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The Adaptation of Tertiary Admissions Practices to Growth and Diversity

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1. Executive Summary

The expansion of higher education places adaptive pressure on institutional and policy frameworks that were originally designed at times of lower levels of participation. This adaptive pressure is evident in changes to admission and selection practices, and has become more acute with the introduction of demand driven funding for undergraduate Commonwealth supported places. Universities seeking to optimise their market share in line with their values and strategic objectives are increasingly utilising direct admissions rather than historically dominant state centralised admissions processes. Direct entry pathways are also being utilised by some institutions as a means of increasing their share of disadvantaged students in particular. Both centralised and direct admissions pathways are also drawing on contextual data - such as the geo-demographic background of the applicant, school attended, perceived academic potential, or volunteer and community service – in the assessment process (Harvey 2014). The growth and complexity of university admissions practices raises two key questions. First, what impact is rising complexity in admissions practices having on student decision-making, with particular emphasis on students from disadvantaged backgrounds? And, second, how are universities and state-based tertiary admissions centres (TACs) responding to the challenges associated with rising student participation, diversity and mobility, as well as complexity in admissions practice?

To address these questions we conducted a mixed methods study that included analysis of international and national contextual admissions processes for disadvantaged students. Our primary focus is admissions to undergraduate education, although aspects of this research include and are relevant to postgraduate level. Within this analysis, we examined existing national selection information for disadvantaged students to clarify differences at state level between the tertiary admissions centres, including analysis of: educational access scheme categories, bonus point applications, and transparency around offers accepted below the published Australian Tertiary Admissions Rank (ATAR) cut-offs. We also conducted an audit of non-TAC selection processes for disadvantaged students across higher education, including early offer schemes, with a view to quantifying the extent and nature of practice by institution and field of education. We conducted interviews with key stakeholders within TACs and higher education admissions departments to examine perceptions and trends of changing admissions practices and their impact on the admission of disadvantaged students. Surveys were conducted with school careers advisers across NSW and Victoria, and we also ran surveys with commencing domestic undergraduate students at two Australian universities. Finally, we conducted surveys with Year 11 students at mainly low socioeconomic status (SES) schools in Victoria and New South Wales to examine their perceptions and knowledge of university and non-university admissions processes.

Our analysis revealed several important findings. Internationally, the growth of contextual admissions is substantial. This is being driven partly by a desire to increase student equity by reducing reliance on admissions tests that are known to correlate with socio-economic status and ethnicity. In the United Kingdom, since the early 2000s, universities have increasingly moved away from an admissions system based heavily on final school results – the A Levels – to one that takes into account more contextual, individuated data (McManus, Powis et al. 2005). Similarly, race-based affirmative action in the United States has been replaced in many cases by 'holistic review', in which

both cognitive and non-cognitive factors are taken into account beyond traditional Scholastic Aptitude Test results (SATs) (Bastedo & Jaquette 2011). In both countries, clear evidence of the bias of traditional admissions processes, along with ongoing inequity in higher education participation, is driving change at institutional and sectoral levels.

In Australia, evidence of the correlation between ATAR and socio-economic status is welldocumented, and inequality in higher education participation has proven largely intractable since the introduction of the national higher education student equity framework – *A Fair Chance for All* – in 1990 (DEET 1990). At the same time, university demand from mature age students, many of whom do not have an ATAR, has grown rapidly. These developments, together with increased competition amongst tertiary education providers, have necessitated the development of new admissions criteria and processes. Centralised admissions processes, developed through state-based tertiary admissions centres, remain prevalent. However, the tertiary admissions centres are themselves necessarily adapting to demands for equity, transparency and competition. Prospective students can still apply to multiple institutions through one application process, and they may receive recognition and compensation for educational disadvantage within this process. However, many of the TACs now administer large numbers of direct applications and early offer schemes on behalf of individual institutions. In some cases, TAC membership has also broadened to include Technical and Further Education Institutions (TAFEs) and/or non-university higher education providers (NUHEPs).

Our analysis identified significant changes to the operations of tertiary admissions centres, which are adapting in the face of contextual change. One challenge for the TACs will be to maintain efficiency and transparency whilst managing increasing complexity and a proliferation of entry pathways. A further challenge will be to develop greater consistency across states and territories in this environment, particularly if student mobility increases. Differences in school systems and tertiary admissions practices between the states are substantial. These differences include the subjects required and weighted at Year 12 level, the pathways into which school students are streamed, the governance and roles of tertiary admissions centres, the administration of equity bonus points, categories and scholarships, and the extent of collaboration among universities. TAC leaders and university admissions pathways that could be harnessed by institutions to inform the predictive validity of information relevant to the application process. Harnessing this evidence and developing greater research and analytic capacity is a challenge facing the TACs and their constituent institutions.

The effects of federalism on tertiary applications and enrolments are influential and a major factor to be accommodated in any future policy reform. Admissions processes intersect with education policy set by State and Federal governments, involving multiple jurisdictions, education sub-systems and the operations of universities established with a high degree of institutional autonomy. The research team has purposefully avoided normative positions around specific admissions processes and their outcomes. Issues of quality and academic standards are frequently and legitimately associated with access to higher education, but this study is primarily concerned with how admissions practices are changing, and the specific effects of these changes on disadvantaged students. This study provides insights into the performance of university admissions systems that will be useful for further policy and research around quality and academic standards.

For universities, the rise of direct admissions and early offer schemes presents both a resourcing and an evidential challenge. As outlined above, greater evidence is required to determine which alternative entry pathways and criteria are valid, efficient, and transparent, and such evidence is often limited by privacy, commercial-in-confidence and data governance issues – which limit the sharing of data – and by resource limitations within admissions offices. There is little published evidence around 'cognitive repairs' and psychological biases, and little comparison of alternative admissions approaches, in contrast to a growing body of evidence in the United States (Bastedo & Jaquette 2011). Nevertheless, alternative pathways are widely supported, and the university representatives we spoke to noted that recruitment and communications are becoming more targeted to specific groups. The expansion of pathways reflects the fact that enrolment growth remains a priority for most universities, and incentives to convert offers into enrolments are also growing. The university representatives we spoke to typically expressed confidence in the capacity of tertiary admissions centres to manage their applications, and they did not yet consider nonuniversity higher education providers to be a significant threat to university recruitment objectives. Indeed, many institutional representatives emphasised instead their collaborations with partner TAFE institutions, including dual enrolments. Primary challenges for universities are therefore to improve their evidence base around admissions, and to improve the clarity of their offerings to students. The extent of this latter need was underlined by our further research with careers advisers and school students.

At secondary school level, the effects of the changing admissions landscape are being felt acutely. Schools must deal with the proliferation of early offer schemes across multiple universities, and the task for careers advisers and students is complex. Careers advisers highlight the growing workload involved with advising students on alternative pathways, careers, and tertiary options. Advisers typically feel unable to devote time to students in the lower year levels (i.e. Year 7-9), and struggle themselves to understand the multiplicity of tertiary options. Advisers believe that many of their students are unaware of the role of tertiary admissions centres, of their eligibility to apply for educational compensation, and the extent of the early offer schemes available. As career and pathway advice becomes more complex, the need for specific expertise is underlined, and school systems may increasingly need to consider how careers advisory functions can be optimised and better resourced.

The complexity of tertiary admissions was highlighted by our survey of Year 11 students across a range of metropolitan and regional schools in Victoria and NSW. Over 40 per cent of respondents were unaware of the existence of early offer/principal recommendation schemes, and very few knew which universities offered schemes relevant to their school. Half the respondents were unaware that they could apply for courses through a tertiary admissions centre, and 60 per cent of respondents were unaware of the existence of educational access schemes. Similarly, 40 per cent of students were unaware of the equity and access scholarships offered by universities. Students from low SES and regional backgrounds were most likely to lack information about tertiary admissions. Both students and careers advisers stressed the potential difficulties of relocating to study, and the disincentives of financial cost, particularly around living and relocation costs. Our survey of first year

university students also revealed the limited knowledge held by students from low SES and regional backgrounds in particular about the options available to them.

Schools, universities and tertiary admissions centres are all adapting to an environment of increasing competition and complexity. Nevertheless, the admissions system remains confusing to many senior secondary students, and particularly to those from low SES and regional backgrounds. Different awareness levels are likely to be driving inequities of access along class, regional and other geodemographic lines, with traditionally underrepresented students struggling to access and understand schemes for which they are the intended beneficiaries. Differential treatment of equity groups across states contributes to further geographic inequities. Finally, the proliferation of direct and early offer schemes is occurring with little published evidence to support different approaches.

Increasing the evidence base is therefore necessary to develop direct and early offer schemes that are effective and well targeted, while universities could also clarify their pathways through more transparent communications, including websites and other information materials. Developing greater consistency across state-based tertiary admissions centres, and sharing TAC-generated evidence, could improve national consistency of student equity treatment. Finally, better resourcing of careers advisers in schools, and ensuring that tertiary pathways and admissions processes are included within mainstream curricula, would help to inform school students of their potential options. The proliferation of new admissions practices and pathways are largely intended to improve student equity, but students are not yet at the centre of these developments.

2. Major Findings and Implications

In this section we present the major findings and implications emerging from the six main sections of the report.

Section 4. Background

Major findings

- Rising complexity in admissions is driven by sectoral growth, ongoing equity concerns, and increasing diversity and competition of provision. These trends can be similarly observed in comparable Anglophone countries. Admissions processes are typically designed to ensure equity, efficiency, transparency, and predictive validity.
- Tertiary Admissions Centres (TACs) and the Australian Tertiary Admissions Rank (ATAR) remain central to the Australian university admissions landscape. Both TACs and the ATAR intersect with a diversity of state and territory approaches under Australia's federal system, including different approaches to identifying and compensating for educational disadvantage. Any policy agenda that seeks to influence university admissions practices requires some consideration of the intricacies of Australia's federal system which could include the involvement of the Council of Australian Governments (COAG) or facilitated collaboration across Australian universities.
- Despite rising competition, exemplars of institutional collaboration through the tertiary admissions centres can be found. The New South Wales agreement to centralise the processing of school recommendation schemes, and the South Australian agreement to the allocation of bonus points, exemplify collaboration aimed at delivering efficiency, transparency and equity.
- Contextual admission pathways and other alternatives to ATAR have expanded in recent years, including school recommendation schemes. At a system-level, there exist questions around the transparency, predictive validity and efficiency of these pathways, and there remains little evidence on the overall equity implications of diverse alternative schemes.

Implications

- International studies point to the enduring challenges faced by Universities in broadening their participation rates of those from disadvantaged backgrounds. While there has been a growth in alternative pathways and admission processes, evidence supporting the efficacy of these is still scant. As Australian universities expand their pathways to admission, the design principles of efficiency, transparency, equity and predictive validity could be prioritised (Harvey 2014).
- Efforts by the central admissions bodies to promote efficiency while still enabling
 institutional diversity and equity have been appreciated by stakeholders. Further work by

Australian TACs to simplify their systems, and increase transparency would help to address what are still seen by some students and schools to be confusing and/or burdensome processes.

Section 5. Survey of Year 11 Students

Major findings

- Almost three quarters of the Year 11 students surveyed reported they had a good understanding of the work/career opportunities available to them. Despite general optimism and confidence, some students knew little about tertiary admissions centre applications or educational access schemes.
- Year 11 students from low SES and regional areas were less likely than their counterparts to indicate they intended to pursue further study after school.
- Of those not intending to pursue further study after school, Year 11 students from low SES and regional areas were the most likely to say that parents/guardians, teachers and careers advisers had helped them make the decision about what to do after school. The majority (60%) of those who indicated they intended to go directly into employment cited financial reasons for this, while another 15% provided answers related to getting an early start in life.
- Of those intending to pursue further study after school, Year 11 students from low SES and regional areas were the most likely to indicate that careers advisers and teachers had influenced their Year 12 subject selection "somewhat", "quite a lot" or "a great deal".
- There was a low level of awareness and knowledge of Tertiary Admissions Centre (TAC) application processes, school/principal recommendation schemes, Special Entry Access Scheme (SEAS) or the Educational Access Scheme (EAS), and access and equity scholarships, amongst surveyed students in general.
- Of those unsure of whether they will return to study after finishing school, Year 11 students from low SES and regional areas were the most likely to indicate that someone (e.g. parents/guardians, friends, other family members, teachers and careers advisers) had helped them to decide what to do immediately after finishing school.

Implications

Surveys reveal that many students remain confused and/or uninformed about tertiary
application processes, including school recommendation schemes, the role of the TACs, and
the importance and nature of educational access schemes and scholarships. Related
research reveals that low SES students are less adept at navigating the university application
system in Victoria (Cardak et al. 2015), confirming that confusion identified among year 11
students is not necessarily addressed in the final year of high school. Confusion was highest

among regional and low SES students, groups who were also the least certain of their postschool destinations. These results highlight the difficulty students have in navigating the complexity of the tertiary admissions landscape. There is a need for further information to be provided in school years, and for universities, departments of education, schools and tertiary admissions centres to collaborate on the development of clear information and advice about careers and tertiary pathways. Such advice needs to be tailored to parents and guardians as well, as their role in shaping student post-secondary preferences is important.

- Australia's demand driven funding system is predicated on assumptions that social and economic needs for skills and knowledge are best addressed by market based allocation mechanisms. Where awareness of tertiary admissions processes is sub-optimal, there are likely to be mismatches between individual capabilities, interests and potential and subsequent participation in higher education with consequences of the efficiency of the demand driven funding system. Mitigating this outcome will involve interventions targeting Australia's schools systems and university admissions and outreach practices.
- Results also underline that school staff play a significant role in the subject and career decision-making of students, particularly low SES and regional students intending to pursue further study. These findings underline the need for teachers and advisers to be well informed about post-secondary career and tertiary application issues. Low SES and regional students in particular could also benefit from more advice about what to do next and, importantly, how.

Section 6. Survey of First Year University Students

Major findings

- Recent school leavers, together with those from high SES and metropolitan areas, were most likely to indicate they understood how the Tertiary Admissions Centre (TAC) preferencing system worked. Consistent with other research, students with access to relevant support and information about tertiary admissions practice are better placed to navigate the system and make decisions that optimise their outcomes. Key decisions pre-date the submission of applications to higher education and include strategic approaches to Year 12 subject selection.
- First year students from low SES and regional areas were least likely to be aware that different subjects are differently weighted when calculating the ATAR. However, of those who were aware, low SES and regional respondents were more likely to factor this into their Year 12 subject choices.
- First year students from low SES and regional areas were the most likely to indicate that they were aware of school/principal recommendation schemes, that they had applied for such a scheme, and that their current enrolment was the result of a successful application through such a scheme.

- Mature age students were quite likely to indicate an awareness of direct application processes and to have utilised them. However, mature age students were less likely to be confident that the local TAC application process was applicable to them. Of those who were aware that the TAC application process was open to them, many found it less user-friendly and/or less appropriate to their needs than the direct application process. Mature age students were also much less likely than recent school leavers to indicate an awareness of the Special Entry Access Scheme (SEAS) or the Educational Access Scheme (EAS) and to apply for the scheme.
- First year students from low SES and regional areas were the least likely to indicate an awareness of SEAS/EAS. Of those who were aware, however, first year students from low SES and regional areas were the most likely to apply. These groups were also the most likely to be aware of, apply for, and be awarded an access and equity scholarship at the two institutions studied here.
- First year students from low SES and regional areas were the least likely to indicate that, at the time of applying, they had either a "good" or "very good" knowledge/understanding of the various courses and institutions on offer, which course(s) would be best for them, and how to apply.
- Recent school leavers from low SES and regional areas were the least likely to indicate that family members had assisted them either "quite a lot" or "a great deal" in applying for their course of study, and more likely to indicate that teachers and/or careers advisers had assisted them "quite a lot" or "a great deal.

Implications

- The findings reveal important differences in awareness. Low SES and regional students had less awareness than their counterparts of general tertiary admissions processes, educational access schemes, subject weightings, and university courses and institutions. They were also the most likely groups to be reliant on school personnel to inform decisions about their post-school study. These findings reiterate the importance of both teachers and careers advisers to students' post-secondary decision-making processes, and the particular need for schools to support low SES and regional students with detailed information and advice. Universities need to ensure that prospective mature age students are able to access relevant information about applying through TACs, and using the educational access schemes available.
- Australian admissions practices could do more to support the needs of mature age students, who comprise around 40% of the commencing bachelor degree cohort. Universities need to ensure that mature age applicants have the same access to compensation for educational disadvantage as school leavers are provided, while affirming the principles of transparency of selection criteria and predictive validity.

Section 7. Survey of Careers Advisers in Schools

Major findings

- Many careers advisers lamented their inability to spend sufficient time with students, particularly those in the early secondary years (i.e. Years 7-9), due to time/resource constraints and/or a lack of support from their line manager(s).
- Careers advisers from low SES schools were the least likely to consider that their current Year 12 students had a solid knowledge/understanding of their own interests and abilities; the work/career opportunities that best match their interests and abilities; and the steps they need to take in order to do the kind of work they want to do in the future.
- Careers advisers from low SES schools were far less likely than those from high SES schools to indicate their students had good support from family members in assisting them to work out what to do after school (19% for low v. 98% for high). Careers advisers from regional schools were less likely than those from metropolitan schools to indicate same (65% for regional v. 76% for metropolitan).
- Careers advisers from low SES and regional schools were the most likely to believe that it
 was those Year 12 students considering going directly into employment who were struggling
 the most with making decisions about their post-school plans.
- According to careers advisers, current Year 12 student awareness of higher education application options is limited, and awareness of the possibility of consideration for disadvantage (such as being from a low socio-economic or regional background) was perceived to be lowest amongst those most likely to be eligible for such consideration (i.e. those from low SES and regional schools).
- Careers advisers from high SES and metropolitan schools were the most likely to indicate that all of their current Year 12 students intending to pursue further study were aware that different subjects are differently weighted when calculating the ATAR. These advisers were also the most likely to indicate that students' knowledge that different subjects are differently weighted when calculating the ATAR bad influenced their subject choices either "quite a lot" or "a great deal" (35% for high SES v. 20% for low SES).
- School/principal recommendation schemes were generally perceived to be effective in identifying talented students who might not quite meet the ATAR cut-off and assisting them to gain a place in their preferred course or institution. The schemes were therefore considered to be worthwhile, especially by careers advisers from low SES schools, despite their impact on advisers' workloads.
- The recent proliferation of non-university higher education providers (NUHEPs) was also generally perceived to be a good thing by careers advisers, as they may offer competitive pathways to university, especially for those from low SES schools. Support for NUHEPs

persisted in spite of their impact on advisers' workloads, although concern exists on the authenticity of some NUHEP offers.

Implications

Careers advisers play a crucial role, particularly in low SES schools. This role is growing as the complexity of tertiary admissions increases. Schools and departments of education will therefore need to ensure that advisers are resourced, educated and supported to manage the new environment, particularly in low SES and regional schools. Advisers confirmed that many students lack knowledge about the weighting of different subjects in the calculation of ATAR, and that low SES students lack knowledge of educational access schemes. Specific efforts could be made in schools to increase student education and awareness of both these issues. The findings resonate with the results in Cardak et al. (2015, 2016) where disadvantaged students showed signs of limited knowledge of the operation of the application process. Improving student knowledge of application processes is critical, along with developing availability of advisors during pressure times around (i) final change of preferences, and (ii) decision making around university offers.

Section 8. Interviews with Leaders of Tertiary Admissions Centres

Major findings

- The Tertiary Admissions Centres (TACs) were established to provide an efficient and equitable means of managing university admissions. With the exception of the Victorian Tertiary Admissions Centre (VTAC) and the South Australian Tertiary Admissions Centre (SATAC), all TACs were set up as fully incorporated bodies. SATAC is soon to become fully incorporated.
- Despite all being established at a similar time and for a similar purpose, each TAC is unique in terms of numbers of member institutions, applicants, offers, staff size, and the range and level of services each provides. State-based differences in the secondary school system also contribute to diversity amongst the TACs.
- As a result of the introduction of the demand driven system, TAC leaders have observed a shift in focus from 'selection' to 'recruitment' for many institutions, as well as a rise in direct and contextual admissions. To varying degrees, TACs are responding to the changing environment by offering a greater range of services targeted to the needs of individual member institutions. TAC leaders are keenly aware of the need to engage in ongoing stakeholder management as part of this process.
- Some TACs are responding to sector changes by inviting new members, especially nonuniversity higher education providers (NUHEPs), as full institutional members, associate members, or by providing fee-for-service arrangements. Rather than considering them a threat, TAC leaders typically consider NUHEPs as complementary to universities, providing pathways for many students to articulate into a degree. In addition, including the NUHEPs within the centralised TAC system is considered a means of increasing

efficiency and cost-effectiveness for all TAC owners and users. There is still some debate, however, around who should be included, especially regarding interstate and international institutions.

- There are significant differences in the allocation of equity and bonus points both between states and amongst those institutions operating within the same state. While some TAC leaders viewed such differences as part of the distinctive nature of institutions and the strategic choices they have made, others considered the lack of consistency and transparency around contextual admissions, including equity and bonus point allocations, as potentially contributing to, rather than ameliorating, disadvantage.
- In response to equity concerns, South Australian universities have agreed to align their bonus point schemes from 2016. Under the new system, the points allocated to a particular student will not depend on the institution. This will be the case for both interstate applicants applying to SA institutions, as well as those applying from within the state. South Australia can be considered an exemplar of operationalising a commitment to admissions principles, but there remains a need to monitor the impact of the SATAC reforms in terms of equity outcomes and adaptation of the South Australian education system to a new admissions framework.
- Some TAC leaders expressed a desire to move towards greater consistency in the allocation of equity and bonus points nationally. Most considered there to be insufficient student mobility to justify a national TAC, but the TACs are endeavouring to develop as much consistency as possible by collaborating at the national level through the Australasian Conference of Tertiary Admissions Centres (ACTAC).
- TACs have the data, and in some cases the in-house expertise, to test the effectiveness of the various pathways currently in use against the success of students variously admitted to university. However, the full potential of such data is often not currently being realised, due mainly to a lack of resources and/or a specific mandate to do so.

Implications

Our analysis identified substantial adaptation by the TACs to environmental and contextual changes. One challenge for the TACs will be to maintain efficiency and transparency whilst managing increasing complexity, including a proliferation of tertiary entry pathways and higher education providers. A further challenge will be to develop greater consistency across states and territories in this environment, particularly if student mobility increases. Differences in school systems and tertiary admissions practices between the states are substantial, from the subjects required and weighted at Year 12 level, to the pathways into which school students are streamed, the governance and roles of tertiary admissions centres, the administration of equity bonus points, categories and scholarships, and the extent of collaboration among universities. The effects of federalism on tertiary applications and enrolments could be researched more extensively. TAC leaders and university admissions representatives also noted the

increasing amount of evidence and data now available around admissions pathways that could be harnessed by institutions to inform the predictive validity of information relevant to the application process. Harnessing this evidence and developing greater research and analytic capacity is a challenge facing the TACs and their constituent institutions.

Two specific cases of collaboration are notable. The new SATAC administration of equity bonus points will ensure consistent treatment of students across the three South Australian universities, and may serve as a model for other states. Equally, the UAC administration of school recommendation schemes for all participating NSW universities provides a model of administrative efficiency and consistency that may also serve as a model. Student responses to our surveys reveal much uncertainty around both equity bonus points and school recommendation schemes, and attempts to improve consistency are laudable. The role of ACTAC is likely to become increasingly important as student mobility rises.

Section 9. Interviews with Directors of University Admissions Departments

Major findings

- Directors of university admissions departments recognise that the admissions environment has become more competitive and that this is driving the growth of alternative admissions and pathways targeting niche groups.
- As they strive for efficiency, universities are often centralising the work of admissions internally, rather than delegating it to faculties.
- The limitations of the traditional ATAR entry pathway are well recognised by the directors, particularly with respect to delivering equity participation targets. In response, universities have developed a variety of pathways for such students, and have also begun to offer more financial support than previously. Directors acknowledge that some of these pathways may be confusing to potential students.
- Tertiary Admissions Centres (TACs) are seen by the vast majority of directors as providing an efficient and cost-effective service, particularly for processing school leaver applications. Views on the efficiency and effectiveness of the direct applications managed within universities as compared to those managed through TACs vary, however. While direct applications may enable more data about the applicant to be captured, directors are aware that direct admissions are also more resource intensive.
- Directors perceive better collection and use of data as playing a key role in improving admissions and supporting students, especially those who are members of equity groups.

Implications

- For universities, the rise of direct admissions and early offer schemes presents both a resourcing and an evidential challenge. As outlined above, greater evidence is required to determine which alternative entry pathways and criteria are valid, efficient, and transparent, and such evidence is often limited by commercial-in-confidence issues which limit the sharing of data and by resource limitations within admissions offices. Nevertheless, alternative pathways are widely supported, and the university representatives we spoke to noted that recruitment and communications are becoming more targeted to specific groups. The expansion of pathways reflects the fact that enrolment growth remains a priority for most universities, and incentives to convert offers into enrolments are also growing. There was a realization that growing retention was complementary to growing enrolments and the most efficient way to achieve the former was to obtain better information about students at enrolment. The risks of withdrawal among equity groups, increasingly targeted in the demand driven system, have been highlighted in Cardak and Vecci (in press) and Harvey and Szalkowicz (2015).
- The university representatives we spoke to typically expressed confidence in the capacity of tertiary admissions centres to manage their applications, and they did not yet consider non-university higher education providers to be a significant threat to university recruitment objectives. Indeed, many institutional representatives emphasised instead their collaborations with partner TAFE institutions, including dual enrolments. Primary challenges for universities are therefore to improve their evidence base around admissions, and to improve the clarity of their offerings to students. The extent of this latter need was underlined by our further research with careers advisers and school students.
- University admissions is Australia is complex with many facets. Recent growth in higher education has been facilitated by expansionist government policy, which has triggered much innovation in university admissions practice. Some higher education commentators criticise admissions practice from perspectives of standards erosion (admitting in too many under-prepared students) and inequity (setting ATAR cut offs in ways that make courses appear more exclusive than is the case). A nuanced approach to higher education policy should seek to accommodate these polarised positions and accept that higher education expansion will lead to differentiation in those who are admitted and the mechanisms through which they are admitted, whilst maintaining effective mechanisms for quality assurance. The review of the demand driven funding system made no major findings in relation to admissions other than investing more to ensuring applicants were 'informed consumers'. The launch of the Quality Indicators for Learning and Teaching (QILT) is consistent with this approach. There may be scope for QILT to include information about entry and admissions which could, whilst accommodating diverse admissions practices, standardise information relevant to student decision making.

3. Context and Structure of the Report

Australia's higher education sector is undergoing a period of rapid growth and change. These trends have resulted in a rise in the number, type and complexity of admissions processes by which potential students gain entry to a tertiary institution. This project explores the implications of growing complexity in student admissions for universities, tertiary admissions centres, and prospective students. In particular, we examine the effect of changing admissions practices on students from low socio-economic status (SES) and regional backgrounds.

Growth within the Australian higher education sector has been rapid. In 2008 there were 1,066,095 students enrolled in higher education; this number grew by 29% to 1,373,230 in 2014. Over this period, there was an even greater proportional increase of commencing students, from 429,359 to 569,064 (33%) (Department of Education 2014b). The main driver behind recent growth in student enrolments was the introduction of the 'demand-driven system'. In 2012, following a major review of higher education known as the 'the Bradley review' (Bradley et al. 2008), the Australian Government removed the limitations on the number of undergraduate places for which universities could receive public funding. The demand driven funding system was a mechanism for achieving the Bradley review recommendation that 40% of 25 to 39 year olds hold a bachelor degree or above by 2020, although in accepting this recommendation the government set 2025 as the date by which this target would be achieved. As a result, many universities were inspired to expand their enrolment numbers, creating heightened competition for student enrolments and a proliferation of entry pathways and admissions processes across the sector.

In response to the recommendations of the Bradley review, the Australian Government also outlined a target and strategy to increase the proportion of low SES students enrolled in higher education to 20% (DEEWR 2009a). As the authors of the Bradley review and others had noted, despite the quadrupling of Australian tertiary student numbers over a 30 year period, this growth in enrolments had been unevenly distributed across SES bands, with the main beneficiaries being those from the highest SES quartile. By contrast, over the same 30 year period, there had been only been a marginal increase in the proportion of low SES students attending university (Bradley et al. 2008; Chapman & Ryan 2005; James, Bexley & Maxwell 2008). Thus, to support the Australian Government's new 20% participation target, a dedicated fund – the Higher Education Partnerships and Participation Programme (HEPPP) – was established in 2010 to assist universities to conduct outreach, raise aspirations and enrolments, and increase support for low SES students. Now known as the Higher Education Participation Program (HEPP), HEPP distributes over \$150 million per annum, replacing the earlier Equity Support Program, which distributed \$11 million per annum in its final year of operation. This policy shift was informed by mounting evidence that the primary selection methods based on the Australian Tertiary Admissions Rank (ATAR) are biased against students from equity groups, including those from low SES backgrounds (Cardak & Ryan 2009; George, Lucas & Tranter 2005; Palmer, Bexley & James 2011; Teese 2007), leading to a "replication over time of the student profile" (Bradley et al 2008, p38). The new equity policy landscape resulted in many higher education institutions developing and implementing strategies to increase and widen participation.

University strategies for growth and equity have also been developed in a context of rising diversity of higher education provision. While non-university higher education providers (NUHEPs) lie outside the scope of the demand driven system, they provide both opportunities for, and competition to, the universities. The provision of higher education by NUHEPs has expanded by almost 400% since 1999 (Norton 2014, p. 11), with delivery across multiple fields of education. Universities are therefore facing growing competition for market share among their traditional competitors, but also new threats and opportunities. NUHEPs have no access to HEPP funds and limited access to Commonwealth supported places, and do not have the same incentives to meet equity targets as public universities. However, policy makers are becoming more attuned to the role that NUHEPS play in Australian higher education and the impact that differential policy treatment between universities and NUHEPs has on equity issues. The 2014 Commonwealth Budget announced a higher education reform package that would have increased institutional diversity and competition in Australian higher education by levelling the playing field between NUHEPS and universities. However, the higher education reform package has been delayed until at least 2017, the result being that the Australian higher education system continues to prioritise participation in universities over NUHEPs.

It should be noted that there are many types of non-university providers for which there is no widely accepted descriptive taxonomy. Some NUHEPs are subsidiaries of public universities, others service public universities, some are public institutions such as TAFE colleges, and others are independent, acting under not-for-profit or for-profit objectives. An underlying objective of expanding access to Commonwealth support for NUHEPs is to cultivate higher education participation in institutions that focus on teaching, rather than balancing both teaching and research, as universities are required to do. The future of admissions practice is therefore bound up with macro policy objectives around higher education financing and system efficiency.

With policy facilitating participation growth, student diversification, and competition, universities are adopting multiple strategies to increase and broaden participation. These strategies include: changing curriculum models, such as delaying professional courses to the postgraduate level; broadening pathways through which students access university mediated by centralised, state-based tertiary admissions centres (TACs); and increasing and broadening direct admissions to institutions, with the proportion of direct applicants growing from 20% to 30% between 2010 and 2015 (DEEWR 2010; Department of Education and Training 2015a). Tertiary admissions centres remain the primary coordinators and facilitators of university admissions, but these centres are themselves adapting to new pressures of equity, growth and competition. The nature and role of the centres is outlined in the following section on the Australian admissions landscape.

For applications made both through the tertiary admissions centres and directly to the universities, the use of contextual information about prospective students has expanded. This context includes information such as the geo-demographic background of the applicant, school attended, perceived academic potential, and volunteer and community service record (Harvey 2014). Bridger, Shaw and Moore (2012, p. ii) define three different approaches to contextual admissions that are not mutually exclusive:

- contextual data where linked data is used to provide flagging or coding information for admissions selectors;
- contextual information gathered through an individualised assessment from a broader range of sources such as a personal statement or reference; and,
- contextualisation which takes place prior to the application process through applicant participation in targeted outreach activity.

All three of these elements are present in the consideration of alternative admissions processes and entry pathways that follows. The increasingly diverse pathways into Australian higher education include: school/principal recommendation schemes where students are offered places at university before they finish their final year of schooling (Year 12); assessment methods such as portfolios, interviews, and aptitude tests; mature age entry schemes; tertiary enabling programs and other subdegree pathways; and Vocational Education and Training (VET) pathways.

The rise in complexity of admissions practices is therefore explained by multiple changes to the sector. Public policy has driven growth, diversity, competition and equity, and these forces have led institutions to diversify both their own admissions pathways and their student populations. Forces of change have also led tertiary admissions centres (TACs) to adapt their processes. The TACs were founded on collaboration between public universities, but they must now confront the challenges of an emergent higher education market characterised by more direct applications and admissions to institutions, more demand for contextual admissions, and increased competition amongst higher education providers. Each of these factors threatens to undermine the centralised, collaborative, and comprehensive nature of the TACs. It is timely then to consider both the nature of adaptation undertaken by universities and tertiary admissions centres, but also the effect of adaptation on prospective students.

This context frames our central research questions:

- 1. What impact does the rising complexity in admissions practices have on student decisionmaking, with particular emphasis on students from disadvantaged backgrounds?
- 2. How are universities and state-based tertiary admissions centres responding to the challenges associated with rising student participation, diversity and mobility, as well as increasing complexity in admissions practice?

To address these questions, we conducted original research in five stages, and the report is structured accordingly.

- The first stage consisted of a review of the national and international literature on the evolution of tertiary admissions practices, with a particular focus on the rise of contextual admissions processes for disadvantaged students. Major findings from this stage inform the Background section of this report.
- Stage two consisted of a survey of Year 11 students administered in six Victorian and five NSW secondary government schools. Findings from this stage are presented in section 5 Survey of Year 11 Students.

- The third stage involved an online survey of commencing domestic undergraduate students at two Australian universities. Findings from this stage are presented in section 6 Survey of First Year University Students.
- Stage four consisted of an online survey of school-based careers advisers. Findings from this stage are presented in section 7 Survey of Careers Advisers in Schools.
- Finally, the fifth stage consisted of in-depth semi-structured interviews with the leaders of the five state-based tertiary admissions centre (TACs) in Australia, as well as the admissions directors (or self-nominated representatives) of eighteen universities from across the country. Findings from this stage are presented in section 8 - Interviews with Directors of Tertiary Admissions Centres; and section 9 - Interviews with Directors of University Admissions Departments.

This study uniquely examines contemporary equity admissions practices from the perspective of a variety of stakeholders. We integrate the perspectives of students pre- and post- the tertiary admissions process together with the experiences of careers teachers who support students through the application and admissions process together, as well as the views of those leading and managing admissions processes from institutions and tertiary admissions centres, in order to provide a critical analysis of Australian admission systems. The research adopts, as far as has been possible, a national and multi-state perspective, providing clear insights into the efficacy of tertiary admissions equity practices.

4. Background

Major findings

- Rising complexity in admissions is driven by sectoral growth, ongoing equity concerns, and increasing diversity and competition of provision. These trends can be similarly observed in comparable Anglophone countries. Admissions processes are typically designed to ensure equity, efficiency, transparency, and predictive validity.
- Tertiary Admissions Centres (TACs) and the Australian Tertiary Admissions Rank (ATAR) remain central to the Australian university admissions landscape. Both TACs and the ATAR intersect with a diversity of state and territory approaches under Australia's federal system, including different approaches to identifying and compensating for educational disadvantage. Any policy agenda that seeks to influence university admissions practices requires some consideration of the intricacies of Australia's federal system which could include the involvement of the Council of Australian Governments (COAG) or facilitated collaboration across Australian universities.
- Despite rising competition, exemplars of institutional collaboration through the tertiary admissions centres can be found. The New South Wales agreement to centralise the processing of school recommendation schemes, and the South Australian agreement to the allocation of bonus points, exemplify collaboration aimed at delivering efficiency, transparency and equity.
- Contextual admission pathways and other alternatives to ATAR have expanded in recent years, including school recommendation schemes. At a system-level, there exist questions around the transparency, predictive validity and efficiency of these pathways, and there remains little evidence on the overall equity implications of diverse alternative schemes.

Introduction

The previous section outlined the broad reasons for changing admissions practices within Australia, namely sectoral growth, rising competition and diversity, and ongoing underrepresentation of selected population groups. This section outlines the broader international context of university admissions, before focussing more specifically on how Australian admissions practices are changing. By way of background, we explain the role of the state-based tertiary admissions centres (TACs), the significance of the Australian Tertiary Admission Rank (ATAR) to institutions and their prospective students, the breadth and nature of alternative admission processes, and the four guiding principles by which universities typically admit students. The four principles of equity, transparency, efficiency, and predictive validity are central to our research. Universities are endeavouring to admit more underrepresented students by diversifying their entry pathways, yet this diversification may also be affecting the extent to which such students can effectively navigate the system. In this report, we

argue that every admissions process contains flaws, but that there is also a need to examine changes at the system-level to understand the impact of different institutions' behaviour on prospective students.

International context

The ambition to increase student equity through new admissions processes is common to many countries, and we begin our discussion by examining the international expansion of contextual admissions practices and related issues. Globally, post-compulsory education has rapidly increased since the 1970s. In 2000, tertiary enrolments globally reached 100 million, and the World Bank estimated that this would increase to 150 million by 2025 (World Bank 2000). Despite the principle of equality of rights being widely accepted, social background continues to impact on both the "extent of access and the type of higher education to which access is being accorded", consistently undermining merit-based systems (Clancy & Goastellec 2007, p. 139). Various entry schemes have been developed in an effort to compensate underrepresented groups for educational disadvantage, and to counter higher education admissions processes that tend to favour those with greater financial, social, and cultural resources. National ideological conditions also influence the way equity is understood and practiced in higher education (Clancy & Goastellec 2007). Within Anglophone nations, there are often similar challenges of underrepresentation. Research indicates that, as with the Australian ATAR, the US Scholastic Achievement Test (SAT) results (Geiser & Santelices 2007) and the British 'A level' scores (Universities UK 2014) are closely correlated with socio-economic status and thus influence the composition of who participates in higher education at a program, institutional and system level.

University admissions in the United States have traditionally been closely related to socio-economic status. Smith and Bender (2008) cite a study by Sewell that found wealthy students from the lowest quartile of academic ability were six times as likely to enter college as those from disadvantaged families with the same ability. Meanwhile, wealthy students from the highest quartile of ability were one and a half times more likely to go to college than disadvantaged students with the same ability. The admissions landscape in the United States is decentralised, with institutions managing their own selection processes. Despite this decentralisation, the dominant means of assessing student ability in the United States is the Scholastic Achievement Test (SAT). The SAT is designed to gauge a student's intellectual ability through a series of multiple-choice exams. In addition to SATs, achievement tests are sometimes used to test the applicant's level of preparation for specific subject areas (Baron & Norman 1992). In recent years, the SATs have also evolved to include elements to test subjectspecific knowledge (SAT Subject Test). While the SAT provides efficiency and, to some extent, predictive validity, the equity of the test is questionable due to its correlation with socio-economic status and ethnicity. Largely as a result of the dominance of the SAT in selection processes, students from minority groups remain underrepresented in the American higher education system, and this has led to an ongoing search for effective alternative entry/selection methods. For example, the University of California, considers school as a key reference point within selection to correct for the distribution of SAT performance by minority groups. As Geiser and Santelices (2007) note, if ranked

by the SAT rather than school results, the population of Latino, African American and American Indian students at the University of California would halve.

Universities across the United States use a variety of programs to account for disadvantage, including programs that entitle the top few per cent of students from each secondary school to university admission. Depending on implementation, this may refer to a specific university, or else general university eligibility for a particular state (Horn & Flores 2003; University of California 2014). The 'percent plans' were introduced in many cases as successors to affirmative action models where those models were banned by state governments. While the intention of the plans was to increase diversity, various criticisms exist. Firstly, many students made eligible for university admission by such a plan would have been admitted anyway (Horn & Flores 2003). Secondly, if financial support is not available, students from minority groups may not enrol in university anyway (Horn & Flores 2003). Thirdly, students with strengths in particular subject areas who do not rank as highly overall will miss out (Eaton 2010). And fourthly, there exists the possibility that some families will strategically place their children in schools where they are more likely to get a better rank (Cullen, Long & Reback 2011). Indeed, of those with "motive and opportunity" to make a strategic school choice, Cullen, Long and Reback (2011) estimate that as many as 25% do so. As a result, the number of minority students who would otherwise become eligible for university admission is decreased. Despite these criticisms, however, the percent plans remain a prevalent strategy to address underrepresentation of minority groups in the United States. Meanwhile, criticisms of the plans highlight the difficulties of designing admission pathways that meet the four principles of transparency, efficiency, predictive validity and, crucially, equity.

The United States has a complex and diverse higher education system with significant differences across states in institutional form, governance and financing, as well as student demographics and equity. The demographics of students attending tribal and community colleges are markedly different from the demographics of those attending state or private universities. The diversity of the United States system is often celebrated as its strength (Trow 1989; Bebbington 2014), yet some caution against following the United States as a policy exemplar because of evidence of diminishing equality of opportunity (Parker 2014). The Australian higher education system shares more similarities with the British higher education system than the United States system in any case (Moodie 2015). Thus, while the diverse nature of admissions in the United States provides a useful lens for understanding the nature and equity impact of decentralised admissions practice, the British system arguably makes for a more relevant comparison.

The British higher education system has witnessed several recent changes that have affected both growth and equity in admissions. Most notably, in England there has been a significant increase in tuition fees to a current maximum of 9,000 pounds per annum. This increase has been accompanied by the introduction of income-contingent loans, and the Office for Fair Access monitors student equity across institutions that charge more than 6,000 pounds. In addition, in a move reminiscent of the creation of the demand-driven system in Australia, England uncapped undergraduate places in 2015. As in Australia, the uncapping of funded places in England will likely lead to further expansion of higher education participation, and this likelihood has already stimulated a lively debate across the country about the need to protect both quality and equity within student admissions (Hillman 2014). Such concern is not without a basis. For example, despite numerical growth of low SES

students in higher education during the UK's sectoral expansion of recent years, the gap between the participation rates of the lowest and highest socio-economic groups has changed very little (Universities UK 2014). While 60% of those from the highest quintile now enter university, only 22% of those from the lowest quintile do so.

Thus, in a context of rising tuition fees, increased competition, and sectoral expansion, many groups in the UK also remain underrepresented in higher education. As a result, a number of British institutions have increased their emphasis on contextual admissions. Full-time undergraduate university admissions in the United Kingdom are administered by a central national body, the Universities and Colleges Admissions Service (UCAS 2015). All applicants are required to provide both a personal statement and an academic reference. In addition, selection tools such as interviews and admissions tests targeted to the needs of specific disciplines are employed by some courses and institutions. In 2013, the UK's Supporting Professionalism in Admissions Programme reported that increasing numbers of British higher education providers are considering, or planning to consider an applicant's context as part of the admissions process (Moore, Mountford-Zimdars & Wiggans 2013, p. 53). Major findings of this report include:

- Socio-economic differences in higher education progression persist and are underpinned by educational inequalities. Unless higher education providers take account of disadvantage as part of their undergraduate admissions processes, people with the potential to succeed may be overlooked.
- The body of research available was quite small, demonstrating that research in the area of contextualised admissions, contextual data and information in the UK is still relatively limited.

As the higher education sector continues to expand, finding admissions pathways that ensure quality and equity will be a major challenge for all countries within the United Kingdom. This is especially so given the diversity of provision models within the UK. Scottish institutions, for example, charge no tuition fees at all for local students. In both the United States and the United Kingdom, the higher education landscape is characterised by ongoing concerns of student inequity; rising participation, tuition fees, and provider competition; and a consequent multiplicity of admissions pathways.

The Australian university admissions landscape

Analysis of admissions practice in the United States and United Kingdom highlights context specific factors that influence the nature of inequality and the responses of admissions systems in pursuing more equitable participation in higher education. In this section, we examine the specificities of the Australian admissions landscape and the types and nature of adaptation. We begin by looking at the Australian Tertiary Admission Rank (ATAR) on which many universities' selection processes still rely. We then examine a range of alternative schemes that have emerged to either supplement or replace the ATAR. Some schemes require prospective students to apply directly to an institution, but most are mediated by a state-based tertiary admissions centre, whose role is also outlined in this section.

While our primary focus in this report is on student equity, there are multiple principles underpinning most university admissions processes. As Harvey (2014, p.171) outlines, there are four criteria by which the efficacy of admissions processes can typically be measured: transparency, predictive validity, equity and efficiency. These four criteria are consistent with a national report into selection and participation in higher education produced by Palmer, Bexley, and James (2011, p.3), who note that student selection involves the following three challenges:

- ensuring fairness and transparency in student selection;
- identifying the potential for student success in higher education; and,
- improving equity of participation and equality of educational opportunity.

The fourth criterion of efficiency is highlighted elsewhere in the paper (Palmer, Bexley, & James, 2011, p. 4) where the authors state that:

"Centralised management of applications and of large-scale quantitative selection measures remain among the strengths of selection frameworks in Australia. A move away from this approach toward institution-based procedures, such as institution-specific admission testing, may have unintended consequences including increasing the costs, labour and complexity associated with the application process (costs that would largely be borne by students)."

At the institutional level, admissions policy tends to be broadly aligned with these criteria. However an institution's distinctive mission or values often influence the degree to which specific criteria are emphasised. At the University of New England for example, the first principle specified in admissions policy rules is equity centred: maximising "the opportunity for our diverse communities and underrepresented groups to access and participate in higher education" (University of New England 2015). By contrast, the first principle articulated by La Trobe University emphasises the potential for student success by stipulating that "offers are made to applicants who are judged to have the background and abilities to have a reasonable expectation of success in the program to which they are made an offer and who are likely to benefit from university study" (La Trobe University 2015a). Other institutions such as the University of Melbourne prioritise as a first order principle the link between admissions and standards through the expression of "a commitment to maintaining high international academic standards in its courses" (University of Melbourne 2015).

As this report explicitly covers a wide range of institution-based admission procedures relating to disadvantaged students, we focus on the more generic admissions principles of transparency, predictive validity, equity and efficiency outlined by Harvey (2014). When adopting a sectoral and policy view, efficiency is particularly important. So too when considering the impact of changing admissions practices on prospective students. As Harvey (2014, p.171) argues:

"Administrative burdens may be borne not only by students but also by schools and universities, and these burdens may ultimately undermine the viability of offer schemes. Moreover, selection principles arguably need to be considered at jurisdictional level rather than simply institutional level. Institutional schemes may themselves fulfil many of the agreed criteria yet still create inefficiencies and inequities for prospective students and parents by their unregulated proliferation."

Application management

For more than 40 years, state-based tertiary admissions centres (TACs) have played a central role in university admissions. The TACs primarily act as clearing houses, by receiving applications, forwarding them to the relevant institutions, and communicating selection decisions to applicants. By deferring all selection decisions to the universities, they preserve the universities' autonomy over selections. Historically, the TACs have also provided an efficient solution for the processing of large volumes of applications, especially from school leavers. Being well-entrenched in the admissions system means that TAC processes are typically well-supported by high schools where teachers and careers advisers are able to help navigate students through the application process (Palmer, Bexley & James 2011).

The five main state-based TACs were set up as independent bodies by the participating institutions (Palmer, Bexley & James 2011), and each TAC manages admission applications differently. The TACs in Australia and New Zealand communicate with each other through the Australasian Conference of Tertiary Admission Centres (ACTAC) (Australasian Conference of Tertiary Admission Centres 2015). The Australian Tertiary Admission Centres and the states/territories they service are listed in Table 4.1 below.

ORGANISATION	ACRONOMYN	STATES/TERRITORIES
Victorian Tertiary Admissions Centre	VTAC	Victoria
Universities Admissions Centre	UAC	New South Wales & Australian Capital Territory
Tertiary Institutions Service Centre	TISC	Western Australia
Queensland Tertiary Admissions Centre	QTAC	Queensland
South Australian Tertiary Admissions Centre	SATAC	South Australia & Northern Territory

Table 4. 1 Australian TACs and the states/territories they service

The Australian Government reports annually on undergraduate applications, offers and acceptances. Aggregate data from these reports for 2010 and 2015 is presented in Table 4.2. It is important to note that this data represents applications rather than applicants. TAC data includes students who apply through multiple TACs. Direct application data includes students who apply to multiple institutions and TACs. Notwithstanding these features of the data, it is evident that significant change in tertiary applications has occurred in the five year period from 2010 to 2015.

As can be seen in Table 4.2, in both 2010 and 2015, the majority of undergraduate applications were made through the TACs, and the majority of these were made by Year 12 applicants. Meanwhile, applications by non-Year 12 applicants through the TACs have decreased over the same period. This

decrease is countered by an increase in direct applications made by non-Year 12 applicants between 2010 and 2015. Overall, the number of TAC applications increased between 2010 and 2015, but only modestly (4.5%). By contrast direct applications grew significantly in both absolute (70.2%) and relative terms. As noted above, this data does not represent discrete applicants. Nonetheless, it does highlight a significant shift in the extent to which institutions are making direct application processes available, and a significant shift in the extent to which prospective students are utilising these processes. Those making direct applications are much less likely to be school leavers and so tend to be older. Female and Indigenous applicants also comprise a larger proportion of direct applicants than TAC applicants (Department of Education and Training 2015a).

APPLICATIONS		2010	2015	CHANGE 2010-2015
TAC Applications (Australia)		245,162	256,201	11,039 (4.5%)
TAC Applications Year 12		137,532	140,929	3,397 (2.5%)
TAC Applications Non-Year 12		129,646	115,272	-14,373 (-11.1%)
Highest Prior Education Participation	VET Qualification	15,179	13,227	-11,952 (-12.9%)
	School Qualification	25,324	24,514	-810 (-3.2%)
	Incomplete HE	45,856	51,565	5,709 (12.5%)
	Complete Bachelor	10,990	12,445	1,455 (13.2%)
Direct Applications (Australia)		60,703	103,296	42,593 (70.2%)
Highest Prior Education Participation	VET Qualification	6,551	8,162	1,611 (24.6%)
	School Qualification	17,994	24,764	6,770 (37.6%)
	Incomplete HE	13,500	21,723	8,223 (60.9%)
	Complete Bachelor	8,767	15,119	6,352 (72.5%)

Table 4. 2 Undergraduate application 2010 & 2015 (Data sources: DEEWR 2010; Department of Education and Training 2015a)

Australian Tertiary Admission Rank (ATAR) and equity bonus points

The Australian Tertiary Admission Rank (ATAR) and its predecessors have occupied a central place in the university admissions environment for several decades. The ATAR is a number between 0.00 and 99.95 that ranks a student's academic achievement in relation to his or her peers. For example, an ATAR of 80.00 means that a student is in the top 20% of their cohort (Universities Admissions Centre

2015a). However, "peers" or cohort does not refer to all the students receiving an ATAR that year. Rather, the cohort refers to a notional body of persons who might be qualified to receive an ATAR for that year (e.g. all students who commenced Year 7 with those now graduating secondary school). As a result, the median ATAR is well above 50.00. Students are ranked in intervals of 0.05 on a ranking from 0 to 99.95, while students who rank below 30 have their ranks reported as >30. While all states calculate the ATAR result, they generate the result in different ways. In most states, the ATAR is calculated by the relevant Tertiary Admissions Centre (TAC). The TACs calculate the ATAR using the jurisdictions' respective year 12 award programs.

In the ACT and NSW, the ATAR results are calculated by the Universities Admissions Centre (UAC) from the students' respective Higher School Certificate marks (HSC) results. The HSC is awarded and issued by the Board of Studies, Teaching and Educational Standards. Calculation of the ATAR is the responsibility of the Technical Committee on Scaling on behalf of the NSW Vice-Chancellors' Committee. In Victoria, the ATAR results are calculated by the Victorian Tertiary Admissions Centre (VTAC) from the students' respective Victorian Certificate of Education (VCE) subject scores.

In South Australia and the Northern Territory, the ATAR results are calculated by the South Australian Tertiary Admissions Centre (SATAC) from the students' respective South Australian Certificate of Education (SACE) and the Northern Territory Certificate of Education (NTCE) results. In Tasmania, the ATAR results are calculated by the University of Tasmania (UTAS) from the students' respective Tasmanian Certificate of Education (TCE) results. In Western Australia, the ATAR results are calculated by the Tertiary Institutions Service Centre (TISC) from the students' respective Tertiary Entrance Aggregate (TEA) results. In Queensland, the ATAR result is converted from the students' Overall Position (OP) rank that the Queensland Tertiary Admissions Centre (QTAC) generates.

Calculation of the ATAR also involves differences among states regarding both subject choice and scaling in the senior years of schooling. In Victoria, for example, the ATAR is only calculated if the student completes the necessary English requirements. By contrast, South Australian and Tasmanian students do not need to undertake English in year 12 in order to receive an ATAR. Similarly, subjects are often scaled to account for perceived differences in difficulty. In Victoria, year 12 subject scores (initially between one and fifty) are adjusted according to peer results. If the median students in a particular subject, e.g. French, performed relatively well in their other subjects, then the scores of the French students would be inflated to account for the subject's apparent extra difficulty. Some mathematics subjects and foreign language subject scores are also inflated because of government incentives, e.g. to promote more students undertaking a foreign language subject. Each state approaches subject scaling and moderation in its own way, with the result that the 'Australian' rank is in fact a combination of very different processes and outcomes across states and territories.

Thus, while the ATAR and its use appear to be highly transparent, there are various complexities in the calculation of ATAR of which prospective students, parents and other stakeholders may be unaware. As outlined above, each state has its own curriculum and associated method of calculating ATAR, which includes "a mechanism for a student to be compared with students who have completed different combinations of subjects" (Blythe 2014, p. 270). This includes initiatives such as scaling marks differently for each subject (Universities Admissions Centre 2015c; Victorian Tertiary Admissions Centre 2015c) and creating notional ATARs for those who have undertaken non-standard

curriculum such as the International Baccalaureate. In some cases, a notional ATAR is also given to students who completed Year 12 prior to the introduction of the ranking system (Victorian Tertiary Admissions Centre 2015a). The ATAR is an extremely efficient – and seemingly transparent – means of ranking applicants in order to make selection decisions, especially for high-demand courses. However, questions around the ATAR system's equity and predictive validity remain prominent.

In terms of equity, there is a substantial body of evidence showing that the ATAR is closely correlated with socio-economic status (Cardak & Ryan 2009; George, Lucas & Tranter 2005; Palmer, Bexley & James 2011; Teese 2007). This correlation is evidenced by the fact that the majority of students with high ATARs belong to high SES groups, while the lowest ATAR bands are disproportionately comprised of low SES students. In the lowest bands, low SES students can outnumber their high SES peers by as many as four to one (Teese 2007). Despite its clear socio-economic bias, the ATAR is nonetheless useful for predicting academic achievement. For example, an Australian Department of Education and Training cohort analysis of students commencing their studies in 2005 identified that 94.5% of students with an ATAR between 95 and 100 completed their studies by 2015, as compared with only 56.1% of those admitted with an ATAR between 50 and 59 (Department of Education and Training 2015c). Thus, while ATAR cannot predict which particular students of a given rank will complete their studies, there is correspondence between the completion rates of students in a cohort and their ATAR band. The ability of an ATAR to predict academic university achievement diminishes as the tertiary rankings fall (Birch & Miller 2006; Dobson & Skuja 2005; Murphy, Papanicolaou & McDowell 2001; Palmer, Bexley & James 2011).

The decline in the predictive validity of the ATAR as tertiary rankings fall is in part explained by what has become known as the "schooling effect" (Gamoran & Long 2007; Kirkup et al. 2010; Ogg, Zimdars & Heath 2009; Palmer, Bexley & James 2011; Win & Miller 2005). Win and Miller (2005) found that the tertiary entrance ranks of students from private schools were "artificially inflated" compared to those of students from government schools. However, the "schooling effect" is also related to socio-economic status. An over-reliance on ATAR in selection processes therefore works against low SES students by placing them into "an artificial academic competition that overlooks the negative influence of poor initial achievement at school, poorer literacy skills, lower self-esteem, lesser school resources, family economic insecurity and limited knowledge of tertiary education" (George, Lucas & Tranter 2005, p. 144). In addition, low SES students are much less likely to complete high school and obtain an ATAR at all (Chesters & Watson 2013).

In an attempt to compensate for the clear bias against socio-educational disadvantage embedded within the ATAR, many institutions have begun to add bonus points to the ranks of individual students in order to re-rank applicants before making them an offer of a place (Universities Admissions Centre 2015b). In general, there are two types of bonus points – equity bonuses and subject bonuses. Equity bonuses are designed to compensate for the disadvantage a student may have experienced due to their socio-economic and/or regional background (amongst other things), whereas subject bonuses are often given in recognition of a person's ability in a particular subject area, which may relate to the course they are applying for. Both subject and equity bonus points are recognised as having a legitimate purpose. However, there is a growing concern that they too "reduce transparency and cause confusion when cut-offs are published" as "many students with ATARs below the published cut-off are offered places" (Blythe 2014, p. 270). The 2016 Australian

university selection round coincided with a range of articles in the media critiquing the validity of contemporary admissions practice. Institutions and admissions practices are not immune from scrutiny or criticism, with one article highlighting the high proportion of students admitted below published ATAR cut-off ranks and the gap between ATAR cut-off and average course ATARs (Bagshaw 2016).

The majority of bonus point programs are administered by the state-based tertiary admission centres (TACs), which provide a framework through their equity schemes, such as the Special Entry Access Scheme (SEAS) in Victoria; and the Educational Access Scheme (EAS), different versions of which operate in NSW and Queensland. Under the schemes, applicants can provide evidence of educational disadvantage, for which universities may compensate them. In general, the universities decide what forms of educational disadvantage they will acknowledge, while the TAC performs much of the administrative work such as checking the authenticity of claims.

Most TACs provide a high degree of transparency around the range of criteria that need to be met to qualify for different bonus point schemes. This is done by providing detailed online resources which can then be used by students and institutions alike. In some cases, these resources refer students back to TAC information sources. Of the various TAC programs, Victoria and NSW have the most comprehensive bonus point schemes, known as SEAS and EAS respectively. Queensland has a similar though slightly less comprehensive scheme, while South Australia is currently introducing a standardised scheme that removes previous institutional differences. Western Australia does not provided a centralised bonus point scheme, but it does collect some information from students during the application process before passing this onto the universities who administrate their own bonus point schemes.

Transparency in admissions is important on many levels. Students who believe that a program of study requires an ATAR of 80 but who perceive that this level of attainment is elusive may make different choices around Year 12 subject selection or apply to different courses through their TAC. If entry to this program of study can be obtained with a lower ATAR through application of consideration of educational disadvantage or other bonuses, the efficient matching of students with the right capabilities, aptitude and interests for a specific program of study is diminished. South Australia serves as a cautionary example of how problematic things can be where transparency is weak with a high proportion of students prior to 2016 attracting some form of bonus during selection. A proliferation of bonus points can make it very difficult for students to know whether their achievement would lead to a place in their course and institution of choice.

As of 2016, South Australia will differ from the other states with the introduction of two fixed bonus point schemes – one for equity and the other for academic achievement. The three South Australian universities have collaborated to develop standardised bonus points across the whole state, agreeing on both the criteria for disadvantage and the level of compensation to be provided. The South Australian Tertiary Admissions Centre (SATAC) will administer these points independently of the universities. The introduction of a standardised state-wide scheme in South Australia reflects growing concern about the equity, transparency, efficiency and predictive validity of bonus point schemes across states and institutions. The model also provides an important example of collaboration in a climate of rising competition. Admissions processes in Australia are highly federated, and although

differences between states and territories are often substantial, the tertiary admissions centres can and do learn much from comparing practice.

Alternative Entry Pathways

There are many alternatives to relying on the ATAR for the selection of university applicants. Universities may adopt selection criteria in addition to the ATAR, or that bypass the ATAR altogether. These criteria are often developed to improve the predictive validity and equity of admissions processes. This section highlights alternative assessment methods such as the Special Tertiary Admissions Test (STAT), UniTEST, portfolios, and interviews. We also examine broader entry pathways such as school recommendation schemes, tertiary enabling programs, and vocational education and training. In many of these alternative assessment and entry schemes, the context of the individual applicant is considered. Universities are increasingly trying to understand the contextual situation of individual applicants in order to improve the equity and predictive validity of their admissions.

The Special Tertiary Admissions Test (STAT) is a widely used aptitude test administered by the tertiary admissions centres to assist special categories of applicants including mature age students; applicants who lack formal qualifications; and those needing to prove English language proficiency. Unlike tertiary admission rankings, which are designed to reflect achievement and predict success, the STAT is designed to assess a student's "capacity to undertake university study" (Coates & Friedman 2010, p. 118). The STAT tests aptitude across verbal reasoning, quantitative reasoning, and written English (optional). However, the STAT is not designed to assess personal traits and other non-cognitive aspects of the applicant. This shortfall is one of the main criticisms made of the test by students (Mestan 2014).

Similar to the STAT, uniTEST (used by two Australian universities) is designed to test generic reasoning and thinking across mathematics, science, humanities and social sciences (Edwards, Coates & Friedman 2013). Preliminary research on a group of disadvantaged and academically marginal students where uniTEST was used as a secondary selection method resulted in over 10% being offered a place on the basis of the test (Edwards, Coates & Friedman 2013). A report by DEEWR and cited by Heagney (2012) noted that these students performed at a similar level to those who had gained admission on the basis of other criteria such as final Year 12 results. On the basis of these findings, the report recommended that the test be implemented nationally (Heagney 2012). Both the STAT and uniTEST can be implemented with relative efficiency, but these methods typically only supplement other admissions processes and more research is required into their predictive validity and equity. In the Victorian context, some universities have considered the General Achievement Test (GAT) to complement ATAR information during selection. The GAT is routinely administered to year 12 students by schools to validate student assessment.

Some universities require applicants to complete field specific tests including the Law School Admission Test (LSAT), Graduate Management Admission Test (GMAT), and Graduate Medical School Admissions Test (GAMSAT). Graduate application processes are beyond the scope of this study, but warrant additional research to assess their impacts on student equity within graduate programs. They are mentioned to highlight the degree of competition evident in access to some programs where an undergraduate degree and personal statement remain insufficient reference points to inform selection decisions, and may gain traction as a mechanism for access to some programs at an undergraduate level. Already the Undergraduate Medicine and Health Sciences Admissions Test is used at some universities.

Interviewing applicants is another alternative selection tool adopted by some universities, particularly for highly selective courses such as Medicine. While some such as Siu and Reiter (2009) assert that interviews lack the predictive validity of other forms of assessment, they have nonetheless been shown to be predictive of graduate outcomes, especially with regard to non-academic criteria such as character traits and communication skills, and it is often for this reason that they are used (Goho & Blackman 2006; Simpson et al. 2014). Palmer et al. (2011) note that the existing body of research is a reminder that university selection is about more than selecting those capable of academic achievement; it is also about identifying those who are going to be best suited to the fields into which they will graduate. Interviews may therefore be useful in supplementing other forms of assessment. However, interviews are susceptible to interference from coaching. This undermines their utility in making admissions more equitable, as studies indicate that performance in interviews tends to correlate with socio-economic status (Pascoe 1999).

Since the 1990s, portfolios have also been increasingly used as a selection tool by universities (Smith & Tillema 2003). They are most commonly used in disciplines where applicants can be assessed on their aptitude and experience beyond standard high school assessments – in creative areas, for example. Research on portfolios reinforces the need for them to be designed for specific purposes and to reach certain target groups (George, Lucas & Tranter 2005; Palmer, Bexley & James 2011). Dodge (2008) found portfolios performed equally as well as graduate admissions examinations in predicting first year results. However, O'Donoghue (2009) cautions that a large industry has grown up around portfolio preparation, and students without financial means to invest in such programs are at a distinct disadvantage in the admissions process.

Despite the limitations of alternative selection methods such as interviews and portfolios, there is increasing recognition of the importance of considering context in the admissions process, especially as a means of overcoming obstacles faced by students from equity groups who tend to be disadvantaged by selection processes based heavily on school results. Proponents of alternative selection methods face many of the same challenges as those who rely on ATARs. Designing admissions processes that are efficient, transparent, equitable, and predictively valid is an ongoing challenge both internationally and within Australia.

School Recommendation Schemes

Since 2008, most Australian universities have introduced or expanded early offer schemes to improve access for students from underrepresented groups (Harvey 2014). Early offer schemes rely less on a student's ATAR and take into account a range of broader contextual information in the selection process. For example, in 2009, the Australian Catholic University introduced an Early Achievers' Program, which provides early offers to Year 12 students on the basis of volunteering and community service (Smith, 2008). In 2014, the Federation University of Australia expanded its

Regional Early Entry Program to its Gippsland campus, with early offers made on the basis of school and community contribution, as well as demonstrated motivation to succeed. Also in 2014, La Trobe University (2015b) introduced its Aspire Program, which considers volunteering and community engagement experience within applications.

The expansion of early offer schemes reflects their success in recruitment – by being able to make offers before final exam results, universities are able to gain a competitive advantage by steering prospective students firmly towards their institutions. These schemes appeal to students as they reduce uncertainty around offers and admissions based on final school results and ATAR. For institutions, early offers can also 'protect' the ATAR cut-off (and therefore status) of a course by admitting some students on alternative criteria and preserving a high minimum ATAR for the remainder of the commencing cohort. Predictive validity also appears strong, with studies of early offer enrolments at the University of New South Wales, La Trobe University and RMIT all indicating that students who receive early offers achieve better than average grades in first year (Harvey & Simpson 2012; Pascoe, McClelland & McGaw 1997). This predictive validity is particularly important because the schemes are typically targeted to students from equity groups, especially those whose ATARs may not reflect their educational potential. Despite the equity intentions of the programs however, most are targeted to the level of school rather than student. As Harvey (2014, p. 175) highlights, school-based targeting may be problematic, as it has the potential to create new inequities and disadvantage. Where the schemes are only available to students from selected partner schools, those students may receive "potential university offers at year 11" while other students will "be wholly reliant on the ATAR process". Meanwhile, disadvantaged students may be unable to access such schemes if their school itself lacks disadvantaged status.

Early offer schemes can also lack transparency and efficiency. With discretion and subjectivity playing a role in decision-making at both the school and university level – particularly where schools are requested to predict an applicant's success at university – early offer schemes can appear more opaque than ATAR-based selection processes (Harvey 2014). And while the multiplicity of schemes can be confusing for prospective students, as revealed by our survey of Year 11 and first year university students, the process of having individual institutions manage applications for multiple separate schemes is also arguably less efficient than having all applications centrally administered by the state tertiary admissions centre. An important development in this regard is the NSW Universities Admissions Centre's (UAC) recent centralisation of principal recommendation schemes, which has reduced the administrative burden on students, schools and higher education institutions. Whereas previously, school principals needed to complete one form for each institution/scheme a student was applying to, they need now only complete one form per student, even if that student wishes to apply for multiple institutions/schemes. UAC then ranks all applicants, and individual universities make their selections accordingly. This example of UAC's adaptation to the changing tertiary admissions landscape demonstrates how a central admissions body can promote efficiency while still enabling institutional diversity and equity. The centralised system is not perfect, however, as not all early offer schemes within NSW are run through UAC. Meanwhile, students and schools in NSW are still finding the application process confusing and/or burdensome, as our survey of careers advisers shows.

While early offer schemes are directed towards school leavers, mature age students may access university through a range of alternative admission pathways, such as the STAT, uniTEST, portfolios, and employment experience. They are also frequently admitted via an enabling program or vocational pathway, as outlined below. These pathways are very important for increasing student equity, as international research suggests that mature age students are more likely to come from low SES backgrounds (Levy & Burnheim 2012, p. 87; Purcell, Wilton & Elias 2007; Smith 2008). In Australia, mature age applicants are defined differently across jurisdictions, but in states such as Victoria they are considered to be anyone over the age of 21. Mature age students thus encompass a very wide age range, but one increasingly targeted by university admissions schemes.

Enabling Programs

Enabling programs are pre-bachelor degrees, and are designed to prepare students to enter a formal university course. The programs are typically provided at no cost to students, and are funded through Australian Government allocations. In accordance with the *Higher Education Support Act (2003)*, the Government determines both the number of enabling places offered by each higher education provider and the amount paid to the provider to deliver these programs (Pitman et al., 2016). The courses are often targeted to traditionally underrepresented groups, providing university access to a significant number of students who would be unlikely to gain admission otherwise (Andrewartha & Harvey 2014). As the enabling programs lie outside the Australian Qualifications Framework (AQF), programs vary in duration from several weeks to a year or more, and also differ in their curriculum and mode of delivery.

Attrition rates in enabling programs are normally high, and typically range between 45% and 58% (Crawford 2014; Klinger & Murray 2012). Withdrawal rates can be explained partly by the geodemographics and levels of academic preparedness of those targeted. Bennett et al. (2013) observe that some withdrawals can be seen as positive, especially where students have made an informed decision that university is not for them, where they have enrolled in a Vocational Education and Training (VET) program instead, or where they have taken up an offer of employment.

Various studies have found relatively strong subsequent academic achievement of undergraduate students who were admitted through an enabling program pathway (Klinger & Tranter 2009; Andrewartha & Harvey 2014). These students succeed, as Archer points out, because they are motivated to learn and to persevere (Archer, Cantwell & Bourke 1999; Orth & Robinson 2013). In a recent national study, Pitman et al. (2016) found relatively strong retention rates for undergraduate equity students who had transitioned from enabling programs. Tertiary enabling programs can be equitable and reflect predictive validity, but their transparency and efficiency varies given the wide sectoral diversity of program structures, curricula, and students.

Vocational Education and Training (VET)

University offers made on the basis of completed Vocational Education and Training (VET) studies grew by 12.9% in 2014 (Department of Education 2014c), and studies suggest that VET is a relatively effective pathway into higher education (Bandias, Fuller & Pfitzner 2011). Of the approximately 10%
of VET students who successfully transition into higher education, the majority are either young men studying full time, or slightly older (aged less than 30) female students who have returned to study after a break (Curtis 2009; Harris, Rainey & Sumner 2005). For most students, the transfer from vocational to higher education is vocationally motivated. It is taken as a means of upgrading their qualifications, sometimes as a requirement of their employment, and other times to enhance their career prospects (Harris, Rainey & Sumner 2006).

VET pathways do not generally provide access to the elite institutions; nor do they typically broaden university access for students from low SES backgrounds. This effect is largely because of the highly stratified nature of the VET sector and the close correlation between the level of VET study and socio-economic status (Bradley et al. 2008). Low SES students are overrepresented in low level VET programs but they remain underrepresented in higher level VET qualifications such as diplomas and associate degrees (Foley 2007). Wheelahan (2009, p. 21) found that VET pathways "do not, on the whole, widen participation of low SES groups in higher education; instead they contribute to deepening participation of existing groups in higher education".

In addition to independent transfers from VET, joint degrees, nested study programs and integrated programs have also been developed to aid the transfer from one sector to another. These provide a structured sequence of study that takes students through a diploma program directly into a degree (Cram & Watson 2008; Curtis 2009). The transparency of vocational admission pathways is often high, and evidence can be found for the efficiency and predictive validity of these pathways. At the system-level, however, university admissions based on vocational qualifications are unlikely to improve student equity.

Implications – Section 4. Background

International studies point to the enduring challenges faced by Universities in broadening their participation rates of those from disadvantaged backgrounds. While there has been a growth in alternative pathways and admission processes, evidence supporting the efficacy of these is still scant. As Australian universities expand their pathways to admission, the design principles of efficiency, transparency, equity and predictive validity could be prioritised (Harvey 2014).

Efforts by the central admissions bodies to promote efficiency while still enabling institutional diversity and equity have been appreciated by stakeholders. Further work by Australian TACs to simplify their systems, and increase transparency would help to address what are still seen by some students and schools to be confusing and/or burdensome processes.

5. Survey of Year 11 Students

Major findings

- Almost three quarters of the Year 11 students surveyed reported they had a good understanding of the work/career opportunities available to them. Despite general optimism and confidence, some students knew little about tertiary admissions centre applications or educational access schemes.
- Year 11 students from low SES and regional areas were less likely than their counterparts to indicate they intended to pursue further study after school.
- Of those not intending to pursue further study after school, Year 11 students from low SES and regional areas were the most likely to say that parents/guardians, teachers and careers advisers had helped them make the decision about what to do after school. The majority (60%) of those who indicated they intended to go directly into employment cited financial reasons for this, while another 15% provided answers related to getting an early start in life.
- Of those intending to pursue further study after school, Year 11 students from low SES and regional areas were the most likely to indicate that careers advisers and teachers had influenced their Year 12 subject selection "somewhat", "quite a lot" or "a great deal".
- There was a low level of awareness and knowledge of Tertiary Admissions Centre (TAC) application processes, school/principal recommendation schemes, Special Entry Access Scheme (SEAS) or the Educational Access Scheme (EAS), and access and equity scholarships, amongst surveyed students in general.
- Of those unsure of whether they will return to study after finishing school, Year 11 students from low SES and regional areas were the most likely to indicate that someone (e.g. parents/guardians, friends, other family members, teachers and careers advisers) had helped them to decide what to do immediately after finishing school.

Introduction

To understand how secondary school students are coping with navigating the changing field of tertiary admissions processes, a hardcopy survey of Year 11 school students was run in five NSW and six Victorian schools at the end of Term 3/beginning of Term 4 2015. Schools were invited to participate in the research on the basis of having a pre-existing relationship with the University of

New England (in the case of NSW schools) and La Trobe University (in the case of Victorian schools). All invited schools agreed to participate.

Using a structured questionnaire consisting of mostly closed questions, we probed the Year 11 students about their work/career aspirations, their intentions post-school, their awareness of university admissions processes, their support networks, and, through some open-ended questions, we encouraged them to provide further comment on what would make it easier for them to make decisions about their post-school plans, including navigating further study options.

The report deliberately orders analysis of school students first in the report to highlight the real effect of policy on prospective university students. Year 11 students are at the cusp of transitioning to Year 12 and have a path dependency set through their subject selections. Understanding how these decisions were made and influenced make Year 11 students an appropriate group for research.

Survey responses and demographics

We collected data on the geo-demographic variables of gender, country of birth, main language spoken at home, state of respondent's school, first in family to potentially study at university, and student membership of various equity groups. We also collected data on the postcode of a respondent's current home address, and we used this to classify a respondent as having a low, medium or high socio-economic status (SES) according to the Australian Bureau of Statistics' (ABS) Socio-Economic Indexes for Areas (Australian Bureau of Statistics 2011b). We also used the postcode of a student's current home address to classify each respondent as metropolitan or regional according to the Australian Bureau of Statistics' (ABS) Australian Statistical Geographical Standard (ASGS) Remoteness Structure (Australian Bureau of Statistics 2011a).

Differences in response rates based on these variables were statistically analysed. Only analyses based on the last two variables – SES of student (based on current postcode) and remoteness of student (based on current postcode) – have been integrated into this report, however, and only where the differences are substantial.

Across the eleven schools surveyed, there were approximately 1780 students enrolled in Year 11, and we received a total of 823 valid responses, representing an overall response rate of 46%. The response rate varied considerably across the schools, from 22% to 70%. Key features of the sample include:

- 70% of respondents were from Victoria and 30% from New South Wales;
- 60% of respondents were currently residing in regional areas, while 40% were residing in metropolitan areas. (One respondent indicated they were from an area classified as remote. This students' responses were included with those classified as regional);¹

¹ Note that, compared to the distribution of Australia's population, the distribution of our survey sample is skewed away from metropolitan and remote areas and towards regional areas. This is as expected since we mainly recruited schools in regional areas to the survey and both La Trobe University and the University of New England have a strong regional mission and focus.

- 54% of respondents indicated they were female, 44% indicated they were male, and 1% indicated other;
- 83% of respondents advised they were born in Australia;
- 26% of respondents indicated they identified with at least one of the following equity groups:
 - > 17% of respondents indicated they were from a non-English speaking background;
 - > 6% identified as being of Aboriginal and Torres Strait Islander descent;
 - > 4% as having a disability, serious medical condition or other impairment;
 - > 2% as being or having been in out-of-home care or foster care; and,
 - 1% as being a refugee or on a humanitarian visa;
- 38% of respondents currently reside in a low SES area, 49% in a medium SES area, and 13% in a high SES area;²
- Low SES respondents were more likely than medium or high SES respondents to identify with one of the other groups noted above (34% for low SES v. 33% for medium SES v. 22% for high SES); and,
- 100% of high SES respondents were from metropolitan areas, while the majority of low SES respondents (90%) were from regional areas. Medium SES respondents were relatively evenly split between metropolitan (49%) and regional areas (51%).

Given the high correlation between the socio-economic and regional/metropolitan statuses of respondents, it is likely we will observe similar differences in the response patterns when splitting the data by these two variables.

Knowledge of self and future work/study plans

Respondents were asked to indicate the extent to which they agreed or disagreed with three statements regarding their knowledge of themselves and their future work/study plans. As indicated below, there was little variation in the response rates of those who agreed with each statement on the basis of SES:

- I have a good understanding of the kinds of work/career opportunities that currently exist in the world and are available to me (73% for low SES v. 74% for medium SES v. 73% for high SES);
- I have a clear idea of the kind of work/career I want to pursue (62% for low SES v. 61% for medium SES v. 58% for high SES);
- I have a good sense of the steps I need to take in order to do the kind of work I would like to do in the future (61% for low SES v. 62% for medium SES v. 65% for high SES);

Likewise, when we split the responses by region, we found little difference in the agreement rates with each of the three statements for metropolitan and regional respondents (i.e. less than 4%).

² Note that the distribution of our survey sample is skewed towards low SES areas when compared to the distribution of Australia's population as a whole. Again, this is as expected, since we mainly recruited schools in low SES areas to the survey.

Intention to pursue further study after school

Respondents from high SES areas were considerably more likely than those from medium and low SES areas to indicate they intended to pursue further study after finishing school (80% for high SES v. 74% for medium SES v. 69% for low SES). Low SES respondents were more likely than medium and high SES respondents to indicate they were unsure whether or not they would pursue further study after finishing school (24% for low SES v. 20% for medium SES v. 18% for high SES). Low SES respondents were also more likely than medium and high SES respondents were also more likely than medium and high SES respondents to indicate they did not intend to pursue further study after finishing school (7% for low SES v. 2% for medium SES v. 2% for high SES).

Similarly, respondents from metropolitan areas were more likely than regional respondents to indicate they intended to pursue further study after finishing school (83% metropolitan v. 67% regional), while regional respondents were more likely than metropolitan respondents to indicate they were unsure whether or not they would pursue further study after finishing school (26% for regional v. 15% for metropolitan). Regional respondents were also more likely than metropolitan respondents to indicate they did not intend to pursue further study after finishing school (7% for regional v. 3% for metropolitan).

Perspectives of those not intending to pursue further study after school

Who provided assistance to those not intending to pursue further study?

Respondents not intending to pursue further study after school were asked who had helped them to decide what to do after school. Of the 62 responses received, 61% of respondents selected "no one – I made the decision myself". The next highest response rate was for "parents/guardians" (34%), followed by friends (19%), teachers (15%), other family members (11%), and careers advisers (8%).

While the numbers varied, the breakdown analyses for respondents from low and medium SES areas followed similar trajectories as the overall response rates. However, respondents from medium SES areas were more likely than those from low SES areas to answer "no one – I made the decision myself" in relation to this question (69% for medium SES v. 47% for low SES). Respondents from medium SES areas were also more likely than those from low SES areas to indicate that "other family members" had assisted them (14% for medium SES v. 8% for low SES). By contrast, those from low SES areas were more likely than those from medium SES areas to highlight the role of parents/guardians. Below are the comparative responses on which people had helped the students to decide what to do after school:

- parents/guardians (47% for low SES v. 25% for medium SES);
- friends (31% for low SES v. 22% for medium SES);
- teachers (17% for low SES v. 14% for medium SES); and,
- careers advisers (14% for low SES v. 6% for medium SES).

(Note that there were only three respondents from high SES areas to this question, and all of lower participation rates in tertiary education of three selected "no one – I made the decision myself".)

The same pattern of differences was observed between regional and metropolitan responses to this question, with "no one – I made the decision myself" receiving the highest response rate from both classes of respondent, followed by parents/guardians, then friends, then teachers, other family members and careers advisers. However, while metropolitan respondents were more likely than regional respondents to indicate "no one – I made the decision myself" (78% for metropolitan v. 54% for regional), regional respondents were more likely than those from metropolitan areas to indicate they had received assistance from all other parties.

Post-school plans

Respondents not intending to pursue further study after school were asked what they planned to do instead. Of the 63 responses received, only two were from high SES areas, so these were excluded from the SES comparison for this question. Meanwhile, considerable differences were observed between the response rates of those from low and medium SES areas. While "work" was the most common response received for both of these groups, low SES respondents were more likely to answer "work" than medium SES respondents (57% for low SES v. 39% for medium SES). By contrast, medium SES respondents were more likely than low SES respondents to answer "travel" (21% for medium SES v. 9% for low SES).

Splitting the data by region, we found that both regional and metropolitan respondents were most likely to answer "work" in response to this question, with regional respondents considerably more likely than metropolitan respondents to indicate such (52% for regional v. 41% for metropolitan). Travel was selected by a higher proportion of metropolitan than regional respondents (24% for metropolitan v. 12% for regional).

Main advantage of going straight into work after finishing school

Respondents who indicated they planned to go straight into work after finishing school were asked what they saw as the main advantage of this. Of the 56 open text responses received, more than 60% of respondents cited financial reasons, while approximately 15% of respondents provided answers related to getting an early start to their life, for example, "going to TAFE and other after school areas take a lot of time and money, when what I want to do could be started right away" and "to get started early".

What might have helped/encouraged such students to pursue further study?

Respondents not intending to pursue further study were asked what, if anything, might have helped/encouraged them to pursue further study after school. Of the 43 open text responses received, 30% advised that nothing would have helped/encouraged them to pursue further study after school. Another 20% mentioned people as part of their response, including parents and teachers. More than 10% mentioned that a monetary incentive might have helped, and another 10% were not sure what might have helped/encouraged them to pursue further study.

Perspectives of those intending to pursue further study after school

Institution type

Respondents intending to pursue further study after school were asked which type(s) of institutions they intended to apply to. Of the 589 responses received, a large majority (86%) indicated they intended to apply for university, with the second highest response rate being for TAFE (15%). Respondents from high SES areas were more likely than those from medium and low SES areas to indicate they intended to apply to university (94% for high SES v. 87% for medium SES v. 84% for low SES), while those from low SES areas were more likely than those from medium and high SES areas to indicate they intended to apply to TAFE (18% for low SES v. 15% for medium SES v. 6% for high SES). A small minority for each SES group indicated they intended to apply to private providers (2% for low SES v. 1% for medium SES v. 4% for high SES).

Splitting the data by region, respondents from metropolitan areas were more likely than those from regional areas to indicate they intended to apply for university (96% for metropolitan v. 80% for regional), and less likely to indicate they intended to apply to TAFE (7% for metropolitan v. 21% for regional).

Who provided assistance for those intending to pursue further study

Respondents intending to pursue further study after school were asked who had helped them to decide what to study after finishing school. Of the 581 responses received, the largest proportion of respondents selected "no one – I made the decision myself" (51%), followed by "parents/guardians" (49%), then "teacher(s)" (26%), "friends" (22%), "other family members" (20%), and "careers adviser(s)" (11%). The breakdown analyses for low and medium SES respondents followed a similar pattern. By contrast, high SES respondents were most likely to indicate that "parents/guardians" (54%) had helped them decide what to study after finishing school (as compared to 49% of medium SES respondents and 46% of low SES respondents). High SES respondents were also more likely than medium SES and low SES respondents to indicate that "other family members" had assisted them (23% for high SES v. 22% for medium SES v. 17% for low SES). Meanwhile, low SES respondents were more likely than medium or high SES respondents to have been influenced by teachers, careers advisers, or nobody:

- No one (55% for low SES v. 50% for medium SES v. 48% for high SES);
- Teachers (29% for low SES v. 25% for medium SES v. 23% for high SES); or,
- Careers adviser(s) (13% for low SES v. 11% for medium SES v. 8% for high SES);

Similar differences were observed when splitting the data by region, with metropolitan respondents most likely to indicate they had received assistance from their "parents/guardians" (53%, as compared to 45% for regional respondents). Meanwhile, regional respondents were most likely to indicate they had made the decision themselves (55% as compared to 47% for metropolitan respondents). Regional respondents were also more likely than those from metropolitan areas to

indicate they had received assistance from "teachers" and "careers advisers", while metropolitan respondents were more likely than regional respondents to indicate they had received advice from "friends" and "other family members".

Awareness of VTAC/UAC application processes

Respondents intending to pursue further study were asked whether they were aware they could apply for most courses through their state Tertiary Admissions Centre (TAC). Only 52% of respondents indicated they were aware of this, with 26% indicating they weren't sure, and 22% indicating they were not aware. Respondents from low SES areas were less likely than those from medium or high SES areas to indicate they were aware of this possibility (49% for low SES v. 54% for medium SES v. 58% for high SES). Respondents from regional areas were also less likely than those from metropolitan areas to indicate this awareness (45% for regional v. 61% for metropolitan).

Respondents intending to apply for further study were asked whether they knew how to apply for their preferred course(s) through their state TAC. Only 17% of respondents answered "yes" to this question, while 59% indicated they did not know, and 25% indicated they were unsure. Interestingly, respondents from medium SES areas were the most likely to answer "yes" in response to this question, at 20%, as compared to 15% of high SES and 13% of low SES respondents. Regional respondents were less likely than metropolitan respondents to answer "yes" to this question (14% as compared to 19% respectively).

Respondents intending to apply for further study were asked whether they intended to apply for their preferred courses(s) through their state tertiary admissions centre (VTAC/UAC). Only 32% of respondents answered "yes" to this question, with 9% indicating "no" and 59% indicating "not sure". Those from high SES areas were more likely to answer "yes" to this question than those from medium or low SES areas (40% for high SES v. 34% for medium SES v. 26% for low SES). Respondents from metropolitan areas were also more likely than those from regional areas to answer "yes" to this question (43% for metropolitan v. 23% for regional), whereas those from regional areas were more likely to indicate they were unsure (66% for regional v. 50% for metropolitan).

Respondents intending to apply for further study were asked whether they understood how the TAC preferencing system worked. Only 14% of respondents answered "yes" to this question, with 62% indicating "no" and 24% indicating they were "not sure". Respondents from medium SES areas were more likely than those from high and low SES areas to answer "yes" in relation to this question (17% for medium SES v. 15% for high SES v. 11% for low SES), while respondents from high SES areas were more likely than those from medium or low SES areas to answer "no" (69% for high SES v. 59% for medium SES v. 61% for low SES). Respondents from low SES areas were more likely than those from medium or low SES areas were unsure (28% for low SES v. 25% for medium SES v. 16% for high SES). Respondents from low SES areas were also more likely than those from regional areas to indicate they were unsure (28% for low SES v. 25% for medium SES v. 16% for high SES). Respondents from the TAC preferencing system worked (43% for metropolitan v. 23% for regional), while respondents from regional areas were more likely than those from metropolitan areas to indicate they were unsure (66% for regional v. 50% for metropolitan areas to indicate they were unsure (66% for regional v. 50% for metropolitan).

Influence of subject weighting on Year 12 subject selection

Respondents were asked to what extent the "weight given in the Australian Tertiary Admission Rank (ATAR) calculation" had impacted on their Year 12 subject selection (or was likely to impact their subject selection if Year 12 subjects had not yet been finalised). Responses to this question varied considerably depending on the SES of a respondent's postcode. High SES respondents were more likely than medium or low SES respondents to indicate that the weight given in the Australian Tertiary Admission Rank (ATAR) calculation had influenced their subject selection either "only a little" or "not at all" (48% for high SES v. 33% for medium SES v. 35% for low SES), while medium SES respondents were more likely than low or high SES respondents to indicate this had influenced their Year 12 subject selection either "quite a lot" or "a great deal" (35% for medium SES v. 30% for low SES v. 24% for high SES).

Responses to this component of the question also varied by remoteness of respondent, with metropolitan respondents more likely than regional respondents to indicate that the weight given in the ATAR calculation had influenced their Year 12 subject selection either "a great deal" or "quite a lot" (39% for metropolitan v. 25% for regional).

Influence of careers advisers and teachers on Year 12 subject selection

Respondents were asked to what extent careers advisers and teachers had influenced their Year 12 subject selection (or were likely to influence their subject selection if Year 12 subjects had not yet been finalised). Respondents from low SES areas were considerably more likely than those from medium and high SES areas to indicate that careers advisers had influenced their Year 12 subject selection "somewhat", "quite a lot" or "a great deal" (47% for low SES v. 41% for medium SES v. 32% for high SES). Respondents from low SES areas were also more likely than those from medium and high SES areas to indicate that teachers had influenced their Year 12 subject selection either "somewhat", "quite a lot" or "a great deal" (62% for low SES v. 51% for medium SES v. 39% for high SES). By contrast, respondents from high SES areas were more likely than those from low or medium SES areas to indicate that careers advisers had influenced their Year 12 subject selection "only a little" or "not at all" (68% for high SES v. 61% for medium SES v. 53% for low SES). Similarly for teachers, with 60% of high SES students indicating that teachers had influenced their Year 12 subject selection "only a little" or "not at all", as compared to 48% for medium SES and 38% for low SES.

There were also variations in response rates depending on a respondent's metropolitan or regional status, with regional respondents more likely than metropolitan respondents to indicate that careers advisers had influenced their Year 12 subject selection either "somewhat", "quite a lot" or "a great deal" (57% for regional v. 35% for metropolitan). Regional respondents were also more likely than metropolitan respondents to indicate that teachers had influenced their Year 12 subject selection "quite a lot" or "a great deal" (62% for regional v. 44% for metropolitan). Meanwhile, metropolitan respondents were more likely than regional respondents to indicate that careers advisers had influenced their Year 12 subject selection "only a little" or "not at all" (65% for metropolitan v. 53% for regional). So too for teachers, with 56% of metropolitan respondents indicating they had

influenced their Year 12 subject selection "only a little" or "not at all", as compared to 38% of regional respondents indicating the same.

School/principal recommendation schemes

Respondents intending to pursue further study after school were asked whether or not they were aware that some higher education providers offer school/principal recommendation schemes. Of the 577 respondents to this question, only 34% indicated they were aware of such schemes. This is disconcerting given that almost all the schools in which the survey was administered would have such schemes. After splitting the data by SES, however, we found that those from low SES areas were more likely than those from medium or high SES areas to indicate they were aware of such schemes (37% for low SES v. 36% for medium SES v. 25% for high SES). Regional respondents were also more likely than metropolitan respondents to indicate they were aware of such schemes (41% for regional v. 27% for metropolitan).

Respondents were asked whether or not they were aware of any higher education providers that run school/principal recommendation schemes relevant to their school. Of the 574 respondents, 51% indicated they were unaware of any such schemes run at their school. However, respondents from low SES areas were more likely than those from medium and high SES areas to indicate they were aware of any such schemes run at their school (20% for low SES v. 18% for medium SES v. 11% for high SES), and less likely to indicate they were unaware of any such schemes run at their school (48% for low SES v. 49% for medium SES v. 67% for high SES). Respondents from regional areas were also more likely than those from metropolitan areas to indicate an awareness of any such schemes relevant to their school (21% for regional v. 15% for metropolitan), and less likely to indicate they were unaware of any such schemes relevant to their school (48% for regional v. 54% for metropolitan).

Respondents who indicated they were aware of any school/principal recommendation schemes run at their school were asked how they found out about the schemes. Of the 94 responses received, the highest response rate was for teacher(s), at 54%, followed by careers advisers (30%), friends (27%), parents/guardians (18%), websites/internet/social media (18%), school principals (11%) and "other" (3%). Splitting the data by SES, we found that low, medium and high SES respondents were most likely to indicate they found out about the schemes from teachers (55% for low SES v. 55% for medium SES v. 44% for high SES). The next highest response rate for low SES respondents was "careers advisers" (33%), whereas for medium and high SES respondents the second highest response rate received was for friends (29% for medium SES v. 44% for high SES). The third highest response rate received was for "friends" for low SES respondents (15%) and "careers advisers" for medium and high SES respondents (27% and 22% respectively).

For both regional and metropolitan respondents, "teacher(s)" received the highest response in relation to this question, with regional respondents more likely than metropolitan respondents to indicate such (59% for regional v. 47% for metropolitan). Regional respondents were also more likely than metropolitan respondents to indicate they had found out about the schemes from "careers adviser(s)" (33% for regional v. 21% for metropolitan). Meanwhile, metropolitan respondents were

more likely than regional respondents to indicate they had found out about the schemes from "parents/guardians" (24% for metropolitan v. 13% from regional).

Respondents who indicated they were aware of any school/principal recommendation schemes relevant to their school were then asked whether or not they intended to apply for any school/principal recommendation schemes. Of the 96 responses received, only 36% indicated they intended to apply to a school/principal recommendation scheme. Respondents from medium SES areas were more likely than low SES or high SES respondents to indicate an intention to apply for such (40% for medium SES v. 35% for low SES v. 30% for high SES). Low SES respondents were more likely than those from medium and high SES areas to indicate they were unsure whether or not they would apply for any such schemes (41% for low v. 27% for medium v. 40% for high SES). Regional respondents were more likely than metropolitan respondents to indicate they did intend to apply for such a scheme (38% for regional v. 34% for metropolitan), and were less likely to indicate they did not intend to apply for such a scheme (26% for regional v. 37% for metropolitan).

Special Entry Access Scheme (SEAS) and Educational Access Scheme (EAS)

Respondents from Victoria intending to pursue further study after school were asked whether they were aware of the Special Entry Access Scheme (SEAS). Those from NSW were asked if they were aware of the Educational Access Scheme (EAS). Of the 564 respondents to this question, only 18% indicated they were aware of SEAS/EAS, with 63% indicating they were not aware of SEAS/EAS, and 19% indicating they were unsure whether they were aware of SEAS/EAS or not. Respondents from low SES areas were less likely than those from medium and high SES areas to indicate they were aware of SEAS/EAS (16% for low SES v. 19% for medium SES v. 20% for high SES). Regional respondents were also less likely than those from metropolitan areas to indicate they were aware of SEAS/EAS (12% regional v. 26% metropolitan). This lack of awareness is particularly problematic given many regional students would be eligible for compensation through the schemes.

Respondents intending to pursue further study after school were asked whether they intended to apply for SEAS/EAS. Of the 558 respondents, only 12% indicated they did intend to apply for SEAS/EAS, with 30% indicating they didn't intend to apply for SEAS/EAS and 58% indicating they were undecided. Low SES respondents were more likely than those from medium or high SES areas to indicate they intended to apply for SEAS/EAS (16% for low SES v. 12% for medium SES v. 6% for high SES). Regional respondents were also more likely than those from metropolitan areas to indicate such (38% regional v. 34% metropolitan).

Access and equity scholarships

Respondents intending to pursue further study after school were asked whether they were aware of access and equity scholarships. Of the 563 respondents, 34% indicated they were aware of such scholarships, 40% indicated they weren't, and 26% said they were unsure. Respondents from medium SES were more likely than those from low and high SES areas to indicate they were aware of access and equity scholarships (37% for medium SES v. 34% for low SES v. 27% for high SES).

Metropolitan respondents were also more likely than those from regional areas to indicate an awareness of access and equity scholarships (37% metropolitan v. 32% regional).

Respondents intending to pursue further study were asked whether they intended to apply for any access and equity scholarships. Of the 562 respondents to this question, 19% indicated they did intend to apply for such scholarships, 25% indicated they did not, and 57% indicated they were unsure. Respondents from low SES areas were more likely than those from medium or high SES areas to indicate they intended to apply for an access and equity scholarship (27% for low SES v. 18% for medium SES v. 4% for high SES). Regional respondents were also more likely than those from metropolitan areas to indicate that they intended to apply for an access and equity scholarship (23% regional v. 15% metropolitan).

Respondents intending to pursue further study after school who indicated they did intend to apply for access and equity scholarships were asked if they would still take up an offer of a place of study even if they were not offered a scholarship. Of the 106 respondents, 78% indicated they would take up the offer of a place even if they were not offered a scholarship, 6% said they wouldn't, and 16% indicated they were unsure. Only three students from high SES areas responded to this question, with one indicating yes, they would still take up an offer of a place, one indicating no, they wouldn't, and one indicating they were unsure, while respondents from medium and low SES areas were similarly likely to indicate they would take up an offer of a place even if not offered a scholarship (78% for medium SES v. 79% for low SES). Regional respondents were more likely than those from metropolitan areas to indicate they would still take up an offer of a place even if not offered a scholarship (81% regional v. 71% metropolitan).

How to make it easier to find out about courses

Respondents intending to pursue further study after school were asked what would make it easier for them to find out about the course/s they are interested in and how best to apply for them. A total of 445 open text responses were received. A common theme amongst respondents included the suggestion that schools could be doing more to aid the transition process, for example, by having "school sessions aimed at making all aspects of transitioning to higher education as clear as possible, from an earlier year level". Respondents also suggested schools could be providing more "guidance from teachers who specialise in [particular] subjects" as well as facilitating more contact with and visits to/from tertiary education providers. Another common theme to emerge was that students could become more self-aware and proactive about making use of the resources that are available to them, including websites, careers advisers, etc. A number of students also indicated that tertiary education providers could be doing more, including "clearly showing the prerequisites and minimum ATARs" for specific courses and making "websites [are] clearer and less fiddly to use". Others requested more centralised information, for example "resources containing all design courses in one place rather than having to look at each university". One student requested:

"... an outline that describes exactly what I am eligible to apply for and how I can apply. I would also like some sort of booklet or pamphlet that explains to both me and my parents what is to happen after Year 12."

Many of these suggestions offered by Year 11 survey respondents echo those offered by schoolbased careers advisers (see section 8).

Further comments about post-school study plans

Respondents intending to pursue further study after school were asked to make any further comments in relation to their post-school study plans. A total of 124 open text responses were received. A number of students mentioned finances in their response, for example:

- "Although I am not a person in a position of significant hardship the cost associated with various degrees is playing a major role in my choices for future study";
- "I would like to know more about the scholarship system as it encourages me to apply for what I'm eligible"; and,
- "Hope to gain early entry and defer a year to have a gap year and earn money".

A number of others indicated that the process of completing the survey had helped them realise how much they didn't know:

- "I have just realised that I know nothing about getting into my course"; and
- "I have never heard of EAS or UAC and I don't know how to get a school/principal recommendation I have just heard of it".

Perspectives of those unsure of whether or not they will pursue further study

Respondents who indicated they were unsure of whether or not they would pursue further study were asked how likely they were to eventually return to study after finishing school. Of the 172 respondents, 43% indicated they were likely to return to study, 42% maintained a neutral position, and 15% indicated they were unlikely to return to study. Respondents from high SES areas were far more likely than those from medium or low SES areas to indicate they were likely to return to study after finishing school (70% for high SES v. 50% for medium SES v. 29% for low SES). Metropolitan respondents were almost twice as likely as those from regional areas to indicate they were likely to return to study after finishing school (65% metropolitan v. 34% regional).

Post-school plans

Respondents who indicated they were unsure whether or not they would eventually return to study were asked what they planned to do immediately after finishing school. Of the 126 responses received, 44% indicated they intended to work, 25% advised they were unsure, 21% said they intended to travel and 2% indicated they had caring or family duties to attend to. A further 7% indicated "other", but there was not a pattern to the text responses that accompanied this response.

Length of time before returning to study

Respondents who indicated they were unsure whether or not they would pursue further study were asked how long they thought it might be before they did eventually return to study after finishing

school. Of the 157 responses received, 57% selected "1-3 years", followed by "not sure" with 31%. Respondents from high SES areas were more likely than those from medium and low SES areas to think they would return to study within 1-3 years (76% for high SES v. 63% for medium SES v. 50% for low SES). Respondents from low SES areas were more likely than those from medium and high SES areas to indicate they were unsure about the length of time before they might return to study (38% for low SES v. 29% for medium SES v. 12% for high SES). Similarly, metropolitan respondents were more likely than those from regional areas to think they would return to study within 1-3 years (71% metropolitan v. 54% regional), while regional respondents were twice as likely as metropolitan v. 18% metropolitan).

Who provided assistance to those not sure if they would pursue further study?

Respondents who indicated they were unsure whether or not they would eventually return to study were asked who had helped them to decide what to do immediately after finishing school. Of the 158 responses received, 61% of respondents selected "no one – I made the decision myself". The next highest response rate was for "parents/guardians" (32%), followed by friends (19%), other family members (12%), teachers (9%), and careers advisers (7%). The breakdown analyses for low, medium and high SES respondents followed similar – though not identical in the case of high SES respondents – trajectories:

- No one (52% for low SES v. 66% for medium SES v. 84% for high SES);
- Parents/guardians (38% for low SES v. 31% for medium SES v. 16% for high SES);
- Friends (21% for low SES v. 19% for medium SES v. 16% for high SES);
- Other family members (14% for low SES v. 13% for medium SES v. 5% for high SES);
- Teachers (12% for low SES v. 6% for medium SES v. 11% for high SES); and,
- Careers advisers (9% for low SES v. 4% for medium SES v. 5% for high SES).

Particularly noteworthy is the fact that high SES respondents were more likely than medium or low SES respondents to indicate "no-one – I made the decision myself", while low SES respondents provided higher response levels than medium and high SES respondents for all other people/groups.

Similar patterns and differences were observed when splitting the data by region. While both metropolitan and regional respondents were most likely to indicate that "no one" had helped them decide what to do after school, metropolitan respondents were more likely than regional respondents to indicate this (83% metropolitan v. 53% regional). Meanwhile, regional respondents provided higher response levels than metropolitan respondents for all other people/groups.

Implications – Section 5. Survey of Year 11 Students

Surveys reveal that many students remain confused and/or uninformed about tertiary application processes, including school recommendation schemes, the role of the TACs, and the importance and nature of educational access schemes and scholarships. Related research reveals that low SES students are less adept at navigating the university application system in Victoria (Cardak et al. 2015), confirming that confusion identified among year 11 students is not necessarily addressed in the final year of high school. Confusion was highest among regional and low SES students, groups who were also the least certain of their post-school destinations. These results highlight the difficulty students have in navigating the complexity of the tertiary admissions landscape. There is a need for further information to be provided in school years, and for universities, departments of education, schools and tertiary admissions centres to collaborate on the development of clear information and advice about careers and tertiary pathways. Such advice needs to be tailored to parents and guardians as well, as their role in shaping student post-secondary preferences is clear.

Australia's demand driven funding system is predicated on assumptions that social and economic needs for skills and knowledge are best addressed by market based allocation mechanisms. Where awareness of tertiary admissions processes is sub-optimal, there are likely to be mismatches between individual capabilities, interests and potential and subsequent participation in higher education with consequences of the efficiency of the demand driven funding system. Mitigating this outcome will involve interventions targeting Australia's schools systems and university admissions and outreach practices.

Results also underline that school staff play a significant role in the subject and career decisionmaking of students, particularly low SES and regional students intending to pursue further study. These findings underline the need for teachers and advisers to be well informed about postsecondary career and tertiary application issues. Low SES and regional students in particular could also benefit from more advice about what to do next and, importantly, how.

6. Survey of First Year University Students

Major findings

- Recent school leavers, together with those from high SES and metropolitan areas, were
 most likely to indicate they understood how the Tertiary Admissions Centre (TAC)
 preferencing system worked. Consistent with other research, students with access to
 relevant support and information about tertiary admissions practice are better placed to
 navigate the system and make decisions that optimise their outcomes. Key decisions
 pre-date the submission of applications to higher education and include strategic
 approaches to Year 12 subject selection.
- First year students from low SES and regional areas were least likely to be aware that different subjects are differently weighted when calculating the ATAR. However, of those who were aware, low SES and regional respondents were more likely to factor this into their Year 12 subject choices.
- First year students from low SES and regional areas were the most likely to indicate that they were aware of school/principal recommendation schemes, that they had applied for such a scheme, and that their current enrolment was the result of a successful application through such a scheme.
- Mature age students were quite likely to indicate an awareness of direct application processes and to have utilised them. However, mature age students were less likely to be confident that the local TAC application process was applicable to them. Of those who were aware that the TAC application process was open to them, many found it less user-friendly and/or less appropriate to their needs than the direct application process. Mature age students were also much less likely than recent school leavers to indicate an awareness of the Special Entry Access Scheme (SEAS) or the Educational Access Scheme (EAS) and to apply for the scheme.
- First year students from low SES and regional areas were the least likely to indicate an awareness of SEAS/EAS. Of those who were aware, however, first year students from low SES and regional areas were the most likely to apply. These groups were also the most likely to be aware of, apply for, and be awarded an access and equity scholarship at the two institutions studied here.
- First year students from low SES and regional areas were the least likely to indicate that, at the time of applying, they had either a "good" or "very good" knowledge/understanding of the various courses and institutions on offer, which course(s) would be best for them, and how to apply.
- Recent school leavers from low SES and regional areas were the least likely to indicate that family members had assisted them either "quite a lot" or "a great deal" in applying for their course of study, and more likely to indicate that teachers and/or careers advisers had assisted them "quite a lot" or "a great deal.

Introduction

To capture current first year students' experiences of applying for university, an online survey of commencing domestic undergraduate students at two Australian universities was run over a period of three weeks in September 2015. All commencing domestic undergraduate students at both institutions were invited by personalised email to participate in the survey.

The online survey asked students about their experience of selecting and applying for courses and institutions of tertiary study. We received a total of 2,198 responses – 1297 from University A and 901 from University B, representing an 18% and 17% response rate for students from the respective institutions, and an 18% response rate overall.

Geo-demographics

We collected data on the geo-demographic variables of gender, year of completion of secondary school, and equity status of respondent. We also collected data on the postcode of the town/suburb where a respondent was currently living, and we used this to classify a respondent as having a low, medium or high socio-economic status (SES) according to the Australian Bureau of Statistics' (ABS) Socio-Economic Indexes for Areas (Australian Bureau of Statistics 2011b). We also used the postcode of where a respondent was currently living to classify the remoteness of each respondent (i.e. metropolitan or regional) according to the Australian Bureau of Statistics' (ABS) Australian Statistical Geographical Standard (ASGS) Remoteness Structure (Australian Bureau of Statistics 2011a).

Differences in response rates based on these variables were statistically analysed. However, only analyses based on the last two variables – SES of student (based on postcode of the town/suburb they had lived the majority of their life) and remoteness of student (based on postcode of the town/suburb they had lived the majority of their life) – have been integrated into this report. At times, the analysis also looks at differences between recent school leavers (2012-2014) and mature age students. Key features of the survey sample based on the other variables include:

- 77% of respondents indicated they were female and 23% male;
- 92% of respondents indicated they completed secondary school, 8% indicated they did not;
- 57% indicated they were recent school leavers (2012-2014), 43% indicated they were not;
- 97% of respondents indicated they had lived the majority of their life in Australia;³
- 19% of respondents indicated they were currently living in a postcode classed as high SES, 55% in a postcode classed as medium SES, and 26% in a low SES postcode;⁴
- 55% of respondents were currently living in a metropolitan area, 44% in a regional area, and 1% in a remote area;⁵
- 16% of respondents indicated they identified with at least one of the following equity groups:

³ This is as expected since the survey specifically targeted commencing domestic undergraduate students. ⁴ Note that the distribution of our survey sample is skewed towards low SES areas when compared to the distribution of Australia's population as a whole.

⁵ Note that, for simplification purposes, the responses of those who had lived the majority of their life in a remote area were incorporated with the responses of those who had lived the majority of their life in a regional area.

- > 8% of respondents indicated they were from a non-English speaking background;
- 6% identified with having a disability, serious medical condition or other impairment;
- > 1.9% identified as being of Aboriginal and/or Torres Strait Islander descent;
- > 0.9% identified with being or having been in out-of-home care or foster care; and,
- > 0.4% identified with being a refugee or on a humanitarian visa;
- Respondents from low, medium and high SES postcodes were similarly likely to identify with one of the equity groups noted above (15% for low SES v. 14% for medium SES v. 17% for high SES);
- Respondents from metropolitan areas were more likely than those from regional areas to identify with one of the equity groups noted above (18% metropolitan v. 11% regional); and,
- 95% of high SES respondents were from metropolitan areas, while the majority of low SES respondents (66%) were from regional areas. Medium SES respondents were relatively evenly split between metropolitan (51%) and regional areas (49%).

Given the high correlation between the socio-economic and regional/metropolitan statuses of respondents, it is likely we will observe similar differences in the response patterns when splitting the data by these two variables.

It is also worth noting here that mature age respondents were more likely than recent school leavers to be from high SES areas (24% as compared to 15%), and less likely to be from medium SES areas (50% as compared to 58%), while respondents from the two groups were similarly likely to be from low SES areas (26% as compared to 27%). Mature age respondents were also more likely than recent school leavers to be from metropolitan areas (59% as compared to 51%) and less likely to be from regional areas (40% as compared to 48%).

Victorian Tertiary Admissions Centre (VTAC)/Universities Admissions Centre (UAC)

Only 57% of respondents indicated they had applied for their current course of study through their local tertiary admissions centre (TAC), with 36% indicating they did not apply through their local TAC, and 7% indicating they were unsure. Those from medium SES areas were more likely than those from low and high SES postcodes to indicate that they had applied through the TAC (59% for medium SES v. 57% for low SES v. 51% for high SES). Meanwhile, respondents from regional areas were only slightly more likely than those from metropolitan areas to indicate they had applied through the TAC (58% regional v. 56% metropolitan). The main difference in response rates here was between recent school leavers (2012-2014) and mature age students, with 83% of the former indicating they had applied through the local TAC, as compared to 27% of the latter.

Respondents who answered "no" or "not sure" to whether they had applied through their local TAC were asked whether, at the time of applying, they were aware of the TAC application process. Only 53% indicated they were aware of the TAC application process, with respondents from low SES areas more likely to indicate this (60% low SES v. 54% medium SES v. 53% high SES). Meanwhile, there was little difference in the proportion of regional and metropolitan respondents indicating they were aware of the TAC application process (54% for regional v. 56% for metropolitan). Again, the main

difference here was between recent school leavers and mature age students, with 71% of recent school leavers who did not apply for their current course through the local TAC indicating that they were aware of the TAC application process, as compared to 52% of mature age students.

Respondents who indicated they either applied for their current course of study through the local TAC or who indicated they were aware of the TAC application process were asked whether, at the time of applying, they understood how the TAC preferencing system worked. 74% of respondents indicated they did understand how the TAC preferencing system worked, with those from high SES areas slightly more likely than those from medium and low SES areas to indicate such (77% for high SES v. 76% for medium SES v. 73% for low SES). Those from metropolitan areas were also more likely to indicate this (78% metropolitan v. 73% regional), as were recent school leavers (82% as compared to 65% of mature age students).

Thus, recent school leavers and those from medium and low SES areas were more likely than mature age students and those from high SES areas to be aware of the TAC application process and to have applied for their current course of study through the local TAC. Meanwhile, recent school leavers, and those from high SES and metropolitan areas were more likely than mature age students, those from medium and low SES areas, and those from regional areas to indicate they understood how the TAC preferencing system worked.

ATAR and subject selection

Respondents who indicated they completed secondary school between 2010 and 2014 inclusive were asked whether they were aware that different subjects would be differently weighted when calculating their ATAR (Australian Tertiary Admissions Rank). Of the 1,252 responses received, 81% indicated they were aware of this. This varied considerably by SES of the respondent, with low SES respondents less likely to indicate they were aware of this (76% for low SES v. 82% for medium SES v. 89% for high SES). Regional respondents were also less likely than metropolitan respondents to indicate they were aware of this (76% regional v. 86% metropolitan). Recent school leavers (2012-2014) were also more likely to indicate this than those who had completed school in the years 2010-2011 (83% recent school leavers v. 71% mature age students).

Those who indicated they were aware that different subjects would be weighted differently when calculating the ATAR were asked to what extent this knowledge had influenced their Year 12 subject selection. A total of 37% of respondents answered "somewhat", "quite a lot" or "greatly", with low SES respondents more likely than those from medium and high SES areas more likely to indicate one of these answers (40% for low SES v. 36% for medium SES v. 36% for high SES). Regional respondents were also more likely than those from metropolitan areas to indicate one of these answers (40% regional v. 35% metropolitan).

Thus, while low SES and regional respondents were less likely to be aware of subject weightings when calculating the ATAR, of those who were aware, low SES and regional respondents were more likely to factor this into their Year 12 subject choices. Further, there is some evidence that the level of awareness of subject weightings is increasing, with recent school leavers more likely to indicate an awareness of this than those who completed school in the years 2010-2011.

School/principal recommendation schemes

Respondents who indicated they completed secondary school between 2010 and 2014 inclusive were asked whether, at the time of applying for tertiary study, they were aware of any school/principal recommendation schemes relevant to their school. Of the 1,092 respondents, only 34% indicated they were aware of any school/principal recommendation schemes relevant to their school. Low SES respondents were more likely to answer yes to this question (45% low SES v. 33% medium SES v. 22% high SES), as were regional respondents (44% regional v. 25% metropolitan).

Those who indicated they were aware of school/principal recommendation schemes relevant to their school at the time of applying for tertiary study were asked whether they had applied for any school/principal recommendation schemes. Of the 368 responses received, 48% indicated they had applied to a school/principal recommendation scheme, with those from low SES (63% low SES v. 45% medium SES v. 22% high SES) and regional areas (55% regional v. 40% metropolitan) more likely to indicate such.

Those who indicated they did apply to a school/principal recommendation scheme were asked whether their current enrolment was the result of a successful application through such a scheme. Of the 178 responses received, 66% indicated that their current enrolment was the result of a successful application through a school/principal recommendation scheme, with those from low SES (73% low SES v. 58% medium SES v. 57% high SES) and regional (72% regional v. 49% metropolitan) areas more likely to indicate this.

This suggests that school/principal recommendation schemes may be working in assisting those from low SES and regional areas to gain entry to university study at the two institutions represented here, as it was those from low SES and regional areas who were most likely to indicate that they were aware of such schemes, that they had applied for such a scheme, and that their current enrolment was the result of a successful application through such a scheme.

Direct applications outside of the Tertiary Admissions Centre (TAC) process

Respondents who indicated they completed secondary school prior to 2012 were asked whether, at the time of applying, they were aware that many higher education institutions (also) have direct application processes (i.e. outside the Tertiary Admissions Centre system). Of the 807 responses received, 65% indicated they were aware that many higher education institutions had direct application processes. This did not vary greatly by SES (66% for low SES v. 67% for medium SES v. 64% for high SES) or remoteness (67% for metropolitan v. 65% for regional) of respondent.

Those who indicated they were aware of direct application processes were asked whether they had applied for any higher education institution(s) directly (i.e. instead of or as well as through the Tertiary Admissions Centre). Of the 519 responses received, 73% indicated they had applied to a higher education institution directly. Again, this did not vary greatly by SES or remoteness of respondent.

Those who indicated they did apply to a higher education institution directly were asked why they had decided to do so. A total of 364 responses open text responses were received:

- More than a third mentioned they were a mature age student, and many of those indicated that, since they were mature age, they thought the TAC application process did not apply to them. Others advised they already had a degree, so they thought a direct application was more suitable;
- Approximately 20% of respondents stated that it was easier (frequently using that term) to apply directly, and a few directly criticised the TAC application process as "a terrible system to use" or a "slow and painful system". Some indicated the TAC application process did not appear to cater for their circumstances, e.g. the system did not enable them to supply the information they needed to;
- Approximately 10% of respondents advised that they thought direct application was the required method of application, and some mentioned that the university website had directed them to that process;
- Timing was a common theme, with approximately 5% of respondents advising that direct application was required because of a mid-year or trimester three intake. A further 2% advised they applied directly due to the lateness of their application; and,
- Approximately 5% mentioned the cost of the VTAC/UAC application process was a contributing factor to why they applied directly to the university.

Those who indicated they applied to a higher education institution directly were asked whether their current enrolment was the result of a successful direct application process/offer. Of the 379 responses received, 93% of respondents indicated their current enrolment was the result of a direct application process/offer, with low SES (97% low SES v. 93% medium SES v. 91% high SES) and regional (95% regional v. 92% metropolitan) respondents more likely to indicate this.

Respondents who indicated they did not apply to any higher education institution(s) were asked why they did not apply. Amongst the 99 open text responses received:

- Approximately 25% indicated they thought it was easier to apply through the TAC because it was a streamlined process and allowed for application to multiple institutions at once; and,
- Over 15% indicated they thought a direct application process wasn't applicable to them, because they thought the course required a TAC application, or because they thought that direct applications were restricted to full fee places, for example.

Thus, while mature age students are quite likely to be aware of direct application processes and to utilise them, they are less confident that the TAC application processes are also available to them. Meanwhile, many of those who were aware that the TAC application process was open to them found it less user-friendly or less appropriate to their needs than the direct application process.

Special Entry Access Scheme (SEAS) and the Educational Access Scheme (EAS)

Respondents were asked whether, at the time of applying, they were aware of the Special Entry Access Scheme (SEAS) or the Educational Access Scheme (EAS). Of the 2,061 responses received, 47% indicated they were aware of SEAS/EAS, with medium SES (51% medium SES v. 44% low SES v. 42% high SES) and metropolitan (50% metropolitan v. 45% regional) respondents more likely to indicate such. However, the response rate to this question varied most significantly for recent school leavers (2012-2014) and mature age students, with only 19% of the latter indicating an awareness of SEAS/EAS, as compared to 72% of the former.

Those who indicated they were aware of SEAS/EAS were asked whether they had applied to the scheme. Of the 966 responses received, 53% indicated they had applied for SEAS/EAS, with low SES (59% low SES v. 55% medium SES v. 39% high SES) and regional (60% regional v. 49% metropolitan) respondents more likely to indicate this. Again, of those who were aware of the schemes, recent school leavers (60%) were much more likely to apply to SEAS/EAS than mature age students (27%).

Thus, while low SES and regional respondents were less likely than those from medium SES and metropolitan areas to indicate an awareness of SEAS/EAS, of those who were aware, low SES and regional respondents were more likely to apply for SEAS/EAS. Meanwhile, mature age students were much less likely than recent school leavers to indicate an awareness of SEAS/EAS and to apply for the scheme. This is potentially concerning given that the interviews we conducted with representatives of university admissions departments (see section 10) revealed a concern that universities were not as thorough in collecting information related to equity and disadvantage as the TACs (i.e. direct admissions processes were not as effective at information-gathering as SEAS/EAS). Directors of university admissions departments also acknowledged they were perhaps not as consistent in their assessment of such information as the TACs.

Access and equity scholarships

Respondents from low SES areas were more likely than those from medium and high SES areas to indicate that, at the time of applying, they were aware of access and equity scholarships (43% low SES v. 41% medium SES v.33% high SES). Of those who were aware, respondents from low SES areas were more likely than those from medium and high SES areas to indicate that they had applied for an access and equity scholarship (32% low SES v. 28% medium SES v. 11% high SES). Of those who had applied, respondents from low SES areas were more likely than medium and high SES areas were more likely than digh SES respondents to indicate they had been successful in being offered an access and equity scholarship (30% low SES v. 28% medium SES).

Similarly, regional respondents were also more likely than metropolitan respondents to indicate:

- at the time of applying, they were aware of access and equity scholarships (43% regional v. 38% metropolitan);
- they had applied for an access and equity scholarship (34% regional v. 20% metropolitan); and,

 they were successful in being awarded an access and equity scholarship (26% regional v. 22% metropolitan).

Recent school leavers were also more likely than mature age students to indicate that:

- at the time of applying, they were aware of access and equity scholarships (50% recent school leavers v. 28% mature age);
- they had applied for an access and equity scholarship (32% recent school leavers v. 15% mature age).

However, of those who did apply for an access and equity scholarship, mature age students were more likely than recent school leavers to indicate they were successful in being awarded one (37% as compared to 24% of recent school leavers).

Respondents who indicated they were successful in being awarded an access and equity scholarship were asked whether they would have accepted their offer for a place of study without a scholarship. Of the 54 responses received, 76% indicated they would have accepted their offer for a place of study without an access and equity scholarship, with low SES respondents (81%) more likely than medium SES respondents (70%) and metropolitan respondents (78%) more likely than regional respondents (74%) to indicate such.⁶ Recent school leavers (80%) were also more likely than mature age students (62%) to indicate this.

Thus, there is some evidence that students from low SES and regional areas are more likely to be aware of, to apply for and to be awarded an access and equity scholarship – at the two institutions studied here at least. And while recent school leavers were more likely to be aware of and to apply for such, mature age students who applied were more likely than recent school leavers to be awarded an access and equity scholarship.

Prior knowledge of institutions, courses and how to apply

Respondents were asked to rate their knowledge/understanding of institutions, courses and application processes prior to applying for their current course of study. In each case, a majority answered "good" or "very good". However, this varied considerably by SES of respondent, with low SES respondents less likely to indicate they had "good" or "very good" knowledge in almost every case:

- Different types of tertiary education institutions (55% low SES v. 62% medium SES v. 68% high SES);
- Different types of courses (69% low SES v. 68% medium SES v. 72% high SES);
- Which course would be best for me (59% low SES v. 59% medium SES v. 65% high SES); and,
- How to apply for the course(s) I was interested in (63% low SES v. 66% medium SES v. 71% high SES).

⁶ Note that the sample size of high SES respondents (n=2) was too small for comparison here.

While there was little difference in the response rates between regional and metropolitan respondents for this question (i.e. less than 6%), regional respondents were either equally likely or less likely to indicate they had a "good" or "very good" knowledge of each of the above.

When comparing the response rates of recent school leavers with mature age students, there was little difference for the first two points (i.e. less than 4%). Meanwhile, mature age students were more likely to indicate they had "good" or "very good" knowledge of which course would be best for them (65% as compared to 56% of recent school leavers), whereas recent school leavers were more likely to indicate they had "good" or "very good" knowledge of how to apply for the course they were interested in (70% as compared to 62% of mature age students).

Thus, respondents from low SES and regional areas were less likely than those from medium SES, high SES and metropolitan areas to indicate they had a solid knowledge/understanding of the various courses and institutions on offer, which would be best for them, and how to apply. And while mature age students were more likely to indicate they had a solid knowledge of which course would be best for them, recent school leavers were more likely to indicate they know how to apply.

Respondents who indicated they completed secondary school between 2012 and 2014 inclusive were asked to what extent various people assisted them in working out which course(s) they might be interested in. While respondents from high SES areas were more likely to indicate that family members had assisted them either "quite a lot" or "a great deal" (57% high SES v. 49% medium SES v. 46% low SES), those from low SES areas were more likely to indicate that teachers had assisted them either "quite a lot" or "a great deal" (57% high SES v. 38% low SES). Regional respondents were also more likely to indicate that teachers had assisted them either "quite a lot" or "a great deal" (30% high SES v. 34% medium SES v. 38% low SES). Regional respondents were also more likely to indicate that teachers had assisted them either "quite a lot" or "a great deal" (38% as compared to 31% for metropolitan). This accords with findings from our Year 11 survey (see Section 5), where students from low SES and regional areas were more likely to indicate they received assistance from school personnel, and more likely to indicate they receive assistance from family members.

Other post-school training or qualification

Respondents were asked whether they had commenced any other post-school training or qualification (aside from their current course of study). Of the 2,056 responses received, 46% indicated they had commenced another post-school training or qualification, with respondents from low SES (44% low SES v. 46% medium SES v. 52% high SES) and regional (45% regional v. 48% metropolitan) areas less likely to indicate such⁷. Mature age students (73%) were more likely than recent school leavers (24%) to indicate commencement of training or qualification.

Those who indicated they had commenced another post-school training or qualification aside from their current course of study were asked whether or not they had completed the post-school training or qualification. Of the 951 responses received, 76% of respondents indicated they had

⁷ This figure is a likely feature of the two universities from which the sample was drawn and is higher than what would be expected for the sector as a whole.

completed the post-school training or qualification, with those from high SES (75% low SES v. 74% medium SES v. 80% high SES) and metropolitan (77% metropolitan v. 75% regional) areas more likely to indicate such. As expected, mature age students (79%) were also more likely than recent school leavers (64%) to indicate completion.

Those who indicated they did not complete their previous post-school training or qualification were asked the main reason for this. Of the 195 open text responses received:

- Approximately 30% provided answers indicating they didn't like the course, or that they
 realised it was the wrong course for them;
- Nearly 25% cited personal circumstances, including family commitments, moving interstate, being offered a job, etc;
- Around 15% indicated they had used that course as a stepping stone to their current course.
 For many, this was their intention when commencing the previous course;
- Approximately 12% advised they still intended to complete the course; and,
- Other common themes included illness, concerns about career/employment prospects after the course, logistical issues, and financial issues.

Respondents were asked whether they felt that their current course of study was the right course for them. Of the 2,046 responses received, 76% indicated that they felt that their current course of study was the right course for them. Response rates did not vary greatly by SES or remoteness of respondent. Meanwhile, mature age students (84%) were more likely than recent school leavers (71%) to indicate they felt their current course of study was the right course for them.

Respondents were asked whether they intended to complete their current course of study. Of the 2,047 responses received, 88% indicated they did intend to complete their current course of study. Again, responses to this question did not vary greatly by SES or remoteness of respondent, while mature age students (90%) were slightly more likely than recent school leavers (84%) to indicate such.

Improving course and application information

Respondents were asked, given the benefit of hindsight, what would have made it easier for them to find out about the course(s) they were interested in and how best to apply for them. Amongst the 1,357 open text responses received:

- Availability and accessibility of information was a key theme, particularly regarding online information. A significant number said they found the volume of information too great to easily find what they needed and suggested greater streamlining and centralisation of information;
- The importance of quality, personalised advice particularly through careers advisers was also a strong theme;

- Others suggested that the universities could do more, including providing experience days, where students are provided an opportunity to see how it would feel to spend a day studying their course;
- Recent school leavers suggested that more information could have been provided to them prior to Year 12; and,
- Non-school leavers felt that much of the information tended to be targeted at school leavers and was therefore not applicable to them.

Future work/career plans

Respondents were asked to indicate the extent to which they agreed or disagreed with the following five statements regarding their future work/career plans:

- I have a clear idea of the kind of work/career I want to pursue.
- I have a good sense of the steps I need to take in order to do the kind of work I would like to do in the future.
- I have good support from family members who are assisting me in working out what I want to do.
- I have good support from friends who are assisting me in working out what I want to do.
- I have a good understanding of the kind of work/career opportunities that currently exist in the world and are available to me.

Between 66% and 77% of respondents either "agreed" or "strongly agreed" with each statement. Responses to this question did not vary significantly by SES or remoteness of respondent.

Implications -

Section 6. Survey of First Year University Students

The findings reveal important differences in awareness. Low SES and regional students had less awareness than their counterparts of general tertiary admissions processes, educational access schemes, subject weightings, and university courses and institutions. They were also the most likely groups to be reliant on school personnel to inform decisions about their post-school study. These findings reiterate the importance of both teachers and careers advisers to students' post-secondary decision-making processes, and the particular need for schools to support low SES and regional students with detailed information and advice. Universities need to ensure that prospective mature age students are able to access relevant information about applying through TACs, and using the educational access schemes available.

Australian admissions practices could do more to support the needs of mature age students, who comprise around 40% of the commencing bachelor degree cohort. Universities need to ensure that mature age applicants have the same access to compensation for educational disadvantage as school leavers are provided, while affirming the principles of transparency of selection criteria and predictive validity.

7. Survey of Careers Advisers in Schools

Major findings

- Many careers advisers lamented their inability to spend sufficient time with students, particularly those in the early secondary years (i.e. Years 7-9), due to time/resource constraints and/or a lack of support from their line manager(s).
- Careers advisers from low SES schools were the least likely to consider that their current Year 12 students had a solid knowledge/understanding of their own interests and abilities; the work/career opportunities that best match their interests and abilities; and the steps they need to take in order to do the kind of work they want to do in the future.
- Careers advisers from low SES schools were far less likely than those from high SES schools to indicate their students had good support from family members in assisting them to work out what to do after school (19% for low v. 98% for high). Careers advisers from regional schools were less likely than those from metropolitan schools to indicate same (65% for regional v. 76% for metropolitan).
- Careers advisers from low SES and regional schools were the most likely to believe that it
 was those Year 12 students considering going directly into employment who were
 struggling the most with making decisions about their post-school plans.
- According to careers advisers, current Year 12 student awareness of higher education application options is limited, and awareness of the possibility of consideration for disadvantage (such as being from a low socio-economic or regional background) was perceived to be lowest amongst those most likely to be eligible for such consideration (i.e. those from low SES and regional schools).
- Careers advisers from high SES and metropolitan schools were the most likely to indicate that all of their current Year 12 students intending to pursue further study were aware that different subjects are differently weighted when calculating the ATAR. These advisers were also the most likely to indicate that students' knowledge that different subjects are differently weighted when calculating the ATAR had influenced their subject choices either "quite a lot" or "a great deal" (35% for high SES v. 20% for low SES).
- School/principal recommendation schemes were generally perceived to be effective in identifying talented students who might not quite meet the ATAR cut-off and assisting them to gain a place in their preferred course or institution. The schemes were therefore considered to be worthwhile, especially by careers advisers from low SES schools, despite their impact on advisers' workloads.

 The recent proliferation of non-university higher education providers (NUHEPs) was also generally perceived to be a good thing by careers advisers, as they may offer competitive pathways to university, especially for those from low SES schools. Support for NUHEPs persisted in spite of their impact on advisers' workloads, although concern exists on the authenticity of some NUHEP offers.

Introduction

To capture the insights of those working with students in schools, an online survey of school-based careers advisers was run from mid-July until the end of September 2015. The survey asked careers advisers about their perceptions and knowledge of their current Year 12 students, including how they were faring making decisions about their post-school options in general, and their further study choices in particular. It also asked careers advisers to reflect on their experience as a careers adviser and the changing nature of their role. The invitation to participate in the survey was forwarded via the La Trobe University (LTU) and University of New England (UNE) school engagement networks. Invitees were also encouraged to forward the invitation on through their own networks. The survey consisted of mostly closed questions, with a number of open questions inviting further comment.

Survey responses and demographics

The online survey received a total of 235 responses. We collected data on the geo-demographic variables of gender, number of years in the role of careers adviser, and state/territory of respondents. We also collected data on the current school and school postcode of respondents, and we used this information together with the Australian Bureau of Statistics' (ABS) Australian Statistical Geographical Standard (ASGS) Remoteness Structure (ABS 2011a) data and information found on the Australian Curriculum, Assessment and Reporting Authority's <u>MySchool</u> website (ACARA 2015) to further classify each respondent's school according to:

- School type (Government, Catholic or Independent);
- School 2014 Index of Community Socio-Educational Advantage (ICSEA) value (low, medium or high); and,
- School remoteness (metropolitan, regional or remote).

Differences in responses based on these variables were statistically analysed. However, only analyses based on a school's 2014 ICSEA value and region have been integrated into this report. Key features of the sample based on the other variables include:

The majority of respondents indicated they were female (177 or 79%), with only 47 respondents (21%) indicating they were male;

- Responses to the question of how long the careers adviser had been in the role were relatively evenly split between three time periods (32% for 0-5 years v. 38% for 6-15 years v. 31% for 16+ years);
- Respondents were primarily drawn from NSW (113 or 50%) and Victorian (90 or 40%) schools.⁸ We also received a small number of responses from careers advisers based at schools in Queensland (9), Western Australia (8), the Northern Territory (2), the Australian Capital Territory (1) and Tasmania (1); and,
- A total of 108 (50%) of respondents indicated they were working in schools identified as Government schools, 46(21%) in Catholic schools, and 60 (28%) in Independent schools.⁹

School ICSEA classification

We accessed the Australian Curriculum, Assessment and Reporting Authority's (ACARA) <u>MySchool</u> website (ACARA 2015) to identify the 2014 ICSEA (Index of Community Socio-Educational Advantage) value for each respondent's school. We then classified each school according to whether the 2014 ICSEA value was low (less than or equal to 950), medium (between 951 and 1099 inclusive) or high (greater than or equal to 1100). Using this classification system, 15% of survey respondents indicated they worked in schools with a low 2014 ICSEA value, 59% in schools with a medium 2014 ICSEA value, and 26% in schools with a high 2014 ICSEA value.¹⁰

We used the classification of a school's ICSEA value to split the responses to other questions in the survey in order to observe any variations in the response rates based on a respondent's school's 2014 ICSEA value.

School remoteness

We used the school's postcode and the Australian Bureau of Statistics' Australian Statistical Geographical Standard (ASGS) Remoteness Structure to classify the location of each respondent's school as either metropolitan or regional.¹¹ Under this classification system, 54% of survey

⁸ This was as expected since the invitation to participate in the survey was forwarded via the LTU and UNE school engagement networks.

⁹ We drew on information provided on the Australian Curriculum, Assessment and Reporting Authority's (ACARA) "My School" website in order to determine a school's type (ACARA 2015).

¹⁰ Note that the 2014 ICSEA values of the survey respondents' schools covered a wide range, with 815 being the lowest ICSEA value and 1243 the highest. The 2014 ICSEA values of the survey respondents' schools also mimicked the distribution of the total population of school ICSEA values, with a mean of 1036 (as compared to 1000 for the population) and a standard deviation of 89 (as compared to 100 for the population). Thus, the distribution of our sample was slightly skewed towards high ICSEA schools (ACARA 2015).

¹¹ The ABS's ASGS Remoteness structure consists of seven classes (ABS 2011a). However, for simplification purposes, we combined the second and third classes (Inner regional and Outer regional) into one (Regional). Note that we did not have any respondents from schools located in areas classified as Very Remote or Migratory – Offshore – Shipping, and only one from an area classified as Remote, which we incorporated into the Regional class.

respondents were identified as being from schools located in areas classified as metropolitan, and 46% from schools located in areas classified as regional.¹²

We used the classification of a school's remoteness to split the responses to other questions in the survey in order to observe any variations in the response rates based on whether a respondent's school was located in a metropolitan or regional area. However, the 2014 ICSEA value and remoteness of schools were strongly correlated in our survey sample. For example, respondents from low ICSEA schools were more than twice as likely to be located in regional rather than metropolitan areas (69% for regional v. 31% for metropolitan), whereas respondents from medium ICSEA schools were fairly evenly split between regional and metropolitan areas (54% regional v. 46% metropolitan). By contrast, respondents from high ICSEA schools were five times more likely to be located in metropolitan as opposed to regional areas (85% for metropolitan v. 15% for regional). Thus, where differences in response rates according to a school's ICSEA value are observed, it is not surprising to see similar differences in response rates based on a school's metropolitan or regional location.

Time spent with students in various year levels

Respondents were asked how much time they spent with students in Years 7-12. More than half of all respondents from schools with Year 7 and Year 8 students indicated they spent no time at all with students at these levels, whereas more than half of all respondents from schools with Year 9 students indicated they were dedicating an hour or more to each student over the course of a year. This increased further at Year 10 level, with more than half of all respondents from schools with Year 10 students indicating they were dedicating more than 2 hours per student over the course of a year, and reduced again slightly in Year 11, with more than half of all respondents from schools with Year 11 students indicating they spent two hours or less with each student over the course of a year. As one might expect, the greatest amount of time was dedicated to Year 12 students, with 72% of respondents indicating they dedicated more than 2 hours to each student over the course of a year.

Splitting the data by 2014 school ICSEA value, we found that careers advisers from low ICSEA schools indicated that, on average, they spent more time per student at each year level than those from medium and high ICSEA schools. When we split the data by region, we found that respondents from schools located in regional areas indicated that, on average, they spent more time per student at each year level than those from schools located in metropolitan areas.

Respondents were invited to comment on the time spent and activities conducted with students from each year level. A significant number of respondents lamented the fact they were unable to spend sufficient time with students, either as a result of time/resource constraints, or due to a lack of support from key staff members such as principals and deputy principals. Some indicated an awareness of recent research stressing the importance of careers teaching early in the secondary years (e.g. Years 7 and 8) and an integrated whole-of-school approach to careers, yet were regretful they were not supported in their role to do this. Others indicated that their school was in the

¹² Note that, in comparison to where the total population of Australia resides, the distribution of our respondents' schools is slightly skewed away from metropolitan and remote areas and towards regional areas (ABS 2011c).

process of moving to a whole-of-school approach to careers, and expressed hope that this would improve students' knowledge by the time they reached Year 12. A few indicated that their school had recently adopted such an approach, and that they had noticed a significant difference in student knowledge by the time they reached Year 12.

Perceptions of current Year 12 students' (self) knowledge and understanding

Respondents were asked how many of their current Year 12 students have a solid knowledge/understanding of various factors relating to themselves and their future. Careers advisers from high ICSEA schools were far more likely than those from low or medium ICSEA schools to indicate that the majority of their current Year 12 students have a solid knowledge/understanding of:

- their own interests and/or abilities (96% for high v. 69% for medium v. 77% for low);
- the work/career opportunities that currently exist in the world and are available to them (74% high v. 55% for medium v. 71% for low);
- the kinds of work/career opportunities that best match their interests and abilities (72% for high v. 54% for medium v. 64% for low); and,
- the steps they need to take in order to do the kind of work they want to do (72% for high v. 61% for medium v. 68% for low).

Respondents from metropolitan schools were also more likely than those from regional schools to indicate that the majority of their current Year 12 students had a solid knowledge/understanding of each of the various factors, although the differences were less stark in this instance (i.e. less than 10%).

Perceptions of current Year 12 students' support networks

Respondents were asked how many of their current Year 12 students had good support from family, members, teachers and friends in assisting them to work out what they wanted to do after school. Respondents from high ICSEA schools were most likely to indicate that the majority of their current Year 12 students were receiving good support from family members (98%), then teachers (93%), then friends (85%) in this regard. Similarly, respondents from schools with a medium 2014 ICSEA value were most likely to indicate that the majority of their current Year 12 students were receiving good support from family members (68%), then friends (66%). By contrast, careers advisers from schools with a low 2014 ICSEA value were most likely to indicate that the majority of their current Year 12 students the majority of their current Year 12 students were receiving good support from family members (90%), then teachers (68%), then friends (66%). By contrast, careers advisers from schools with a low 2014 ICSEA value were most likely to indicate that the majority of their current Year 12 students were receiving good support from teachers (76%), then friends (33%), and then family members (19%). That is, family members were viewed as the most likely source of support by careers advisers from high ICSEA schools, the middle source of support by careers advisers from medium ICSEA schools, and the least likely source of support by careers advisers from low ICSEA schools; consistent with findings in Cardak et al. (2015).

Disaggregating the data by region, we found almost no difference in the response rates between careers advisers from metropolitan and regional schools indicating that a majority of their current Year 12 students were receiving good support from teachers (90% for metropolitan v. 89% for regional) and friends (68% for metropolitan v. 67% for regional) in assisting them work out what they want to do after school. Meanwhile, respondents from metropolitan were more likely than

those from regional schools to indicate that a majority of their current Year 12 students were receiving good support from family members in assisting them to work out what they want to do (76% for metropolitan v. 65% for regional). Both metropolitan and regional respondents indicated students were receiving good support from teachers, then family members, and then friends.

Future education and employment options being considered

Respondents from schools with a high 2014 ICSEA value were far more likely than those from schools with a medium or low 2014 ICSEA value to indicate that the majority of their current Year 12 cohort were considering applying to university (100% for high v. 69% for medium v. 33% for low). Meanwhile, respondents from schools with a low 2014 ICSEA value were more likely than those from schools with a medium or high 2014 ICSEA value to indicate that "about half" or "more than half" of their current Year 12 cohort were considering applying to TAFE (2% for high v. 11% for medium v. 14% for low). Those from schools with a medium 2014 ICSEA value were more likely than those from schools with a low or high 2014 ICSEA value to indicate that some (i.e. more than "none") of their current Year 12 cohort were considering applying to do a non-TAFE VET course (48% for high v. 79% for medium v. 67% for low). And it was those from schools with a low 2014 ICSEA value who were most likely to indicate that some (i.e. more than "none") of their current Year 12 students were considering going directly into employment (48% for high v. 94% for medium v. 100% for low).

Splitting the data by region, respondents from metropolitan schools were far more likely than those from regional schools to indicate that the majority of their current Year 12 students were considering applying to university (85% for metropolitan v. 61% for regional), while those from regional areas were far more likely than those from metropolitan areas to indicate that some (i.e. more than "none") of their current Year 12 students were considering going directly into employment (91% for regional v. 75% for metropolitan). Respondents from regional schools were also considerably more likely to indicate that some of their current Year 12 students were considering applying to do a TAFE (97% for regional v. 92% for metropolitan) or a non-TAFE (79% for regional v. 68% for metropolitan) Vocational Education and Training (VET) course.

Post-school option causing students to struggle the most when making decisions

Respondents from schools with a low 2014 ICSEA value were most likely to consider that it was those Year 12 students considering going directly into employment who were struggling the most with making decisions about their post-school options (54%), followed by those considering applying to university (24%). Similarly, those from schools with a medium 2014 ICSEA value were most likely to indicate that it was those considering going into direct employment who were struggling the most (38%), followed by those considering applying to university (35%). Meanwhile, respondents from schools with a high 2014 ICSEA value were most likely to indicate that it was those considering applying to university (35%). Meanwhile, respondents from schools with a high 2014 ICSEA value were most likely to indicate that it was those considering applying the most (64%), followed by those considering other higher education provider options (e.g. private providers; 16%).

When we split the data by region, we found that respondents from regional schools were most likely to consider that it was those going directly into employment who were struggling the most with making decisions about their post-school plans (42%), followed by those considering university (33%), whereas respondents from metropolitan schools were most likely to indicate it was those

considering university who were struggling the most (49%), followed by those considering going directly into employment (23%).

Most sought after information

Respondents were asked what kinds of information are most frequently sought after by their current group of Year 12 students (e.g. universities, degrees, careers, scholarships, etc.). Amongst the 174 open text responses received, comments varied greatly and included such things as:

- the availability of a course across the higher education sector, i.e. where it is possible to study a particular course
- the existing prerequisites and recent clearly-in ATARs
- alternative entry pathways
- back-up plans
- the career options and employment outcomes of a particular university degree
- whether or not to take a gap year
- the highest paying jobs/careers
- the best university for studying a particular course
- the number and types of scholarships available and how to apply
- whether affordable accommodation is available
- how to support oneself through study

Careers advisers are clearly expected to be experts on many, many fronts.

Perceptions of Year 12 students intending to pursue further study after school

Awareness of higher education application options

Only 61% of respondents indicated that "all" of their current Year 12 students intending to pursue further study were aware "that applications to all university and some non-university higher education providers were centrally administered in their state". This figure appears low given that the survey was administered midway through the year and applications for tertiary study through the local tertiary admissions centre would have soon been open. Further, those from schools with a high 2014 ICSEA value were more likely than those from schools with medium and low 2014 ICSEA values to indicate that "all" of their current Year 12 students intending to pursue further study were aware of this (69% for high ICSEA v. 56% for medium ICSEA v. 67% for low ICSEA), as were those from metropolitan as opposed to regional schools (95% for metropolitan v. 88% for regional).

Overall, 39% of respondents indicated that "all" of their current Year 12 students intending to pursue further study were aware of any school/principal recommendation schemes relevant to their school. While this figure appears low, not all respondents' schools would have school/principal recommendation schemes attached to them. Thus, it is unsurprising that those from schools with low 2014 ICSEA values were more likely than those from schools with medium and high 2014 ICSEA values to indicate that "all" of their current Year 12 students intending to pursue further study were

aware of such schemes (57% for low ICSEA v. 35% for medium ICSEA v. 38% for high ICSEA). Respondents from regional schools were also more likely than those from metropolitan schools to indicate same (49% for regional v. 31% for metropolitan), which makes sense as regional schools are also more likely to have school/principal recommendation schemes attached to them.

Only 25% of respondents indicated that "all" of their current Year 12 students intending to pursue further study were aware that some university and many non-university higher education providers (also) have direct application processes. Again, those from schools with a low 2014 ICSEA value were more likely to indicate this (33% for low ICSEA v. 21% for medium ICSEA v. 31% for high ICSEA), as were those from regional schools (28% for regional v. 23% for metropolitan).

Awareness of consideration for disadvantage

Respondents from schools with a high 2014 ICSEA value were more likely than those from schools with a medium or low 2014 ICSEA value to indicate that "all" of their current Year 12 students intending to pursue further study were aware:

- that many higher education providers offer special consideration for students able to demonstrate disadvantage (62% for high ICSEA v. 47% for medium ICSEA v. 52% for low ICSEA);
- of the various criteria for demonstrating disadvantage (53% for high ICSEA v. 37% for medium ICSEA v. 33% for low ICSEA);
- of whether or not they are eligible to demonstrate disadvantage for the course(s)/institutions(s) they are applying to (49% for high ICSEA v. 29% for medium ICSEA v. 38% for low ICSEA); and,

Similarly, respondents from metropolitan schools were more likely than those from regional schools to indicate that "all" of their current Year 12 students intending to pursue further study were aware of the various factors, although the differences were less stark in this instance (around 3% for each). The exception here was that more respondents from regional than metropolitan schools indicated that "all" of their current Year 12 students intending to pursue further study were aware "of the various criteria for demonstrating disadvantage" (though again, the difference here was minimal, at 3%).

Notably, this question was focused on current Year 12 students intending to pursue further study after school. Yet only 52% of respondents from schools with a low 2014 ICSEA value and 53% from regional schools indicated that "all" of those intending to pursue further study were aware "that many higher education providers offer special consideration for students able to demonstrate disadvantage". This is disconcerting given that, presumably, most of the students from schools with a low 2014 ICSEA value and all of those from regional schools would be eligible to demonstrate disadvantage for most courses/institutions on the basis of low socio-economic and/or regional status alone. Similarly concerning is the fact that only 33% of respondents from schools with a low 2014 ICSEA value and 43% from regional schools indicated that "all" of their current Year 12 students intending to pursue further study were aware "of the various criteria for demonstrating

disadvantage". That respondents from low ICSEA and regional schools were less likely than others to indicate that "all" of their current students intending to pursue further study were aware "of whether or not they are eligible to demonstrate disadvantage for the course(s)/institutions(s) they are applying to" is also of note.

Subject weighting influence on subject choice

Respondents from schools with a high 2014 ICSEA value were more likely than those from schools with a low or medium 2014 ICSEA value to indicate that "all" of their current Year 12 students intending to pursue further study were aware "that different subjects are differently weighted when calculating the ATAR" (64% for high ICSEA v. 47% for medium ICSEA v. 48% for low ICSEA). Those from metropolitan schools as opposed to regional schools were also more likely to indicate same (54% for metropolitan v. 51% for regional).

Further, respondents from schools with a high 2014 ICSEA value were considerably more likely than those from schools with a medium or low 2014 ICSEA value to indicate that "the knowledge that different subjects are differently weighted when calculating the ATAR" had influenced the subject choices of those in their current Year 12 cohort intending to pursue further study either "quite a lot" or "a great deal" (35% for high ICSEA v. 15% for medium ICSEA v. 20% for low ICSEA). Again, those from metropolitan as opposed to regional schools were also more likely to indicate same (24% for metropolitan v. 14% for regional). This is significant given the impact that subject selection alone can have on a student's ATAR, regardless of subject grades. However, some careers advisers expressed objections to the idea that students should select one subject over another on the basis of subject scaling:

"Through my study of the Scaling documentation provided by the Board of Studies I am not an advocate of using terms that encourage students to believe that by doing one course over another they will do better. I encourage students to select according to their skills, abilities, likes and dislikes - not an ATAR outcome." (Careers adviser from a regional, Government school with low 2014 ICSEA value)

How are students coping with navigating options in comparison to five years ago?

Respondents who had been in the role of careers adviser for more than five years were asked how those in their current group of Year 12 students intending to pursue further study were finding navigating the options in comparison to their predecessors of five years ago. Respondents from schools with a low 2014 ICSEA value were more likely than those from schools with a medium or high 2014 ICSEA value to indicate that their current group of Year 12 students were finding navigating the field of tertiary education options more difficult than their predecessors of five years ago (50% for low ICSEA v. 27% for medium ICSEA v. 32% for high ICSEA). (Note however that, as respondents from low ICSEA schools were most likely to have been in the role for 5 years of less, this is based on a very small sample size of 14.) Meanwhile, respondents from regional schools were only slightly more likely than those from metropolitan schools to indicate that their current group of Year 12 students were finding navigating the field of tertiary education options more difficult than their predecessors of Year 12 students were finding navigating the field of tertiary education.

Self-knowledge and decision-making processes of Year 12 students intending to pursue further study

Respondents were invited to comment on the self-knowledge and decision-making processes of their Year 12 students intending to pursue further study after school. The 99 open text responses received varied greatly. However, a number of respondents elected to emphasise the problems of relocation, commuting and financing for their students, with some indicating that many of their students plan to take a "Gap Year" and work in order to qualify for Independent Youth Allowance.

"Most of our students need to take a gap year due to the cost of accommodation and living expenses while at University." (Careers Adviser from a regional, Government school with low 2014 ICSEA value)

What can be done to make things easier?

Respondents were asked what can be done (at the institutional, state or national level) to make the work of selecting and applying for a course of tertiary study easier for secondary school students.

Thirty-eight respondents (28%) to this question requested greater centralisation, simplification, standardisation and/or streamlining of information and application processes, and respondents from schools with a low 2014 ICSEA value were more likely than those from schools with medium or high 2014 ICSEA values to submit such a request (65% for low ICSEA v. 21% for medium ICSEA v. 26% for high ICSEA).

"Early entry through UAC is currently a joke. There are 22 different universities with differing criteria that a careers adviser has to stay abreast of and then there are the seven at least OTHER schemes which the universities have put into place just to confuse the whole system. Most university websites are not user-friendly when looking for information. This is a one-off process that parents and students struggle with each year. They rely heavily on the Careers Adviser..." (Careers Adviser from a regional, Government school with low 2014 ICSEA value)

Inconsistencies between states (not just within them) were also highlighted as problematic, particularly by respondents working in schools nearby to one or more state borders, but also by those who presumably have a significant proportion of their students applying to courses with a high-ATAR cut-off (e.g. law and medicine) across multiple states.

A number of respondents requested more school visits and/or that more accessible and consistent web-based information be provided by tertiary education providers.

The third most common response was a request for increased training, recognition, acknowledgement and support for careers advisers – to connect with students in the early secondary years and to tailor information to individuals in the later secondary years.
Other common responses to this question included the suggestion that tertiary course offerings be simplified and more generalist, as per the United States or University of Melbourne models of education, and that information on career opportunities and employment outcomes of particular degrees be made available.

Perspectives on school/principal recommendation schemes Time spent on school/principal recommendation applications per student

Respondents from schools with a low 2014 ICSEA value were considerably more likely than those from schools with a medium or high ICSEA value to indicate they would spend, on average, 45 minutes or more on one student's school/principal recommendation scheme application (43% for low ICSEA v. 34% for medium ICSEA v. 31% for high ICSEA). Those from regional schools were more likely than those from metropolitan schools to indicate same (53% for regional v. 35% for metropolitan).

Impact of school/principal recommendation schemes on workload

Respondents who indicated they had been in the role for more than five years were asked whether and to what extent the proliferation of school/principal recommendation schemes had impacted on their workload. Of the 102 responses received, 69% of respondents indicated their workload was greater than it had been prior to the proliferation of the schemes, as compared to 31% indicating their workload was either the same or less than before.

For respondents from schools with a low 2014 ICSEA value, the sample size is small (n=13), as this subgroup was most likely to indicate they had been in the role for five years or less, and thus this question was not presented to them. Nonetheless, those who did respond from schools with a low 2014 ICSEA value were more likely than respondents from schools with a medium or high 2014 ICSEA value to indicate that their workload was "much greater" than before the proliferation of the schemes (31% for low ICSEA v. 25% for medium ICSEA v. 24% for high ICSEA). Similarly, those from regional schools were more likely than those from metropolitan schools to indicate that their workload was "much greater" since the proliferation of the schemes (36% for regional v. 17% for metropolitan).

Participants were invited to further comment on the impact of the proliferation of school/principal recommendation schemes on their workload. Of the 115 open text responses received, 84% (96) indicated that the schemes added significantly to their workload. A few others suggested that the impact was not great because they had so few applicants, if any, applying to the schemes. Twenty-nine respondents (25%) made the explicit point that the extra work was worth it as the schemes were very effective for their students. A number also pointed out that the workload had significantly reduced since the schemes for many universities have been standardised through the Victorian Tertiary Admissions Centre (VTAC) and the Universities Admissions Centre (UAC). However, the standardisation process also seems to have had the perhaps unintended consequence of making more students (eligible to) apply for the schemes.

"The SRS [through UAC] has decreased workload however the process is more complicated. I feel that Regional students are disadvantaged by this as Principals recommendations used to be specifically for that now it seems that it is open to all students. Also there is now no personal statements, so that is easier on the schools but not on the students as how does it differentiate students." (Careers Adviser from a regional, Government school with low 2014 ICSEA value)

"I don't feel burdened by these schemes. They are of infinite value to my students to ensure access options are explored." (Careers Adviser from a regional, Government school with low 2014 ICSEA value)

Awareness of school/principal recommendation schemes

Respondents from schools with low 2014 ICSEA values were more likely than those from schools with medium and high 2014 ICSEA values to indicate that other teachers and current Year 12 students were either "quite aware" or "very aware" of any school/principal recommendation schemes relevant to their school:

- Other teachers (24% for low ICSEA v. 22% for medium ICSEA v. 21% for high ICSEA); and,
- Current Year 12 students (90% for low ICSEA v. 68% for medium ICSEA v. 71% for high ICSEA).

Meanwhile, respondents from schools with high 2014 ICSEA values were more likely than those from schools with medium and low 2014 ICSEA values to indicate that the parents of current Year 12 students were either "quite aware" or "very aware" of any school/principal recommendation schemes relevant to their school students (55% for low ICSEA v. 31% for medium ICSEA v. 63% for high ICSEA).

Respondents from regional schools were also more likely than those from metropolitan schools to indicate that all three parties were "quite aware" or "very aware" of any school/principal recommendation schemes relevant to their school:

- Other teachers (34% for regional v. 14% for metropolitan);
- Current Year 12 students (80% for regional v. 65% for metropolitan); and,
- Parents of Year 12 students (52% for regional v. 36% for metropolitan).

Effectiveness and impact of school/principal recommendation schemes

Respondents from schools with low 2014 ICSEA values were slightly more likely than those from schools with medium and high 2014 ICSEA values to indicate that school/principal recommendation schemes were effective for identifying talented students who may not quite make the Australian

Tertiary Admission Rank (ATAR) cut-off for their preferred course(s) of study (86% for low ICSEA v. 69% for medium ICSEA v. 84% for high ICSEA). There was little difference in the response rates to this question based on whether a respondent's school was located in a metropolitan or regional area (75% for regional v. 76% for metropolitan).

Meanwhile respondents from schools with low, medium and high 2014 ICSEA values were all most likely to indicate that the university enrolments for students graduating from their school had remained unchanged as a result of school/principal recommendation schemes (42% for low ICSEA v. 55% for medium ICSEA v. 73% for high ICSEA), respondents from schools with a low 2014 ICSEA values were more likely than those from schools with medium and high 2014 ICSEA values to indicate that fewer students would have taken up university places without the schemes (37% for low ICSEA v. 27% for medium ICSEA v. 11% for high ICSEA). Similarly, while respondents from metropolitan and regional schools were both most likely to indicate that the schemes had had no impact at all in terms of the proportion of their students enrolling in university (45% for regional v. 69% for metropolitan), those from regional schools were considerably more likely than those from metropolitan schools to indicate that fewer students would have taken up university places without the schemes (35% for regional v. 15% for metropolitan).

There would appear to be a discrepancy here between, for example, the 86% of respondents from low ICSEA schools who indicated that school/principal recommendation schemes are effective for identifying talented students, and the 42% of respondents from low ICSEA schools who indicated the schemes have had no impact on the proportion of students from their school enrolling in university. This apparent contradiction is potentially explained, however, by the possibility that, while the same proportion of students from low ICSEA schools might be enrolling in university, more such students are being offered *a place in their preferred course of study/institution* as a result of the schemes. This explanation is well supported by some of the open text responses to the next survey question, which invited further comment regarding the schemes:

"Sorry - I don't know how to answer the above question ... The percentage of students who gain a university offer has remained stable (75-80%) for many years. The impact that SRS has is that students now have the opportunity to gain entry into courses/universities that would have been closed to them due to their ATAR." (Careers Adviser from a metropolitan, Government school with low 2014 ICSEA value)

"The SRS schemes have not changed the actual number of students applying for university places. The SRS schemes have increased the number of students applying for places at universities, they previously would not have considered." (Careers Adviser from a metropolitan, Government school with low 2014 ICSEA value) A total of 80 open text comments on the effectiveness of school/principal recommendation schemes were received. Overall, respondents were positive about the schemes, some very much so. Others pointed to the difficulties of maintaining objectivity when you know a student well or when the parents are applying a lot of pressure:

"These schemes can be quite effective in addressing equity issues when research shows that rural/low SES students achieve lower academic results than their metropolitan counterparts ... The new NSW SRS scheme appears to have diluted the process by making it 'centralised'. Regional institutions need to be able to have their own, personally devised recommendation scheme that suits their drawing area without losing any credibility/standards." (Careers Adviser from a regional, Government school with medium 2014 ICSEA value)

"The process is only effective if schools are honest about a student's likelihood of success at university rather than recommending all students as a matter of course because they don't want to deal with parents irate that their child wasn't recommended." (Careers Adviser from a regional, Independent school with high 2014 ICSEA value)

Impact of non-university higher education providers (NUHEPs)

Respondents who indicated they had been in the role of careers adviser for more than five years were asked to what extent the proliferation in recent years of non-university higher education providers (NUHEPs) had impacted on their administrative workload. Of the 103 responses received, those from schools with a low 2014 ICSEA value were more likely than those from schools with medium and high 2014 ICSEA values to indicate that the proliferation of NUHEPs had impacted on their workload "a great deal" or "quite a lot" (36% for low ICSEA v. 15% for medium ICSEA v. 20% for high ICSEA). Those from regional schools were more likely than those from metropolitan schools to indicate same (24% for regional v. 18% for metropolitan).

Respondents were also asked if they had been approached directly by NUHEPs to promote their courses to students. Of the 154 responses received, those from schools with a low 2014 ICSEA value were more likely than those from schools with medium and high 2014 ICSEA values to indicate they had been approached by NUHEPs (90% for low ICSEA v. 78% for medium ICSEA v. 89% for high ICSEA), whereas respondents from regional schools were less likely than those from metropolitan schools to indicate same (73% for regional v. 90% for metropolitan).

Respondents were invited to comment on the impact of the proliferation of NUHEPs on their workload. Of the 94 open text responses received, responses ranged from extremely positive to indifferent to quite negative. Those who were positive highlighted the fact that some NUHEPs appear more willing to come to the school and "establish meaningful relationships with students" by offering "information sessions and hands-on activities". Others considered they had become "a genuine option as a stepping stone to university ... now that [NUHEPs] have FEE-HELP and TAFE is becoming so expensive." Those who were indifferent pointed to the fact that, while "the growth in

such institutions has been marked in recent times, the number of our students listing a course preference for one of these institutions and especially taking up an offer of such a place is very, very small". Negative commentators focussed on the fact that, with such a proliferation of NUHEPs, it is difficult to determine which of them "offer a genuine opportunity for my students", and with workloads such as they are, careers advisers do not generally have time "to check them out personally".

How to improve application and admission outcomes

Respondents were asked what might assist unadmitted or dissatisfied students to improve their application and admissions outcomes. Common responses included to "lower the ATAR", "reduce fees", "offer more scholarships" and to "provide more information about pathways to specific courses".

Implications -

Section 7. Survey of Careers Advisers in Schools

Careers advisers play a crucial role, particularly in low SES schools. This role is growing as the complexity of tertiary admissions increases. Schools and departments of education will therefore need to ensure that advisers are resourced, educated and supported to manage the new environment, particularly in low SES and regional schools. Advisers confirmed that many students lack knowledge about the weighting of different subjects in the calculation of ATAR, and that low SES students lack knowledge of educational access schemes. Specific efforts could be made in schools to increase student education and awareness of both these issues. The findings resonate with the results in Cardak et al. (2015, 2016) where disadvantaged students showed signs of limited knowledge of the operation of the application process. Improving student knowledge of application processes is critical, along with developing availability of advisors during pressure times around (i) final change of preferences, and (ii) decision making around university offers.

8. Interviews with Leaders of Tertiary Admissions Centres (TACs)

Major findings

- The Tertiary Admissions Centres (TACs) were established to provide an efficient and equitable means of managing university admissions.
- Despite all being established at a similar time and for a similar purpose, each TAC is unique in terms of numbers of member institutions, applicants, offers, staff size, and the range and level of services each provides. State-based differences in the secondary school system also contribute to diversity amongst the TACs.
- As a result of the introduction of the demand driven system, TAC leaders have observed a shift in focus from 'selection' to 'recruitment' for many institutions, as well as a rise in direct and contextual admissions. To varying degrees, TACs are responding to the changing environment by offering a greater range of services targeted to the needs of individual member institutions. TAC leaders are keenly aware of the need to engage in ongoing stakeholder management as part of this process.
- Some TACs are responding to sector changes by inviting new members, especially non-university higher education providers (NUHEPs), as full institutional members, associate members, or by providing fee-for-service arrangements. Rather than considering them a threat, TAC leaders typically consider NUHEPs as complementary to universities, providing pathways for many students to articulate into a degree. In addition, including the NUHEPs within the centralised TAC system is considered a means of increasing efficiency and cost-effectiveness for all TAC owners and users. There is still some debate, however, around who should be included, especially regarding interstate and international institutions.
- There are significant differences in the allocation of equity and bonus points both between states and amongst those institutions operating within the same state. While some TAC leaders viewed such differences as part of the distinctive nature of institutions and the strategic choices they have made, others considered the lack of consistency and transparency around contextual admissions, including equity and bonus point allocations, as potentially contributing to, rather than ameliorating, disadvantage.

- In response to equity concerns, South Australian universities have agreed to align their bonus point schemes from 2016. Under the new system, the points allocated to a particular student will not depend on the institution. This will be the case for both interstate applicants applying to SA institutions, as well as those applying from within the state. South Australia can be considered an exemplar of operationalising a commitment to admissions principles, but there remains a need to monitor the impact of the SATAC reforms in terms of equity outcomes and adaptation of the South Australian education system to a new admissions framework.
- Some TAC leaders expressed a desire to move towards greater consistency in the allocation of equity and bonus points nationally. Most considered there to be insufficient student mobility to justify a national TAC, but the TACs are endeavouring to develop as much consistency as possible by collaborating at the national level through the Australasian Conference of Tertiary Admissions Centres (ACTAC).
- TACs have the data, and in some cases the in-house expertise, to test the
 effectiveness of the various pathways currently in use against the success of students
 variously admitted to university. However, the full potential of such data is often not
 currently being realised, due mainly to a lack of resources and/or a specific mandate
 to do so.

Introduction

In order to find out how the Tertiary Admissions Centres (TACs) are responding to the challenges associated with rising student participation, diversity and mobility, as well as increasing competition and complexity in admissions practices, the chief investigators interviewed the leaders of the five state-based TACs, namely:

- the Victorian Tertiary Admissions Centre (VTAC);
- the Universities Admissions Centre (UAC) in New South Wales (NSW) which also services the Australian Capital Territory (ACT);
- the Tertiary Institutions Service Centre (TISC) in Western Australia (WA);
- the Queensland Tertiary Admissions Centre (QTAC); and,
- the South Australian Tertiary Admissions Centre (SATAC) which also services the Northern Territory (NT).

The semi-structured interviews focused on what has changed for the TACs in recent years, how the TACs are responding, and how they envisage their future. This section of the report integrates analysis of the interview material with information gathered from organisational websites, TAC guides and annual reports.

History and overview of the TACs

For the past 50 years, undergraduate tertiary admissions in Australia have been facilitated by five state-based Tertiary Admissions Centres, or TACs. Together, the TACs serve approximately 105 tertiary education institutions, including 39 of Australia's 43 universities, which also provide operational funding and strategic direction for the TACs. In 2015, the five TACs processed 269,684 undergraduate applications, as compared to the 103,296 applications made directly to universities around Australia (Department of Education and Training 2015a). School leavers make up the largest group of TAC applicants in most states, with 149,487, or 55% of the total in 2015. However, in South Australia/Northern Territory and Tasmania, the majority of TAC applicants are non-school leavers or mature age students.

Unsurprisingly, there is substantial variation in the workload the TACs undertake, depending on the size of the local market and the services provided. In 2014, for example, the largest of the TACs, the Universities Admissions Centre (UAC) in NSW, processed 86,998 applications servicing 31 institutions, while one of the smallest, the Tertiary Institutions Service Centre (TISC) in WA, processed a total of 18,073 applications for its four member institutions (Department of Education 2014c).¹³ Table 8.1 provides a comparison of the number and type of member institutions for each TAC, and how this has changed from 2005-2015. Table 8.2 shows the change in applications and offers for each TAC between 2009 and 2014.

ТАС	UNIVERSITIES			NUHEPS			TOTAL		
	2005	2015	Change	2005	2015	Change	2005	2015	Change
UAC	14	17	+3	1	14	+13	15	31	+16
VTAC	13	12	-1	47	52	+5	60	64	+4
QTAC	9	11	+2	17	5	-12 ¹⁴	26	16	-10
SATAC	4	4	0	1	2	1	5	6	+1
TISC	4	4	0	0		0	4	4	0

Table 8. 1 Comparison table showing the change in the number of participating institutions from 2005-2015for each of the five TACs (Data sources: 2005 & 2015 TAC Annual Reports)

¹³ The number of school leaving applicants in WA is artificially low in 2014 because of a change in the school starting age in 2002; See Jha (2015) for details of the change.

¹⁴ Note that this apparent decrease in the number of NUHEPs for QTAC is largely the result of the amalgamation of TAFEs in Queensland.

TAC	A	PPLICATIONS		OFFERS			
	2009	2014	% Change	2009	2014	% change	
UAC	81,101	86,998	+7%	64,402	73,071	+13%	
VTAC	67,457	72,786	+8%	46,428	60,655	+31%	
QTAC	50,055	54,787	+9%	39,333	46,530	+18%	
SATAC	23,279	29,633	+27%	18,527	21,295	+15%	
TISC	18,650	18,073	-3%	15,322	15,120	-1%	

Table 8. 2 Comparison table showing the change in the numbers of applications and offers processed by eachof the five TACs from 2009 to 2014 (Data source: Department of Education 2014c)

The TACs were established by the universities in the 1960s and 70s in response to the increase in the number of students finishing high school and the flow-on demand for higher education. The first TAC to be established, in 1966, was the Victorian Tertiary Admissions Centre. Soon after, in 1969, what was to become the Universities Admissions Centre (UAC) in NSW was opened as a division of the University of Sydney. (In 1995 the New South Wales Vice Chancellor's Committee (NSWVCC) created the UAC through a subsidiary, UniProjects, to process applications from participating institutions in NSW and the ACT (UAC 2008)). Then, in 1975, both the Tertiary Institutions Service Centre (TISC) in WA (TISC 2008) and the Queensland Tertiary Admissions Centre (QTAC) were founded. With the exception of Tasmania, where admissions are run through the University of Tasmania (UTAS), in all states the TACs were set up as independent bodies by the participating institutions (Palmer, Bexley & James 2011). In most cases, while owned by the member universities, the TACs are fully incorporated bodies. The exceptions to this are VTAC and the South Australian Tertiary Admissions Centre (SATAC), although SATAC is soon to become fully incorporated.

Variation among the TACs

The principal function of the TACs is to provide an efficient and equitable means of managing university admissions. Despite being established at similar times and for a similar purpose, however, there are significant differences between the TACs in terms of numbers of member institutions, applicants, offers, staff size, and the range and depth of services each provides. From our conversations with the TAC leaders, it was clear that they are keenly aware of such differences, and the fact that these differences are the result of each responding to their unique local conditions. The services provided by each TAC depend in large part on the arrangements set in place with the respective governance structures, which include a range of representatives from participating institutions. Some TACs provide centralised assessment services, while others pass on the bulk of actual assessment to their clients – especially in the case of alternative

assessments, such as portfolios and interviews. While traditionally built up around the needs of universities, some TACs also have a long record of providing services to the Technical and Further Education Institutions (TAFEs) and other non-university higher education providers (NUHEPs), while for others the servicing of NUHEPs began more recently. These differences make it difficult to compare the efficiency of the TACs in terms of the fee for service they are providing their member institutions and other clients. In a recognition of economies of scale and scope, one TAC leader commented:

"Everyone assumes, or the common understanding ... is that all TACs deliver the same thing. If you talk to most of the Boards, they regularly ask us to benchmark ourselves against the other TACs, but the bottom line is we do very, very different things. So we do internationals for example, whereas not all TACs do that. So it is quite hard to compare what we do, and then size does matter you know – NSW is significantly bigger than South Australia by about three or four fold, so it's really quite hard to benchmark yourself and say, well, we're delivering the service for the money you spend on us." (TAC Leader 1)

Aside from processing admissions, the TACs also work with the respective state curriculum authorities in the administration of high school qualifications and the calculation of the Australian Tertiary Admission Rank, or ATAR. This is important, as the fact that each state has its own high school system is a major factor contributing to diversity amongst the TACs. As one TAC leader observed:

"Just as federalism plays a significant role in other domains, so too does it for school-leaver admissions." (TAC Leader 2)

Recent changes in the field of higher education

Since the introduction of the demand driven system, higher education in Australia has undergone a significant period of growth and change. At one level, this can be evidenced in both the increasing number and diversity of applicants. In most states, the majority of applications are made through the TACs and are by school leavers. However, TAC leaders believe that demand from school leaver applicants has peaked, and statistics show that there was only a 1% increase in TAC applications between 2010 and 2015. By contrast, strong growth has been experienced in the number of direct applications to universities, often made by non-school leavers. Table 4.2 outlines the 70% increase in direct applications between 2010 and 2015 (DEEWR 2010; Department of Education and Training 2015a). Many such applicants lack formal Year 12 qualifications or are supplementing their qualifications with a range of other criteria such as interviews, portfolios and letter grades. Of those applying on the basis of their ATAR, the biggest growth is being seen in those with ATARs in the middle range, where the predictive value of the ATAR is diminished. The TACs are therefore operating in an environment that has undergone, and continues to experience, significant change. The TACs are responding to such changes by working closely with stakeholders in order to provide a more individualised, targeted range of services.

From selection to recruitment

As a result of the increase in participation in higher education, TAC leaders have observed a fundamental shift in admissions practices from an emphasis on selection to recruitment. Indeed, when TACs were established in the late 1960s and early 70s, only 10% of applicants received offers. Today the figure is closer to 90% (Department of Education 2014c). One TAC leader described the change thus:

"I remember one [admissions officer] ... saying that when she started at one of the universities 20 odd years ago she used to spend all her time looking at ways to keep students out of university. That is, she had so many applications and so few places, she was always looking for some criteria by which she could, you know, discriminate between a variety of high level people for positions. By the time she'd left the institution, however, she was spending all her time thinking of ways to get students in." (TAC Leader 1)

Yet the main TAC processes were developed to be efficient for selection purposes in cases where demand exceeds supply:

"So we're all about selection and our processes are most efficiently used where there are courses with high demand where applicants will preference more than one institution/course ... We are not positioned to deal with that single student who wants a single course. The institutions are best placed to handle that." (TAC Leader 3)

Some TACs are responding to the shift in focus from selection to recruitment by developing new selection processes focused more on 'who can we legitimately include' rather than 'who can we exclude'. This is consistent with the policy settings established under successive governments. An expansion of higher education participation to support the 40% attainment and 20% participation targets has necessitated changes to who can be included in higher education from the groups that were previously excluded from higher education.

Nonetheless, the shift from selection to recruitment has not been consistent across the board. As a pointer to how institutions might respond to a deregulated environment, there is significant variation between institutions, with some retaining their status as selective and others seeking to recruit as many capable candidates as feasible. There is also considerable variation within institutions, with some faculties and discipline experiencing much greater demand than others and responding either more selectively or more in line with the higher growth, recruitment approach.

The rise in direct admissions

Increased competition between institutions as a result of the introduction of the demand driven system has also resulted in a rise of direct admissions. Several TAC leaders expressed concern about direct admissions, as they are generally taking place outside the centralised TAC system.

One TAC leader considered the rise of direct admissions in itself as a sign of the failure of the TACs to provide what the universities are actually wanting in this competitive environment:

"That TACs have not yet been able to provide services appropriate to the needs of universities or applicants is clear – if they had done this, there would be fewer direct applicants. TACs need to be able to provide relevant services to universities and applicants if they are to thrive in future." (TAC Leader 2)

Others identified it as a challenge for the TACs to find a way to add value to the servicing of applications of low-ATAR courses, especially where an applicant (usually a non-school leaver) only preferences one institution. Yet the extent to which a TAC is able to respond to such changes is constrained/enabled by the specific local context and the parameters defined by its institutional owners. Thus, while some TACs maintain a traditionally more limited role, other TACs are actively engaging in the direct admissions process. UAC, for example, processes applications and generates course offers to applicants who have applied directly to an institution by provision of an institution-branded web service with back-end processing performed by UAC. In this way, institutions are able to build direct engagement with prospective students whilst maximising the scale advantage of UAC's processing capabilities.

The rise in contextual admissions

With the rise in direct applications, contextual admissions have also become more prominent, and this is an area where the TACs can be of further benefit to their members. Most TAC leaders believe that, through the centralised processing of direct and contextual applications, they are able to provide a less complex, more efficient and cost-effective service than any individual higher education institution. As one TAC leader stated:

"It's an efficiency thing... The TAC is much more cost effective, and with institutions looking at their budgets, having this done centrally makes sense for their bottom line." (TAC Leader 3)

TAC leaders also identified other benefits in the centralised processing of such applications, including being able to provide document verification, and checking of global qualifications by using databases shared with the other TACs. Several TAC leaders noted the increasing amount of fraudulent documentation in circulation, with one indicating that:

"Any faculty university admissions staff member can't be expected to have the same experience in detecting fraudulent documentation [as a TAC employee]." (TAC Leader 3)

This is also an area where TACs could provide a greater level of consistency within and between institutions. Some TAC leaders believe that, where students are applying to multiple institutions, there is a risk that applicants might be disadvantaged by being considered differently by different institutions. As one TAC leader stated:

"We can provide something consistent and without bias, without any stake in the outcome." (TAC Leader 3)

Of course, service provision needs to be taken in the context of budgets and allocated responsibility. The level of centralised direct admissions varies across states and more centralisation can only be provided with more resources in order to undertake the additional processing.

Developing a more client-centred approach

In an effort to ensure the long-term business sustainability of both the TACs and their clients in the face of increasing institutional competition, most TACs have become more proactively responsive to client needs in recent years. Rather than simply providing a single service model or working on building consensus between the various TAC members, the TACs have adopted a client-focused approach. Several TAC leaders spoke of the need to be able to respond quickly in adapting services to client needs:

"It's about being customer focused and customer service principles. If you don't address what institutions want they're going to go around you." (TAC Leader 1)

For some TACs, becoming more client-focused is also about the need to:

"... remain functional and viable, by providing more targeted and better services – asking what the institutions need rather than telling them what we do" (TAC Leader 3).

Ways in which TACs have adapted to the changing needs of their member institutions in recent years include offering: year-round selection services, especially for TAFEs (as opposed to only once or twice per year); advanced standing assessments; non-Year 12 assessment; 'black-box' solutions for members; slipback offers; fee-for-service arrangements; and providing application assessment services for direct and contextual admissions. While not all TACs provide all of these services, and some have been providing some of these services for a while, most have expanded to include one or more such services in recent years.

The challenge of stakeholder management

Some TAC leaders spoke of the challenges they experience managing a complex network of stakeholders comprising educational institutions, schools, prospective students, careers advisers, parents and government authorities. As one TAC leader stated:

"The TAC leader needs to understand that one of their key jobs is stakeholder management". (TAC Leader 1)

Indeed, stakeholder management was identified as a core issue for all TACs, regardless of size, and was seen to be particularly important in light of recent changes to the executive structures of member institutions, as new staff could sometimes appear unaware of the value of the TACs. As one TAC leader commented:

"[Institutions can sometimes] forget the reality of the fact that we can pick up results electronically for all Year 12s within Australia and New Zealand and the IB internationally; we can pick up all the qualifications for anybody who has undergraduate qualifications across any university in Australia. That in itself is a huge service." (TAC Leader 4)

A number of TAC leaders expressed a keen awareness of the need to continually engage with and inform the staff of member institutions in order that they have a better understanding of TAC services and the return they provide to their institutional investors. Several also noted recent changes in leadership both within the TACs and member institutions. While there are some challenges associated with this, overall this is considered by TAC leaders as an opportunity to reinforce the importance of stakeholder management and effective communication between the TACs and their members, by working closely with both strategic and operational management levels.

The role of TAC governance structures

Governance structures also impact on the relationship between the TACs and their member institutions. In most cases, the TAC Boards are built around the equality of each of the members, though how this is done varies between TACs. In particular, some TAC leaders commented on the importance of maintaining governance structures that facilitate active communication between the TACs and the Vice Chancellors of their member institutions, as well as the directors of institutional admissions departments. The importance of this connection was stressed by one TAC leader who stated that:

"Trouble comes when your Vice Chancellor doesn't have any connection with the TAC, and then they start thinking 'what are we spending money on this place for?' And I get it, but they don't see the direct benefits." (TAC Leader 1)

For this reason, some TAC leaders emphasised the value of having a 'pseudo-Board' where the TAC works directly with directors of institutional admissions departments who have a more immediate connection to institutional admissions at the operational level, thus leaving the Board of Vice Chancellors to focus on strategy. While not all TAC leaders consider it necessary to have a 'pseudo-Board', all agree on the necessity of maintaining clear dialogue with both Board members (usually Vice-Chancellors) and other senior university representatives. As one TAC leader commented:

"As managing director, I see it as my role (as does the Board) to lead UAC strategy development – with appropriate oversight from the Board and consultation with our many stakeholders (including Vice-Chancellors and other senior university representatives)." (TAC Leader 2)

Inviting NUHEPs into the fold

Some TACs are also responding to sector changes by inviting new members, especially nonuniversity higher education providers (NUHEPs) into the fold – as full institutional members, associate members, or on a fee-for-service basis. The willingness to include NUHEPs is seen by some TAC leaders as a means of improving admissions:

"I think that it's part of this ideal of servicing the students ... if we can have in one place information about all of the tertiary courses that applicants can access." (TAC Leader 3)

While the rising numbers of NUHEPs is sometimes posited as a threat to universities, most TAC leaders do not believe this to be the case. Instead, as one TAC leader commented, what we are beginning to see is increasing mobility within states as students are utilising the NUHEPs as a pathway to university, much like students switch from two to four year colleges in the US. Thus, rather than competing in the same space as the universities, what we are seeing is:

"...articulation [between NUHEPs and universities] ... with cooperation between the various organisations lead[ing] back to the university" (TAC Leader 4)

This cooperation is important for institutions that prefer students to have had further preparation in studying at the tertiary level prior to enrolling in a Bachelor level course. Thus, rather than considering including the NUHEPs within the ambit of the centralised TAC system as compromising the quality and reputation of universities, TAC leaders see this instead as a means of increasing efficiency and cost-effectiveness for all TAC owners and users:

"Economies of scale would suggest that centralised processing benefits everybody. So getting the NUHEPs on board has got to be a good thing for the unis as well in that the total overall cost to provide application and assessment services decreases as more institutions participate." (TAC Leader 2)

This does not mean there is an open door policy amongst TACs however, as there are still concerns around who should be included and who shouldn't, especially when it comes to interstate and international institutions. Questions persist around what criteria should be used for acceptance. For example, should TACs only include institutions/courses that are recognised within the Australian Qualifications Framework (AQF)?

The rise in equity applications

TAC leaders have also seen a large rise in equity applications over the years, and this has had a direct impact on the TAC workload, particularly for those TACs involved in the assessment process. At least one TAC leader expressed concern, however, that the increased volume of equity applications has had the effect of diminishing the value of these schemes for genuine equity applicants:

"Anecdotally, we know that some careers practitioners sit their Year 12s down and say, 'Alright, today we're going to do our TAC application, now all open your Access Scheme application and put something in.' And we have to sort that out." (TAC Leader 3)

One of the ways in which the TACs are responding to this is by actively engaging with schools (in low socio-economic areas for example) to educate staff and students about how to articulate their disadvantages. As one TAC leader stated:

"I think our role is to make sure that each student is able to put their case, if you like, so that the pertinent information about their circumstances is put before the selection officers in a way that is easily comparable from student to student and from course to course I think our role is to collect that data and put it to the institutions in a very usable and transparent and equitable format so that they can make their selection decisions. And it's definitely not our role to try and pre-empt or steer selection decisions in any way." (TAC Leader 3)

However, not all TACs consider that the increase in volume of equity applications has compromised the value of such schemes for genuine equity applicants. Instead, some TACs believe that the increase in equity applications is simply a reflection of the increased awareness of such schemes. As one TAC leader stated:

"Our Access Scheme has clear criteria for eligibility ... Furthermore, by putting in place rigorous assessment processes, we are confident that the schemes are indeed adding value to those who most need support." (TAC Leader 2)

Lack of consistency and transparency on bonus point applications

In most cases, there are significant differences both between states and between those institutions operating within the same state in terms of how bonus points are allocated. Depending on the institution, points are allocated for a range of equity criteria. Bonus points may also be given for the completion of particular subjects. Yet there is little consistency in the way in which institutions allocate such points. The allocation of bonus points can also lack transparency, especially when points are added directly to the student's raw aggregate rather than their ATAR.

During our interviews, a number of TAC leaders expressed concern about the lack of transparency and consistency in the way in which equity and bonus points are allocated. Some also noted the potential conflict that can occur between different bonus point schemes. One TAC leader observed a high correlation between students in the highest ATAR band and language bonus points, for example:

"[Bonus points] may or may not have assisted them, but about half of them received language bonuses." (TAC Leader 4)

Such a correlation is particularly problematic due to the strong correlation that already exists between ATAR and socio-economic status, and the uneven access to language study that students have, especially in schools located in low socio-economic areas.

Efforts to improve the system have seen a range of responses emerge from the TACs and individual institutions. With general agreement on the need for greater transparency, some institutions, while maintaining their individual schemes, are reported to have tightened up their processes to be more justifiable. In South Australia, the universities scrapped their individual schemes and created a single rubric for allocating points to students regardless of which SATAC institution they are applying to. In Victoria, VTAC is endeavouring to increase transparency by publishing both the clearly in ATAR, and the percentage of applicants below that ATAR who are offered a place. Meanwhile, UAC views the differences in bonus point allocations not so much as a concern but as part of the distinctive nature of institutions and the strategic choices they have made, since what is important to one institution is not necessarily the highest priority for another.

The SATAC example

Bonus point schemes were originally introduced by South Australian universities to address equity along with promoting certain areas of study. However, what evolved was a situation where eventually 'everyone got a prize'. Thus, in an unprecedented move, the South Australian Vice Chancellors – along with the Vice Chancellor from Charles Darwin University in the Northern Territory (which is serviced by SATAC) – agreed to cancel their bonus point schemes and return to the drawing board to address the recruitment and support of equity students. From 2016, South Australian universities will align their bonus point schemes. Under the new system, the points that are allocated to a particular student will not vary depending on the course or institution they are applying to. This is consistent across the state, and includes interstate applicants applying to institutions through SATAC. At the same time, SATAC is also introducing slipback offers. Once the allocation process is finished based on preferences/ATAR, those students who have missed out can be seen by the universities, who can in turn approach them directly to offer them a place (even if the student did not apply to their university in the first place).

Increasing consistency and transparency at the national level

While keenly aware of the needs of individual institutions, TAC leaders also recognise the importance of moving toward a more consistent approach nationally, and the need for strategies to determine genuine disadvantage so that resources can be directed appropriately. A number of TAC leaders also stressed the need for processes that are ethical and transparent. One TAC leader stated that it should be:

"... really clear to the applicants under what criteria you can get in and what hurdles you need to jump, and that that is not a moving feast depending on which way the wind's

blowing on a particular day. That you honour those kinds of processes so they do reflect what is a reasonable scenario for getting in or not getting into a particular course." (TAC Leader 1)

Some TACs are keen to take a more active role in the processing and assessment of equity applications. They believe that this may also be beneficial for applicants, in terms of increasing consistency in the assessment of equity applications. Other TACs have already been involved in the assessment of equity applications for some time. This is perhaps why UAC, for example, feels confident that the process is consistent and fair for genuine equity applicants.

Increasing student mobility

The majority of undergraduate students apply to institutions within their home state. However, TAC leaders noted that there is high mobility amongst students in the most competitive degrees, such as Medicine and Veterinary Science. This is consistent with government reporting, which shows that, in 2014, 85% of students applied to study in their home state, while 20.7% of all interstate applications were made to Medical studies (Department of Education 2014c). In response to an increasingly national market for medical degree admissions, a national admissions centre, the Graduate Entry Medical School Admissions System (GEMSAS), was created to service graduate medical schools around Australia. While this is seen as viable for Medicine, and may be followed by other highly competitive courses, such as Dentistry and Veterinary Science particularly where there are significant capacity constraints in terms of clinical training, for the most part the TAC leaders consider that there is insufficient mobility to justify a national approach to admissions. The extent to which programs that are in high demand and in high status institutions will be increasingly made available at a graduate level may also serve as a significant influence to student mobility and admissions practice. However, one could also argue that, until a more national approach to admissions is adopted, interstate student mobility may remain limited. As one TAC leader stated:

"Student mobility is not the major issue inhibiting a more national approach to admissions. There are many elements that need to be considered when talking of a national approach to admissions, not just student mobility." (TAC Leader 3)

Increasing consistency between states through ACTAC

While differences between the various state and territory school systems tend to impede interstate student mobility, TAC leaders consider the Australasian Conference of Tertiary Admissions Centres (ACTAC), established in 1995 (see Appendix B), as working to counter this. Through ACTAC, which meets biannually, the TACs collaborate to maintain the Interstate Transfer Index along with ATAR equivalence and common schedules which facilitate interstate mobility for tertiary students. There is significant complexity in generating ATAR equivalence given the differences in pre-requisite subjects, core subjects and subjects against which ATAR is scaled against across states. ATAR for much of the public implies a degree of certainty and transferability, but the complexity of information and calculation that feeds its generation is often under appreciated. TACs endeavour to highlight this fact within their communications but this is a difficult perception to shift. ACTAC has also facilitated national agreements on application closing and offer dates to ensure that interstate students are likely to receive at least two offers. Through ACTAC, the TACs have also developed a more consistent approach to assessing international qualifications. The result of such efforts has been the achievement of greater consistency at the national level while still maintaining a high degree of flexibility at the state level. One TAC leader described ACTAC as effectively being a "decentralised national TAC". Another TAC leader stated:

"Whilst there are local differences that need to be taken into account, it is logical that we attempt to find a consistent approach that takes into account the needs of students, institutions and other stakeholders." (TAC Leader 2)

Cooperation through ACTAC has been instrumental in creating greater alignment between the state admissions systems. However, the consistency and effectiveness of admissions may be further improved by expanding research and analysis into which practices are most effective and could be replicated across states.

Using data and evidence to inform best approach

In our conversations, some TAC leaders commented that they could further improve their services by making more use of the data and evidence held by the TACs. While this would require additional resourcing, TAC leaders pointed to the ability to test the effectiveness of the various pathways currently used and to see how these students, once enrolled, are actually faring. While TAC leaders stressed that institutions could still take the lead role in shaping admissions, the TACs might provide the analytics and expertise to:

"... develop the means by which to assess whatever universities think is important in admitting students. For example, for some clients we take an applicant's employment experience into consideration, and correlate this with the course they are applying for. This is conceivably a better approach than using a single measure that does not accurately reflect the likelihood of success of an individual in further study." (TAC Leader 2)

The TACs possess the necessary data to do this, and in some cases a modest in-house research capability. However, more extensive work in this area is not currently occurring.

The increasing complexity of the work done by TACs

The complexity of the work done by the TACs is increasing in a variety of ways. TAC leaders spoke about the challenges related to managing an increasingly broad mix of institutional stakeholders, and how the new environment requires TACs to be highly responsive to the needs of their members, many of whom are diversifying their individual pathways and admission options. Information Technology plays a significant role in facilitating this change. New pathways, courses, and other adaptations require more work in terms of programming new courses into TAC systems, and developing capabilities which allow the TACs to meet institutional needs quickly and efficiently. Given the highly competitive nature of the current environment, TAC leaders stressed the need to be able to modify systems quickly to provide a "slick and fast and responsive services" for both institutions and students.

Implications -

Section 8. Interviews with Leaders of Tertiary Admissions Centres (TACs)

Our analysis identified substantial adaptation by the TACs to environmental and contextual changes. One challenge for the TACs will be to maintain efficiency and transparency whilst managing increasing complexity, including a proliferation of tertiary entry pathways and higher education providers. A further challenge will be to develop greater consistency across states and territories in this environment, particularly if student mobility increases. Differences in school systems and tertiary admissions practices between the states are substantial, from the subjects required and weighted at Year 12 level, to the pathways into which school students are streamed, the governance and roles of tertiary admissions centres, the administration of equity bonus points, categories and scholarships, and the extent of collaboration among universities. The effects of federalism on tertiary applications and enrolments could be researched more extensively. TAC leaders and university admissions representatives also noted the increasing amount of evidence and data now available around admissions pathways that could be harnessed by institutions to inform the predictive validity of information relevant to the application process. Harnessing this evidence and developing greater research and analytic capacity is a challenge facing the TACs and their constituent institutions.

Two specific cases of collaboration are notable. The new SATAC administration of equity bonus points will ensure consistent treatment of students across the three South Australian universities, and may serve as a model for other states. Equally, the UAC administration of school recommendation schemes for all participating NSW universities provides a model of administrative efficiency and consistency that may also serve as a model. Student responses to our surveys reveal much uncertainty around both equity bonus points and school recommendation schemes, and attempts to improve consistency are laudable. The role of ACTAC is likely to become increasingly important as student mobility rises.

9. Interviews with Directors of University Admissions Departments

Major findings

- Directors of university admissions departments recognise that the admissions environment has become more competitive and that this is driving the growth of alternative admissions and pathways targeting niche groups.
- As they strive for efficiency, universities are often centralising the work of admissions internally, rather than delegating it to faculties.
- The limitations of the traditional ATAR entry pathway are well recognised by the directors, particularly with respect to delivering equity participation targets. In response, universities have developed a variety of pathways for such students, and have also begun to offer more financial support than previously. Directors acknowledge that some of these pathways may be confusing to potential students.
- Tertiary Admissions Centres (TACs) are seen by the vast majority of directors as providing an efficient and cost-effective service, particularly for processing school leaver applications. Views on the efficiency and effectiveness of the direct applications managed within universities as compared to those managed through TACs vary, however. While direct applications may enable more data about the applicant to be captured, directors are aware that direct admissions are also more resource intensive.
- Directors perceive better collection and use of data as playing a key role in improving admissions and supporting students, especially those who are members of equity groups.

Introduction

To better understand how the heads of university admissions departments are making sense of and responding to the changing admissions landscape, the chief investigators interviewed eighteen directors of university admissions departments across the country, including representatives of five New South Wales universities, five Victorian Universities, three South Australian universities, two Western Australian universities, two Queensland universities and one multi-state university. Interviewees included institutional representatives from each of the university groups: the Innovation and Research Universities (IRU), the Regional Universities Network (RUN), the Group of Eight (Go8), and the Australian Technology Network (ATN), as well from those institutions that are unaligned. The interviews were semi-structured and focused on how the university admissions department is responding to the challenges associated with rising student participation, diversity and mobility, as well as increasing competition and complexity in admissions practices. This section of the report provides a summary analysis of data collected during the interviews.

What has changed?

A key them to emerge from the responses of the university representatives is that the admissions environment has become much more competitive since the introduction of the demand-driven system. In the race to get in first with early offers, universities have begun recruiting through the expansion of direct admissions, often targeting niche groups. One of the university representatives we spoke to described the need for speed thus:

"[Both the Go8s and the 'non-traditional' universities] are pushing that really hard now, that sort of turnaround time, that sense of fast, fast, fast – must make an offer straight away."

At the same time university admissions staff stress that the question of assessing academic quality has become a much more contested space. This is especially the case as universities actively recruit students with middle-band ATARs and others on the basis of alternative criteria. As one interviewee said:

"Everyone wants quality, but one also recognises that potential is not necessarily going to be recognised via the traditional ways of the academic standards, i.e. ATAR, at the age of 17 or 18. So how are we going to determine academic potential ... using other mechanisms, other measures, other processes, at that point of admissions, whether they're a 17/18 year old school leaver, a 20 year old who's a recent school leaver, or a mature age person at 40 or 50?"

Universities are increasingly centralising the work of admissions internally. Several university representatives talked about the shift towards centralising admissions within their own institutions and moving the work of application assessment away from faculties. This is being driven by the need to create new efficiencies and reduce costs while also providing greater consistency in assessment. As one university representative stated:

"There is none of this 'oh you know I like that student because he or she came from that particular area'. It's pretty much black and white now. It has to be justifiable."

This is also seen to have the benefit of freeing up more time for academic staff to focus on teaching and research activity.

Priorities

Across the board, the main priority for institutions is growth – a priority shared by both metropolitan and regional universities. However, how growth is pursued varies greatly. For example, with a limited pool of school leavers, one university representative cited the need to look beyond their

immediate catchment areas and focus more on those students who are willing to relocate. This person cited as a model another university it sees as its competition that is succeeding in attracting such applicants.

Institutions are also placing greater emphasis on increasing student retention, especially of students from equity groups. This involves making more informed selection decisions in the first place, as well as early identification of those students who could benefit from increased support or assistance. Longitudinal data held by institutions and TACs could assist in both of these processes. It could also assist applicants in making more informed choices prior to applying.

Recruitment

According to university admissions staff, recruitment is becoming increasingly targeted. Admissions and recruitment are focussed on specific niches, including but not limited to equity groups. This can be seen in the range of new pathways that have been created targeting different equity groups, as well as in the development of programs that focus on high performers from various disciplines.

With a greater focus on equity target groups and non-traditional learners, higher education institutions are also refining the ways in which they communicate with prospective applicants. One university representative confided that they are consciously adapting their communications with first-in-family applicants who may be deterred by traditional and more formal modes of engagement. They stress the need to be aware of the signals that are being sent and to refine communications appropriately.

Some universities are also openly offering incentives to convert offers into enrolments. One example of this is the 'connect and collect' program at the University of Western Sydney, where iPads have been given to commencing undergraduate students since 2013. Programs such as this are considered to be not only a means of facilitating enrolments, but also a means of introducing students to essential online materials and systems that will prepare them for their university learning experiences.

Equity

Equity issues have an increasingly prominent role in admissions, driven by government targets for increasing the participation of people from low socio-economic status (SES) groups and the competition for undergraduate enrolments. However, institutions have very different experiences. Broadly speaking, there are two different sets of institutions, and each is responding quite differently to the government's push to increase the participation of students from low SES backgrounds and other equity groups. On the one hand, there is a small number of selective institutions struggling to meet government equity targets. For these institutions, equity is usually treated as a stand-alone area. On the other hand, there are numerous universities that consider themselves to be sitting squarely within the equity space. As one university representative stated:

"For us equity is systemic. We don't target it specifically, it's just embedded into everything we do."

Or as another put it:

"Equity is in our DNA."

Indeed, many of the university representatives we spoke to indicated they did not need to specifically recruit from equity groups, as their larger equity cohorts were simply a reflection of their community. For the more selective elite institutions, however, where the participation of people from equity groups is generally low, equity must be actively targeted. This is not always easy. During our conversation, representatives of one selective institution considered themselves to be geographically challenged in terms of being able to recruit students from low SES backgrounds. They cited a range of (generally financial) barriers to attracting such students, such as housing affordability within the local catchment areas and access to efficient transport options for those who have to commute from one side of the city to another. These costs are likely to weigh more heavily for students juggling work, study and other personal commitments.

Institutions successfully recruiting higher numbers of disadvantaged and low SES students do so by providing a variety of pathways and by placing a greater emphasis on financial support. Admissions staff from the more recruitment-oriented institutions pointed to the variety of admissions pathways their institutions offer, including pathways based on alternative selection criteria. These universities also differentiated themselves from selective institutions in terms of the support they provide to low SES students, both financially, and through outreach and enabling programs. This can be done in various ways, including by linking admissions with equity scholarships, or by setting up linkages with Centrelink to help streamline support provision.

A common theme to emerge from the interviews with admissions staff was the need to build the aspirations and confidence of students from disadvantaged groups. One interviewee made the point that, while the general perception is that the barriers preventing participation in higher education have been removed, this very openness also has the effect of making some groups more rather than less marginalised, especially in the case of those from first-in-family and refugee backgrounds. This university representative suggested that, in order to successfully engage with such students, it is necessary to address the challenge of raising their aspirations and expectations, while boosting the confidence of people who otherwise have no tacit knowledge or understanding of the value of education and who struggle to imagine themselves as participants in the higher education environment.

"I think the big project is that admissions is raising much earlier expectation, aspiration and confidence about higher education. But I don't think that's normalised yet. And I think there are a lot of assumptions made, because we've gone to a mass education system, it's demand driven, everyone under the sun truly believes they want to go university, they can go to university, and you know they will succeed in university, and ... that sort of sense of almost, 'oh yeah, everyone knows you can go, what's the problem?' I think that's actually masking [the fact] that there are still groups of people – groups of significantly disadvantaged people – who are actually not feeling that good about it all, young students in particular, and older students, and if anything they're feeling more and more marginalised from the process because of ... people thinking, 'oh well, I don't know what the problem is, they should just come to uni'."

This particular institution is tackling this problem (of specific groups continuing to be marginalised despite the apparent openness of higher education) through much earlier efforts to engage students during high school, focussing on years 9-11, in order to:

"... raise expectations, to build confidence, to ... give them the tools to start thinking 'what does it mean to come to university, what is the value of the university?"

Direct Admissions

There is significant variation in the way university admissions directors perceive the recent increase in direct admissions. Those who are against direct admissions cite their preference for students all going through the same process in the tertiary admissions centres (TACs). Some are critical of direct admissions for potentially making the admissions process less equitable, the rationale being that it is fairer for all applicants to go through the same admissions process. In one admissions director's words:

"There's no way we would offer students something that hasn't gone through [the TAC] system for our undergrads."

Some directors believe that direct admissions processes are less effective at picking up disadvantaged students and other data that would normally be gathered through the TAC-based Special Entry Access Scheme (or equivalent) application process. As one director stated:

"The benefit of a direct application [is that] you probably can get more information from an applicant. The downside of that is they're not prompted to fill out something like a SEAS application form, so they may not be quite as forthcoming with their equity base."

Nonetheless, there was also a lot of support amongst university representatives for direct admissions. Several reasons were cited for this, the main one being speed. Being able to provide prospective students with an offer within 24 hours, as some institutions are able, makes it far less likely that the student will go to another institution. The ability to retain a student who might have applied unsuccessfully by providing a slip-back offer¹⁵ at the same institution was another reason

¹⁵ A slipback offer is made to a student where they do not meet the admission criteria for the award they applied for, and instead they are made an offer for a related award which they do meet the admission criteria for, even if they did not apply for this course (e.g. a person not admitted to a Bachelor degree course may be admitted to the Diploma level of the same course).

given in support of direct admissions. One interviewee noted that, through the direct admissions process, students were able to engage with course advisers, faculties and other services early in the process, and that this tended to result in the student making a more informed decision. This was evidenced in a lower transfer rate for those students who had spoken to course advisers prior to making their application. Some institutions, while generally supportive of direct admissions and the need for institutional growth, stressed that they do not want this to happen at the expense of reducing the quality of their student cohort. They also wanted to avoid inundating their admissions staff with direct applications.

However, there is also a number of institutions keen to increase their direct admissions, but which are limited in their ability to do so. Some cited their existing agreements with their TAC as the main limiting factor while others were unable to meet the cost of establishing the infrastructure to support direct admissions processes.

Closely connected with the rise in direct admissions has been the increasing use of contextual data to assess students on a range of alternative criteria. This can include selecting students from targeted schools in low SES areas on the basis of personal statements, or mature age students lacking an ATAR, or identifying students with leadership potential or talents in creative or athletic areas, or Indigenous students with academic potential. One director stressed the importance of tailoring contextual admissions to target specific groups rather than taking a formulaic approach. However, whereas selection on the basis of the ATAR gives the illusion of transparency and fairness, selection on the basis of contextual data can more obviously lack these qualities, with selection criteria harder to define and administer.

Most institutions, including the TACs, note the additional workload that comes with contextual admissions. Depending on the institution and the specific arrangements in place with their primary TAC, the processing of contextual data can be done by either the institution or the TAC itself. Institutions are likely to over time weigh the benefits of direct admissions against the costs of the internal processing, leading either to growth in centrally administered direct admissions or, less likely, a decline in the prevalence of direct admissions. One challenge in an increasingly competitive environment is to credibly predict the counterfactual, i.e. will the students not admitted directly flow to the same institution through a centralised TAC admission process?

Perceptions of the tertiary admissions centres (TACs)

The TACs are seen by the vast majority of university admissions directors as providing an efficient and cost-effective service. The basic idea that gave rise to the system in the first place still holds true. As one interviewee stated:

"We all acknowledge that it doesn't make sense for five of us to run off and set up the same process, so we're collaborative in that regard, but then what we each do with that scheme will be very different." The TACs are widely acknowledged for their willingness to adapt to their institutional clients' changing needs. That they continue to be so is seen as imperative for their survival. If they are not flexible, the universities will go elsewhere. One university representative talked about the TACs moving toward more individualised agreements with their member institutions as institutions seek to develop additional admissions options to meet specific institutional requirements. However, as one university representative pointed out, the risk that comes with this is that it may have a negative impact on the efficiency and cost of the services being provided.

By providing the same experience for different students, the TACs are also seen as providing a level of fairness, consistency and transparency to applicants. Several interviewees made the point that the TAC process provides everyone with the same enrolment experience. The centralised system is also considered to be particularly effective for managing applications from school leavers. Meanwhile, some institutions consider the TAC process less suitable for courses where the bulk of the applicants are mature-age. At the same time, however, TAC capabilities are also proving useful in providing back-end processing for other areas in admissions, including application from international and postgraduate students.

While the relative simplicity of centralised TAC processes is still considered a major benefit, the increasing variety of pathways on offer is making it more difficult for users to navigate. One of the consequences of this is that it has become more difficult for students to make well-informed choices. One university representative made the comment:

"[With] a plethora of different types of schemes from different universities and different ways and mechanisms, well of course that's going to be challenging for people to try and unpick that and work through and compare apples with apples – which often it isn't apples with apples necessarily."

A similar view was conveyed in our survey of school-based careers advisers, who themselves were struggling to keep up with the increasingly complex array of early admissions and equity schemes. Under one TAC alone, some twenty-two early entry programs are offered by different institutions each with their own selection criteria. This was reiterated by one university representative who acknowledged that:

"[T]here's an added degree of complexity and [this] does give people a degree of anxiety because they're not sure they're making the wrong choice."

University representatives also raised a number of concerns with the TACs. One concern regards the TAC funding model based on offers, as this was considered by some as less efficient, and not assisting institutions with load planning. Others cited quality issues, fearing that the TACs are trending toward the lowest common denominator. Representatives of universities working across multiple states cited the difficulties of working with multiple TACs, each with its own governance structure. Another commented that the TACs are not good at working across borders, and one suggested that the TAC system favours the Group of Eight (Go8) elite institutions.

For those institutions seeking more direct engagement with prospective students, communication with course advisers and other institutional representatives prior to the application stage is considered important, especially where this has been observed to lead to more informed decision-making by the student. One downside of the centralised TAC process is that communication between prospective students and institutional staff is less likely to happen. Several university representatives we spoke to questioned why the TAC, rather than the institution, has the initial contact with the applicant. As one put it:

"Why is it the business of the TAC to manage and to engage with our students from the minute they enquire? Because that's our relationship with them as a prospective student, and that relationship is for a long time."

Data is increasingly recognised as being critical to the admissions process. This is especially the case with the increasing use of contextual admissions. Interviewees believe it will be important that the TACs are prepared to manage an increasingly complex range of data, including sources such as the Record of School Achievement where students are able to store additional information that is often highly valued by prospective employers. However, the TACs and their client institutions find themselves on either side of the data divide, with the TACs concerned about the privacy of student data on the one hand, while the universities are calling for greater access and transparency on the other. The university representatives we spoke to did not point to any particular ways of addressing this. However, with the TACs developing more tailored services built around contextual information, how they and their member institutions manage the use of data resources will only become increasingly important.

The future of admissions is data driven

As the higher education system continues to expand, the need to improve the efficiency of admissions processes within both TACs and institutions will remain a priority. Amongst those institutions offering the most highly competitive degrees for which there is excess demand, for example, there is a shared goal of finding more effective ways to reduce the number of applicants – by making it much easier for prospective students to get an accurate estimation of the likelihood of their successful admission before they actually apply. Efficiency is also being sought in other areas, by looking at ways of making more effective and efficient use of university resources, such as by opening up more programs that make use of the traditional 'non-teaching' periods to teach additional cohorts.

University admissions directors perceive better access to and use of data as playing a key role in improving admissions. In addition to the data collected by the TACs, universities have access to considerable data resources. However, one university representative made the point that currently not enough work is being done to turn longitudinal data into insights that can improve admission practices:

"[Let's say] I get 1000 applications, I make 900 offers, and I end up with – and I'm not saying this [is accurate] but you know, [let's say] I end up with only 600 enrolments. Well, have I

wasted time on the 300 [who didn't enrol}? Should I have [bothered making] them an offer in the first place? Have I wasted time calling them? You need some predictive analytics about that. And then the 600 turn up [but] 300 of them walk out within the first year. Well that's not very good either."

Apart from improving admissions practices, university representatives also want to use available data to improve the support they provide to students. For example, one might use such data in order to predict which students are likely to require support during their studies. Proactive identification of student needs may have a range of flow-on benefits including but not limited to improving student performance and retention. In this sense, institutional data may be used in a more integrated manner across the student's life cycle. This is seen as one facet of a general change that is needed in the way institutional data is managed. As one university representative commented:

"We put everything into these boxes and the thing is in the future is we don't, we have to have much more of a clear line of sight and amalgamation, coordination and integration between management, academic, learning, student, market – it's not going to just sit like 'well I'm only interested in management data.' Well management data is only as good as what's happening in the classroom, and the classroom is only as good as whatever we do in management."

University representatives also consider that admissions processes need to be simplified in order to alleviate the anxiety of students. One made the comment that the general atmosphere among applicants has changed over the last twenty years from one of excitement to anxiety, as a result of changing admissions practices. They asked:

"What are we doing to perpetuate this stuff, what are we doing in our messaging about admissions, about university, that has created this kind of anxiety-provoking and this thing of 'well you know it's going to be too hard for me to know'? So for me that's the challenge, it's not about hand-holding or whether it's automated, all of it has to be the same, whether it's the verbal stuff we do in the front of a class, or we have to work with 10 students because they really are whatever, they don't speak much English whatever it is. Or what we do in the digital space, or our processes, or how we communicate our selection criteria – we've got to make that just easy, we've got to make it like it's not some secret society that you've got to join."

The rapid recent expansion of higher education has increased public outlays and contributed to attempts from both major parties to constrain the growth in the higher education budget. Scrutiny has been placed on the efficacy of admissions, the cost of attrition and alignment of skills and qualifications with jobs. There is scope for Australian higher education to operate more efficiently and effectively, ensuring that students with the right capabilities are matched to an appropriate course and supported to succeed. Tertiary admissions practices retain a level of uncertainty around who, on the basis of information available, will successfully complete their program of study. The review of the demand driven funding system recommended, in line with market design principles,

that students be empowered with greater information around courses and institutions. The launch of Quality Indicators for Learning and Teaching (QILT) is the outcome of this thinking, but there is more that could be done. QILT could do more to improve admissions practice by publishing entry criteria and performance information that would enhances transparency of tertiary admissions. Achieving an outcome such as this would require a challenging program of work to clarify and standardise data collection, and work through the complexities of data governance, privacy and information management systems.

A national TAC?

The concept of a national TAC found little traction amongst those interviewed, with the exception of those representatives of universities working with multiple TACs across multiple states. Indeed, most of the university representatives we spoke to were critical of the idea of a national tertiary admissions centre. The main reason cited for this view was the current lack of interstate mobility amongst students. The issue of student willingness to relocate is an open, demand side question, and growing mobility could potentially break the state based segmentation of the market and increase supply side competition among selecting and recruiting institutions. However, based on current cross-state applications, a national TAC would only benefit students applying for Medicine (and graduate applicants for Medicine already have a national TAC with GEMSAS), Veterinary Sciences and a few other highly competitive courses. Some university representatives also expressed concern that a national TAC would trend toward the lowest common denominator, leaving TAC members with less flexibility to control their own admissions. The latter was a concern expressed by representatives from both selecting and recruiting institutions. For the selecting universities, the concern related to maintaining quality at the upper end, while recruiting institutions wanted to be able to maintain a high degree of control over their selection of students from the middle band.

The main support for a national TAC was found amongst those currently working with multiple TACs. One university representative cited the UK as an example in noting the benefit of having:

"[a] centralised point of applications, everything from applications to offers to a repository where we centralise all our records like academic records and all that sort of thing, and keeping it simple. You know you go to one place you pay one fee. So just from that point of view it just makes sense you know."

Indeed, though there was limited support for a national TAC amongst the university representatives we spoke to, most were enthusiastic about the potential benefits to institutions and students of pooling national data. As one stated:

"I personally see a huge benefit ... there are so many resources in the other tertiary admissions centres that if they could be shared with everyone would deliver a much better service to both applicants and staff trying to administer that."

Another pointed out that a national approach to admissions could also benefit students:

"[The current system] makes it difficult for them in the decision making process, and it's a huge decision for them, when they can't get the offers from different universities or from different states at the same time. So that would certainly benefit the students I think."

Pooling data nationally may also make it easier to track student progress beyond state boundaries:

"We have high achievers disappearing from the system because they don't apply at all. We don't know what they've done, whether they've gone to university or not. It would be nice to know that they went interstate ... [A national database would provide] a much better picture of what's happening in terms of tertiary admissions – if all the data was in one database instead of five."

Regional Issues

University representatives also mentioned the importance of linking programs to regional employers, and of offering programs that are relevant and attractive to local communities. Those in regional areas noted the difficulty experienced in achieving growth within their immediate catchment areas, where the numbers of school leavers is falling, as is their general population so opportunities for mature age entry recruitment are limited too. In order to address this, institutions are working on ways to communicate with prospective students who are already prepared to relocate.

Non-university higher education providers (NUHEPs)

While all institutions are aware of the increasing number of higher education providers, on the whole this is not seen as a threat. Where they consider there may be more potential for competition is in the area of online/blended learning, as it is here that universities can differentiate themselves both by their offerings and providing more rigorous support. In general however, the university representatives we spoke to did not consider non-university higher education providers, or NUHEPs, as their competition. What came through more strongly was the degree of cooperation between universities and TAFE providers, who often work together to provide alternative pathways into degree programs.

Implications –

Section 9. Interviews with Directors of University Admissions Departments

For universities, the rise of direct admissions and early offer schemes presents both a resourcing and an evidential challenge. As outlined above, greater evidence is required to determine which alternative entry pathways and criteria are valid, efficient, and transparent, and such evidence is often limited by commercial-in-confidence issues – which limit the sharing of data – and by resource limitations within admissions offices. Nevertheless, alternative pathways are widely supported, and the university representatives we spoke to noted that recruitment and communications are becoming more targeted to specific groups. The expansion of pathways reflects the fact that enrolment growth remains a priority for most universities, and incentives to convert offers into enrolments are also growing. There was a realization that growing retention was complementary to growing enrolments and the most efficient way to achieve the former was to obtain better information about students at enrolment. The risks of withdrawal among equity groups, increasingly targeted in the demand driven system, have been highlighted in Cardak and Vecci (in press) and Harvey and Szalkowicz (2015).

The university representatives we spoke to typically expressed confidence in the capacity of tertiary admissions centres to manage their applications, and they did not yet consider non-university higher education providers to be a significant threat to university recruitment objectives. Indeed, many institutional representatives emphasised instead their collaborations with partner TAFE institutions, including dual enrolments. Primary challenges for universities are therefore to improve their evidence base around admissions, and to improve the clarity of their offerings to students. The extent of this latter need was underlined by our further research with careers advisers and school students.

University admissions is Australia is complex with many facets. Recent growth in higher education has been facilitated by expansionist government policy, which has triggered much innovation in university admissions practice. Some higher education commentators criticise admissions practice from perspectives of standards erosion (admitting in too many under-prepared students) and inequity (setting ATAR cut offs in ways that make courses appear more exclusive than is the case). A nuanced approach to higher education policy should seek to accommodate these polarised positions and accept that higher education expansion will lead to differentiation in those who are admitted and the mechanisms through which they are admitted, whilst maintaining effective mechanisms for quality assurance. The review of the demand driven funding system made no major findings in relation to admissions other than investing more to ensuring applicants were 'informed consumers'. The launch of the Quality Indicators for Learning and Teaching (QILT) is consistent with this approach. There may be scope for QILT to include information about entry and admissions which could, whilst accommodating diverse admissions practices, standardise information relevant to student decision making.

References

- ACARA 2015, *My School*, Australian Curriculum, Assessment and Reporting Authority, viewed 11/11/2015, http://www.myschool.edu.au/.
- Anderson, DS 1983, 'Access to Higher Education: The Link Between Admissions and Social Class', *Melbourne Studies in Education*, vol. 25, no. 1, pp. 97-111.

Andrewartha, L & Harvey, A 2014, 'Willing and enabled: the academic outcomes of a tertiary enabling program in regional Australia', *Australian Journal of Adult Learning*, vol. 54, no. 1, pp. 50-68.

- Archer, J, Cantwell, R & Bourke, S 1999, 'Coping at University: an examination of achievement, motivation, self-regulation, confidence, and method of entry', *Higher Education Research & Development*, vol. 18, pp. 31-54.
- Australasian Conference of Tertiary Admission Centres 2015, *National Tertiary Admissions System* viewed 11/12/2015, http://www.actac.edu.au/ntas.html.
- Australian Bureau of Statistics 2011a, *Australian Statistical Geography Standard (ASGS)*, viewed 5/12/2015,

<http://www.abs.gov.au/websitedbs/D3310114.nsf/home/Australian+Statistical+Geography +Standard+(ASGS)>.

- Australian Bureau of Statistics 2011b, *Socio-Economic Indexes for Areas (SEIFA)*, viewed 5/12/2015, http://www.abs.gov.au/ausstats/abs@.nsf/mf/2033.0.55.001/.
- Australian Bureau of Statistics 2011c, 3218.0 Regional Population Growth, Australia, 2011, viewed 4/11/2015,

<http://www.abs.gov.au/ausstats/abs@.nsf/Products/3218.0~2011~Main+Features~Main+Features?OpenDocument#PARALINK2>.

- Bagshaw, E. 2016, Gaming the system: The beginning of the end for university admissions, *Sydney Morning Herald*, Jan 29
- Bandias, S, Fuller, D & Pfitzner, D 2011, 'Vocational and higher education in Australia: A need for closer collaboration', *Journal of Higher Education Policy and Management*, vol. 33, no. 6, pp. 583-594.
- Baron, J & Norman, MF 1992, 'SATs, Achievement Tests, and High-School Class Rank as Predictors of College Performance', *Educational and Psychological Measurement*, vol. 52, p. 1047.
- Bastedo, MN & Jaquette, O 2011, 'Running in Place: Low-Income Students and the Dynamics of Higher Education Stratification', *Educational Evaluation and Policy Analysis*, vol. 33, no. 3, pp. 318-339.
- Bebbington, W 2014, 'Australia must ignore vested interests and seize chance for change', *Times Higher Education*, 17 April 2014, viewed 12/11/2015,

<http://www.timeshighereducation.co.uk/comment/opinion/australia-must-ignore-vested-interests-and-seize-chance-for-change/2012778.article>.

Bedford, T 2009, 'Beyond our control? Pre-tertiary bridging program students' perceptions of factors that affect their progress with study', paper presented at the 3rd National Conference for Enabling Education, Toowoomba, Queensland.

- Bennett, A, Hodges, B, Kavanagh, K, Fagan, S, Hartley, J & Schofield, N 2013, ''Hard'and 'soft' aspects of learning as investment: opening up the neo-liberal view of a programme with 'high' levels of attrition', *Widening Participation and Lifelong Learning*, vol. 14, pp. 141-156.
- Birch, ER & Miller, PW 2006, 'Student Outcomes at University in Australia: A Quantile Regression Approach', *Australian Economic Papers*, vol. 45, no. 1, pp. 1-17.
- Blythe, K 2014, 'Selection Methods for undergraduate admissions in Australia. Does the Australian Tertiary Admissions Rank (ATAR) have a future?', *Journal of Higher Education Policy and Management,* vol. 36, no. 3, pp. 268-278.
- Bradley, D, Noonan, P, Nugent, H & Scales, B 2008, *Review of Australian Higher Education Discussion Paper June 2008*, viewed 27/11/2015, <www.dest.gov.au/HEreview>.
- Bridger, K, Shaw, J & Moore, J 2012, Fair Admissions to Higher Education: Research to describe the use of contextual data in admissions at a sample of universities and colleges in the UK, viewed 3/10/2015,

<http://www.spa.ac.uk/documents/ContextualData/Full_SPA_Contextual_data_Research_R eport-Feb2012.pdf>.

- Cardak, B.A., Bowden, M.P. and J. Bahtsevanoglou 2015, "Are Low SES Students Disadvantaged in the University Application Process?", National Centre for Student Equity in Higher Education, Curtin University, Perth.
- Cardak, B.A., Bowden, M.P. and J. Bahtsevanoglou 2016, "Who is Offered a University Place and who Rejects their Offer?", National Centre for Student Equity in Higher Education (NCSEHE), Perth: Cutin University.
- Cardak, BA & Ryan, C 2009, 'Participation in Higher Education in Australia: Equity and Access', *Economic Record*, vol. 85, no. 4, pp. 433-448.
- Cardak, B.A. and J. Vecci, (in press), "Graduates, Dropouts and Slow Finishers: The Effects of Socioeconomic Status on University Educational Outcomes", Oxford Bulletin of Economics and Statistics.
- Chapman, B & Ryan, C 2005, 'The Access Implications of Income Contingent Charges for Education: Lessons from Australia', *Economics of Education Review*, vol. 24, no. 5, pp. 491-512.
- Chesters, J & Watson, L 2013, 'Understanding the Persistance of Inequality in Higher Education: Evidence from Australia', *Journal of Education Policy*, vol. 28, no. 2, pp. 198-215.
- Clancy, P & Goastellec, G 2007, 'Exploring access and equity in higher education: Policy and performance in a comparative perspective', *Higher Education Quarterly*, vol. 61, no. 2, pp. 136-154.
- Clarke, K & Savage, G 2012, *La Trobe University's School Partnerships Program Stage 2 Evaluation*, Melbourne: Education Policy & Leadership and the Centre for Program Evaluation, University of Melbourne.
- Coates, H & Friedman, T 2010, 'Evaluation of the special tertiary admissions test (STAT)', *Journal of Higher Education Policy and Management,* vol. 32, no. 2, pp. 117-126.
- Cocks, T & Stokes, J 2013, 'Policy into practice: a case study of widening participation in Australian higher education', *Widening Participation and Lifelong Learning*, vol. 15, no. 1, pp. 22-38.
- Commonwealth Department of Education 1986, *Selection for Higher Education: a discussion of issues and possibilities by an education portfolio discussion group*, Canberra, ACT.

- Cram, B & Watson, L 2008, 'Managing Credit Transfer from TAFE to University: The Case for Cross-Sectoral Collaboration', paper presented at the Eleventh Australian Vocational Education and Training Research Association (AVETRA) Conference, Adelaide.
- Crawford, N 2014, 'Practical and profound: multi-layered benefits of a university enabling program and implications for higher education', *International Studies in Widening Participation*, vol. 1, no. 2, pp. 15-30.

Cullen, JB, Long, MC & Reback, RL 2011, *Jockeying for Position: Strategic High School Choice Under Texas' Top Ten Percent Plan. NBER Working Paper 16663*, Cambridge, Mass.

Cullity, M 2006, 'Challenges in understanding and assisting mature-age students who participate in alternative entry programs', *Australian Journal of Adult Learning*, vol. 46, no. 2, pp. 175-201.

Curtis, D 2009, Student Transfer: At a Glance, viewed 13/10/2015,

<http://apo.org.au/resource/student-transfer-glance>.

- DEET 1990, A Fair Chance For All. National and Institutional Planning for Equity in Higher Education. A Discussion Paper, Australian Government Publishing Service, Canberra, ACT.
- DEEWR 2008, Students: 2008 Summary of Higher Education Statistics, Canberra, ACT.
- DEEWR 2009a, Transforming Australia's Higher Education System, Canberra, ACT.
- DEEWR 2009b, Undergraduate Applications, Offers and Acceptances 2009, Canberra, ACT.

DEEWR 2010, Undergraduate Applications, Offers and Acceptances 2010, Canberra, ACT.

Department of Education 2014a, 2014 Appendix 2 – Equity groups, Department of Education and Training, viewed 26/10/2015, https://docs.education.gov.au/node/38145>.

- Department of Education 2014b, 2014 Student summary time series, Canberra: ACT.
- Department of Education 2014c, *Undergraduate Applications, Offers and Acceptances 2014*, Canberra, ACT.
- Department of Education and Training 2015a, *Undergraduate Applications, Offers and Acceptances 2015*, Canberra, ACT.
- Department of Education and Training 2015b, *Undergraduate Applications, Offers and Acceptances 2015 Appendices*, Canberra, ACT.
- Department of Education and Training 2015c, *Completion Rates of Domestic Bachelor Students A Cohort Analysis, 2005-2013,* Canberra, ACT.
- Dobson, IR & Skuja, E 2005, ' Secondary schooling, tertiary entry ranks and university performance', *People and Place*, vol. 13, no. 1, pp. 53-62.
- Dodge, L 2008, 'Overcoming Barriers of Tradition Through an Effective New Graduate Admission Policy', *Journal of Continuing Higher Education*, vol. 56, no. 2, pp. 2-11.
- Eaton, C 2010, 'UT vice president details ins, outs of top 10 percent rule', *The Daily Texan*, July 27.
- Edwards, D, Coates, H & Friedman, T 2013, 'Using aptitude testing to diversify higher education intake an Australian case study', *Journal of Higher Education Policy and Management*, vol. 35, no. 2, pp. 136-152.
- Foley, P 2007, *The Socio-economic status of vocational education and training students in Australia*, NCVER, Canberra.
- Gamoran, A & Long, D 2007, 'Equality of Educational Opportunity: A 40 Year Retrospective', in R Teese, S Lamb & M ru-Bellat (eds), *International Studies in Educational Inequality, Theory and Policy*, Springer, Dordrecht.

- Geiser, S & Santelices, MV 2007, Validity of High-School Grades in Predicting Student Success Beyond the Freshman Year: High-School Record vs. Standardized Tests as Indicators of Four-Year College Outcomes, Center for the Study of Higher Education, Melbourne.
- George, R, Lucas, J & Tranter, D 2005, 'Portfolio Entry: Alternative university access for year 12 students', *Proceedings of the Higher education in a changing world, Proceedings of the 28th HERDSA Annual Conference*, Sydney.
- Goho, J & Blackman, A 2006, 'The effectiveness of academic admission interviews: an exploratory meta-analysis', *Medical Teacher*, vol. 28, no. 4, pp. 335–340.
- Harris, R, Rainey, L & Sumner, R 2005, *Student traffic, two-way movement between vocational education and training and higher education*, Centre for Research in Education, Equity and Work, Adelaide.
- Harris, R, Rainey, L & Sumner, R 2006, *Crazy Paving or Stepping Stones? Learning Pathways within and between Vocational Education and Training and Higher Education*, NCVER, Adelaide.
- Harvey, A 2014, 'Early and delayed offers to underrepresented university students', *Australian Journal of Education*, vol. 58, no. 2, pp. 167-181.
- Harvey, A & Simpson, A 2012, 'Powers of Prediction: Can School Recommendations Forecast University Achievement', Widening Participation and Lifelong Learning, vol. 14, no. 3, pp. 157-171.
- Harvey, A. & Szalkowicz, G. 2015, From departure to arrival: Re-engaging students who have withdrawn from university. Journal of Further and Higher Education
- Heagney, M 2012, 'University Selection: Can it be equitable and excellent?', paper presented at the European Access Network Conference. Student Diversity in Higher Education: Conflicting Realities, , Amsterdam, The Netherlands.
- Higher Education Support Act 2003 (Cth), viewed 10/09/2015, https://www.comlaw.gov.au/Details/C2014C00113/826fee22-1392-469a-a0c1-158905f90b1d
- Horn, C & Flores, S 2003, Percent Plans in College Admissions: A Comparative Analysis of Three States' Experiences, Harvard Civil Rights Project, Cambridge, MA.
- James, R, Bexley, E & Maxwell, L 2008, Participation and Equity: A Review of the Participation in Higher Education of People from Low Socio-economic background and Indigenous People, University of Melbourne, Centre for the Study of Higher Education.
- James, R, Bexley, E & Shearer, M 2009, *Improving Selection for Tertiary Education Places in Victoria*, University of Melbourne, Centre for the Study for Higher Education.
- Jha, N. 2015, "Late Start with Extra Schooling: The Effect of Increase in School Entry Age and Preschool Provision", *Economic Record* 91(S1), 54–77.
- Kemp, D & Norton, A 2014, *Review of the Demand Driven Funding System*, Department of Education, Canberra, ACT.
- Kirkup, C, Wheater, R, Morrison, J, Durbin, B & Pomati, M 2010, *Use of an aptitude test in university entrance: a validity study*, National Foundation for Educational Research, Berkshire, UK.
- Klinger, C & Murray, N 2012, 'Tensions in higher education: widening participation, student diversity and the challenge of academic language/literacy', Widening Participation and Lifelong Learning, vol. 14, no. 1, pp. 27-44.
- Klinger, CM & Murray, N 2009, 'Enabling education: adding value and transforming lives', paper presented at the Paper presented at the 2009 Enabling Pathways: Proceedings of the 3rd
National Conference for Enabling Education, University of Southern Queensland, Queensland, Australia.

Klinger, CM & Tranter, D 2009, 'Firm foundations for the future', paper presented at the 2009 Enabling Pathways: Proceedings of the 3rd National Conference for Enabling Education.

La Trobe University 2015a, Admissions Policy, viewed 25/11/2015,

<http://www.latrobe.edu.au/policy/documents/admissions-policy.pdf>.

La Trobe University 2015b, Aspire, viewed 12/10/2015, <http://www.latrobe.edu.au/study/aspire>.

Levy, SC & Burnheim, C 2012, 'Pathways for non-Traditional Learners in a Research-Intensive University', *Proceedings of the Create & Collaborate Foundation & Bridging Educators New Zealand Inaugural Conference 2012, 3*, Ako Aotearoa, The National Centre for Tertiary Teaching Excellence, New Zealand, pp. 83-95.

Maringe, F 2006, 'University and course choice: Implications for positioning, recruitment and marketing', *International Journal of Educational Management*, vol. 20, no. 6, pp. 466-479.

McManus, IC, Powis, D, Wakeford, R, Ferguson, E, James, D & Richards, P 2005, 'Intellectual aptitude tests and A levels for selecting UK school leaver entrants for medical school', *British Medical Journal*, vol. 331, no. 7516, pp. 555-559.

Mestan, K 2014, Mature Aged People's Access to Higher Education, [unpublished work].

Moodie, G 2015, 'How different are higher education institutions in the UK, US and Australia? The significance of government involvement', *Higher Education Quarterly*, vol. 69, no. 1, pp. 3–36.

Moore, J, Mountford-Zimdars, A & Wiggans, J 2013, *Contextualised admissions: Examining the evidence*, Supporting Professionalism in Admissions Programme, Cheltenham.

Murphy, M, Papanicolaou, K & McDowell, R 2001, 'Entrance Score and Performance : A Three Year Study of Success', *Journal of Institutional Research*, vol. 10, no. 2, pp. 32-49.

Norton, A 2014, Mapping Australian Higher Education 2014-15, Grattan Institute, Melbourne.

O'Donoghue, D 2009, 'Predicting Performance in Art College: How Useful are the Entry Portfolio and Other Variables in Explaining Variance in First Year Marks?', *JADE*, vol. 28, no. 1, pp. 82-106.

Ogg, T, Zimdars, A & Heath, A 2009, 'Schooling Effects on Degree Performance: A Comparison of the Predictive Validity of Aptitude Testing and Secondary School Grades at Oxford University', *British Educational Research Journal*, vol. 35, no. 5, pp. 781-807.

Orth, G & Robinson, C 2013, 'Do potentially successful students in tertiary enabling programs have any common characteristics that underpin resilience and persistence? If so, how can this information help future enabling students?', paper presented at the National Association of Enabling Educators of Australia Conference; Flexibility: Pathways to participation, Melbourne, Australia, 27-29 November, 2013.

Palmer, N, Bexley, E & James, R 2011, *Selection and Participation in HIgher Education*, University of Melbourne, Centre for the Study of Higher Education.

Parker, S 2014, Senate Education and Employment Legislation Committee Inquiry into Higher Education and Research Reform Amendment Bill 2014, Submission 79, viewed 27/11/2015, ">http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Education_and_Employment/Higher_Education/Submissions>">http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Education_and_Employment/Higher_Education/Submissions>">http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Education_and_Employment/Higher_Education/Submissions>">http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Education_and_Employment/Higher_Education/Submissions>">http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Education_and_Employment/Higher_Education/Submissions>">http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Education_and_Employment/Higher_Education/Submissions>">http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Education_and_Employment/Higher_Education/Submissions>">http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Education_and_Employment/Higher_Education/Submissions>">http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Education_and_Employment/Higher_Education/Submissions>">http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Education_and_Employment/Higher_Education/Submissions">http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Education_and_Employment/Higher_Education/Submissions">http://www.aph.gov.au/Parliamentary_Business/CommitteeSenate/Education_Aduca

Pascoe, R 1999, 'Admission to Australian Universities', *Journal of Higher Education Policy & Management*, vol. 21, no. 1, pp. 17-30.

Pascoe, R, McClelland, A & McGaw, B 1997, *Perspectives on selection methods for entry into higher education in Australia*, Department of Employment, Education, Training and Youth Affairs.

Pitman, T, Trinidad, S., Devlin, M., Harvey, A., Brett, M., & McKay, J. (2016). *Pathways to higher education: A comparison of the efficacy of enabling and sub-bachelor pathways for disadvantaged students*. National Centre for Student Equity in Higher Education, Perth.

Purcell, K, Wilton, N & Elias, P 2007, 'Hard Lessons for Lifelong Learners? Age and Experience in the Graduate Labour Market', *Higher Education Quarterly*, vol. 61, no. 1, pp. 57-82.

Schwartz, S 2004, Fair Admissions to Higher Education: Recommendations for Good Practice.

Shaffer, D 2011, The Applicant Experience, Supporting Professionalism in Admissions.

Simpson, P, Scicluna, H, Jones, P, Cole, A, O'Sullivan, A, Harris, P, Velan, G & McNeil, P 2014,
'Predictive validity of a new integrated selection process for medical school admission', *BMC Medical Education*, vol. 14, no. 86.

Siu, E & Reiter, HI 2009, 'Overview: what's worked and what hasn't as a guide towards predictive admissions tool development', *Advances in Health Sciences Education*, vol. 14, no. 5, pp. 759-775.

Smith, J 2008, 'Mature learners: A synthesis of research', *Higher Education Academy*.

Smith, K & Tillema, H 2003, 'Clarifying different types of portfolio use', *Assessment & Evaluation in Higher Education*, vol. 28, no. 6, pp. 625-648.

Smith, W & Bender, T (eds) 2008, American higher education transformed, 1940-2005: Documenting the national discourse, JHU Press.

Teese, R 2007, 'Structural Inequality in Australian Education. Vertical and Lateral Stratification of Opportunity', in R Teese, S Lamb & M Duru-Bellat (eds), International Studies in Educational Inequality, Theory and Policy Volume 2: Inequality in Education Systems, Springer, Dordrecht, pp. 39-61.

Trow, M 1989, 'American higher education – past, present and future', Studies in Higher Education, vol. 14, no. 1, pp. 5-22.

UCAS 2015, UCAS, viewed 11/11/2015, <https://www.ucas.com/>.

Universities Admissions Centre 2015a, *Australian Tertiary Admission Rank (ATAR)*, viewed 11/12/2015, .

Universities Admissions Centre 2015b, UAC ATAR - Bonus Points, viewed 11/12/2015, http://www.uac.edu.au/atar/bonus-points/>.

Universities Admissions Centre 2015c, UAC ATAR - Scaling, viewed 11/12/2015, http://www.uac.edu.au/atar/calculation/scaling.shtml.

Universities Admissions Centre 2015d, UAC Educational Access Schemes, viewed 11/12/2015, .

Universities UK 2014, 'The funding environment for universities 2014: Trends in undergraduate recruitment', viewed 27/12/2015,

<http://www.universitiesuk.ac.uk/highereducation/Documents/2014/TrendsInUndergradua teRecruitment.pdf>.

University of California 2014, Eligibility in the Local Context, viewed 16/12/2015,

http://admission.universityofcalifornia.edu/counselors/q-and-a/local/#1.

University of Melbourne 2015, Admission and Selection Policy, viewed 23/10/2015,

<a>https://policy.unimelb.edu.au/MPF1295#section-3.3>.

University of New England 2015, *Admission Undergraduate and Postgraduate (Coursework) Rule,* viewed 12/12/15, http://policies.une.edu.au/view.current.php?id=00033>.

- Victorian Tertiary Admissions Centre 2015a, *The ATAR explained*, viewed 11/12/2015, http://www.vtac.edu.au/results-offers/atar-explained.html.
- Victorian Tertiary Admissions Centre 2015b, *Other schemes outside of SEAS*, viewed 11/12/2015, .
- Victorian Tertiary Admissions Centre 2015*c, Scaling and the ATAR*, viewed 11/12/2015, http://www.vtac.edu.au/results-offers/atar-explained/scaling.html.
- Victorian Tertiary Admissions Centre 2015d, *Special Consideration and Special Entry Access Scheme* (SEAS), viewed 11/12/2015, http://www.vtac.edu.au/who/seas.html.
- Victorian Tertiary Admissions Centre 2015e, *Types of scholarships*, viewed 11/12/2015, .
- Wheelahan, L 2009, *What kind of access does VET provide to higher education for low SES students?: not a lot*, Student equity in higher education: what we know, what we need to know: forum proceedings, Adelaide, S.A.
- Willans, J & Seary, K 2007, ''I'm not stupid after all' changing perceptions of self as a tool for transformation', *Australian Journal of Adult Learning*, vol. 47, no. 3, pp. 433–452.
- Win, R & Miller, PW 2005, 'The Effects of Individual and School Factors on University Students' Academic Performance', *The Australian Economic Review*, vol. 38, no. 1, pp. 1-18.

World Bank 2000, Higher education in developing countries: peril and promise, Washington DC.

Glossary

ACTAC – the Australasian Conference of Tertiary Admission Centres was formed in 1995 to establish core elements of a national tertiary admissions system, including establishing agreements on common dates for applications, coordinating the release of Year 12 results, maintaining the Interstate Transfer Index, and converting International Baccalaureate results (see Appendix B).

AQF – Australian Qualifications Framework

ASGC – the Australian Standard Geographical Classification is the most commonly used index to determine a student's metropolitan, regional or remote status.

ATAR – the Australian Tertiary Admissions Rank was introduced by all states and territories except Queensland in 2009 to the replace the previous state ranking systems. The ATAR quantifies a student's ranking within the student body for the year.

ATN – the Australian Technology Network is a coalition of five Australian universities (Curtin University, University of South Australia, RMIT University, University of Technology Sydney and Queensland University of Technology) that share a common focus on the practical application of tertiary studies and research.

Bonus Points – allocations of additional points can be awarded to individual applicants on the basis of a range of different criteria determined by educational institutions. These may be awarded to provide incentives for students to elect to study particular subjects such as languages, or to compensate students who have experienced some form of disadvantage. Depending on the institution, points may be added to the aggregate score or to the ATAR itself.

Contextual Admissions – contextual admissions are designed to assess a student's performance with respect to their specific context, which may be informed by data from socio-economic markers, geographic data and contextual information such as that provided by personal statements, referee reports and other recommendations etc.

DDS – the demand driven system, or demand driven funding system, was introduced by the Commonwealth Government in 2012 to replace the previous 'supply-driven' system. Under the DDS, universities are able to respond to student demand rather than being restricted by government caps on student places.

Direct Applications/Direct Admissions/Direct Entry – direct applications, direct admissions or direct entry refer to those applications submitted directly to the institution rather than being submitted to one of the tertiary admission centres (TACs). Depending on institutional arrangements, parts of this process may still make use of TAC services, or the entire process may be run by the institution alone.

EAS – the Educational Access Scheme is administered by the Universities Admissions Centre in NSW. The scheme is designed to assist students who have experienced long-term (6 months or more during Year 11 or 12) educational disadvantage in gaining access to higher education. To

compensate, students may be awarded bonus points or be awarded a place in a program where places are set aside specifically for EAS applicants.

Enabling Programs – enabling programs are non-award courses designed to provide prospective students, often from disadvantaged and non-traditional backgrounds, with access to university-based study and academic preparation to improve the likelihood of a student succeeding in a formal course of study. They are often targeted to specific groups, such as mature age and school leavers. Some institutions also provide enabling programs for specific discipline areas such as fine arts and sciences. To encourage participation from non-traditional students, these programs are normally open entry with minimal entry requirements. It is a Commonwealth Government requirement that all enabling programs be provided to domestic students free of charge.

ENTER – equivalent National Tertiary Entrance Rank was used in Victoria until it was replaced by the ATAR in 2010. The ENTER provided students with a percentile ranking based on their subject score in English, together with the three next best subjects scores (the 'Primary Four'), plus 10% of the next 2 subjects.

First in Family – refers to an applicant who is the first in their immediate family (including parents, brothers and sisters) to attend university.

GEMSAS – the Graduate Entry Medical School Admissions System.

Go8 – the Group of Eight is comprised of eight member universities, including the University of Adelaide, the Australian National University, Monash University, the University of Melbourne, the University of NSW, the University of Queensland, the University of Sydney and the University of Western Australia.

HEPPP – the Higher Education Participation and Partnerships Programme was established in 2010 to assist universities to conduct outreach, raise aspirations and enrolments, and increase support for low SES students. Now known as the Higher Education Participation Program (HEPP), HEPP distributes over \$150 million per annum, replacing the earlier Equity Support Program, which distributed \$11 million per annum in 2009. HEPP funding is only available to public universities listed in Table A of the *Higher Education Support Act 2003*.

HSC – Higher School Certificate (NSW only)

ICSEA – the Index of Community Socio-Educational Advantage is a measure designed to compare schools on the ACARA *MySchool* website. The index measures a range of data that correlate with educational outcomes, including the socio-economic characteristics of the areas in which the students live and the proportion of Indigenous students at the school.

IRU – Innovative Research Universities is a group of six Australian universities comprising Flinders University, Griffith University, La Trobe University, Murdoch University, James Cook University and Charles Darwin University.

LOTE – Language other than English

Low SES – low socio-economic status. The concept of socio-economic status is used to capture differences in social, cultural and economic factors. There is no formal definition and different studies make use of a range of criteria including family income, educational attainment, and geographical indicators such as postcode or census ward of home address. Postcodes are the most common indicator used by tertiary institutions and this is based on the assumption that this is, on balance, the most effective indicator of educational advantage/disadvantage. For the purpose of this study, low SES students are determined by their home postcode using ABS data while low SES schools are those with an ICSEA rating of 950 and under. By comparison, this report defines high SES schools as those with an ICSEA score of 1100 and above.

Mature age – the definition of what constitutes a mature age student varies. It often refers to students aged 21 or older, while some institutions use it to refer to all students who are not current school leavers.

Middle band – the middle band ATAR refers to those who fall just below the minimum ATAR for automatic selection for a course. Often institutions apply additional criteria to make selections from middle band ATAR applicants. In Victorian institutions, the middle band is used to determine those who are eligible for bonus points.

Nested program – nested programs are suites of courses designed to provide a progression from lower to higher levels of award. Units completed at the lower level will often be counted in full towards the higher level of study. For example, units completed in an Advanced Diploma would be credited to a Bachelor Degree.

NUHEP – non-university higher education provider. While commonly referred to as private education providers, this definition is problematic owing to the government funding that many NUHEPs attract, and conversely, the high percentage of private funding received by public institutions. As a result, Higher Education Providers, or HEPs, are classified by TEQSA according to their ability to self-credit, the number and level of the courses provided and the breadth and quality of research.

NTCET – Northern Territory Certificate of Education and Training

OP – Overall Position is the tertiary entrance rank used in Queensland since 1992. It is due to be phased out in 2018 when Queensland will adopt the ATAR currently used by all other states and territories. While similar to the ATAR in showing how a student has performed relative to other students, the OP rank is expressed on a scale of 1-25, with 1 being the highest.

Pathway program – is a term that typically refers to sub-degree level courses and/or qualifications that might be used as a pathway to gain admission to a Bachelor degree. Depending on the institution's requirements, pathway programs may include certificate, diploma, or associate degree level courses, as well as some foundation courses.

Principal Recommendation Schemes – these are programs provided by some institutions aimed at enrolling Year 12 students who might not otherwise be offered a place in the general round of ATAR-

based offers. Principal Recommendation Schemes, like School Recommendation Schemes, use a range of contextual and non-ATAR criteria to make early conditional offers.

QACE – Queensland Certificate of Education

QTAC – Queensland Tertiary Admissions Centre

RUN – the Regional Universities Network, consisting of Central Queensland University, Southern Cross University, Federation University, University of New England, University of Southern Queensland and University of the Sunshine Coast.

SACE – South Australian Certificate of Education

SATAC - South Australian Tertiary Admissions Centre (also services the Northern Territory)

School Recommendation Schemes – are programs provided by some institutions aimed at enrolling Year 12 students who might not otherwise be offered a place in the general round of ATAR-based offers. Student Recommendations Schemes, like Principal Recommendation Schemes, use a range of contextual and non-ATAR criteria to make early conditional offers.

SEAS – the Special Entry Access Scheme is administered by the Victorian Tertiary Admissions Centre. It is designed to assist students who have experienced long-term (6 months or more during Year 11 or 12) educational disadvantage in gaining access to higher education. To compensate, students may be awarded bonus points or be awarded a place in a program where places are set aside specifically for SEAS applicants.

Slipback offer – a slipback offer is an offer to a lower-level course than the course(s) a student applied for. If a student does not receive an offer in the course to which they've applied, they may receive a slipback offer to a pathway course, even if they didn't apply for it.

STAT – Special Tertiary Admissions Test was developed by the Australian Council for Educational Research (ACER). The STAT is used to assess skills associated with successful tertiary study. The STAT is primarily used by mature age applicants, or those without recent or standard Year 12 results, though some institutions also require applicants to sit the STAT exam as an additional requirement.

TAC – Tertiary Admissions Centre

TAFE – Technical and Further Education

TEQSA – the Tertiary Education Quality and Standards Association is Australia's independent national regulator of the higher education sector.

TISC – Tertiary Institutions Service Centre (WA)

- TCE Tasmanian Certificate of Education
- UAC Universities Admissions Centre (NSW)
- VCE Victorian Certificate of Education

- VET Vocational Education and Training
- VTAC Victorian Tertiary Admissions Centre
- WACE Western Australian Certificate of Education

Appendix A – Method

This project sought to examine how tertiary admissions equity practices have changed in recent years in response to growth in student participation, diversity and mobility, as well as increasing institutional competition. It also sought to assess the impact of such changes on prospective students, careers advisers, higher education providers and tertiary admissions centres. The project was funded by the Australian Government Department of Education and Training as a National Priorities Project. Ethics approval for the research process was granted by the La Trobe University College of Arts, Social Sciences and Commerce Human Ethics Sub-Committee (ASSC) (ref: E15/37) on 25th June 2015, and ratified by the University of New England Human Research Ethics Committee on 3rd July 2015. Approval to conduct online surveys with commencing domestic undergraduate students was provided by La Trobe University's Performance and Institutional Planning Unit and the University of New England's Corporate Intelligence Unit. Approval to administer hardcopy surveys to Year 11 students in NSW and Victorian government schools was granted by the Victorian Government Department of Education and Training on 31st July 2015 (ref: 2015_002791) and the NSW Government Department of Education on 3rd September 2015 (ref: SERAP 2015322).

The project proceeded through six key stages. The first stage consisted of a review of the national and international literature on the evolution of tertiary admissions practices, with a particular focus on the rise of contextual admissions processes for disadvantaged students. This included an examination of the contextual admissions criteria currently employed by higher education providers in Australia, and the evidence (or lack thereof) supporting them as the most efficient, transparent, and equitable strategies.

The second stage consisted of an examination of existing national selection information for disadvantaged students. The aim here was to clarify any differences between the state-based Tertiary Admissions Centres, including their special entry access criteria, bonus point schemes, and transparency around offers accepted below the published Australian Tertiary Admissions Rank (ATAR) cut-offs. This stage also included an audit of non-Tertiary Admissions Centre selection processes for disadvantaged students nationally, including early offer schemes, as well as state-based differences in the requirements for completing school, and how study scores and the Australian Tertiary Admissions Rank (ATAR) are calculated.

The third stage consisted of in-depth semi-structured interviews with the leaders of the five statebased Tertiary Admissions Centres (TACs) in Australia – namely, the Victorian Tertiary Admissions Centre (VTAC), the Universities Admissions Centre (UAC), the South Australian Tertiary Admissions Centre (SATAC), the Queensland Tertiary Admissions Centre (QTAC) and the Tertiary Institutions Service Centre (TISC) – as well as the admissions directors (or equivalent) of eighteen universities from across the country, including five New South Wales universities, five Victorian Universities, three South Australian universities, two Western Australian universities, two Queensland universities and one multi-state university. The interviews focussed on the question of how the Tertiary Admissions Centre (TAC) or university admissions department (as appropriate) is responding to the challenges associated with rising student participation, diversity and mobility, as well as increasing competition and complexity in admissions practices. Interviews were conducted either in person or by telephone and digitally recorded, transcribed and analysed for content and themes using NVivo 10 software (QSR International, 2012). An interpretative phenomenological approach to the analysis was applied (Smith, Flowers & Larkin, 2009).

The fourth stage consisted of an online survey of school-based Careers Advisers, mainly from Victorian and NSW schools. Designed using the Qualtrics online survey tool, the survey ran from mid-July until the end of September 2015. Invitations to complete the survey were distributed via various means. The schools engagement team at the University of New England sent a personalised email out to the 939 NSW school-based careers advisers on their database, while school-based careers advisers connected to La Trobe University were informed through electronic newsletters and announcements made at information sessions as well as personalised phonecalls. Invitees were also encouraged to forward the invitation on through their own networks. Participants in the survey were informed that all those completing the survey would be automatically entered into a draw to win a \$200 Coles/Myer voucher. The prize winner was randomly selected from the list of completed surveys and identified by their sex/gender, time in careers adviser role, school name and postcode. The online survey asked about careers advisers to reflect on their experience as a careers adviser and the changing nature of their role. The online survey received a total of 235 responses, and 156 of these were responses complete.

The fifth stage consisted of an online survey of commencing domestic undergraduate students at two Australian universities. Designed using the Qualtrics online survey tool, the survey was run over a period of three weeks in September 2015. All commencing domestic undergraduate students at both institutions – i.e. 7,089 students from one university, and 5,362 students from the other – were invited by personalised email to participate in the survey. Invitees were informed that all those completing the survey would be automatically entered into a draw to win a prize. The prizes differed by institution in order to maintain consistency each institution's current student survey practices. In the case of one institution, survey participants entered into a draw to win one of two \$500 cash prizes, while in the case of the other, survey participants entered into a draw to win one of two \$200 Coles/Myer vouchers. The prize winners for each institution were randomly selected from the list of completed surveys. The online survey asked commencing domestic undergraduate students about their experience of selecting and applying for courses and institutions of tertiary study. We received a total of 2,198 responses – 1297 from the first institution and 901 from the second – representing an 18% and 17% response rate for students from the respective institutions, and an 18% response rate overall.

The sixth stage consisted of a hardcopy survey of Year 11 students administered in seven Victorian and five NSW secondary government schools. The survey was run at the end of Term 3/beginning of Term 4 2015. Schools were invited to participate in the survey on the basis of having a pre-existing relationship with either the University of New England (in the case of NSW schools) or La Trobe University (in the case of Victorian schools). All invited schools agreed to participate and we obtained signed consent forms from the Principal of each participating school. The survey asked Year 11 students about their current self-knowledge and support networks, and what they intended to do immediately after finishing school. Those who indicated they intended to pursue further study after school were asked what they intended to study, and where, while those who indicated they didn't intend to study after school were asked what they planned to do instead. A third group of participants who indicated that they intended to take a break before possibly returning to study were asked what they intended to do in the interim period, when they thought they might return to study, and what course they intended to apply for/enrol in. Across the twelve schools surveyed, there were approximately 1780 students enrolled in Year 11, and we received a total of 823 valid responses. This represents a 46% response rate overall. However, the response rate for individual schools varied considerably, with 22% (approx.) being the lowest response rate for an individual school, and 70% (approx.) being the highest. In addition, one Victorian school returned no completed surveys at all, as the students declined to participate in the research.

Appendix B – The role of ACTAC

The Australasian Conference of Tertiary Admissions Centres (ACTAC) was established in 1995 in response to the recommendations from a taskforce on national tertiary admissions for the Ministerial Council on Education, Employment, Training and Youth Affairs (MYCEETYA). ACTAC was tasked with establishing the elements that would facilitate a national admissions system.

ACTAC relies on the collaboration of its members, which includes all five state-based tertiary admissions centres as well as the University of Tasmania, Charles Darwin University and the New Zealand Qualifications Authority.

Whilst at the centre of admissions nationally, ACTAC plays no role in university admissions *per se*. Rather, it is through ACTAC that member organisations work to establish the common elements necessary to facilitate a coordinated approach to admissions nationally. These are:

- Common dates Agreements on common dates for submission of on-time applications as well as for the publication of main round offers. (Students applying to interstate institutions are not required to respond to offers until each TAC has issued its main round offer).
- Release of Year 12 results Students are to receive their results by the first working day in January to ensure that they have as much time as possible to change preferences before main round offers.
- Interstate Transfer Index Rather than being based around Year 12 candidates, ACTAC established a methodology that converts each state and territory measure of school achievement into a ranking across the relevant age group (16-20). With the exception of Queensland, the Interstate Transfer Index (ITI) is used by all states and territories. The ITI is monitored by a group of experts who report to ACTAC.
- International Baccalaureate equivalence table Since 2004 ACTAC has been responsible for the maintenance of a table that converts International Baccalaureate results into local state measures of school achievement. This is done by using a weighted average of the three methods used in New South Wales, Victoria and South Australia. The combined table is reviewed annually each February.
- Eligibility of Interstate Applicants ACTAC adopted the 'home state rule' whereby students who meet the minimum entry requirements for all institutions in their home state are deemed to have met the minimum requirements for all interstate institutions, notwithstanding minimum ATAR and course-specific requirements.

In addition to the above, ACTAC coordinates the following:

Exchange of Year 12 results – ACTAC maintains a central database that holds the Year 12 results of current and prior year students. This enables students to apply through any TAC without needing to provide these results separately.

- Exchange of university transcripts Since 1996, ACTAC has been able to access university databases and transfer records for non-Year 12 students.
- Special Tertiary Admissions Test national database ACTAC maintains a national database of STAT results which is used to assist in the assessment of mature age students

ACTAC is also conducting a review of the use of terminology with the goal of developing a standardised terminology that can be used nationally.