, Queensland University of Technology (QUT) and University of Sunshine Coast were all incorrectly identified in student responses as offering Veterinary Science degrees. Only a few students correctly selected the University of Queensland and James Cook University as institutions offering the desired award.

Other students were unclear about the qualification appropriate for their veterinary aspirations. For example, one student who held aspirations for higher education, indicated that her 'big dream' was to become "a fully qualified vet nurse", for which a university degree

is not required.[8] Elsewhere in the survey she also indicated that she wanted to go to "Calvin Grove University" (i.e. QUT, Kelvin Grove campus) to do a veterinary science degree, even though QUT does not offer one. The student was not alone in these misapprehensions. Another who aspired to go to university stated that her future "depends on what i have fully decided for when i leave school, i would need to do the course for vet nurse in brisbane." There is a clear sense in these comments of a capacity to navigate towards aspirations although this is hampered by a lack of appreciation of the required pathways and, more specifically, the points or 'nodes' along these pathways.

This point is emphasized by the over estimation by students of the qualifications required to reach certain occupations. As revealed in Chapter 4, 58% of students selected an occupation requiring university but 73% thought that they needed a degree to attain that occupation. Similarly, almost half (48%) of students did not recognize the need to move to the city in order achieve their desired occupations.

In other responses, 23 students nominated Creative Arts and Music as the field of study they wanted to pursue at university. Unlike those who aspired to do a veterinary science degree, students indicating a preference for Creative Arts and Music were able to locate and identify institutions that offered a relevant award (CQU, USC and Griffith were common responses). Eleven of these students also expressed a desire to become an actor or singer as a future career and a degree in Creative Arts and Music as the pathway towards achieving this.

While this suggests high levels of navigational capacity, one particular student stood out from the others: in her identification of NIDA (Australia's National Institute of Dramatic Art) as the institution she needed to attend and in her knowledge of its affiliation with the University of New South Wales. Unlike others whose aspiration to be an actor or singer appeared to be more informed by desire than possibility (e.g. "I want to be a famous actor"; "Be on X-Factor"), the student demonstrated an understanding of what is required for a career in the industry, informed by her archive of knowledge and experiences: her father is an 'entertainer'.

Access to these types of resources display elements of de Certeau's (1984) 'knowledge from above' or 'map knowledge'; the knowledge required to determine for oneself the pathways to follow to reach the desired destination and how to negotiate obstacles along the way.

5.2 *Resources and university aspirations*

A second theme highlighted by the survey was the resources that facilitated students' pursuit of their aspirations. While financial and material resources are acknowledged as relevant, students tended to emphasize the importance of social and cultural resources; i.e. knowledge and experiences that frame their desired futures (including aspirations for particular universities and careers). The most common identified resource was students' parents and families (47%) followed by teachers and schools (40%). Regard for their peers as a potential resource was considerably lower (14%).

The importance of parents and family as a resource for students' aspirations was similarly strong in the qualitative data. For example, one student commented: "I want a job as a Carpenter or a Childcare Worker. i'd get the information from some of my family members

[8] See http://www.vnca.asn.au/my-career/training-pathways/

because i have family members that are working in them jobs." These comments illustrate the student's access to a family archive of experience and knowledge that she is able to draw on in order to both frame and pursue her future, although she appears less clear about what navigating towards that future will entail. Another student with university aspirations similarly deferred to her family as a source of knowledge about "University's that i was interested in going to and other relatives that are at university and or finished recently."

Other students were able to draw on their family archives of experience and knowledge to develop a clearer sense of how to pursue their aspirations. For example, nine students indicated a preference to attend Griffith University. For one of these students, Griffith represented an explicit path to her desired occupation as a journalist. While Griffith offers a journalism degree, the student's father's connection with the university played an important role in her decision-making. Like other students, she explained: "I would get information from my dad, [and] family members". But she also added: "I've been to Griffith university with my father when he was studying".

This deference to family in the formation and pursuit of aspirations for higher education needs to be considered with caution, given that only 18% of students had a brother or sister who had been to university and only 10% of parents (14% mothers, 6% fathers) had a university degree. Although, when asked whether they knew anyone who had been to university, 75% of students said that they did.

Several students were also able to identify alternative resources that could provide them with understanding of the higher education environment. One example is a student with a desire to join the army, who indicated she would ask: "Teachers, People in the army for my career, and people who have followed career paths close to mine." Similarly, another student explained she would go to a "Guidance officer, or go to the university and ask some staff at the university." A third student said she would "go to a university and ask them what type of courses they offer and think about that".

Yet despite recognition of these resources, some students were less clear on how they would access them. For example, one student claimed she would ask: "People who are in the path that I want to go in (someone who owns a business similar to what business I want to own, someone in the career I want to take, etc.)." While this may be a useful tactic, the fact the student does not identify a relationship with such a person illustrates its limits. Further demonstrations of limited resources were students who said they would use the internet as their primary resource. This is not in itself limiting as it could suggest that students are able to self-navigate towards a goal. However, the absence of assistance from family, teachers and peers, could mean that students face difficulties in interpreting information relevant to their futures. Without knowledge of where on the internet to look for reliable information or advice on which online sources to trust for accurate guidance, access to the internet is not itself an aid to aspiration.

5.3 *Desirable and possible futures*

Variation between students' desired and possible futures presented a third theme in the survey. A clear example of this is evident in the following student comment: "I'd love to complete university, but do not think I am capable of achieving a good mark as for my english isnt at the satisfactory level needed for university."

For some, desire and possibility were closely aligned. As one student, who wanted to be a "Horse whisperer or Horse breaker", explained:

> i would like to work with horses, i have been with horses since i was 2 years old and i really love them, so i woud really like to work with them but if i can't do anything with horses i would probably be a vet.

In contrast, another student indicated that she would probably become a nurse, while her 'big dream' was to be a teacher. Inconsistency of this kind was evident in 32% of student responses. Divergence between students' declared desires and possibilities was most prevalent among students in low socioeconomic status schools. This may represent what Elster (1983) refers to as adaptive preferences (see Chapter 2). In further examples, one student identified a 'big dream' as "a Fighter Piolet in the aaf" while claiming a desired occupation of "Opal Cutter." Similar responses saw dreams of being an "air fighter pilot", a "part-time florist" and "working with orangutans" replaced with likely occupations of construction worker, photographer and accountant respectively.

The distance between what is desirable and a sense of the possible is underpinned by the difference between the number of students who do wish to attend university in the future (67%) and those who think it to be likely (60%). That this disconnection between desire and possibility is more acute for males than females suggests some gender distinctions in how males and females in the study see their position in society.

5.4 *Social imaginary and gender*

A fourth theme evident in the survey is CQ students' social imaginary: their shared understanding of legitimate or expected aspirations for the future in relation to their positioning within the collective life of their schools and region.

One male student expressed this shared imagination well: "university is not for me". In this he gave voice to a common understanding evident in students' responses, that aspiration for higher education tends to be gendered. One example of this is that while most students (67%) in the survey have aspirations for higher education, more females (71%) than males (60%) expressed a desire to have a university degree in the future. This gender difference is even starker in relation to aspiration possibilities. The same proportion of females (71%) think getting a university is both desirable and possible for them, whereas only 47% of males think that a university degree is a possibility (down from a 60% desirability). A further example among students who aspire to higher education, is that compared to males, females tend to aspire to more prestigious universities and more prestigious gendered occupations (e.g. medical doctor, lawyer, social worker compared with aircraft maintenance engineers for males) but less prestigious fields of study. As noted in Chapter 4, males aspire to engineering, architecture and science more than females, while females aspire to veterinary science, education and health more than males. Males were also more likely than females to consider TAFE as an alternative (45% as opposed to 58%; see Appendix 5).

This gendering of aspirations was also expressed in students' explanations for how going to university would help them in the future. Common among females were comments such as: "Most people who have attended university have achieved most of the things they want in life, which is want I want" and "Because going to university will give me wider opportunities in getting a good job, earning good money and fulfilling my dreams for the future". Their

justifications are broad, almost vague, and tended to be connected to "wider social scenes and contexts" (Appadurai, 2004, p. 68). In contrast, males tended to give more specific explanations of the anticipated contribution of higher education to achieving their aspirations. Their responses included: "I can get a degree and increase my chance of being accepted in the Airforce" and "I need university to become a radiologist". Their justifications tended to be more "concrete, individual wishes and wants" (Appadurai, 2004, p. 68).

One explanation for these differences between male and female students' aspirations for higher education may be related to their collective family histories. Family often plays an influential role in developing an understanding of how the world works, how it should be, and what it can be. As noted in Chapter 4, on average, students' mothers had higher levels of educational attainment than their fathers and worked in occupations of higher prestige. These can influence the social imaginary of students, as symbolic representations of the expectations that are to be met, as well as normative notions of current social positions (Taylor, 2004). This would appear to be behind the male student comment that "university is not for me". Instead he wants to be a carpenter, as he explains: "Cos my Dad was a Apprentice back in his day."

5.5 *Geographical mobility and aspiration*

Geographical mobility implied or stated in students' aspirations emerged as a fifth theme in the survey. For Bauman (1998, p. 71), geographical mobility has become "the most powerful and most coveted stratifying factor." In just one example of this mobility-power nexus, the ability to be mobile in order to pursue higher education has emerged as largely the preserve of a global economic and social elite which, in traversing locations, is able to maintain and increase their advantage (Sellar & Gale, 2011; Gale & Parker, 2013).

The following illustrates the emerging strategy of the world's elite in the face of rising higher education participation, from mass to universal (Trow, 1974; 2006). The comments are those of a high SES student from England pursuing an undergraduate degree in the USA:

> There is so much talk in the newspaper of the devaluing of degrees, so I think that this is a way of making your CV stand out a little more. You didn't just get a degree, you went half way round the world to get a degree. … I suppose I looked at the Ivy League universities in the US. If I was going to make the trek over here and give up Cambridge, it needed to be something that was equally enjoyable and taxing and look(ed) good on my CV. (Student in Findlay & King, 2010, p. 28, cited in Sellar & Gale, 2011)

In the research documented in this report, there was some evidence of students' intended, albeit restricted, geographical mobility. CQ school students were asked in the survey about where they would like to live in the future. Student responses included:

- Live in a big house in the north of Nsw on a property. The dirt is red and there is mulga trees but the country is overal hard;
- On a big wide open space, about 36 thousand acers;
- I would like to live in the out back to stay close to family. A big house on a farm close to twon so i can still run a vet clinic;

- i would like to live on my property and work with the cows and horses;
- i would like to live in a small town called qulipe, in a smaall house working on the property and working with horses or maybe in the city in a big house being a vet.

Evident in these responses are students' strong attachment to regional and rural Australia, whether this entails remaining in their hometown or moving elsewhere. In other words, 'moving' – when it was evoked – seemed to involve minimal change, even when change was claimed as a reason for the move. For example, two students in the survey indicated that in the future they wanted to live somewhere else: "Somewhere other then Gayndah" and "Away from Gayndah, in a big house and have a good education". Yet both students identified the University of the Sunshine Coast as their preferred university; i.e. the closest university to Gayndah. Thus, while geographical mobility is desired, the higher education options viewed as possible appear to be constrained by location.

This attachment to place was also evident in other survey responses. For example, approximately 40% of students who aspired to go to university indicated a regional university as their preferred institution (20.5% Central Queensland University, 12% James Cook University and 7% University of the Sunshine Coast). One reading of this response is that students identify universities with which they are most familiar; that is, they have a preference for universities that are either relatively close by (e.g. CQU) or are of a similar regional nature to their homes (i.e. not based in cities such as Brisbane). Another example of students' attachment to place is that while 67% of students expressed a desire to go to university, only 34% of students live within a 50 kilometre radius of a university campus. That is, going to university will most likely require most students to move away from home. Yet, only 48% of students indicated that achievement of their preferred occupation required moving to another town.

In short, there is some evidence in the survey data that students' regionality may present some restrictions on their capacity to navigate their aspirations for higher education.

5.6 *Summary*

The clear suggestion in the above themes is that there are limits to the navigational capacities of CQ school students in the formation and realization of their aspirations for higher education. These limits are evident in: the mismatch between students' career aspirations and university preferences; the restricted resources accessed by students, in both quantity and quality; the disparities between desired and possible aspirations; the gendered legitimation of aspirations; and the sociocultural constraints of students' geographical locations.

6| Conclusions

The main conclusion that emerges from this study is that while there is strong aspiration for higher education among Central Queensland school students, many of these students have diminished capacities to navigate their way from where they are currently located in the education system towards post-school education options (including university) and beyond.

In expanding on this conclusion, this Chapter is organised in two sections. The first briefly lists select findings from the survey that draw attention to this issue of navigational capacity, and discusses these in light of the project's conceptual framework. The second section considers the implications of what this might mean for university outreach programs.

6.1 *Navigational capacity findings*

Chapters 4 and 5 and the Appendices provide a full account of findings from the survey data. The following select findings drawn from Chapter 4 reveal issues of navigational capacity for Central Queensland students who completed the survey. In brief:

- *Many students aspire to go to university:* Over two-thirds (67% or 141 students) of all students who completed the survey indicated an aspiration to attend university in the future. The rate of aspiration among Indigenous students was very similar at 68% (15 students). In fact, throughout, Indigenous student data were not significantly different from non-Indigenous student data.

- *For some students, particularly males, their desire to go to university is tempered by what they think is possible*: Slightly fewer (60%, 126 student) students expected that they *would* have a degree at some time in the future (52%, 12 Indigenous students) than those who *desired* to have a university degree (67%). However, this difference between desire and possibility in relation to going to university is more acute for males than for females. While many male students desire to go to university, a number of them do not think this will be possible.

- *Many students with aspirations for higher education have not identified a university to attend*: When asked what university they would like to attend two-fifths (42%) of students in the survey did not know. This indecision was slightly higher for females than for males.

- *Some students with aspirations for higher education do not appreciate that they will probably need to relocate in order to do pursue their aspirations*: While 67% of students aspired to go to university, only 48% indicated that they would need to move to another city to pursue their occupation. This is despite the distance from a university campus of most participating schools in the survey.

- *Some students aspire to go to universities that do not lead to their career aspirations*: Some students indicated a desire to go to a university that does not offer their preferred course, or identified a course that was inconsistent with their career aspirations (e.g. Veterinary Science when they aspired to be a veterinary nurse), signifying a lack of understanding about exactly what is needed for them to realise their aspirations.

- *Some students' have an inflated view of the education required to qualify for their desired career*: Over half (58%) of all respondents selected an occupation that requires university study as their first preference, and 40% selected occupations needing a TAFE qualification. By contrast, 73% stated they needed to go university to achieve their preferred career and 47% indicated TAFE.

- *When given a choice, most students, particularly males, aspire to less prestigious universities and careers than might otherwise be expected*: When selecting a preferred occupation from a predetermined list, students in the survey tend to pick occupations of higher prestige than when invited to nominate their own preference. Female students tended to indicate a greater preference for more prestigious occupations and universities – including universities in major cities – compared with their male peers.

To re-iterate a major point in the conceptual framework, Appadurai (2004) notes that in the pursuit of aspirations, navigational capacities are unevenly spread across different social groups. In part, this is because more privileged and advantaged groups have more resources (economic, social, cultural) at their disposal and more extensive archives of experience on which to draw when planning for the future. Less advantaged groups have a smaller "archive of concrete experiments with the good life" and "a smaller number of aspirational nodes and a thinner, weaker sense of the pathways from concrete wants to intermediate contexts to general norms and back again" (Appadurai, 2004, p. 69).

There is certainly evidence in this report of these outcomes for Central Queensland students who completed the survey. The example of students who declared a desire to obtain a veterinary science degree but selected universities at which this course is not offered or is not required to achieve their career aspiration, is indicative of these reduced navigational capacities. The same could be said of students who declared specific career aspirations but had not decided which university to attend. In de Certeau's (1984) terms, their aspirations for the future are informed by a 'tour' knowledge, dependent on others – in this case, typically parents/family and teachers/schools – to guide them in the right direction. This certainly requires of students some navigational capacity but without a 'map' knowledge that would allow them to make informed choices and create alternative routes for themselves at strategic points on the path towards their desired destinations.

There is also some evidence in the data that navigational capacities differ for different students, typically along gendered lines. Compared with males, female students in the survey tended to have a better grasp of an aspirational 'map' evident in an appreciation of the benefits of higher education although, as indicated in Chapter 5, the general nature of these comments also suggested a degree of vagueness. Still, Appadurai sees the ability of students to connect their aspirations with broader social agendas as evidence of greater levels of navigational capacity. As he notes, "the better off, by definition, have a more complex experience of the relation between a wide range of ends and means" (Appadurai, 2004, p. 68). In comparison, male students tended to have more specific rationales for aspiring to higher education albeit derived from their 'tour' knowledge.

One conclusion, then, is that while female students exhibit more navigational capacities than male students, access to map knowledge – 'knowledge from above' – for both males and females is limited.

6.2 *Implications for university outreach*

There are implications in these findings for universities, such as Central Queensland University, and their outreach programs in schools. In brief, programs aimed at increasing navigational capacities have potential to assist students in the formation and pursuit of their aspirations for higher education. There is a danger, though, in constructing programs that simply or solely address the perceived shortcomings in students' experiences and knowledge, as highlighted in this report. Certainly there are issues that ought to be made explicit to school students, including that:

- going to university is not necessary for all of their desired futures;
- not all universities offer the same courses;
- going to university may necessitate moving to another town or city;
- there are interim steps / navigational nodes between where students are currently located and their aspirations – e.g. when and what subject choices they need to make to attain entry in their desired HE course;
- there are multiple pathways to reach desired ends; searching for and switching between them is a useful strategy when obstacles on one pathway are encountered.

That is, students should be provided with reliable information about post-school pathways so that these issues can be addressed. Importantly, these need to be made explicit rather than assumed to be self-evident. However, the international research has shown that university outreach programs are most effective – including, we suggest, in the development of students' navigational capacities – when the full range of the following program strategies and characteristics (in brackets) are evident:[9]

- *"Assembling resources* involves committing human resources (people-rich), financial resources (financial support and/or incentives) and time resources (early, long-term, sustained) to support and implement outreach programs and activities.
- *Engaging learners* involves learning and teaching of various orders: learning about programs, their effects and intervention strategies more generally (research-driven), high-quality and rigorous student learning driven by quality teaching (enhanced academic curriculum), and learning from and valuing the knowledge of others (recognition of difference).
- *Working together* involves cooperation and partnership at the level of program design and implementation (collaboration) and in terms of engaging student communities through programs, rather than just targeting individuals (cohort-based).
- *Building confidence* involves strengthening students' awareness of university structures, pathways and opportunities (communication and information) and increasing students' familiarity with university contexts and lifestyles (familiarisation and/or site experiences)

[9] These strategies and characteristics are explained in more detail in the report *Interventions Early in School* (Gale et al., 2010).

in order to promote the view that access to and participation in higher education is for everybody." (Gale et al., 2010, p. 9)

For many students in the survey, university visits (such as those offered by Central Queensland University) are their only experience of higher education. These outreach programs can be enhanced to provide students with experiences and knowledge that expand their collective archives, such as task-based activities in collaboration with mentors and university staff, including the involvement of students in the successful planning of these activities. Similarly, students participating in outreach programs could be provided with opportunities to engage in the activities of university students. Outreach programs should also consider post-university destinations. University should be seen as a means to an end rather than an end in itself. Outreach that only focuses on attracting students to HE can limit students' longer-term career and life aspirations.

For reasons indicated in Chapter 3, the research detailed in this report does not include an evaluation of Central Queensland University's outreach programs. However, evident from the survey is that students in schools in which the University currently operates outreach programs, have diminished navigational capacities to draw on in the formation and pursuit of their aspirations for higher education. This would seem to be an issue worth targeting in the University's future outreach programs.

6.3 *Concluding comments*

It is clear from the research that most students in Central Queensland schools who participated in the survey have aspirations for higher education, and at levels similar to other recent surveys in low socioeconomic areas of urban Australia (Bowden & Doughney, 2010). That is, while there is some small contraction (from 70% in Western Melbourne to 67% in Central Queensland), the regional and rural nature of Central Queensland does not appear to adversely affect the level of students' aspirations for higher education. It is also evident that the aspirations for higher education of Indigenous students in Central Queensland is not diminished in comparison to their non-Indigenous peers; although the number of Indigenous students who completed the survey is quite small, even if above the proportional representation of Indigenous peoples in the region (3.8%).

Where they occur, differences in student aspiration tend to be along gendered lines. This conforms to a social imagination particular to regional/rural areas of what are perceived to be 'tasteful' or legitimate male and female futures. The research also shows that there is some 'softness' in these aspirations, particularly for males. That is, the idea that higher education is more of a female aspiration is further evident when differences between desirable and possible futures are recorded for males. Further aspirational 'softness' is evident in the capacities of both males and females (to a lesser degree) to navigate their way towards achieving their aspirations for the future. In short, while most school students declare an aspiration for higher education, their 'underlying' aspirations for higher education tend to be lower.

Increasing the navigational capacities of Central Queensland school students appears as a logical focus for schools and university outreach programs in schools. What is also clear is that this educative work needs to be approached in collaboration with sociocultural groups rather than simply with discrete individuals. Aspirations are formed through interactions with significant others and they are resourced from their collective archives. Increasing students'

opportunities to ‘experiment’ with their aspirations – to build connections and create their own ‘maps’ between their present circumstances and a greater range of possible futures – will require expanding the number and range of their experiences and adequately resourcing these. The results from this research suggest that this is where our energies with respect to students’ aspirations should now be directed.

7| References

AAUW (2010). *Why So Few? Women in Science, Technology, Engineering, and Mathematics*. American Association of University Women, Washington, DC

Australian Bureau of Statistics [ABS] (2007). *Population Distribution, Aboriginal and Torres Strait Islander Australians*. ABS catalogue number 4705.0. Belconnen, ACT: ABS.

Anderson, D. S., Boven, R., Fensham, P. J., & Powell, J. P. (1980). *Students in Australian higher education: a study of their social composition since the abolition of fees*. Canberra: AGPS.

Appadurai, A. (1996). *Modernity at Large: Cultural Dimensions of Globalization*. Minneapolis, Minn: University of Minnesota Press.

Appadurai, A. (2003). Archive and Aspiration. In J. Brouwer & A. Mulder (Eds.), *Information is Alive* (pp. 14-25). Rotterdam: NAI Publishers.

Appadurai, A. (2004). The capacity to aspire: Culture and the terms of recognition. In V. Rao & M. Walton (Eds.), *Culture and public action* (pp. 59–84). Stanford, CA: Stanford University Press.

Archer, L., Hollingworth, S., & Halsall, A. (2007). "University's Not for Me – I'm a Nike Person": Urban, Working-Class Young People's Negotiations of 'Style', Identity and Educational Engagement. *Sociology, 41*(2), 219-237.

Archer, L., & Yamashita, H. (2003). Theorising Inner-city Masculinities: 'Race', class, gender and education. *Gender and Education, 15*(2), 115-132.

Australian Government. (2009). *Transforming Australia's Higher Education System*. Canberra: DEEWR.

Ball, S. J., Davies, J., David, M., & Reay, D. (2002). 'Classification' and 'Judgement': Social class and the 'cognitive structures' of choice of Higher Education. *British Journal of Sociology of Education, 23*(1), 51-72.

Bauman, Z. (1998). Time and Class. *Arena Journal*, *10*, 69-83.

Berlant, L. (2011). *Cruel optimism*. Durham and London: Duke University Press.

Bok, J. (2010). The capacity to aspire to higher education: "It's like making them do a play without a script". *Critical Studies in Education, 51*(2), 163-178.

Bourdieu, P. (1984). *Distinction: A Social Critique of the Judgement of Taste* (R. Nice, Trans.). London: Routledge & Kegan Paul.

Bourdieu, P. (1990). *The logic of practice*. Stanford: Standford University Press.

Bourdieu, P., Boltanski, L., Castel, R., Chamboredon, J.-C., & Schnapper, D. (1990). *Photography: A Middle-Brow Art* (S. Whiteside, Trans.). Cambridge: Polity Press.

Bowden, M., & Doughney, J. (2010). Socio-economic status, cultural diversity and the aspirations of secondary students in the Western Suburbs of Melbourne, Australia. *Higher Education, 59*(1), 115-129.

Bradley, D., Noonan, P., Nugent, H., & Scales, B. (2008). *Review of Australian Higher Education: Final Report*.

Burke, P.J. (2006). Men accessing education: gendered aspirations. *British Educational Research Journal, 32*(5), 719-733.

Butler, J. P. (1987). *Subjects of Desire: Hegelian Reflections in Twentieth Century France*. New York: Columbia University Press.

de Certeau, M. (1984). *The Practice of Everyday Life* (S. Rendall, Trans.). Berkeley: University of California Press.

Elster, J. (1983). *Sour Grapes: Studies in the subversion of rationality*. Cambridge: Cambridge University Press.

Feher, M. (2009). Self-appreciation; or, the aspirations of human capital. *Public Culture, 21*(1), 21-41.

Gale, T., Hattam, R., Comber, B., Tranter, D., Bills, D., Sellar, S., & Parker, S. (2010). *Interventions early in school as a means to improve higher education outcomes for disadvantaged students*. Adelaide: National Centre for Student Equity in Higher Education.

Gale, T., & Parker, S. (2013). *Widening Participation in Australian Higher Education*. Report to the Higher Education Funding Council of England (HEFCE) and the Office of Fair Access (OFFA), England. CFE (Research and Consulting) Ltd, Leicester, UK and Edge Hill University, Lancashire, UK.

Gaonkar, D. P. (2002). Toward New Imaginaries: An Introduction. *Public Culture, 14*(1), 1-19.

Hodkinson, P., & Sparkes, A. C. (1997). Careership: a sociological theory of career decision making. *British Journal of Sociology of Education, 18*(1), 29-44.

James, R. (2002). *Socioeconomic Background and Higher Education Participation: An analysis of school students' aspirations and expectations*. Canberra: Australian Government Publishing Service.

Mavriplis, C., Heller, R., Beil, C., Dam, K., Yassinskaya, N., Shaw, M., & Sorensen, C. (2010). Mind the Gap: Women in STEM Career Breaks. *Journal of technology management & innovation*, *5*(1), 140–151.

Mills, C., & Gale, T. (2010). *Schooling in Disadvantaged Communities: Playing the Game from the Back of the Field*. Dordrecht: Springer.

Nussbaum, M. C. (2011). *Creating Capabilities: The Human Development Approach*. Cambridge, Mass.: Belknap Press.

OECD (2011). *Meeting of the OECD Council at Ministerial Level*. Report on the Gender Initiative: Gender Equality in Education, Employment and Entrepreneurship. Paris 25-26 May.

Prosser, B., McCallum, F., Milroy, P., Comber, B., & Nixon, H. (2008). "I am smart and I am not joking": Aiming high in the middle years of schooling. *The Australian Educational Researcher, 35*(2), 15-35.

Roberts, K. (2009). Opportunity structures then and now. *Journal of Education and Work, 22*(5), 355-368.

Sellar, S. (2013). Equity, markets and the politics of aspiration in Australian higher education. *Discourse: Studies in the Cultural Politics of Education, 34*(2), 245-258.

Sellar, S., & Gale, T. (2011). Mobility, aspiration, voice: a new structure of feeling for student equity in higher education. *Critical Studies in Education, 52*(2), 115-134.

Sellar, S., Gale, T., & Parker, S. (2011). Appreciating aspirations in Australian higher education. *Cambridge Journal of Education, 41*(1), 37-52.

Sen, A. (2009). *The Idea of Justice*: Harvard University Press.

Smith, L. (2011). Experiential 'hot' knowledge and its influence on low-SES students' capacities to aspire to higher education. *Critical Studies in Education, 52*(2), 165-177.

Taylor, C. (1985). *Philosophical Papers: Philosophical Papers Volume 2*. Cambridge: Cambridge University Press.

Taylor, C. (2004). *Modern social imaginaries*. Durham , NC: Duke University Press Books.

Trewin, D., & Pink, B. (2006). *ANZSCO – Australian and New Zealand Standard Classification of Occupations, First Edition*. ABS catalogue number 1220.0. Belconnen, ACT: ABS.

Trow, M. (1974). Problems in the transition from elite to mass higher education *Policies for Higher Education* (pp. 51-101). Paris: OECD.

Trow, M. (2006). Reflections on the Transition from Elite to Mass to Universal Access: Forms and Phases of Higher Education in Modern Societies since WWII. In J. J. F. Forrest & P. G. Altbach (Eds.), *International Handbook of Higher Education, Part one: Global Themes and Contemporary Challenges* (pp. 243-280). Dordrecht: Springer.

Zipin, L., Sellar, S., Brennan, M., & Gale, T. (in press) .Educating for futures in marginalized regions: A sociological framework for rethinking and researching aspirations. *Educational Philosophy and Theory*.

Appendix 1 | Participating schools & student responses

School	Number of Student Responses
Baralaba State School	3
Barcaldine State School	44
Biloela State High School	1
Blackall State School	33
Bundaberg North State High School*	35
Bundaberg State High School*	1
Burnett State College	30
Gin Gin State High School*	24
Kepnock State High School*	21
Longreach State High School	11
Monto State High School	23
Mount Morgan Central State School*	1
Springsure State School	7
Tambo State School	7
Total	**241**

* Bundaberg, Bundaberg North and Kepnock State High Schools, all located in Bundaberg, accounted for 23.7% of all student survey responses. Together with Gin Gin (48km) and Mt Morgan State High Schools (48km), they constitute the schools in the survey within 50 kilometres of a university campus.

Appendix 2 | The Australian Survey of Student Aspirations[10]

Part 1

This survey is about your ideas and hopes for the future. It has been created by researchers at Deakin University in Melbourne, Australia and is being implemented in conjunction with CQUniversity. We want to learn about how people like you think about your future. We also want to learn about what guides your thinking. Thank you for completing this survey, which will help us learn about these things. The survey will take approximately 30-60 minutes to complete.

Before you get started: I have discussed completing this survey with my parent/guardian and they are happy for me to participate. *Yes / No*

Do you also agree to answer questions in this survey? *Yes / No*

The answers you give us are private. We will get your answers but we will not know that they came from you. No one else will know what answers you have given us either. In our office at the University, we will join everyone's answers together. Your answers will be just one of hundreds, perhaps thousands, of answers but without your name. To help us check whether you do this survey again sometime in the future, we will give you a code that only you and we know. It tells us a little bit about you but not enough for us to know who you are exactly. Please use this same code if you do this survey again sometime in the future.

This is the code: Please write the first 4 letters of your last or family name here: (For example, if your last or family name is SMITH you would write SMIT but if your last or family name is SLY you would write SLY).

Please write the day and month you were born (Please use 4 numbers. For example, 5th March would be 0503).

What is your age?

Are you male or female?

What school do you go to?

What Year are you in?

What is the name of the street you live in? (Please do NOT write the number of your house or unit, but please include street type details – e.g. Street, Avenue, Road, Parade, etc.)

What is the postcode for the area you live in? (Ask your teacher if you are not sure.)

Do you identify as Aboriginal or Torres Strait Islander?

What country were you born in?

If 'Overseas' which country were you born in?

Is English the main language spoken in your home?

If not English, what is the main language spoken in your home?

[10] © Deakin University 2012. Permission is required from the author to use this survey.

Part 2

The next questions are about your parents. Try to answer these as best you can but if you don't know the answer, choose "Don't know".

What country was your MOTHER born in?

If 'Overseas' which country was it? If you aren't sure, write "don't know".

What country was your FATHER born in?

If 'Overseas' which country was it? If you aren't sure, write "don't know".

Did you or your parents come to Australia as refugees?

If yes, what year did you/they arrive in Australia? If you aren't sure, write "don't know".

Part 3

Here are some more questions about your parents or your guardians (the person or people who are responsible for looking after you). Try to answer these as best you can but if you don't know the answer, choose "Don't know".

For your MOTHER or FEMALE guardian, what is the title of her main job? (For example, lawyer, aircraft maintenance engineer, cleaner, not in paid work, etc.) If you aren't sure, write "don't know".

What is HER HIGHEST education qualification or level? *Did not attend school; Completed primary school; Some secondary school; Completed secondary school (Year 12); Vocational certificate; Vocational diploma or associate diploma; University degree; University postgraduate degree; Don't know.*

For your FATHER or MALE guardian, what is the title of his main job? (For example, lawyer, aircraft maintenance engineer, cleaner, not in paid work, etc.) If you aren't sure, write "don't know".

What is HIS HIGHEST education qualification or level? *Did not attend school; Completed primary school; Some secondary school; Completed secondary school (Year 12); Vocational certificate; Vocational diploma or associate diploma; University degree; University postgraduate degree; Don't know.*

Part 4

The next questions are where the main survey starts. The questions ask you to 'think about' the present, and they ask 'what you want' and 'what you think will happen' in the future. Try to give an answer for every question. Write 'don't know' if you don't know or don't have an answer. These questions are about what you WILL DO or what you would LIKE TO DO in the future.

If you could only choose from the following occupations in the future, what would you choose? Move your cursor over the job titles to see their order number. Click and drag to reorder them from 1 (most desirable) to 10 (least desirable): *Aircraft maintenance engineer; Cleaner; Data processing operator; Dental technician; Information technology (IT) support technician; Lawyer; Medical doctor; Social worker; Storeperson; TAFE teacher.*

Apart from the fact that these were the only options we gave you, why did you select your first preference? Please select all that apply. *Because I like to help people; Because it is the one I would enjoy the most; Because it is an easy job; Because it is a well-paid job; Because it is an exciting job; Because I want to be successful in life; Other, please specify.*

If you were to get to do your first preference, what things between now and then would you need to do? What would need to happen along the way? How much do you agree or disagree with each statement? If a statement doesn't apply, please click N/A. *I would need to get good results at school; I would need to choose the right subjects at school; I would need to study hard; I would need to finish secondary school; I would need to go to TAFE; I would need to go to university; I would need to move to another city; Other, please specify.*

If you could choose to do ANY occupation you like in the future, what would it be?

Why do you want to do this? Please select all that apply. *I don't know; Because it is a well-paid job; Because I think I am capable of doing it; Because I think this job would make me happy; Other, please specify.*

How confident are you that you will get this kind of job? *Very confident; Confident; Undecided; Not very confident; Definitely not confident.*

If you can't do what you really want to do, what do you think you will end up doing? Why?

What occupation do you think your PARENTS or GUARDIANS or FAMILY would like you to do in the future? If you don't know or don't have an answer, write "don't know".

Why do you think they would like you to do this? Please select as many as apply. *I don't know. I haven't discussed it with them; Because it is a well-paid job; Because they think I am capable of doing it; Because they think this job would make me happy; Other, please specify.*

What occupation do you think your TEACHERS and SCHOOL think you WILL DO in the future?

Why do you think they think this? Please select as many as apply. *I don't know. I haven't discussed it with them; Because it is a well-paid job; Because they think I am capable of doing it; Because they think this job would make me happy; Other, please specify.*

How much encouragement do your PARENTS give you to do well at school? *A great deal of encouragement; A fair bit of encouragement; Some encouragement; Not much encouragement; No encouragement at all.*

How much encouragement do your TEACHERS and SCHOOL give you to do well at school? *A great deal of encouragement; A fair bit of encouragement; Some encouragement; Not much encouragement; No encouragement at all.*

Think about the things you like to do.

What is your favourite thing about school? Please select as many as apply. *Teachers; Being with friends; Learning and doing new things; Being indoors; Doing homework; Fun subjects, please specify; Other, please specify.*

What is your LEAST favourite thing about school? Please select as many as apply. *Teachers; People who tease me; Learning and doing new things; Being indoors; Doing homework; Boring subjects, please specify; Other, please specify.*

What do you spend most of your time doing when you are NOT at school? Please select as many as apply. *Spending time with my family; Spending time with my friends; Doing chores; Looking after my brother(s) and sister(s); Playing sport; On the computer or the internet; Watching television; Reading; Doing homework; Doing paid work, please specify kind of work; Other, please specify.*

Dreaming big, is there something that you have not yet done but would like to do one day? If so, what is it?

Part 5

These questions are about the things you WILL HAVE or would LIKE TO HAVE in the future. Click N/A if a statement doesn't apply to you.

In the future, when you are the same age as your parents or guardians are now, what would you LIKE TO have or own? How much do you agree or disagree with each statement? If a statement doesn't apply, please click N/A. *I don't want to have very much; A big house, a nice car, and a good job; A university degree; My own business; A family (children) of my own; Other, please specify.*

Why are these important to you? Please select all that apply. I need these things to secure my future; These things will help me to be happy; Don't know; Other, please specify.

What do you think you WILL have? How much do you agree or disagree with each statement? If a statement doesn't apply, please click N/A. *I don't think I will have very much; A big house, a nice car, and a good job; A university degree; My own business; A family (children) of my own; Other, please specify.*

What would YOU do to make this happen? Please select as many as apply. *Work hard at school; Go to university; Get a good job; Save my money; Go to TAFE; Don't know; Other, please specify.*

What would OTHERS do to make this happen? Please select as many as apply. *Be supportive, encourage me; Give me good advice; Give or lend me the money I need; Don't know; Other, please specify.*

What things do you think your PARENTS would LIKE you to have in the future? How much do you agree or disagree with each statement? If a statement doesn't apply, please click N/A. *I don't know. I haven't discussed my future with them; A happy life; A successful life; A good education; A family of my own; A good job; Other, please specify.*

What things do you think your TEACHERS and SCHOOL would LIKE you to have in the future? How much do you agree or disagree with each statement? If a statement doesn't apply, please click N/A. *I don't know. I haven't discussed my future with them; A happy life; A successful life; A good education; A family of my own; A good job; Other, please specify.*

In the future, when you are the same age as your parents or guardians are now, where would you like to live? Describe the kind of location and the kind of house or unit. Write 'don't know' if you don't know or don't have an answer.

Think about your ideas for the future, what you want to do, to have and to be.

If you wanted to find out information about what to do after leaving school, where and who would you get that information from?

What makes you trust the advice about the future from some people more than others? How much do you agree or disagree with each statement? If a statement doesn't apply, please click N/A. *I trust people who I know well; I trust people who have experience of these kinds of things; I trust people who are in positions of authority; I trust people who have qualifications in these kind of things; Other, please specify.*

How important are your PARENTS' or GUARDIANS' views in planning your future? *Extremely Important; Important; Neither Important nor unimportant; Unimportant; Definitely not important.*

How important are your TEACHERS' views in planning your future? *Extremely Important; Important; Neither Important nor unimportant; Unimportant; Definitely not important.*

Will going to university help your ideas about the future come true? *Very good chance; Some chance; Equal chance; Very little chance; No chance.* Why? Why not?

Have you ever been to visit a university? *Yes; No; Don't know.*

Has your brother or sister done a course at university? *Yes; No; Don't know.*

Do you know anyone else who has done a course at university? *Yes; No; Don't know.*

What other experiences have you had with universities?

Does anyone in your family think it would be good for you to go to university? *Yes; No; Don't know.*

If yes or no, why do they think this?

If you go to university, which university would you like to go to? *Central Queensland University; James Cook University; Griffith University; Queensland University of Technology; University of the Southern Queensland; University of the Sunshine Coast; University of Queensland; I don't know; I don't plan on going to university; Other, please specify.*

If you go to university, what would you like to study? *Agriculture, animal husbandry; Architecture, building; Arts, humanities and social sciences; Business, administration, economics; Creative arts and music; Education; Engineering, surveying; Health; Law, legal studies; Medicine; Science; Veterinary science; I don't know; I don't plan on going to university; Other, please specify.*

Would you consider going to TAFE instead of university? *Yes; No; Don't know.*

Why? Why not? How much do you agree or disagree with each statement? If a statement doesn't apply, please click N/A. *I don't know what TAFE is; University and TAFE are the same; You learn more at university; TAFE is more practical; I plan to go to TAFE instead of university because TAFE is closer to my home; Universities give you more subject choices; TAFE doesn't have what I want to study; Other, please specify.*

Part 6

These questions are about the person you WILL BE or would LIKE TO BE in the future.

How would you describe yourself to someone who doesn't know you? What kind of person are you?

What kind of activity would you like to do to celebrate a special occasion? How much do you agree or disagree with each statement? If a statement doesn't apply, please click N/A. *Go out to dinner at a restaurant; Hold a party at my house; Go out to a theme park; Other, please specify.*

What kind of clothes would you wear to a special occasion? Please be as specific as you can (e.g. style of clothes).

What kind of food and drink would you like to have on special occasions? Please be as specific as you can.

Part 7

These are the final questions in the survey. Thank you for your patience! Think about a time when you wanted to do something that needed a lot of planning.

What did you do that required planning and why?

What did you have to think about and do, to make it happen? How much do you agree or disagree with each statement? If a statement doesn't apply, please click N/A. *I don't do much planning; The layout and design; What I would say and what I would wear; The order of activities, when they would happen and where; Who I would invite and what we would do; Other, please specify.*

Did you get any help from anyone? If so, from whom?

When you are successful at making things happen, why do you think you are successful? Please select as many as apply. *Because people help me; Because I am a good leader; Because I have done something similar before; Because I never give up; Other, please specify.*

When you are NOT successful at making things happen, why do you think you are NOT successful? Please select as many as apply. *Because I don't get any help; Because other people don't want to do it; Because it is the first time I have done it; Because I didn't try hard enough; Other, please specify.*

How often do you do things like this that need lots of planning? *Once a week; Once every month; Every three months; Every six months; Never; Other, please specify.*

Appendix 3 | Reasons for selecting future occupation

Students were asked to indicate why they selected their first preference from a restricted list of occupations. They were required to indicate as many of the following responses as appropriate:

- Because I like to help people
- Because it is the one I would enjoy the most
- Because it is an easy job
- Because it is a well-paid job
- Because it is an exciting job
- Because I want to be successful in life
- Other, please specify.

Reasons given by all students for their highest selected occupation choice are distributed in the following tables. The most common reason given for selecting a particular occupation was 'because I like to help people' (see Table 3.1). The highest selected occupations that were chosen on the basis that students are interested in helping people were Social Worker ($\chi^2(1) = 30.16$, $p < .000$) and Medical Doctor ($\chi^2(1) = 8.78$, $p < .05$). Overall, a higher proportion of females based their highest selected occupation choice on helping people than did males ($\chi^2(1) = 18.95$, $p < .000$).

Table 3.1: Reason – Because I like to help people

Highest Selected Occupation	Because I like to help people				Row Totals	Total Yes %	
	Male		Female				
	No	Yes	No	Yes			
Aircraft maintenance engineer	36	4	10	1	51		9.80
Cleaner	0	1	2	2	5		60.00
Data processing operator	5	0	0	0	5		
Dental technician	1	1	3	0	5		20.00
Information technology support technician	13	1	2	0	16		6.25
Lawyer	3	0	23	10	36		27.78
Medical doctor	3	2	16	20	41		53.66
Social worker	3	4	7	23	37		72.97
Storeperson	5	2	8	2	17		23.53
TAFE Teacher	6	0	11	7	24		29.17
						Male	**Female**
All Groups	**75**	**15**	**82**	**65**	**237**	**16.67**	**44.22**

Occupations in IT were those most selected due to their perceived enjoyment, followed closely by Aircraft Maintenance Engineer (Table 3.2). Lawyer ranked lowest in terms of perceived enjoyment. No significant differences between occupations and/or gender were found in relation to students' preferences for occupations that are enjoyable.

The only statistically significant occupational choices where the occupation was selected because it was perceived to be easy, were Storeperson ($\chi^2(1) = 37.86$, $p < .000$) and Data Processing Operator ($\chi^2(1) = 7.09$, $p < .05$) (Table 3.3). TAFE Teacher was ranked last in terms of perceived ease of occupation.

Table 3.2: Reason – Because it is the one I would enjoy the most

Highest Selected Occupation	It is the one I would enjoy most				Row Totals	Total Yes %	
	Male		Female				
	No	Yes	No	Yes			
Aircraft maintenance engineer	19	21	1	10	51		60.78
Cleaner	1	0	4	0	5		
Data processing operator	3	2	0	0	5		40.00
Dental technician	1	1	2	1	5		40.00
Information technology support technician	5	9	1	1	16		62.50
Lawyer	1	2	23	10	36		33.33
Medical doctor	3	2	17	19	41		51.22
Social worker	3	4	20	10	37		37.84
Storeperson	4	3	7	3	17		35.29
TAFE Teacher	1	5	11	7	24		50.00
						Male	Female
All Groups	**41**	**49**	**86**	**61**	**237**	**54.44**	**41.50**

Table 3.3: Reason – Because it is an easy job

Highest Selected Occupation	Because it is an easy job				Row Totals	Total Yes %	
	Male		Female				
	No	Yes	No	Yes			
Aircraft maintenance engineer	37	3	10	1	51		7.84
Cleaner	1	0	3	1	5		20.00
Data processing operator	3	2	0	0	5		40.00
Dental technician	2	0	3	0	5		
Information technology support technician	14	0	2	0	16		
Lawyer	3	0	33	0	36		
Medical doctor	5	0	33	3	40		7.50
Social worker	7	0	30	0	37		
Storeperson	4	3	5	5	17		47.06
TAFE Teacher	6	0	17	1	24		4.17
						Male	Female
All Groups	**82**	**8**	**136**	**11**	**237**	**8.89**	**7.48**

The only statistically significant occupational choices where the occupation was selected because it was perceived to be exciting, was Aircraft Maintenance Engineer ($\chi^2(1) = 18.96$, $p < .000$) (Table 3.4).

Table 3.4: Reason – Because it is an exciting job

Highest Selected Occupation	Because it is an exciting job				Row Totals	Total Yes %	
	Male		Female				
	No	Yes	No	Yes			
Aircraft maintenance engineer	24	16	5	6	51		43.14
Cleaner	1	0	4	0	5		
Data processing operator	4	1	0	0	5		20.00
Dental technician	2	0	3	0	5		
Information technology support technician	10	4	2	0	16		25.00
Lawyer	3	0	26	7	36		19.44
Medical doctor	5	0	25	11	41		26.83
Social worker	6	1	28	2	37		8.11
Storeperson	7	0	9	1	17		5.89
TAFE Teacher	6	0	17	1	24		4.17
						Male	Female
All Groups	**68**	**22**	**119**	**28**	**237**	**24.44**	**19.05**

The only statistically significant occupational choices where the occupation was selected because it was perceived to lead to success were: Medical Doctor ($\chi^2(1) = 9.29$, $p < .05$) and Lawyer ($\chi^2(1) = 6.74$, $p < .05$). A greater proportion of females based their highest selected occupation choice on being successful than did males ($\chi^2(1) = 5.84$, $p < .05$) (Table 3.5).

Table 3.5: Reason – Because I want to be successful in life

Highest Selected Occupation	I want to be successful in life				Row Totals	Total Yes %	
	Male		Female				
	No	Yes	No	Yes			
Aircraft maintenance engineer	31	9	8	3	51		23.53
Cleaner	1	0	4	0	5		
Data processing operator	4	1	0	0	5		20.00
Dental technician	2	0	1	2	5		40.00
Information technology support technician	9	5	2	0	16		31.25
Lawyer	3	0	16	17	36		47.22
Medical doctor	4	1	17	19	41		48.78
Social worker	6	1	25	5	37		16.22
Storeperson	7	0	9	1	17		5.88
TAFE Teacher	5	1	14	4	24		20.83
						Male	**Female**
All Groups	**72**	**18**	**96**	**51**	**237**	**20.00**	**34.69**

Most students only gave a single reason for their highest selected occupation choice. The frequency of the number of reasons given by highest selected occupation choice and by gender are in Table 3.6. There were no gender differences in the number of reasons given.

Table 3.6: Highest selected occupation by number of reasons given

	Number of Reasons Given														Row Totals	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Number reasons given	**0**		**1**		**2**		**3**		**4**		**5**		**6**			
Aircraft maintenance engineer	3	0	22	5	3	2	5	1	6	3	0	0	1	0	40	11
Cleaner	0	1	1	3	0	0	0	0	0	0	0	0	0	0	1	4
Data processing operator	0	0	3	0	2	0	0	0	0	0	0	0	0	0	5	0
Dental technician	0	0	2	2	0	1	0	0	0	0	0	0	0	0	2	3
Information technology support technician	2	0	5	2	4	0	2	0	1	0	0	0	0	0	14	2
Lawyer	0	1	2	18	1	6	0	0	0	8	0	0	0	0	3	33
Medical doctor	1	2	3	15	0	4	1	4	0	3	0	6	0	2	5	36
Social worker	0	2	5	17	0	7	2	4	0	0	0	0	0	0	7	30
Storeperson	2	1	1	5	3	3	1	1	0	0	0	0	0	0	7	10
TAFE Teacher	1	3	4	12	1	1	0	1	0	1	0	0	0	0	6	18
All	**9**	**10**	**48**	**79**	**14**	**24**	**11**	**11**	**7**	**15**	**0**	**0**	**1**	**0**	**90**	**147**

Appendix 4 | Plans for progressing to future occupation

In regard to their aspirations, students were asked 'If you were to get to do your first preference [of occupation], what would you need to do?' Students could select as many of the following responses as they wished:

- I would need to get good results at school
- I would need to choose the right subjects at school
- I would need to study hard
- I would need to finish secondary school
- I would need to go to TAFE
- I would need to go to university
- I would need to move to another city
- Other, please specify.

In response, 93% of students (219 students) either agreed or strongly that they would have to get good results at school as per Table 4.1. There were no significant gender or SES differences in the response categories. For Indigenous students, 92% (23 students) either agreed or strongly agreed that they would have to get good results at school. There were no significant gender or SES differences in the response categories. See Table 4.1.

Table 4.1: Get good results at school

Get good results at school	Gender		SES		Total
	Male	Female	Low	Medium	
ALL RESPONDENTS					
Strongly Disagree	0	1	1	0	**1**
Disagree	0	1	1	0	**1**
Neither Agree nor Disagree	5	9	8	6	**14**
Agree	21	39	35	25	**60**
Strongly Agree	62	97	102	57	**159**
Total All	**88**	**147**	**147**	**88**	**235**
INDIGENOUS RESPONDENTS					
Strongly Disagree	0	1	1	0	**1**
Disagree	0	0	0	0	**0**
Neither Agree nor Disagree	0	1	0	1	**1**
Agree	5	7	6	6	**12**
Strongly Agree	1	10	5	6	**11**
Total Indigenous	**6**	**19**	**12**	**13**	**25**

In addition to getting good results at school, 92% of both Indigenous (23 students) and all students (215) agreed that they would have to choose the right subjects – see Table 4.2. No significant differences were identified between Indigenous students and the entire cohort.

Almost all (93%) students also agreed or strongly agreed that they needed to study hard (the figure for Indigenous students is 92%). See Table 4.3. No significant gender or SES differences were identified.

Slightly under nine-tenths of students (88%) either agreed or strongly agreed that they need to finish secondary school. Less than three-quarters (72%) of Indigenous students responded in the same way. Only female students disagreed that they had to do this (Table 4.4). This is interesting given that more males than females tended to identify TAFE as a future pathway, which could be undertaken before completing school (see below). Again, no significant gender or SES differences were found.

Table 4.2: Choose the right subjects

Choose the right subjects	Gender		SES		Total
	Male	Female	Low	Medium	
ALL RESPONDENTS					
Strongly Disagree	0	1	1	0	1
Disagree	2	1	0	3	3
Neither Agree nor Disagree	5	10	8	7	15
Agree	37	53	56	34	90
Strongly Agree	43	82	81	44	125
Total All	**87**	**147**	**146**	**88**	**234**
INDIGENOUS RESPONDENTS					
Strongly Disagree	0	1	1	0	**1**
Disagree	1	0	0	1	**1**
Neither Agree nor Disagree					
Agree	5	11	10	6	**16**
Strongly Agree	0	7	1	6	**7**
Total Indigenous	**6**	**19**	**12**	**13**	**25**

Table 4.3: Need to study hard

Need to study hard	Gender		SES		Total
	Male	Female	Low	Medium	
ALL RESPONDENTS					
Strongly Disagree	0	1	1	0	**1**
Disagree	0	2	1	1	**2**
Neither Agree nor Disagree	8	5	9	4	**13**
Agree	27	43	43	27	**70**
Strongly Agree	53	95	92	56	**148**
Total All	**88**	**146**	**146**	**88**	**234**
INDIGENOUS RESPONDENTS					
	Male	**Female**	**Low**	**Medium**	
Strongly Disagree	0	1	1	0	**1**
Disagree	0	0	0	0	**0**
Neither Agree nor Disagree	0	1	0	1	**1**
Agree	5	7	6	6	**12**
Strongly Agree	1	10	5	6	**11**
Total Indigenous	**6**	**19**	**12**	**13**	**25**

Table 4.4: Need to finish secondary school

Need to finish secondary school	Gender		SES		Total
	Male	Female	Low	Medium	
ALL RESPONDENTS					
Strongly Disagree	0	2	2	0	**2**
Disagree	0	3	3	0	**3**
Neither Agree nor Disagree	8	14	14	8	**22**
Agree	23	24	28	19	**47**
Strongly Agree	57	103	100	60	**160**
Total All	88	146	147	87	**234**
INDIGENOUS RESPONDENTS					
Strongly Disagree	0	1	1	0	**1**
Disagree	0	0	0	0	**0**
Neither Agree nor Disagree	1	5	2	4	**6**
Agree	3	3	4	2	**6**
Strongly Agree	2	10	5	7	**12**
Total Indigenous	**6**	**19**	**12**	**13**	**25**

Less than half (47% or 100 students) agreed or strongly agreed with the statement that they need to go to TAFE to achieve their aspirations (Table 4.5). Notably, fewer students replied to this statement (n=213) than previous statements in the survey item (n=234, see above). The 'Agree' and 'Strongly Agree' rate for Indigenous students was 43% (10). Again, the response rate is down slightly for this item (n=23) (Table 4.5).

Table 4.5: Need to go to TAFE

Need to go to TAFE	Gender		SES		Total
	Male	Female	Low	Medium	
ALL RESPONDENTS					
Strongly Disagree	4	11	11	4	**15**
Disagree	3	19	14	8	**22**
Neither Agree nor Disagree	33	43	48	28	**76**
Agree	23	37	36	24	**60**
Strongly Agree	19	21	24	16	**40**
Total All	82	131	133	80	**213**
INDIGENOUS RESPONDENTS					
Strongly Disagree	0	1	1	0	**1**
Disagree	0	2	2	0	**2**
Neither Agree nor Disagree	4	6	4	6	**10**
Agree	1	4	3	2	**5**
Strongly Agree	1	4	1	4	**5**
Total Indigenous	**6**	**17**	**11**	**12**	**23**

Table 4.5 also indicates that over a third (36%, 76 students) of all students and 43% (10) of Indigenous students were neutral ('Neither Agree nor Disagree') about the need to go to TAFE to achieve their aspirations. For all students, a higher proportion of females disagreed and disagreed strongly with the statement (combined) than did males ($\chi^2(1) = 7.25$, $p < .01$).

In contrast with the perceived need to go to TAFE, 73% (168 students) of all respondents and 60% (15) of Indigenous respondents either agreed or strongly agreed that they would need to go to university (Table 4.6). For all respondents, a higher proportion of males agreed with the statement than did females ($\chi^2(1) = 8.83$, $p < .01$). For all students, a higher proportion of females *strongly* agreed with the statement than did males ($\chi^2(1) = 8.99$, $p < .01$). For Indigenous respondents, a higher proportion of females strongly agreed with the statement than did males ($\chi^2(1) = 5.26$, $p < .05$).

Table 4.6: Need to go to university

Need to go to university	Gender		SES		Total
	Male	Female	Low	Medium	
ALL RESPONDENTS					
Strongly Disagree	3	2	4	1	**5**
Disagree	3	11	11	3	**14**
Neither Agree nor Disagree	19	24	20	23	**43**
Agree	29	24	30	23	**53**
Strongly Agree	32	83	79	36	**115**
Total All	86	144	144	86	**230**
INDIGENOUS RESPONDENTS					
Strongly Disagree	0	1	1	0	**1**
Disagree	0	3	3	0	**3**
Neither Agree nor Disagree	3	3	1	5	**6**
Agree	3	2	3	2	**5**
Strongly Agree	0	10	4	6	**10**
Total Indigenous	**6**	**19**	**12**	**13**	**25**

Of all students 48% (109) either agreed or strongly agreed that they would need to move to the city (Table 4.7).[11] The figure was 40% (10) for Indigenous students (Table 4.7). Again, no significant gender or SES differences were found.

[11] Compare this with the number of students who indicated they wished to attend a university (67%) and consider that for two-thirds of respondents, a university campus would be greater than 50km from their home and would necessitate moving (see Appendix 1).

Table 4.7: Need to move to the city

Need to move to the city	Gender		SES		Total
	Male	Female	Low	Medium	
ALL RESPONDENTS					
Strongly Disagree	8	10	12	6	**18**
Disagree	4	14	8	10	**18**
Neither Agree nor Disagree	28	52	50	30	**80**
Agree	24	37	36	25	**61**
Strongly Agree	19	29	35	13	**48**
Total All	83	142	141	84	**225**
INDIGENOUS RESPONDENTS					
Strongly Disagree	0	3	1	2	**3**
Disagree	0	3	1	2	**3**
Neither Agree nor Disagree	3	6	5	4	**9**
Agree	3	5	4	4	**8**
Strongly Agree	0	2	1	1	**2**
Total Indigenous	**6**	**19**	**12**	**13**	**25**

The list of occupations in the restricted choice question represents a spread of skill levels and prerequisite qualifications. These range from compulsory secondary school required for cleaners, up to bachelor degree or higher for people working in the medical and legal professions. This is illustrated in Table 4.8.

Table 4.8: Occupation qualification requirements

Occupation	ANZSCO Skill level	Required Qualifications
Aircraft maintenance engineer	3	Cert III / IV
Cleaner	5	Compulsory Secondary / Cert I
Data processing operator	4	Cert II / III
Dental technician	2	Associate Degree, Advanced Diploma or Diploma
Information technology (IT) support technician	2	Associate Degree, Advanced Diploma or Diploma
Lawyer	1	Bachelor Degree or higher qualification
Medical doctor (GP)	1	Bachelor Degree or higher qualification
Social worker	1	Bachelor Degree or higher qualification
Storeperson	4	Cert II / III
TAFE Teacher (Vocational Education Teacher)	1	Bachelor Degree or higher qualification

Source: Trewin & Pink (2006).

These skill and qualification requirements were then matched against the proportion of students who selected each occupational option. As Table 4.9 indicates, 58% of respondents selected as their first preference one of the four occupations in the list requiring a university degree. Similarly, 40% selected occupations that need TAFE qualifications. However, when asked what they thought they needed to do to achieve this occupation preference, a greater proportion of students indicated that they needed to go to university or go to TAFE (see Chapter 4, Table 9).

Table 4.9: Highest selected occupation and qualification requirements

Highest Selected Occupation	Male	Female	Total	Total %	Requires uni	Requires TAFE
Medical doctor	5	36	41	**17.3%**	**Yes**	**No**
Lawyer	3	33	36	**15.2%**	**Yes**	**No**
TAFE Teacher	6	18	24	**10.1%**	**Yes**	**No**
Social worker	7	30	37	**15.6%**	**Yes**	**No**
Information technology support technician	14	2	16	**6.8%**	**No**	**Yes**
Dental technician	2	3	5	**2.1%**	**No**	**Yes**
Aircraft maintenance engineer	40	11	51	**21.5%**	**No**	**Yes**
Data processing operator	5	0	5	**2.1%**	**No**	**Yes**
Storeperson	7	10	17	**7.2%**	**No**	**Yes**
Cleaner	1	4	5	**2.1%**	**No**	**No**
Total	**90**	**147**	**237**	**100.0%**	**138**	**94**
					58.2%	**39.7%**

Appendix 5 | University and TAFE comparisons

Table 5.1 shows that slightly more than half (53%) of all students indicated that they would not consider TAFE in place of university. This pattern was consistent for low and medium SES as well as for females, but reversed for males – i.e. the majority of males (55%) would consider TAFE.

Table 5.1: Consideration of TAFE rather than university, by gender and SES

	Would not consider TAFE	Would consider TAFE	Total
Low SES	53.3%	46.7%	**100%**
Med SES	51.0%	49.0%	**100%**
Male	44.8%	55.2%	**100%**
Female	57.8%	42.2%	**100%**
All Students	**52.5%**	**47.5%**	**100%**

Tables 5.2 and 5.3 outline the proportion of respondents who either agreed or strongly agreed with each statement in the question, disaggregated by gender and SES. The gender difference is most notable among those who would not consider TAFE in response to 'I don't know what TAFE is' and 'TAFE doesn't have what I want to study'. More boys who would consider TAFE agreed that TAFE is more practical (84%) and that universities have greater subject choice (60%) when compared with female respondents.

Table 5.2: Reasons for considering TAFE, by gender

Agree or strongly agree	Would not consider TAFE		Would consider TAFE	
	Male	Female	Male	Female
I don't know what TAFE is	60.9%	20.5%	14.8%	10.7%
University and TAFE are the same	8.3%	9.5%	10.7%	6.1%
You learn more at university	60.0%	76.7%	35.5%	30.3%
TAFE is more practical	28.0%	26.8%	83.9%	52.9%
I plan to go to TAFE instead of university because TAFE is closer to my home	0.0%	7.7%	44.8%	34.4%
Universities give you more subject choices	62.5%	72.1%	60.0%	34.4%
TAFE doesn't have what I want to study	25.0%	62.5%	17.9%	19.4%

Differences among SES groups are similar to those for gender (see Table 5.3). For those not considering TAFE, more students from low SES schools agreed that university and TAFE are the same. More than half (56%) of students from low SES schools who would not consider TAFE thought that TAFE does not offer them their choice of study. This is compared with one-third (33%) of students from medium SES schools.

Students from low SES schools considering going to TAFE agreed that they can learn more at university, at about twice the rate as those from medium SES schools (40% *vs.* 21%). Further comparisons between low and medium SES school groups yield less acute differences.

Table 5.3: Reasons for considering TAFE, by SES

Agree or strongly agree	Would not consider TAFE		Would consider TAFE	
	Low SES	Med SES	Low SES	Med SES
I don't know what TAFE is	31.7%	42.9%	15.6%	8.7%
University and TAFE are the same	11.6%	4.3%	8.3%	8.0%
You learn more at university	65.9%	79.2%	40.0%	20.8%
TAFE is more practical	27.9%	26.1%	67.5%	68.0%
I plan to go to TAFE instead of university because TAFE is closer to my home	7.3%	0.0%	38.5%	40.9%
Universities give you more subject choices	61.9%	80.0%	52.6%	37.5%
TAFE doesn't have what I want to study	55.8%	33.3%	19.4%	17.4%

Other points of interest from this survey item include:

- Over one-quarter (28%, 48 students) of all students indicated that they agreed or strongly agreed with the statement 'I don't know what TAFE is', which is about half the proportion that disagrees or strongly disagrees which (53%, 94 students).

- Of those who would not consider TAFE as an option, a higher proportion of students who strongly disagreed with the statement 'I don't know what TAFE is' were from low SES schools (67%, 36 respondents) than from medium SES schools (33%, 18) ($\chi^2(1) = 5.40$, $p < .05$).

- Only 9% (17 students) of all students agreed or strongly agreed that university and TAFE are the same. However between a quarter and a third (29% or 53 students) were neutral about the statement (neither agreed nor disagreed).

- A t-test performed on the data showed that students who live more than 50km from a university campus (i.e. two-thirds of schools in the survey; see Appendix 1) had a stronger belief that university and TAFE were the same ($\bar{x} = 2.42, sd = 0.97$) than did students who lived less than 50km from a university campus ($\bar{x} = 2.09, sd = 0.94$)); $t(183) = 2.26$, $p < .05$.

- Almost half (47%) of all students agreed or strongly agreed with the statement 'you learn more at university', but only 15% disagreed or strongly disagreed.

- Less than half (42% or 72 students) of all students indicated that they either agree or strongly agree with the statement 'TAFE is more practical'. A slightly greater proportion (45%) stated that they neither agreed nor disagreed. This result could be due to different understandings of the word 'practical' in the question. It could have been interpreted in terms of the different pedagogical orientations of TAFE and university courses, or as being more practical for the individual respondent to attend a TAFE institution.

- Less than one-fifth (18%) of respondents agreed or strongly agreed that 'TAFE is closer to my home'. One-third (33%) of respondents neither agreed nor disagreed with the statement. There were also many 'don't know' or missing responses (72), suggesting that knowledge of location of either university or TAFE campuses is not strong.

- Over half (55%) agreed or strongly agreed that ‘universities give you more subject choices’, but 39% were neutral about the statement (neither agreed nor disagreed).

- In response to the statement ‘TAFE does not have what I want to study’, 30% (52) of the respondents indicated that they either agreed or strongly agreed. By contrast 43% (73) of students neither agreed nor disagreed with the statement.

- An independent samples t-test performed on the data showed that females $(\bar{x} = 3.30, sd = 1.24)$ showed higher agreement (75% strongly agreed) with ‘TAFE does not have what I want to study’ than did males (25%) $(\bar{x} = 2.78, sd = 1.21)$; t(171) = 2.69, p < .01).

- Similarly, 75% of respondents from low SES schools strongly agreed with the same statement.

- An independent samples t-test performed on the data showed that males $(\bar{x} = 3.65, sd = 1.06)$ showed higher agreement with ‘TAFE is more practical’ than did females $(\bar{x} = 3.27, sd = 0.91)$; t(183) = 2.57, p < .05)

Appendix 6 | Chance that university will help aspirations

Most students (92%) believed that there was an equal chance or better that going to university would help them to achieve their aspirations for the future. This view was stronger among female students (96%) than males (85%). All but one Indigenous student (a male) believed that university provides some chance or better of helping them to achieve their aspirations. See Table 4.10.

Table 4.10: Going to university will help future

Going to university will help future come true	Gender		SES		Total
	Male	Female	Low	Medium	
ALL RESPONDENTS					
No chance	7	4	6	5	**11**
Very little chance	5	1	3	3	**6**
Equal chance	10	22	21	11	**32**
Some chance	27	27	39	15	**54**
Very good chance	30	78	71	37	**108**
Total All	**79**	**132**	**140**	**71**	**211**
INDIGENOUS RESPONDENTS					
No chance	1	0	0	1	**1**
Very little chance	0	0	0	0	**0**
Equal chance	1	4	3	2	**5**
Some chance	3	4	5	2	**7**
Very good chance	0	8	3	5	**8**
Total Indigenous	**5**	**16**	**11**	**10**	**21**

Only 8% (15) of all students thought that there is no chance or very little chance that going to university will help their ideas about the future come true. This figure was higher for males (15%) than for females (4%) ($\chi^2(1) = 8.67$, $p < .01$). A higher proportion of females (59%, *vs*. 38% for males) think that there is a very good chance that going to university will help their ideas about the future come true ($\chi^2(1) = 8.82$, $p < .01$).