I. LETTER FROM THE CHAIR

The Hon. Adrian Piccoli MP
Minister for Education
Level 34, Governor Macquarie Tower
1 Farrer Place
SYDNEY NSW 2000

Dear Minister

I present to you the report of the NSW Review of Tertiary Pathways.

Throughout this Review, the Committee was guided by the goals of the NSW State Plan – NSW 2021: A Plan to Make NSW Number One – to strengthen the NSW skills base and rebuild the economy through increasing tertiary education participation and attainment by students.

The Committee recognised the critical role of effective pathways into tertiary education and between the tertiary sectors in achieving the goals and targets of the State Plan. By undertaking tertiary education, students can also improve their employment outcomes, social wellbeing and earn higher incomes over a lifetime.

I would like to thank the Committee members for their advice and support over the last nine months and their commitment to identifying opportunities for expanding tertiary education opportunities in NSW.

I also express my gratitude to stakeholders who shared their insights and views with the Committee, including students, educational institutions, and representatives from the community sector and industry.

On behalf of the Committee, I would also like to thank the Review Secretariat from within the NSW Department of Education and Communities, in particular Claire Essery, Collette Garrett and Benjamin Parker for their support throughout the Review including compiling this report.

The recommendations in this report are based on a review of the extensive literature on tertiary pathways, the views of stakeholders and input from the NSW Department of Education and Communities. The Committee is firmly of the view that implementation of the recommendations will assist in improving tertiary education opportunities for more NSW students including those of low socio-economic status, Indigenous and rural and regional backgrounds and thereby strengthen the NSW skills base and economy.

Yours sincerely

Gabrielle Upton MP
Parliamentary Secretary for Tertiary Education and Skills

29 June 2012
II. EXECUTIVE SUMMARY

In order to increase the New South Wales (NSW) skills base and rebuild the NSW economy, the Minister for Education, the Hon. Adrian Piccoli MP, on 26 October 2011 established a Tertiary Pathways Review chaired by the Parliamentary Secretary for Tertiary Education and Skills, Gabrielle Upton MP. The Review was to focus on pathways to Vocational Education and Training (VET) and higher education by all students but particularly those with lower socio-economic status (SES), Indigenous and rural and regional backgrounds (key equity groups) and to recommend strategies and initiatives for more effective models to support the achievement of the goals and targets in the NSW State Plan, ‘NSW 2021; A Plan to Make NSW Number One’ (State Plan).

A Review Committee was established with a broad range of representatives from schools, VET providers, higher education institutions, Indigenous and community groups and industry. Many tertiary pathways exist and the initial focus of the Review was to identify the most important pathways to VET and higher education currently available. As a result, the Review concentrated on three pathways: school to VET; school to higher education (for the key equity groups); and VET to higher education. The Review then sought data on all three pathways with particular emphasis on the admissions and completions of students.

The Committee has based its recommendations on a wide range of evidence. Substantial cross-sectoral data were investigated and new insights were gained into flows across the education sectors. Extensive consultations with over 100 individual stakeholders – including students, representatives from schools, universities, TAFE NSW, private training and higher education providers, industry and community organisations and leading academics in the field – provided important insight into the factors that affect student transitions into tertiary education. The Committee was strongly of the view that the two components of the tertiary education sector, VET and higher education, have individual strengths and expertise which must be recognised and supported.

The Committee’s recommendations are anchored on one central aim: to enhance the NSW education system so it better encourages and rewards tertiary education participation and attainment to support the State Plan. Guided by that aspiration, the Committee identified seven overarching reform areas that will improve the effectiveness of tertiary pathways.

Enhanced transparency and better evidence-based decisions

From the outset of the Review it was clear that there were limited data on student pathways between schools, VET and higher education programs. With the strong support and input from the NSW universities, TAFE NSW and some of the VET private providers, significant new data were obtained that assisted the Committee in its deliberations and recommendations. However, there are still gaps in the data, including the basis of student admissions and completions for all tertiary students. Obtaining these data is vital for the NSW Government to be able to evaluate, on an annual basis, the effectiveness of pathway programs and to determine progress against the goals and targets in the State Plan.

Higher aspirations and expectations

The need for the Commonwealth, NSW and other key stakeholders to work together to encourage higher aspirations and expectations of all NSW students was a matter repeatedly raised throughout the Committee’s deliberations. In response, the Committee considered a variety of programs that actively promote tertiary education as a core commitment. While often largely effective in encouraging students to aspire to a tertiary education, these programs were diverse and fragmented with a relatively small number of students participating.

In order to achieve the goals and targets of the State Plan the NSW Government must promote, state-wide, high aspirations and expectations for students and review the effectiveness of aspiration-building programs for tertiary education provided in NSW schools.
Improved educational attainment and preparation for tertiary study

A lack of readiness for tertiary education is a key barrier to the commencement of, and successful achievement in, post-school study. In particular, poor literacy, numeracy and study skills (often formed after periods of long term disengagement from school), and a difficulty adjusting to tertiary education act as barriers to further participation by students in VET and higher education.

To combat the lack of readiness and educational attainment on the part of some students the Department of Education and Communities should work with stakeholders to introduce pilot programs to increase students’ capacity for tertiary study. These programs should include tutoring and mentoring schemes and developing students’ and parents’ familiarity with tertiary institutions.

Equitable financial support

Financial costs associated with tertiary education are prohibitive for many students, particularly those who must support themselves while living away from home. Compounding the problem is the inconsistency between Commonwealth support funding for VET and higher education students. VET providers, including TAFE NSW, are not eligible for Commonwealth funding under the Higher Education Participation and Partnerships Program (HEPPP). This program is designed to address socio-economic disadvantage at universities despite students from the key equity groups being more likely to study VET.

To address the inconsistencies in the provision of Commonwealth financial assistance to tertiary education students NSW must take the lead in national forums and advocate for the removal of such barriers for students, especially the key equity groups. Possible steps include expanded funding so VET providers can have access to Commonwealth equity programs such as HEPPP, increasing the Higher Education Contribution Scheme (HECS) supported places for pathway degrees that incorporate VET and higher education, and exempting tertiary education scholarships from income tests, regardless of the income source.

Expanded opportunities for rural and regional students

Rural and regional students are less likely to undertake tertiary studies than those students from metropolitan areas. Data and anecdotal evidence from NSW universities and VET providers suggest that those students are increasingly enrolling in VET qualifications but are less likely than metropolitan students to apply for a place at university. This is because rural and regional students face barriers such as added financial costs associated with travel and living away from home and a lack of individual student support.

To overcome these barriers the Committee recommends that the Department of Education and Communities support initiatives that enable students to undertake tertiary education study closer to home using existing public school and TAFE NSW facilities. It is also important that tertiary education programs offered in rural and regional areas are relevant to the employment opportunities in those local communities.

Better communication and information for students and parents

There is a vast array of information available for students on various tertiary pathways, admissions requirements, course information and employment opportunities. Such information sources include teachers, careers advisers, the internet, parents and friends. Stakeholders reported that the complexity, variety and disparate nature of the sources were overwhelming. The Committee found that the provision of advice on tertiary education and careers in NSW requires a significant transformation in partnership with industry, VET providers and higher education institutions.

To address the overwhelming nature of the information currently available for students, their families and careers advisers the development of a single, ‘one-stop’ location for all tertiary education information and admissions in NSW should be explored. A public campaign on the income and employment benefits of completing tertiary education should also be developed in partnership between key stakeholders including industry and tertiary education institutions.
Incentives for innovation

During the course of the Review it was encouraging to identify a number of successful pathway programs to tertiary education including from school to VET, VET to higher education and school to higher education for the key equity groups. The development and operation of these programs generally relied on the relationships formed between specific individuals in schools, VET, higher education institutions and industry rather than on systemic, cross-sectoral approaches.

A significant barrier to effective pathways is that credit transfer and articulation arrangements between many VET and higher education institutions are largely ad hoc. This was primarily attributed to entrenched perceptions about the purpose of VET and higher education leading to a reluctance to engage in pathway development. The Committee therefore recommends that NSW universities review their credit transfer and articulation arrangements for students wanting to enrol on the basis of their VET qualifications. The Committee also recommends that VET providers and higher education institutions be encouraged to assign staff to span institutional boundaries (boundary spanners) in order to collaboratively support, negotiate and implement pathway programs between the VET and higher education sectors.

While the Committee acknowledges that further development and evaluation of the integrated tertiary pathways models (particularly those funded by the NSW Board of Vocational Education and Training) is required, it is also important that those models are afforded the necessary resources to be successful.

The consultations highlighted that VET in Schools is regarded as an important way for school students to access the school to VET pathway. For this reason, the Committee recommends that the NSW Government must ensure that better access to NSW schools is given to quality VET providers to create additional opportunities for school students.

Conclusion

To support students and strengthen the NSW skills base and economy it is vital that the VET and higher education sectors build collaboratively on their individual strengths and expertise to deliver a dynamic and coordinated tertiary education platform in NSW. The following recommendations by the Committee provide specific suggestions for action organised under the seven overarching reform areas of the report.
III. RECOMMENDATIONS

Enhanced transparency and better evidence-based decisions

1. That the NSW Government:
   A. requests the Commonwealth to review the data collected from higher education and Vocational Education and Training (VET) providers to ensure that de-identified data are provided by the Commonwealth to the NSW Department of Education and Communities on the basis of admission (secondary schooling, higher education, public and private VET, special entry, credit transfer), progression and completion of all students including the identification of low socio-economic status, Indigenous, and rural and regional students
   B. advocates that the Commonwealth incorporate in its funding compacts with universities stronger requirements for reporting on the development and uptake of pathways programs between VET and higher education
   C. requests the NSW University Admissions Centre to annually provide it with data broken down by schools including:
      I. Australian Tertiary Admission Rank (ATAR) eligibility
      II. number of applications to higher education institutions
      III. number of offers by higher education institutions
   D. advocates in national forums for consistent definitions of factors relating to equity data, including a consistent definition of “low socio-economic status” across schooling, VET and higher education so as to better understand the progress of disadvantaged students
   E. continues to work in national forums to ensure that the Unique Student Identifier for the VET sector is extended to cover the school and higher education sectors.

Higher aspirations and expectations

2. That the NSW Department of Education and Communities:
   A. reviews the effectiveness of aspiration-building programs for tertiary education for students, parents and teachers provided in NSW schools including university and school partnerships
   B. encourages schools to implement effective aspiration-building programs in partnership with tertiary institutions, community groups and industry, as appropriate.

Improved educational attainment and preparation for tertiary study

3. That VET providers accessing NSW Government skills funding be encouraged to develop and implement strategies, including student support and study skills programs, to prepare students for transition into higher level qualifications.

4. That the NSW Department of Education and Communities works with key stakeholders such as schools, tertiary institutions, community organisations and industry to introduce pilot programs to test innovative and integrated approaches aimed at increasing the rates of transition to tertiary education by students with particular regard to those from low socio-economic status, Indigenous, and rural and regional backgrounds. These programs should include:
   A. in-school and community support, such as tutoring and mentoring schemes with a focus on numeracy, literacy, study skills, career development planning and tertiary pathway navigation
   B. developing students' and parents' familiarity with tertiary institutions.
Equitable financial support

5. That the NSW Government takes the lead in national forums to remove inconsistencies in financial assistance for VET and higher education students and to provide national support for pathways. This should include:
   A. expanded funding for Commonwealth equity programs such as the Higher Education Participation and Partnerships Program to include VET providers
   B. exploring options to provide government funding and Higher Education Contribution Scheme (HECS) loans for students undertaking Bachelor Degrees (including pathway degrees) delivered by non self-accrediting higher education institutions
   C. removing Commonwealth FEE-HELP loan administration charges that apply to students studying at full-fee paying VET institutions and at non self-accrediting higher education institutions
   D. streamlining the FEE-HELP assessment process applying to non self-accrediting institutions to ensure that the process does not discourage potential applicants
   E. extending the Youth Allowance Relocation Scholarship to VET students.

6. That the NSW Government takes the lead in national forums to secure the exemption of tertiary education student scholarships from income tests, regardless of the income source.

Expanded opportunities for rural and regional students

7. That the NSW Department of Education and Communities develops initiatives to enable:
   A. rural and regional based students to undertake tertiary education study closer to their homes using public school and TAFE NSW facilities
   B. access to high quality IT facilities appropriate for online delivery of tertiary education that exist in rural and regional public schools and TAFE NSW facilities
   C. the provision of VET programs relevant to the employment opportunities in rural and regional communities.

8. That the NSW Government advocates for the Commonwealth to extend programs designed to upgrade existing worker qualifications in specific occupations critical to rural and regional areas, such as the Aged Care Education and Training Incentive Program.

Better communication and information for students and parents

9. That NSW schools review how they provide advice to students on tertiary education and employment opportunities and, where appropriate, implement local partnerships with stakeholders including industry, VET providers and higher education institutions.

10. That the NSW Board of Studies ensures that the Record of School Achievement is used to clearly communicate the full extent of student achievement across schooling, including credit gained from VET courses and any related employment. It should also link directly to information on tertiary education and employment opportunities for students.
11. That the NSW Government works with tertiary institutions to explore the development of a single source of information for all higher education and VET courses including pathway programs and credit transfer and articulation opportunities, which may include a one-stop location for all NSW tertiary admissions.

12. That the NSW Government works, in partnership with key stakeholders including industry and tertiary institutions to develop a public campaign that:
   A. provides up-to-date information on the income and employment benefits of completing tertiary education
   B. provides links to a database of real-time information on tertiary education opportunities
   C. uses case studies of how recent school graduates moved into tertiary education
   D. uses role models that young people can relate to
   E. takes into account that the strongest influences on the choices made by young people about tertiary education are their parents and peers.

13. That the NSW Government advocates nationally for a refocus of the national MyFuture careers website, and the MySkills and MyUniversity course websites so that they better explain and promote pathway programs for tertiary education.

**Incentives for innovation**

14. That the NSW Government ensures that better access in NSW schools is given to quality VET providers to create additional VET opportunities for school students.

15. That the NSW Government:
   A. seeks to expand the number of pathway programs combining VET and higher education, including those collaboratively developed with industry by TAFE NSW
   B. encourages the NSW universities to review their credit transfer and articulation arrangements to provide simplified pathways for students wishing to enrol on the basis of their VET qualifications
   C. encourages VET providers and higher education institutions to assign senior staff as ‘boundary spanners’ to negotiate and implement pathway programs between those institutions
   D. seeks to revise the existing Australian Qualifications Framework Pathways Policy through its representatives on the National Skills Standards Council to mandate the provision of credit transfers and pathways to higher education.
1.1 Educational participation and attainment in NSW

The education levels of the NSW working age population have been rising steadily, with 57.9 per cent of the NSW population aged 15-64 years holding a non-school qualification in 2011, compared to 54.7 per cent in 2006. This also compares favourably with the national figure of 56.5 per cent for 2011.\(^1\)

In terms of highest level qualification attainment, 34.5 per cent of the NSW population aged 15-64 years hold a qualification at Diploma level or above (32.8 per cent nationally), and 25.1 per cent hold a qualification at Bachelor level or above (23.7 per cent nationally)\(^2\).

The data in Table 1 provide a breakdown of highest level of education attainment in NSW by qualification as of May 2006 and May 2011, which clearly indicate an increase in the level of educational attainment in the NSW working age population.

In addition, almost 1 million people in NSW aged 15-64 years are currently studying towards a qualification through formal or non-formal learning. A breakdown of current enrolments in NSW by qualification and education institution is provided in Table 2.

**TABLE 1: NSW PERSONS AGED 15-64 YEARS HIGHEST QUALIFICATION ATTAINMENT, MAY 2006 AND MAY 2011**

<table>
<thead>
<tr>
<th>Highest Qualification</th>
<th>May 2006 (%)</th>
<th>May 2011 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postgraduate Degree</td>
<td>3.9</td>
<td>5.4</td>
</tr>
<tr>
<td>Graduate Diploma/Graduate Certificate</td>
<td>2.2</td>
<td>1.8</td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>15.5</td>
<td>17.8</td>
</tr>
<tr>
<td>Advanced Diploma/Diploma</td>
<td>8.4</td>
<td>9.4</td>
</tr>
<tr>
<td>Certificate III/IV</td>
<td>4.8</td>
<td>17.2</td>
</tr>
<tr>
<td>Certificate I/II and Certificate not defined</td>
<td>1.0</td>
<td>Not provided</td>
</tr>
<tr>
<td>Year 12</td>
<td>19.8</td>
<td>19.6</td>
</tr>
<tr>
<td>Year 11</td>
<td>4.2</td>
<td>4.2</td>
</tr>
<tr>
<td>Year 10 or below</td>
<td>28.5</td>
<td>24.4</td>
</tr>
<tr>
<td>Level not determined</td>
<td>1.4</td>
<td>Not provided</td>
</tr>
</tbody>
</table>

Source: Australian Bureau of Statistics\(^3\)
TABLE 2: NSW PERSONS AGED 15-64 YEARS ENROLLED IN FORMAL AND NON-FORMAL LEARNING BY QUALIFICATION LEVEL AND INSTITUTION TYPE, MAY 2011

<table>
<thead>
<tr>
<th>Qualification Studyng</th>
<th>No. of persons ('000)</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postgraduate Degree</td>
<td>75.7</td>
<td>7.7</td>
</tr>
<tr>
<td>Graduate Diploma/G C</td>
<td>12.2</td>
<td>1.2</td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>275.4</td>
<td>28.2</td>
</tr>
<tr>
<td>Advanced Diploma/D</td>
<td>89.1</td>
<td>9.1</td>
</tr>
<tr>
<td>Certificate III/IV</td>
<td>169.6</td>
<td>17.3</td>
</tr>
<tr>
<td>Certificate I/II</td>
<td>22.1</td>
<td>2.3</td>
</tr>
<tr>
<td>Certificate not further defined</td>
<td>19.3</td>
<td>2.0</td>
</tr>
<tr>
<td>Year 12 or below</td>
<td>260.5</td>
<td>26.6</td>
</tr>
<tr>
<td>Non-formal learning*</td>
<td>31.7</td>
<td>3.2</td>
</tr>
<tr>
<td>Total</td>
<td>977.7</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Type of Education Institution

<table>
<thead>
<tr>
<th>Type of Education</th>
<th>No. of persons ('000)</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher education</td>
<td>373.7</td>
<td>38.2</td>
</tr>
<tr>
<td>TAFE</td>
<td>217.6</td>
<td>22.3</td>
</tr>
<tr>
<td>Secondary education</td>
<td>251.4</td>
<td>25.7</td>
</tr>
<tr>
<td>Other</td>
<td>134.8</td>
<td>13.8</td>
</tr>
</tbody>
</table>

Source: Australian Bureau of Statistics^5

While educational attainment in NSW and Australia has steadily increased over time, other countries have also improved. A comparison of Organisation for Economic Co-operation and Development (OECD) countries shows that Australia’s level of educational attainment at Bachelor degree or above is below that of the top six OECD countries, and its relative ranking for the 25-34 age group slipped from seventh to ninth between 1996 and 2006.^6

There are opportunities for further improvements in educational attainment. For example, as at May 2011, 69,200 school leavers in NSW aged 15-19 years were not fully engaged (i.e. in full-time education, full-time employment or a combination of the two on a part-time basis), representing 31.4 per cent of all 15-19 year old school leavers in NSW.^7

The NSW Government recognises that encouraging these young people to undertake ongoing education and training would not only improve overall workforce skill levels, but would also open up opportunities for these young people to maximise their career and earnings potential.

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4. Non-formal learning (adult learning) refers to structured, taught learning, but differs from formal learning in that it does not lead to a qualification within the Australian Qualifications Framework. It includes non-accredited workplace training, that is, training that does not lead to a recognised qualification.

5. Australian Bureau of Statistics, Education and Work, Australia, May 2011 (62270DO001_201105), Table 1.


7. Australian Bureau of Statistics, Education and Work, Australia – Additional data cubes, May 2011 (6227055003DO010_201105), Table 1.11.
1.2 Tertiary education targets

The State Plan identifies the critical role an educated and skilled workforce plays in driving a productive and growing NSW economy, as well as in providing individuals with the foundations for long-term social and economic wellbeing.

Accordingly, the State Plan sets targets including the following:

School
- 90 per cent of 20-24 year olds have attained a Year 12 or Australian Qualifications Framework (AQF) qualification at Certificate II or above by 2015
- 90 per cent of young people who have left school are participating in further education and training or employment by 2020.

Vocational Education and Training
- 50 per cent increase in the proportion of people between the ages of 20 and 64 with qualifications at AQF Certificate III and above by 2020
- 100 per cent increase in the number of completions in higher level qualifications at Diploma level and above by 2020
- 20 per cent increase in the number of completions in higher level VET qualifications at AQF Certificate III and above by women, rural and regional students and Indigenous students by 2020.

Higher Education
- 44 per cent of 25-34 year olds hold a Bachelor level qualification or above by 2025
- 20 per cent of undergraduate enrolments are students from low socio-economic status (SES) backgrounds by 2020.

The State Plan targets complement the following Council of Australian Governments (COAG) goals to increase the educational attainment levels of young people:
- 90 per cent of young people achieving Year 12 or equivalent by 2015
- halve the gap for Indigenous students in Year 12 attainment or equivalent attainment rates by 2020
- halve the proportion of Australians aged 20-64 years without qualifications at Certificate III level and above between 2009 and 2020
- double the number of higher qualification completions (Diploma and Advanced Diploma) between 2009 and 2020.
1.3 Tertiary Pathways Review

In order to achieve the targets for tertiary education participation and attainment, it is essential that there are effective connections between schools, VET providers and higher education institutions that allow students to move seamlessly between the sectors. Effective connections between the education sectors will also assist students to achieve their potential, and enjoy the significant benefits of increased educational attainment, including better employment outcomes, higher incomes over a lifetime and improved social wellbeing.

On 25 October 2011, The NSW Minister for Education, the Hon. Adrian Piccoli MP, announced the establishment of a Tertiary Pathways Review to identify the barriers and enablers of effective pathways between the education sectors. The Minister appointed the Parliamentary Secretary for Tertiary Education and Skills, Gabrielle Upton MP, to conduct the Review. A particular focus of the Review was to consider pathway opportunities and barriers for the key equity groups.

The Terms of reference for the Review were as follows:

The NSW State Plan outlines critical goals and targets for strengthening the NSW skills base and rebuilding the economy. These goals span tertiary education and call for:

- More people to gain higher level tertiary qualifications; and
- More young people to participate in post school education and training.

Reaching these goals will rely to a significant extent on encouraging and supporting effective pathways for students to move across schooling, training and higher education. This review will focus on those pathways and specifically will:

1. Identify the range of current pathway models linking school, VET and higher education, their structures and the qualifications they deliver.
2. Assess the effectiveness of current pathway models in supporting achievement of the State Plan goals and targets with particular regard to students from lower socio-economic, Indigenous and rural and regional backgrounds.
3. Consider the perspectives of providers, employers, industry, policy makers and students on the effectiveness of current pathway models.
4. Identify barriers to developing effective pathways models and the characteristics of successful models.
5. Assess the available data on pathways participation and identify data gaps and availability issues.
6. Provide a report to the Minister by June 30, 2012 recommending strategies and initiatives for more effective pathways models to support the achievement of the State Plan goals and targets including students from lower socio-economic, Indigenous and rural and regional backgrounds.
The Review was guided by the Tertiary Pathways Review Committee (Committee), chaired by Gabrielle Upton MP. The Committee was comprised of a broad range of representatives from schools, VET providers, higher education institutions, industry and Indigenous and community groups.

The members of the Committee were as follows:

- **Ms Gabrielle Upton MP (Chair)**  
  Parliamentary Secretary for Tertiary Education and Skills

- **Mr Anthony Bohm**  
  *Chief Executive Officer,*  
  Open Colleges

- **Mr Murray Campbell**  
  *Principal,*  
  Barham High School

- **Ms Pam Christie**  
  *Deputy Director-General,*  
  TAFE and Community Education  
  NSW Department of Education and Communities

- **Professor Peter Lee**  
  *Vice-Chancellor,*  
  Southern Cross University

- **Ms Leslie Loble**  
  *Chief Executive,*  
  Office of Education  
  NSW Department of Education and Communities

- **Dr Lisa O’Brien**  
  *Chief Executive Officer,*  
  The Smith Family

- **Mr Pat O’Reilly**  
  *Principal,*  
  Southern Cross Catholic Vocational College

- **Professor Judyth Sachs**  
  *Deputy Vice-Chancellor and Provost,*  
  Macquarie University

- **Mr Max Schroder**  
  *Education Consultant*

- **Mr Peter Tyree**  
  *President,*  
  Business/Higher Education Round Table

- **Emeritus Professor Mark Wainwright AM**  
  *Chair,*  
  TAFE NSW Higher Education Governing Council

- **Ms Natalie Walker**  
  *Chief Executive Officer,*  
  Australian Indigenous Minority Supplier Council Member,  
  NSW Board of Vocational Education and Training

The Review process involved a review of research and an analysis of data on participation and attainment across the tertiary education sector and the nature of current pathway models linking school, VET and higher education. Consultations also took place with key stakeholders, including education providers, industry, community groups, policy makers and students. Further information on the review consultation process is provided at Appendix 1.

A representation of existing tertiary pathways is provided at Appendix 2.

The Committee focused on three key pathways it considered would have the biggest impact on achieving the State Plan goals and targets to increase tertiary education participation and attainment. These key pathways identified in Appendix 3 were:

- school to VET
- school to higher education for Indigenous students, low SES and rural and regional students (key equity groups); and
- VET to higher education.

The Report also identifies the barriers and enablers to student uptake of the three key pathways. The Committee’s recommendations include strategies and initiatives designed to create more effective pathway models to support the achievement of the State Plan goals and targets.
SECTION 2.0
THE CURRENT TERTIARY EDUCATION ENVIRONMENT

2.1 General description of current tertiary education environment

Tertiary education comprises VET delivered by TAFE Institutes and private Registered Training Organisations, including Community Colleges (RTOs), and higher education delivered by universities, TAFE NSW and other non self-accrediting institutions. In NSW, there are 11 NSW-based universities, 61 non-university higher education providers, and over 1,800 RTOs. Some institutions are dual-sector providers, that is, they are registered to deliver accredited VET and higher education courses. In addition, some interstate universities have campuses in NSW largely focusing on the overseas student market.

VET involves the delivery of training packages and education designed around industry requirements and an assessment of a student’s competencies against these requirements. Qualifications awarded in the VET sector include Certificates I-IV, Diplomas, Advanced Diplomas and Vocational Graduate Certificates and Diplomas. Higher education pedagogy is generally knowledge-oriented and aimed at developing broad and deep understandings. Higher education qualifications range from Diplomas through to Doctorate Degrees.

Among the registered non-university higher education providers are institutions either wholly-owned by a university or who have close links with a university to deliver university foundation programs or Diploma programs that lead to the second year of a Bachelor degree. Further information on these providers is set out in Section 4.3.

Traditionally, post-school studies by students are in VET or higher education. However, students can move between VET and higher education through various pathway arrangements which involve articulation from one qualification to the next, or the recognition of formal or informal learning for credit towards a program of study.

The critical need to upgrade the skills and qualifications of our population is widely recognised. NSW is moving towards a knowledge economy, in which more highly skilled workers are required to drive the services sector. By 2025, there is expected to be a shortage of people with higher level tertiary qualifications (Diploma and above) in NSW to meet labour market demand. At the same time lower-skilled jobs are shifting overseas. On an individual level, increased skill and qualification attainments derive significant benefits, in terms of personal development, social standing, career possibilities and lifetime earnings.

The State Plan acknowledges the importance of a higher skilled and educated population and has ambitious targets to reflect this. The identification and further development of pathways between the schools, VET and higher education is a key strategy to meeting these State Plan goals and targets.

The importance of pathways between the tertiary education sectors in upgrading skills and qualifications and in encouraging lifelong learning has also been acknowledged in the 2011 version of the AQF. The revised AQF has been designed to promote access to qualifications and to assist people to move easily between the VET and higher education. Specifically, each qualification level includes as a purpose the preparation of students for further learning.

The AQF Qualifications Pathways Policy further encourages the pursuit of lifelong learning by promoting the maximisation of credit for previous formal and non-formal learning, and in supporting the development of pathways in qualifications design. The policy, which forms the basis for individual policies and practices at all education institutions that award an AQF qualification, is based on the following principles:

- clarity and transparency for students
- qualification pathways to be systemic and systematic
- qualification pathways to be flexible
- pathways can be horizontal across AQF qualifications at the same level and vertical between qualifications at different levels
- the facilitation of credit for entry or towards a qualification; and
- the elimination of unfair or unnecessary barriers for students’ access to qualifications.

Sample data from the Australian Council for Educational Research (ACER) indicate that many NSW students undertake tertiary studies following the completion of secondary school, with the most common pathway being from school to university. The figures in Table 3, based on ACER’s sample data, provide a percentage breakdown of post-school destinations in 2010 for NSW students in Years 10-12 in 2009.

<table>
<thead>
<tr>
<th>Educational Status</th>
<th>All School Leavers</th>
<th>Year 12 Completion</th>
<th>Non Year 12 Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship</td>
<td>7.9</td>
<td>5.4</td>
<td>25.7</td>
</tr>
<tr>
<td>Traineeship</td>
<td>3.2</td>
<td>3.2</td>
<td>3.0</td>
</tr>
<tr>
<td>TAFE</td>
<td>13.2</td>
<td>11.6</td>
<td>24.2</td>
</tr>
<tr>
<td>University</td>
<td>42.2</td>
<td>48.0</td>
<td>0.4</td>
</tr>
<tr>
<td>Private VET/Other</td>
<td>3.8</td>
<td>3.9</td>
<td>2.8</td>
</tr>
<tr>
<td>Not in Education and Training</td>
<td>29.8</td>
<td>27.8</td>
<td>44.0</td>
</tr>
</tbody>
</table>

Source: Australian Council for Educational Research

13. Ibid, p75-76.
2.2 Overview of tertiary education participation of low SES, Indigenous and rural and regional students

While overall tertiary education participation rates appear strong, it is a different picture for the key equity groups – students from low SES backgrounds, Indigenous students, and rural and regional students. Where these groups do participate in tertiary education it is at the lower end of the qualifications spectrum.

As Graphs 1 and 2 below illustrate for the 2007 NSW School Certificate student cohort, in terms of the school to university pathway, lower percentages of Indigenous students and rural and regional students go on to complete the Higher School Certificate (HSC) compared to other NSW students.

Even when the Indigenous and rural and regional students in Graphs 1 and 2 complete the HSC, they are less likely to achieve an Australian Tertiary Admission Rank (ATAR) sufficient for university entry. In the case of low SES students, their HSC completion rates are consistent with the State average but they are less likely to go to university.

**GRAPH 1: THE 2007 NSW SCHOOL CERTIFICATE STUDENT COHORT - TRACKEd THROUGH TO UNIVERSITY**

![Graph 1](image1)

Source: NSW Department of Education and Communities. (a) Low SES refers to the bottom SES quartile of students. (b) Based on the Australian Bureau of Statistics definition of ‘Regional and Remote’.

**GRAPH 2: THE 2007 NSW SCHOOL CERTIFICATE STUDENT COHORT – PERCENTAGE OF STUDENTS RECEIVING A HSC BUT NOT AN ATAR**

![Graph 2](image2)

Source: NSW Department of Education and Communities (a) Low SES refers to the bottom SES quartile of students.
2.2.1 VET participation for low SES, Indigenous and rural and regional students

While students from low SES backgrounds, Indigenous students, and rural and regional students are under-represented in the higher education sector, they are better represented in the VET sector. However, VET enrolments for these groups of students cluster at Certificate I-III levels, rather than at the Diploma and Advanced Diploma levels as can be seen in Table 4.

This is of concern for two reasons. Firstly, the employment outcomes for people with low level VET qualifications are generally poor. Secondly, low level VET qualifications do not improve access to higher education.

While pathways from VET to higher education are crucial to increasing overall education attainment, Wheelahan suggests that these pathways do not currently act as mechanisms for increasing higher education participation by key equity groups due to their higher enrolments in lower level qualifications. The development of pathways from VET to higher education will therefore need to include consideration of strategies to encourage and prepare these students for higher level VET studies.

2.2.2 TAFE NSW participation for low SES, Indigenous and rural and regional students

Data in Table 5 on student characteristics for all enrolments provide a picture of the extent to which TAFE NSW caters for a large number of students from the key equity groups.

For example:

- between 2009 and 2011 there was a 5.3 per cent increase in overall enrolments
- for Indigenous and rural and regional students the respective increases over the same period were 14 per cent and 7.6 per cent (Tables 6 and 7)
- in 2011 Indigenous student enrolments, totalling 34,914 enrolments, accounted for 6.3 per cent of total TAFE NSW enrolments
- in 2011 rural and regional enrolments, totalling 225,167 enrolments, accounted for 40.7 per cent of total TAFE NSW enrolments
- in 2011, in terms of low SES enrolments, 107,909 enrolments, or 32.8 per cent of total government funded TAFE student enrolments, attracted fee concessions or exemptions. These concessions apply to students on Centrelink benefits and exemptions apply to Indigenous students and students with a disability; and
- using the Socio-Economic Index of Relative Socio-economic Disadvantage, derived from Census variables related to disadvantage, such as low income, low educational attainment, unemployment and dwellings without motor vehicles, more than 46 per cent of TAFE NSW enrolments are in the two most disadvantaged quintiles.

Since 2009 TAFE NSW has implemented a strategy to increase both enrolments and completions in higher level qualifications, as evidenced in the following tables. This strategy is designed to address the high percentage of VET students who have not completed Year 12. National Centre for Vocational Education and Research (NCVER) data show that in 2009, 35 per cent of VET students in NSW had not previously completed Year 12. In addition, compared to higher education, a larger proportion of VET students are part-time.

---

15. Wheelahan L. (2010), “Rethinking equity in tertiary education – Why we need to think as one sector and not two.” In VET research: leading and responding in turbulent times: AVETRA 13th Annual Conference, Gold Coast, Queensland.

16. Ibid.


18. Ibid.

### TABLE 4: SHARE OF VET ENROLMENTS IN NSW BY QUALIFICATION, 2010 (PER CENT)

<table>
<thead>
<tr>
<th></th>
<th>Diploma or higher</th>
<th>Certificate IV</th>
<th>Certificate III</th>
<th>Certificate I &amp; II</th>
<th>Other (a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low SES (b)</td>
<td>6.9</td>
<td>11.1</td>
<td>26.1</td>
<td>25.0</td>
<td>30.8</td>
</tr>
<tr>
<td>Rural/Remote (c)</td>
<td>5.9</td>
<td>10.6</td>
<td>24.4</td>
<td>26.6</td>
<td>32.5</td>
</tr>
<tr>
<td>Indigenous Students</td>
<td>4.7</td>
<td>9.7</td>
<td>23.0</td>
<td>33.1</td>
<td>29.5</td>
</tr>
<tr>
<td>All VET students</td>
<td>11.3</td>
<td>13.7</td>
<td>26.1</td>
<td>21.6</td>
<td>27.3</td>
</tr>
</tbody>
</table>

Source: National Centre for Vocational Education Research.  
(a) “Other” includes other recognised courses, non-award courses and subject only studies.  
(b) 2009 data for quintiles 1 and 2  
(c) comprises ‘outer regional’, ‘remote’ and ‘very remote’

### TABLE 5: TAFE NSW TOTAL ENROLMENTS

<table>
<thead>
<tr>
<th>Total TAFE NSW Enrolments by Qualification Level</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Change 2009-2011 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor</td>
<td>0</td>
<td>0</td>
<td>23</td>
<td>100%</td>
</tr>
<tr>
<td>Diploma and above</td>
<td>54,731</td>
<td>61,915</td>
<td>66,770</td>
<td>22.0</td>
</tr>
<tr>
<td>AQF Certificate IV and equivalent</td>
<td>64,213</td>
<td>69,772</td>
<td>75,630</td>
<td>17.8</td>
</tr>
<tr>
<td>AQF Certificate III and equivalent</td>
<td>120,581</td>
<td>126,090</td>
<td>132,104</td>
<td>9.6</td>
</tr>
<tr>
<td>AQF Certificate II and equivalent</td>
<td>58,091</td>
<td>68,311</td>
<td>70,949</td>
<td>22.1</td>
</tr>
<tr>
<td>AQF Certificate I and equivalent</td>
<td>19,203</td>
<td>18,379</td>
<td>18,722</td>
<td>-2.5</td>
</tr>
<tr>
<td>Statement of Attainment</td>
<td>99,727</td>
<td>93,427</td>
<td>89,755</td>
<td>-10.0</td>
</tr>
<tr>
<td>Accredited Short Course</td>
<td>28,012</td>
<td>25,496</td>
<td>21,958</td>
<td>-21.6</td>
</tr>
<tr>
<td>Other TAFE Statements</td>
<td>80,280</td>
<td>92,950</td>
<td>76,945</td>
<td>-4.2</td>
</tr>
<tr>
<td>AQF Certificate III and above</td>
<td>239,525</td>
<td>257,777</td>
<td>274,527</td>
<td>14.6</td>
</tr>
<tr>
<td>AQF Certificate II and above</td>
<td>297,616</td>
<td>326,088</td>
<td>345,476</td>
<td>16.1</td>
</tr>
<tr>
<td>Enrolments at Diploma and above (%)</td>
<td>10.4</td>
<td>11.1</td>
<td>12.1</td>
<td>1.7</td>
</tr>
<tr>
<td>Enrolments at AQF Certificate III and above (%)</td>
<td>45.6</td>
<td>46.3</td>
<td>49.7</td>
<td>4.1</td>
</tr>
<tr>
<td>Enrolments at AQF Certificate II and above (%)</td>
<td>56.7</td>
<td>58.6</td>
<td>62.5</td>
<td>5.8</td>
</tr>
<tr>
<td><strong>Total enrolments</strong></td>
<td>524,838</td>
<td>556,340</td>
<td>552,856</td>
<td>5.3</td>
</tr>
</tbody>
</table>

Source: TAFE NSW, NSW Department of Education and Communities

### TABLE 6: TAFE NSW INDIGENOUS STUDENT ENROLMENTS

<table>
<thead>
<tr>
<th>Total TAFE NSW Enrolments</th>
<th>Indigenous Enrolments</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Change 2009-2011 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Diploma and above</td>
<td>905</td>
<td>1,250</td>
<td>1,513</td>
<td>67.2</td>
<td></td>
</tr>
<tr>
<td>AQF Certificate IV and equivalent</td>
<td>2,075</td>
<td>2,701</td>
<td>3,026</td>
<td>45.8</td>
<td></td>
</tr>
<tr>
<td>AQF Certificate III and equivalent</td>
<td>5,288</td>
<td>6,311</td>
<td>7,280</td>
<td>37.7</td>
<td></td>
</tr>
<tr>
<td>AQF Certificate II and equivalent</td>
<td>5,323</td>
<td>7,239</td>
<td>7,564</td>
<td>42.1</td>
<td></td>
</tr>
<tr>
<td>AQF Certificate I and equivalent</td>
<td>1,911</td>
<td>2,120</td>
<td>2,199</td>
<td>15.1</td>
<td></td>
</tr>
<tr>
<td>Statement of Attainment</td>
<td>7,554</td>
<td>7,765</td>
<td>7,058</td>
<td>-6.6</td>
<td></td>
</tr>
<tr>
<td>Accredited Short Course</td>
<td>1,657</td>
<td>1,723</td>
<td>1,484</td>
<td>-10.4</td>
<td></td>
</tr>
<tr>
<td>Other TAFE Statements</td>
<td>5,902</td>
<td>6,089</td>
<td>4,790</td>
<td>-18.8</td>
<td></td>
</tr>
<tr>
<td>AQF Certificate III and above</td>
<td>8,268</td>
<td>10,262</td>
<td>11,819</td>
<td>42.9</td>
<td></td>
</tr>
<tr>
<td>AQF Certificate II and above</td>
<td>13,591</td>
<td>17,501</td>
<td>19,383</td>
<td>42.6</td>
<td></td>
</tr>
<tr>
<td>Enrolments at Diploma and above (%)</td>
<td>3.0</td>
<td>3.6</td>
<td>4.3</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>Enrolments at AQF Certificate III and above (%)</td>
<td>27.0</td>
<td>29.2</td>
<td>33.9</td>
<td>6.9</td>
<td></td>
</tr>
<tr>
<td>Enrolments at AQF Certificate II and above (%)</td>
<td>44.4</td>
<td>49.7</td>
<td>55.5</td>
<td>11.1</td>
<td></td>
</tr>
<tr>
<td><strong>All enrolments - Indigenous Students</strong></td>
<td>30,615</td>
<td>35,198</td>
<td>34,914</td>
<td>14.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: TAFE NSW, Indigenous Students
2.2.3 Higher education participation for low SES, Indigenous and rural and regional students

All NSW universities provided data to the Committee on domestic undergraduate admissions broken down by the basis of admission:

- previous higher education studies (complete and incomplete)
- secondary education
- previous VET studies (complete and incomplete)
- special entry (includes foundation and enabling studies, entry via the Special Tertiary Admissions Test (STAT) and Indigenous entry programs; and
- other (includes professional qualifications, special consideration, principal’s report, auditions, and mature aged entry).

The data from NSW universities indicate the following:

- between 2009 and 2011, there was a 9.8 per cent increase in overall admissions
- for low SES, Indigenous and rural and regional students, the respective increases in admissions over the same period were 16.0 per cent, 22.1 per cent and 8.7 per cent
- secondary education remains the most common pathway into university for all students, including for low SES, Indigenous and rural and regional students
- as a proportion of all enrolments via each pathway, students from the key equity groups are over-represented in some of the other pathways, particularly the special entry category; and
- regional universities enrol more students from the key equity groups than metropolitan universities, and between 2009 and 2011 regional universities recorded greater increases in enrolments of these students compared to metropolitan universities, as the data in Table 8 show.

| TABLE 7: TAFE NSW RURAL AND REGIONAL ENROLMENTS |
|-----------------------------------------------|--|---|---|---|
| Total TAFE NSW Enrolments Rural and Regional Enrolments | 2009 | 2010 | 2011 | Change 2009-2011 % |
| Bachelor | 0 | 0 | 0 | |
| Diploma and above | 11,263 | 15,477 | 18,576 | 64.9 |
| AQF Certificate IV and equivalent | 21,751 | 24,606 | 26,276 | 20.8 |
| AQF Certificate III and equivalent | 47,463 | 51,415 | 54,703 | 15.3 |
| AQF Certificate II and equivalent | 26,839 | 32,552 | 34,346 | 28.0 |
| AQF Certificate I and equivalent | 6,452 | 6,849 | 7,439 | 15.3 |
| Statement of Attainment | 46,175 | 44,565 | 42,202 | -8.6 |
| Accredited Short Course | 13,143 | 12,029 | 9,253 | -29.6 |
| Other TAFE Statements | 36,155 | 38,943 | 32,372 | -10.5 |
| AQF Certificate III and above | 80,477 | 91,498 | 99,555 | 23.7 |
| Enrolments at AQF Certificate III and above (%) | 38.5 | 40.4 | 44.2 | 5.8 |
| Enrolments at Diploma and above (%) | 5.4 | 6.8 | 8.2 | 2.9 |
| All Enrolments – Students from Rural and Regional Enrolments | 209,241 | 226,436 | 225,167 | 7.6 |

Source: TAFE NSW, Department of Education and Communities.
Regional universities are also more likely to enrol students from the key equity groups on the basis of previous higher education studies. It is not clear from the data whether this reflects students changing undergraduate programs before completing the first program or older students seeking a career or education change, or a combination of the two. One possible explanation is that regional universities, some of whom have well established distance education programs, provide opportunities for many students who cannot undertake higher education studies via traditional full-time, face-to-face delivery due to work or personal commitments.

The data in Table 9 provide an overview of domestic undergraduate admissions into NSW universities via the various admissions pathways, which confirms secondary education as the most common pathway into university for all students.

### TABLE 8: INCREASE IN NSW UNIVERSITY COHORT ENROLMENT NUMBERS FROM 2009 TO 2011 (PER CENT)

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Regional Institutions</th>
<th>Metropolitan Institutions</th>
<th>Increase in proportion of all enrolments</th>
</tr>
</thead>
<tbody>
<tr>
<td>All enrolments</td>
<td>13.5</td>
<td>6.7</td>
<td>NA</td>
</tr>
<tr>
<td>Low SES enrolments</td>
<td>17.3</td>
<td>13.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Rural and Regional enrolments</td>
<td>9.3</td>
<td>6.7</td>
<td>0.8</td>
</tr>
<tr>
<td>Indigenous enrolments</td>
<td>25.3</td>
<td>16.3</td>
<td>0.2</td>
</tr>
</tbody>
</table>

Source: NSW public universities 2012

### TABLE 9: ADMISSIONS PATHWAYS INTO NSW UNIVERSITIES – ALL COMMENCING DOMESTIC UNDERGRADUATE ENROLMENTS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>15,026</td>
<td>17,050</td>
<td>16,439</td>
<td>9.4%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>32,273</td>
<td>33,486</td>
<td>35,093</td>
<td>8.7%</td>
</tr>
<tr>
<td>VET</td>
<td>8,438</td>
<td>9,819</td>
<td>10,363</td>
<td>22.8%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>3,205</td>
<td>4,108</td>
<td>3,805</td>
<td>18.7%</td>
</tr>
<tr>
<td>Other</td>
<td>8,239</td>
<td>8,462</td>
<td>8,070</td>
<td>-2.1%</td>
</tr>
<tr>
<td><strong>Cohort Total</strong></td>
<td><strong>67,180</strong></td>
<td><strong>72,925</strong></td>
<td><strong>73,770</strong></td>
<td><strong>9.8%</strong></td>
</tr>
<tr>
<td><strong>Percentages</strong></td>
<td><strong>2009</strong></td>
<td><strong>2010</strong></td>
<td><strong>2011</strong></td>
<td><strong>2009 – 2011</strong></td>
</tr>
<tr>
<td>Higher Education</td>
<td>21.4%</td>
<td>22.90%</td>
<td>22.1%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>46.0%</td>
<td>43.6%</td>
<td>45.1%</td>
<td>-0.9%</td>
</tr>
<tr>
<td>VET</td>
<td>14.2%</td>
<td>15.1%</td>
<td>15.5%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>5.2%</td>
<td>6.1%</td>
<td>5.6%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Other</td>
<td>13.2%</td>
<td>12.2%</td>
<td>11.7%</td>
<td>-1.4%</td>
</tr>
<tr>
<td><strong>Cohort Total</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>100.0%</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: NSW public universities 2012
Note: Percentage figures rounded to one decimal place and may not equal 100 per cent.
The following sections provide further data on admissions of low SES, Indigenous and rural and regional students into NSW universities. While admissions data into private higher education institutions were not readily available, the information should provide an insight into how students from the key equity groups access higher education given that public universities are the dominant providers of higher education programs.

### 2.2.4 Low SES admissions into NSW universities

Admissions data from NSW universities in Table 10 confirm that secondary education remains the most common means of entry into an undergraduate course for low SES students, with 39.2 per cent of low SES students admitted through the secondary education pathway in 2011. This compares with 45.1 per cent of all undergraduate students admitted through this pathway.

The data show that a higher percentage of low SES students are admitted on the basis of VET studies when compared to data for all student admissions via this pathway (19.4 per cent compared to 15.5 per cent in 2011). They also show admissions into universities via the VET pathway also increased by 23.9 per cent from 2009 to 2011 (exceeded only by special entry admission at 31.4 per cent, although from a small base). This may reflect the initial preferences of low SES students for the applied learning approach of VET, who may then seek transition into higher education.
### TABLE 10: ADMISSIONS PATHWAYS TO NSW UNIVERSITIES – LOW SES COMMENCING DOMESTIC UNDERGRADUATE ENROLMENTS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>2,114</td>
<td>2,450</td>
<td>2,481</td>
<td>17.4%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>4,038</td>
<td>4,439</td>
<td>4,643</td>
<td>15.0%</td>
</tr>
<tr>
<td>VET</td>
<td>1,858</td>
<td>2,172</td>
<td>2,302</td>
<td>23.9%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>786</td>
<td>1,091</td>
<td>1,033</td>
<td>31.4%</td>
</tr>
<tr>
<td>Other</td>
<td>1,420</td>
<td>1,385</td>
<td>1,392</td>
<td>-2.0%</td>
</tr>
<tr>
<td>Cohort Total</td>
<td>10,216</td>
<td>11,537</td>
<td>11,851</td>
<td>16.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>20.7%</td>
<td>21.2%</td>
<td>20.9%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>39.5%</td>
<td>38.5%</td>
<td>39.2%</td>
<td>-0.3%</td>
</tr>
<tr>
<td>VET</td>
<td>18.2%</td>
<td>18.8%</td>
<td>19.4%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>7.7%</td>
<td>9.5%</td>
<td>8.7%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Other</td>
<td>13.9%</td>
<td>12.0%</td>
<td>11.7%</td>
<td>-2.2%</td>
</tr>
<tr>
<td>Cohort Total</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Source: NSW public universities 2012
Note: Percentage figures rounded to one decimal place and may not equal 100 per cent.

### GRAPH 4: ADMISSIONS PATHWAYS TO NSW UNIVERSITIES - LOW SES COMMENCING DOMESTIC UNDERGRADUATE ENROLMENTS

Tables 11 and 12 also show that regional universities admit greater numbers of students from low SES backgrounds than metropolitan universities. Regional universities also admit a higher percentage of its low SES undergraduate cohort on the basis of previous higher education studies or via special entry arrangements compared to metropolitan universities, but admit a lower proportion of that cohort on the basis of secondary schooling or previous VET studies.
### TABLE 11: ADMISSIONS PATHWAYS TO NSW UNIVERSITIES – LOW SES COMMENCING DOMESTIC UNDERGRADUATE ENROLMENTS AT REGIONAL UNIVERSITIES

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>1586</td>
<td>1862</td>
<td>1808</td>
<td>14.0%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>2365</td>
<td>2657</td>
<td>2775</td>
<td>17.3%</td>
</tr>
<tr>
<td>VET</td>
<td>1048</td>
<td>1200</td>
<td>1250</td>
<td>19.3%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>758</td>
<td>1085</td>
<td>1023</td>
<td>35.0%</td>
</tr>
<tr>
<td>Other</td>
<td>812</td>
<td>802</td>
<td>852</td>
<td>4.9%</td>
</tr>
<tr>
<td><strong>Cohort Total</strong></td>
<td>6569</td>
<td>7606</td>
<td>7708</td>
<td>17.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>24.1%</td>
<td>24.5%</td>
<td>23.5%</td>
<td>-0.7%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>36.0%</td>
<td>34.9%</td>
<td>36.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>VET</td>
<td>16.0%</td>
<td>15.8%</td>
<td>16.2%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>11.5%</td>
<td>14.3%</td>
<td>13.3%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Other</td>
<td>12.4%</td>
<td>10.5%</td>
<td>11.1%</td>
<td>-1.3%</td>
</tr>
<tr>
<td><strong>Cohort Total</strong></td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Source: NSW public universities 2012
Note: Percentage figures rounded to one decimal place and may not equal 100 per cent.

### TABLE 12: ADMISSIONS PATHWAYS TO NSW UNIVERSITIES – LOW SES COMMENCING DOMESTIC UNDERGRADUATE ENROLMENTS AT METROPOLITAN UNIVERSITIES

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>528</td>
<td>588</td>
<td>673</td>
<td>27.5%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>1673</td>
<td>1782</td>
<td>1868</td>
<td>11.7%</td>
</tr>
<tr>
<td>VET</td>
<td>810</td>
<td>972</td>
<td>1052</td>
<td>29.9%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>28</td>
<td>6</td>
<td>10</td>
<td>-64.3%</td>
</tr>
<tr>
<td>Other</td>
<td>608</td>
<td>583</td>
<td>540</td>
<td>-11.2%</td>
</tr>
<tr>
<td><strong>Cohort Total</strong></td>
<td>3647</td>
<td>3931</td>
<td>4143</td>
<td>13.6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>14.5%</td>
<td>15.0%</td>
<td>16.2%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>45.9%</td>
<td>45.3%</td>
<td>45.1%</td>
<td>-0.8%</td>
</tr>
<tr>
<td>VET</td>
<td>22.2%</td>
<td>24.7%</td>
<td>25.4%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>0.8%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>-0.5%</td>
</tr>
<tr>
<td>Other</td>
<td>16.7%</td>
<td>14.8%</td>
<td>13.0%</td>
<td>-3.6%</td>
</tr>
<tr>
<td><strong>Cohort Total</strong></td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Source: NSW public universities 2012
Note: Percentage figures rounded to one decimal place and may not equal 100 per cent.
In absolute terms, more low SES university admissions are on the basis of secondary education. However, while low SES students represent 18.2 per cent of total domestic undergraduate admissions, they only account for 15.8 per cent of admissions on the basis of secondary education. In contrast, they account for 28.5 per cent of admissions on the basis of special entry and 22.8 per cent on the basis of previous VET studies, as the data in Table 13 show.
2.2.5 Indigenous admissions into NSW universities

While secondary education is the most common pathway into a NSW university for Indigenous students in absolute terms, access through other pathways appears fairly evenly spread (Table 14).

As with low SES students, there are differences between regional and metropolitan universities in terms of the pathways leading to university admission for Indigenous students, with a much more even spread of admissions across all the pathways at regional universities (Tables 15 and 16). Indigenous students are also more likely to attend regional universities than metropolitan universities.

### Table 13: University Admissions Pathways to NSW Universities – Low SES Commencing Domestic Undergraduate Enrolments as a Proportion of All Enrolments in Each Pathway Category

<table>
<thead>
<tr>
<th>Admissions Pathways</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2009 - 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>17.0%</td>
<td>16.8%</td>
<td>17.3%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>15.2%</td>
<td>16.0%</td>
<td>15.8%</td>
<td>0.7%</td>
</tr>
<tr>
<td>VET</td>
<td>22.6%</td>
<td>22.5%</td>
<td>22.8%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>26.1%</td>
<td>27.9%</td>
<td>28.5%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Other</td>
<td>18.6%</td>
<td>17.8%</td>
<td>18.2%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Cohort Total</td>
<td>17.6%</td>
<td>18.1%</td>
<td>18.2%</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

Source: NSW public universities 2012
### TABLE 14: ADMISSIONS PATHWAYS TO NSW UNIVERSITIES – INDIGENOUS COMMENCING DOMESTIC UNDERGRADUATE ENROLMENTS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>207</td>
<td>246</td>
<td>262</td>
<td>26.6%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>271</td>
<td>320</td>
<td>372</td>
<td>37.3%</td>
</tr>
<tr>
<td>VET</td>
<td>167</td>
<td>173</td>
<td>236</td>
<td>41.3%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>184</td>
<td>214</td>
<td>194</td>
<td>5.4%</td>
</tr>
<tr>
<td>Other</td>
<td>241</td>
<td>241</td>
<td>244</td>
<td>1.2%</td>
</tr>
<tr>
<td><strong>Cohort Total</strong></td>
<td>1071</td>
<td>1194</td>
<td>1308</td>
<td>22.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>19.3%</td>
<td>20.6%</td>
<td>20.0%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>25.3%</td>
<td>26.8%</td>
<td>28.4%</td>
<td>3.1%</td>
</tr>
<tr>
<td>VET</td>
<td>15.6%</td>
<td>14.5%</td>
<td>18.0%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>17.2%</td>
<td>17.9%</td>
<td>14.8%</td>
<td>-2.3%</td>
</tr>
<tr>
<td>Other</td>
<td>22.5%</td>
<td>20.2%</td>
<td>18.7%</td>
<td>-3.8%</td>
</tr>
<tr>
<td><strong>Cohort Total</strong></td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Source: NSW public universities 2012

Note: Percentage figures rounded to one decimal place and may not equal 100 per cent.

### GRAPH 7: ADMISSIONS PATHWAYS TO NSW UNIVERSITIES – INDIGENOUS COMMENCING UNDERGRADUATE ENROLMENTS

Source: NSW public universities 2012
### TABLE 15: ADMISSIONS PATHWAYS TO NSW UNIVERSITIES – INDIGENOUS COMMENCING DOMESTIC UNDERGRADUATE ENROLMENTS AT REGIONAL INSTITUTIONS

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>164</td>
<td>199</td>
<td>219</td>
<td>33.5%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>162</td>
<td>180</td>
<td>194</td>
<td>19.8%</td>
</tr>
<tr>
<td>VET</td>
<td>122</td>
<td>122</td>
<td>168</td>
<td>37.7%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>127</td>
<td>188</td>
<td>163</td>
<td>28.3%</td>
</tr>
<tr>
<td>Other</td>
<td>121</td>
<td>102</td>
<td>128</td>
<td>5.8%</td>
</tr>
<tr>
<td><strong>Cohort Total</strong></td>
<td>696</td>
<td>791</td>
<td>872</td>
<td>25.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>23.6%</td>
<td>25.2%</td>
<td>25.1%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>23.3%</td>
<td>22.8%</td>
<td>22.2%</td>
<td>-1.0%</td>
</tr>
<tr>
<td>VET</td>
<td>17.5%</td>
<td>15.4%</td>
<td>19.3%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>18.2%</td>
<td>23.8%</td>
<td>18.7%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Other</td>
<td>17.4%</td>
<td>12.9%</td>
<td>14.7%</td>
<td>-2.7%</td>
</tr>
<tr>
<td><strong>Cohort Total</strong></td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Source: NSW public universities 2012
Note: Percentage figures rounded to one decimal place and may not equal 100 per cent.

### TABLE 16: ADMISSIONS PATHWAYS TO NSW UNIVERSITIES – INDIGENOUS COMMENCING DOMESTIC UNDERGRADUATE ENROLMENTS AT METROPOLITAN INSTITUTIONS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>43</td>
<td>47</td>
<td>43</td>
<td>0.0%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>109</td>
<td>140</td>
<td>178</td>
<td>63.3%</td>
</tr>
<tr>
<td>VET</td>
<td>45</td>
<td>51</td>
<td>68</td>
<td>51.1%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>57</td>
<td>26</td>
<td>31</td>
<td>-45.6%</td>
</tr>
<tr>
<td>Other</td>
<td>120</td>
<td>139</td>
<td>116</td>
<td>-3.3%</td>
</tr>
<tr>
<td><strong>Cohort Total</strong></td>
<td>375</td>
<td>403</td>
<td>436</td>
<td>16.3%</td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>11.6%</td>
<td>11.7%</td>
<td>9.9%</td>
<td>-1.6%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>29.1%</td>
<td>34.7%</td>
<td>40.8%</td>
<td>11.8%</td>
</tr>
<tr>
<td>VET</td>
<td>12.0%</td>
<td>12.7%</td>
<td>15.6%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>15.2%</td>
<td>6.5%</td>
<td>7.1%</td>
<td>-8.1%</td>
</tr>
<tr>
<td>Other</td>
<td>32.0%</td>
<td>34.5%</td>
<td>26.6%</td>
<td>-5.4%</td>
</tr>
<tr>
<td><strong>Cohort Total</strong></td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Source: NSW public universities 2012
Note: Percentage figures rounded to one decimal place and may not equal 100 per cent.
While Indigenous students represented only 1.8 per cent of all domestic undergraduate admissions in 2011, they accounted for 5.1 per cent of all special entry admissions (Table 17), which include Indigenous entry programs. Comparison between Graphs 8A and 8B show that the percentage of special entry admission for Indigenous students in regional universities is far greater than in metropolitan universities and there is a greater percentage of Indigenous students entering via secondary education at metropolitan universities. They are also over-represented in admissions via the ‘other’ pathway.

TABLE 17: ADMISSIONS PATHWAYS TO NSW UNIVERSITIES – INDIGENOUS COMMENCING DOMESTIC UNDERGRADUATE ENROLMENTS AS A PROPORTION OF ALL ENROLMENTS IN EACH PATHWAY CATEGORY

<table>
<thead>
<tr>
<th>Admissions Pathways</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2009 - 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>1.4%</td>
<td>1.4%</td>
<td>1.6%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>0.8%</td>
<td>1.0%</td>
<td>1.1%</td>
<td>0.3%</td>
</tr>
<tr>
<td>VET</td>
<td>2.0%</td>
<td>1.8%</td>
<td>2.3%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>5.7%</td>
<td>5.2%</td>
<td>5.1%</td>
<td>-0.6%</td>
</tr>
<tr>
<td>Other</td>
<td>2.9%</td>
<td>2.8%</td>
<td>3.0%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Cohort Total</td>
<td>1.6%</td>
<td>1.6%</td>
<td>1.8%</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

Source: NSW public universities 2012
2.2.6 Rural and regional admissions into NSW universities

As for low SES and Indigenous enrolments, secondary education is the largest basis for university entry for rural and regional undergraduate students, although access via some of the other pathways, particularly the VET pathway, recorded a higher rate of increase from 2009 to 2011, as the data in Table 18 show.

**Table 18: Admissions Pathways to NSW Universities – Rural and Regional Commencing Domestic Undergraduate Enrolments**

<table>
<thead>
<tr>
<th>Admissions Pathways</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2009 - 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>3541</td>
<td>3801</td>
<td>3637</td>
<td>2.7%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>4855</td>
<td>5064</td>
<td>5153</td>
<td>6.1%</td>
</tr>
<tr>
<td>VET</td>
<td>1788</td>
<td>2102</td>
<td>2192</td>
<td>22.6%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>1130</td>
<td>1452</td>
<td>1233</td>
<td>9.1%</td>
</tr>
<tr>
<td>Other</td>
<td>2933</td>
<td>3087</td>
<td>3266</td>
<td>11.4%</td>
</tr>
<tr>
<td><strong>Cohort Total</strong></td>
<td>14248</td>
<td>15505</td>
<td>15481</td>
<td>8.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percentages</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2009 - 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>24.9%</td>
<td>24.5%</td>
<td>23.5%</td>
<td>-1.4%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>34.1%</td>
<td>32.7%</td>
<td>33.3%</td>
<td>-0.8%</td>
</tr>
<tr>
<td>VET</td>
<td>12.5%</td>
<td>13.6%</td>
<td>14.2%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>7.9%</td>
<td>9.4%</td>
<td>8.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Other</td>
<td>20.6%</td>
<td>19.9%</td>
<td>21.1%</td>
<td>0.5%</td>
</tr>
<tr>
<td><strong>Cohort Total</strong></td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Source: NSW public universities 2012
Note: Percentage figures rounded to one decimal place and may not equal 100 per cent.
However, rural and regional students are more likely to be granted admission into regional universities through the pathways other than the secondary education pathway compared to metropolitan universities (Graphs 11A and 11B).

**TABLE 19: ADMISSIONS PATHWAYS TO NSW UNIVERSITIES – RURAL AND REGIONAL COMMENCING DOMESTIC UNDERGRADUATE ENROLMENTS AT REGIONAL INSTITUTIONS**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>3007</td>
<td>3224</td>
<td>3020</td>
<td>0.4%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>2837</td>
<td>3135</td>
<td>3071</td>
<td>8.3%</td>
</tr>
<tr>
<td>VET</td>
<td>1470</td>
<td>1729</td>
<td>1836</td>
<td>25.0%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>1105</td>
<td>1439</td>
<td>1223</td>
<td>10.7%</td>
</tr>
<tr>
<td>Other</td>
<td>2426</td>
<td>2551</td>
<td>2699</td>
<td>11.3%</td>
</tr>
<tr>
<td><strong>Cohort Total</strong></td>
<td>10844</td>
<td>12078</td>
<td>11849</td>
<td>9.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>27.7%</td>
<td>26.7%</td>
<td>25.5%</td>
<td>-2.2%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>26.2%</td>
<td>26.0%</td>
<td>25.9%</td>
<td>-0.2%</td>
</tr>
<tr>
<td>VET</td>
<td>13.6%</td>
<td>14.3%</td>
<td>15.5%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>10.2%</td>
<td>11.9%</td>
<td>10.3%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Other</td>
<td>22.4%</td>
<td>21.1%</td>
<td>22.8%</td>
<td>0.4%</td>
</tr>
<tr>
<td><strong>Cohort Total</strong></td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Source: NSW public universities 2012
Note: Percentage figures rounded to one decimal place and may not equal 100 per cent.
TABLE 20: ADMISSIONS PATHWAYS TO NSW UNIVERSITIES – RURAL AND REGIONAL COMMENCING DOMESTIC UNDERGRADUATE ENROLMENTS AT METROPOLITAN INSTITUTIONS

<table>
<thead>
<tr>
<th>Admissions Pathways</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2009 - 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>535</td>
<td>577</td>
<td>618</td>
<td>15.5%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>2019</td>
<td>1929</td>
<td>2082</td>
<td>3.1%</td>
</tr>
<tr>
<td>VET</td>
<td>318</td>
<td>373</td>
<td>355</td>
<td>11.6%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>25</td>
<td>13</td>
<td>10</td>
<td>-60.0%</td>
</tr>
<tr>
<td>Other</td>
<td>507</td>
<td>536</td>
<td>567</td>
<td>11.7%</td>
</tr>
<tr>
<td><strong>Cohort Total</strong></td>
<td><strong>3404</strong></td>
<td><strong>3427</strong></td>
<td><strong>3632</strong></td>
<td><strong>6.7%</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percentages</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2009 - 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>15.7%</td>
<td>16.8%</td>
<td>17.0%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>59.3%</td>
<td>56.3%</td>
<td>57.3%</td>
<td>-2.0%</td>
</tr>
<tr>
<td>VET</td>
<td>9.4%</td>
<td>10.9%</td>
<td>9.8%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>0.7%</td>
<td>0.4%</td>
<td>0.3%</td>
<td>-0.5%</td>
</tr>
<tr>
<td>Other</td>
<td>14.9%</td>
<td>15.6%</td>
<td>15.6%</td>
<td>0.7%</td>
</tr>
<tr>
<td><strong>Cohort Total</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Source: NSW public universities 2012
Note: Percentage figures rounded to one decimal place and may not equal 100 per cent.

GRAPH 11: ADMISSIONS PATHWAYS TO NSW UNIVERSITIES – RURAL AND REGIONAL COMMENCING DOMESTIC UNDERGRADUATE ENROLMENTS

11A REGIONAL INSTITUTIONS

11B METROPOLITAN INSTITUTIONS

Source: NSW public universities 2012
In addition, while secondary education is the most prevalent pathway for rural and regional students, they only account for 14.6 per cent of admissions via this pathway. This compares with rural and regional students accounting for 27.5 per cent of special entry pathway admissions and 22.5 per cent of VET pathway admissions, as the data in Table 21 show.

**TABLE 21: ADMISSIONS PATHWAYS TO NSW UNIVERSITIES – RURAL AND REGIONAL COMMENCING DOMESTIC UNDERGRADUATE ENROLMENTS AS A PERCENTAGE OF ALL ENROLMENTS IN EACH PATHWAY CATEGORY**

<table>
<thead>
<tr>
<th>Admissions Pathways</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2009 -2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>21.2%</td>
<td>15.2%</td>
<td>15.9%</td>
<td>-5.3%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>13.9%</td>
<td>14.6%</td>
<td>14.6%</td>
<td>0.7%</td>
</tr>
<tr>
<td>VET</td>
<td>22.3%</td>
<td>22.5%</td>
<td>22.5%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>24.7%</td>
<td>26.9%</td>
<td>27.5%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Other</td>
<td>17.9%</td>
<td>17.0%</td>
<td>17.6%</td>
<td>-0.3%</td>
</tr>
<tr>
<td>Cohort Total</td>
<td>16.2%</td>
<td>16.8%</td>
<td>17.0%</td>
<td>0.8%</td>
</tr>
</tbody>
</table>

Source: NSW public universities 2012

The data obtained from NSW public universities also show that rural and regional students overwhelmingly enrol in regional universities (76.5 per cent compared with 23.5 per cent at metropolitan universities).
2.3 Gaps in the data

In assessing the effectiveness of tertiary pathways, it is important to recognise the gaps in current data which prevent a full understanding of student progression and attainment.

Some data gaps include:

- the level of VET attainment in NSW of students transitioning into higher education
- the level of higher education study these students are transitioning into
- the age, gender or equity status of the transitioning students
- the number of students receiving course credit in NSW (and the extent of that credit) for prior VET attainment when transitioning into higher education; and
- the rates of higher education retention and completion for students who gained entry through prior VET qualifications.

NCVER has also identified key limitations in current pathways data, including disparities in the collection practices across tertiary admissions centres and education providers. For example:

- some do not collect students’ prior education attainments in lower level VET qualifications
- some only collect a student’s highest level of prior educational attainment
- many do not collect information on previous attempts at qualifications by students
- many do not collect information on the fields of education for prior study
- many do not collect information on the reasons why a student may be undertaking studies

- there are differences in VET and higher education collections in relation to highest prior qualification level achieved and the field of education; and
- time gaps since prior education attainments are not currently recorded in national data collections, even though this is an important factor in determining eligibility for credit transfer.

This Review also identified further data limitations in understanding the extent of tertiary pathways uptake in NSW. For example, the Committee was not able to access precise and consistent data on enrolments and completions at private VET and higher education providers. The Productivity Commission has noted that there is no definitive figure on the total population of VET students, indicating that the closest measure is from the NCVER which only reports on activity in the publicly-funded VET system.21

Much of the missing information could be sourced from the Commonwealth, which collects a range of information directly from VET and higher education providers. State and Territory access to these data would assist in developing and measuring the success of strategies for increasing the uptake of tertiary pathways. It would also enable them, in collaboration with tertiary education providers, to better develop evidence-based policies and programs to maximise educational and employment opportunities for students.

COAG signed the National Partnership Agreement on Skills Reform on 13 April 2012. The Agreement provides for a greater sharing of data between the Commonwealth, the States and Territories in relation to VET and higher education. Specifically, the model to be developed for information sharing is proposed to cover:

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• training activity (hours and qualifications)
• training outcomes, allowing for analysis by student characteristics, location, provider and mode of delivery; and
• higher education participation, courses and outcomes, allowing for analysis by student characteristics and provider.

The Committee welcomes this development and encourages NSW in its future representations at the national level to ensure that the information sharing model provides the States and Territories with access to comprehensive data.

Measuring the level of uptake of tertiary pathways would be materially assisted by the development of a Unique Student Identifier that follows the student from school education through to tertiary studies. The Commonwealth, States and Territories have been working towards a Unique Student Identifier for the VET sector, to be implemented by 2014.

The proposed VET Unique Student Identifier should make it easier for students to find, collate and authenticate their VET attainments in a single portable record, thereby supporting the transition of students between institutions. Training providers would also benefit through reduced administrative burdens associated with student enrolment. It will also provide an opportunity for governments to capture training activity data, which can be used for policy development and planning.22

The business case for the proposed VET Unique Student Identifier notes the possibility of its future application to school and higher education sectors.23 The wider application of a Unique Student Identifier will require ongoing discussions with the other education sectors, including the potential costs involved for providers. However, given the potential benefits, particularly in assisting students to transfer across institutions and to allow for the development of a single record of educational attainment, NSW should continue to advocate for the wider application of a Unique Student Identifier to include the school and higher education sectors.

The Committee also noted the absence of nationally consistent definitions of key measures of equity impacts. For example, SES can be based on area or postcode measures or through individual factors such as parental occupation or education.24 Questions have been raised about the appropriateness of using area or postcode measures as a proxy for measuring individual low SES and the possible impacts for policy implementation arising from such imprecise measures.25 Different approaches can also apply to measurement of individual factors such as parental education for example, whether the focus is on education attainment for a particular parent or the highest qualification of either parent.26 The development of more robust national definitions of factors used to measure equity impacts needs to be addressed at a national level to ensure that policies, planning and programs for improving student outcomes are based on comparable data.

During the consultation process, school representatives indicated that they are not able to access data on tertiary student enrolments in order to accurately verify the destinations of their students. These data should be made available by VET and higher education providers, subject to provisions to address privacy concerns, in order for schools to develop and measure strategies to improve student educational outcomes.

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Discussions with NSW universities also highlighted the different definitions adopted by each university of what constitutes ‘direct entry’ or ‘special entry’. This made it difficult to accurately assess the extent to which students from the VET sector and students from the key equity groups access pathways to university through such arrangements.

The Committee welcomed the NSW universities providing it with extensive data on admission pathways and completions. This information had not previously been made public and the Committee found it provided valuable information, particularly on students from the key equity groups.

**RECOMMENDATION 1**

That the NSW Government:

A. requests the Commonwealth to review the data collected from higher education and VET providers to ensure that de-identified data are provided by the Commonwealth to the NSW Department of Education and Communities on the basis of admission (secondary schooling, higher education, public & private VET, special entry, credit transfer), progression and completion of all students including the identification of low socio-economic status, Indigenous, and rural and regional students

B. advocates that the Commonwealth incorporate in its funding compacts with universities stronger requirements for reporting on the development and uptake of pathways programs between VET and higher education

C. requests the NSW University Admissions Centre to annually provide it with data broken down by schools including:

   I. ATAR eligibility
   II. number of applications to higher education institutions
   III. number of offers by higher education institutions

D. advocates in national forums for consistent definitions of factors relating to equity data, including a consistent definition of “low socio-economic status” across schooling, VET and higher education so as to better understand the progress of disadvantaged students

E. continues to work in national forums to ensure that the Unique Student Identifier for the VET sector is extended to cover the school and higher education sectors.
SECTION 3.0
FACTORS AFFECTING THE UPTAKE OF PATHWAYS

A complex interplay of factors influences students’ decisions to take up tertiary education. Aspirations and expectations shaped by family, school and social background, levels of attainment and students’ readiness for tertiary education, knowledge of what options are available, course accessibility and financial circumstances all work together to contribute to decision-making about and capacity to pursue tertiary education. Structural and organisational characteristics of the different education sectors further contribute to students’ capacities to move across school, VET and higher education.

This section considers the factors influencing student participation in tertiary education, which are then explored in more detail in the next section in relation to the specific pathways that are the focus of this Review.

3.1 Higher aspirations and expectations

Students’ aspirations and expectations for tertiary education are shaped by:

- experiences at school and/or levels of achievement at school
- the level of support or encouragement from family and friends
- stereotyping related to gender, community or ethnic background which may result in students moving into jobs or fields that do not require further education
- understanding and perceptions of the relevancy and benefits of tertiary education; and
- whether there are positive role models amongst peers and family who have successfully undertaken tertiary study.

Aspirations influence future outcomes

Perceptions regarding the value of tertiary education and for whom it is best suited play a large part in students’ decisions about further study. For example, for many students from low SES school communities, higher education is an unfamiliar concept as they are less likely to have parents or people in their local community who went to university. In addition, consultations conducted by the Committee revealed that lower aspirations from students in the key equity groups may reflect their concern about not belonging in a tertiary education environment.

Research shows that students whose parents have higher educational levels and occupational status are more likely to participate in tertiary education, and that in addition to the impact of factors such as socio-economic status, ethnicity, region, school sector and gender, a child’s education is also influenced by parental aspirations. In many cases teachers are among the few people school students from low SES backgrounds meet who have undertaken higher education. For students from high SES backgrounds, participation in higher education is generally a normal progression, with over two thirds planning to enrol, whereas for low SES students a high level of motivation is required in the face of general expectations that they will not undertake higher education.

Aspirations for tertiary education are also shaped by location, with students in rural and regional areas having more limited choices at local tertiary institutions and the challenging prospect of otherwise moving to study away from their family and community.

Students’ aspirations with regard to school completion and tertiary education are developed early and shape their decision making as they progress through high school. This includes decisions about completing school, with many students deciding by 15 years of age, if not before, whether they will complete Year 12 and continue on to university. Research indicates that nine out of ten young peoples’ future actions are in line with the plans they have made by 15 years of age, and that of those who expressed an intention at age 15 to complete Year 12 over 90 per cent did so, whereas of those who indicated they would not complete Year 12 almost 90 per cent did not.\textsuperscript{30}

While students from higher SES backgrounds are more likely to believe a university program is relevant and will offer them the chance of an interesting and rewarding career, many students from low SES backgrounds, based on personal or community circumstances, question the value and relevance of higher education. They are more likely to consider undertaking VET regarding it as more appealing.\textsuperscript{31}

Recurring feedback the Committee received from students is the need for a link between tertiary studies and employment outcomes. This is particularly the case for students who may question the relevance of tertiary study and may compare the costs of tertiary study to the income foregone had they entered the workforce at the completion of schooling.

Other feedback from the consultations was that many students lack the confidence or an appreciation of their skill and talents to pursue more ambitious education or career goals, and that some students are discouraged from considering higher education by high school and VET teachers. The latter point appears to be consistent with the findings of a recent survey of the post-school destinations for NSW secondary students, which noted that teachers generally recorded lower expectations for post-school VET and higher education participation compared to the students themselves and their parents\textsuperscript{32}, as Graph 13 shows.

\textbf{GRAPH 13: UNIVERSITY AND VET EXPECTATIONS BY SOCIO-ECONOMIC QUARTILE}

\begin{tikzpicture}
\begin{axis}[
    title={University and VET Expectations by Socio-Economic Quartile},
    ybar, ymajorgrids, symbolic x coords={Higher, Upper middle, Lower middle, Lowest},
    xtick=data,
    enlarge x limits=0.5,
    nodes near coords, nodes near coords align={vertical},
    ymin=0, ymax=90,
    nodes near coords style={font=\footnotesize},
    legend pos=north west,
    legend style={draw=none, fill=none, legend columns=4, anchor=south west, at={(0.2,0.25)}, anchor=south west},
]
\addplot [fill=blue] coordinates {
(Higher, 90) (Upper middle, 80) (Lower middle, 70) (Lowest, 60)
};\addlegendentry{At School Students}
\addplot [fill=green] coordinates {
(Higher, 80) (Upper middle, 70) (Lower middle, 60) (Lowest, 50)
};\addlegendentry{At School Parents}
\addplot [fill=red] coordinates {
(Higher, 70) (Upper middle, 60) (Lower middle, 50) (Lowest, 40)
};\addlegendentry{At School Teachers}
\addplot [fill=orange] coordinates {
(Higher, 60) (Upper middle, 50) (Lower middle, 40) (Lowest, 30)
};\addlegendentry{School Leavers Actual}
\end{axis}
\end{tikzpicture}

Source: Australian Council for Educational Research\textsuperscript{33}


Centre for the Study of Higher Education (2008), Participation and Equity: A review of the participation in higher education of people from low socioeconomic backgrounds and Indigenous people, University of Melbourne, p3-4.


\textsuperscript{33} Ibid, p22.
The Committee heard during the consultations that for Indigenous students the inter-generational nature of unemployment in their communities may also lead to less knowledge of tertiary education and employment opportunities.

**Limited aspirations cannot be assumed**

However, caution is required when attributing the educational and employment outcomes of young people to low aspirations amongst them and their families. Research indicates that aspirations vary between disadvantaged young people in different communities. Location, school, community and family influences come together to shape the development of students’ aspirations, and generalisations about aspirations in disadvantaged communities can be unhelpful.34

And while high aspirations are an important motivator towards undertaking tertiary education, they are not sufficient in themselves while barriers to fulfilling these aspirations remain in place.35

Recent research from the United Kingdom suggests that aspirations are indeed generally high among young people from more disadvantaged backgrounds - the difficulty for many young people is in knowing how to fulfil their aspirations, how to progress their education and understanding the range of possible employment opportunities.36

Some of these barriers were identified during the Review consultations. For example, while parents from the key equity groups may have lower aspirations or, more significantly, may not be aware of the range of educational and employment opportunities available, they remain the primary source of such advice for their children. This is why parental engagement is a critical component of any successful program aimed at raising students’ aspirations and expectations.

While not the only factor in improving educational outcomes, the Committee considers higher aspirations and expectations to be critical in increasing educational participation and attainment for students and achieving the State Plan’s targets. Industry, community groups, schools and tertiary institutions all have a role to play in helping build students’ aspirations and expectations.

There are a number of aspiration-building programs delivered by educational institutions, and government and non-government agencies, sometimes in combination with industry, which provide for student mentoring, promote educational opportunities, and foster higher expectations amongst students and parents (examples follow). Strategies to improve aspirations and expectations should be the subject of ongoing assessment to identify and promote those that are most effective in encouraging students into tertiary education.

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Examples of aspiration building programs

Lifting Educational Aspirations of Parents and Students (LEAPS)

The program aims to increase the educational aspirations of students and their families through on-going engagement in inspirational and culturally appropriate programs that promote exposure, awareness, understanding and access to educational and career opportunities and pathways. Partners of this program are the NSW Department of Education and Communities (Port Macquarie District Office), Hastings Public School Parents and Citizens Association, Port-Macquarie-Hastings Council, and TAFE NSW North Coast Institute.

Making Educational Goals Sustainable Program

This program is jointly supported by the NSW Department of Education and Communities, Hunter Institute of TAFE and the University of Newcastle. The program involves Year 6-9 students and their parents visiting TAFE NSW campuses and the University each year with the objective of getting an insight into university life, particularly for those students who might not consider higher education as an option.

ASPIRE

The ASPIRE program at the University of New South Wales and Charles Sturt University involves university staff and students volunteering as ambassadors to work with school students in supporting their aspirations and access to a university education. ASPIRE ambassadors coordinate a range of on-campus and in-school activities aimed at building awareness about university, encouraging students to think about their future options, helping students achieve their full potential, and increasing university applications from local high schools. The University of New South Wales has formed partnerships with 11 high schools and three primary schools under this program, while Charles Sturt University partnered with 15 schools in 2011, including some geographically remote schools.

Youth Connections

Youth Connections, a Commonwealth funded program, helps young people who have left school, or are thinking of leaving school, to continue with their education. Providers under this program provide individualised case management services to help young people overcome barriers and engage with education. This may include:

- assistance in reconnecting with the family
- mentoring; and
- connections with other organisations to provide specialised assistance such as for mental health or literacy and numeracy support.

Links to Learning

Under this NSW Department of Education and Communities-funded program, community organisations undertake activities to re-engage students through improving skills in reading, writing and maths, developing communication and technology skills, increasing self-esteem, setting education and career goals and developing work skills.

The Beacon Foundation

The Beacon Foundation works with schools nationally to ensure that young people are either earning or learning at vulnerable transition points in their lives. It focuses on students at risk of disengagement, particularly those from low SES backgrounds, by engaging the student in practical programs that mobilise the school, parents and local businesses to create positive opportunities and knowledge for skills development. The Foundation provides workshops in schools on presentation skills, self awareness, motivation, goal setting and personal responsibility. As a result of the support from local business and the community, Beacon schools are able to offer services and support to students through mentoring, face-to-face contact with professionals, workplace experiences, and traineeship and apprenticeship opportunities. The Beacon Foundation has found that its participating students have clearer plans for the future after participating in the program.

The Smith Family

The Smith Family combines a financial scholarship with additional supports to raise aspirations amongst disadvantaged students. In 2011, The Smith Family sponsored over 10,000 students across 33 communities in NSW under its Learning for Life sponsorship model – including tertiary scholarships for more than 500 students. A joint research initiative between The Smith Family and University of Melbourne indicates that the sponsorship model can act as a catalyst to increase participation in education and helps students feel valued, more motivated and more engaged with their education.

In addition, The Smith Family’s iTrack online mentoring program pairs disadvantaged students in Year 9-11 with a volunteer mentor to explore future study and work options. In 2012, 244 students from disadvantaged communities have registered to participate in iTrack in NSW. In 2011, after participating in the iTrack program:

- 70 per cent of participants indicated that they had a greater understanding of career pathways; and
- 60 per cent indicated that they had higher expectations about their future career.

Plan-It Youth Community Mentoring Program

The Plan-It Youth Community Mentoring Program is a one-on-one mentoring scheme sponsored by the NSW Department of Education and Communities, which targets potential early school leavers. It links community members with young people in school who may need extra support to continue at school or to prepare for the transition to work, or tertiary education.

The students and mentors work together to deal with the challenges of school, including relationships with peers and teachers, family life, work and training issues.37

Bridges to Higher Education

An initiative funded under the Commonwealth Government’s Higher Education Participation and Partnerships Program, Bridges to Higher Education is a consortium of Sydney-based universities led by the University of Western Sydney, and includes The University of Sydney, University of Technology Sydney, Macquarie University and Australian Catholic University. It aims to increase aspiration for higher education among students from low SES backgrounds, with a particular focus on Greater Western Sydney. Under the program, the Universities will draw on its existing partnerships with education, government and non-government organisations, including the NSW Department of Education and Communities, TAFE NSW, the Universities Admissions Centre, AFL NSW/ACT, The Smith Family and Tutoring Australasia.

The program’s four objectives are:

- improving academic outcomes – through enriched learning opportunities for students to build abilities in reading, writing, numeracy, and science, technology, engineering and mathematics (STEM) in primary and high school
- raising education aspirations and engagement – through activities delivered on campus, in schools, in communities and electronically
- building teacher and community capacity – through engagement with relevant Departmental staff, parents and non-government organisations, and the provision of professional development programs; and
- increasing capacity to access higher education – assisting Year 10 to 12 students through study skills, HSC preparation, homework clubs and tutoring.

RECOMMENDATION 2

That the NSW Department of Education and Communities:

A. reviews the effectiveness of aspiration-building programs for tertiary education for students, parents and teachers provided in NSW schools including university and school partnerships

B. encourages schools to implement effective aspiration-building programs in partnership with tertiary institutions, community groups and industry, as appropriate.

3.2 Improved educational attainment and preparation for tertiary study

The impact of disadvantage on school achievement

Lower levels of educational achievement, lower educational aspirations and lower school completion rates are significantly interrelated.38

Education outcomes tend to align with students’ socio-economic backgrounds, and lower rates of attainment for students from key equity groups will, in turn, limit their tertiary education opportunities. For example, students from low SES backgrounds are:

- more likely to record lower scores in NAPLAN literacy and numeracy tests compared to high SES students39;
- less likely to complete Year 12 (59 per cent across Australia compared with 78 per cent for high SES students40);
- far less likely to achieve a high Australian Tertiary Assessment Rank (ATAR) (16 per cent compared to 46 per cent41); and
- more likely to undertake VET or join the workforce than to undertake higher education.

Further compounding the impact of low SES on educational outcomes, an analysis of NAPLAN data by the NSW Department of Education and Communities has found a strong correlation between lower student results and the concentration of low SES students at a school, in addition to individual student SES impacts.42

School achievement and tertiary education destinations

For students of similar ability, those from higher SES backgrounds are more likely to obtain an ATAR and achieve higher ATARs if they do.43 However, students from low SES backgrounds who do achieve an ATAR are as likely to attend university as their higher SES peers.44

This is an important finding as it suggests that the socio-economic gap in higher education participation is attributable to differences in early educational achievement of students, rather than at the point of entry into higher education.

Where low SES students are successful in gaining entry into higher education, they remain under-represented in the highly-competitive professional courses, such as medicine, law and architecture and are over-represented in courses with low entry requirements.

For example, in 2009 low SES students accounted for 11.1 per cent of applications for an undergraduate medical degree, compared with 49.8 per cent of applicants from high SES backgrounds.45

41. Department of Education and Communities data, based on 2009 HSC results by SES group achieving an ATAR over 80. Low SES corresponds to the three lowest deciles, medium SES to the four middle deciles, and high SES to the top three deciles.
This finding raises a range of questions for educators, including the impact of students’ prior attainment as well as school subject choices and career advice received on their university course selection.

The challenge is to provide the support to ensure more students from the key equity groups succeed at school and are therefore eligible for university entry.46

An example of a program that seeks to support disadvantage students in diverse ways is The Smith Family, Learning for Life program outlined below.

### The Smith Family Learning for Life Program

The Smith Family’s Learning for Life program provides holistic and long-term support to disadvantaged children and young people from pre-school through to tertiary education. This program provides support to students in three ways:

- through Learning for Life workers, who connect them to learning opportunities in their local community and encourage them to fully participate in their education;
- by providing access to literacy and mentoring programs; and
- through financial assistance to help families with the costs of their children’s essential education items.

Learning for Life commenced in 1988 and now supports over 33,000 disadvantaged Australian students in 97 communities.47 In 2011, The Smith Family sponsored 626 new tertiary students from disadvantaged backgrounds. Of these, 5.8 per cent identified as Aboriginal or Torres Strait Islander peoples.

### Readiness for the challenges of tertiary education

The Committee noted that a lack of readiness for tertiary education is a key barrier to commencement and successful completion. The consultations particularly highlighted poor numeracy skills as a barrier to further participation in the more technical VET and higher education fields such as engineering.

The Committee also heard of perceptions that students who are admitted into higher education on the basis of previous VET studies have high drop-out rates and that their lower ATAR results compared to students who entered straight from school may be a factor in this outcome. This appears to be supported by the findings cited by the Group of Eight showing a link between ATAR scores and the probability of completing a university course.48

However, other factors may explain the challenges for VET students moving into higher education, including the need to adjust to self-directed learning, the competency-based VET curriculum providing students with clearer standards and expectations, and contrasts in staff-student interactions.49 The adoption of transition support programs for students moving from VET to higher education would assist these students to prepare for the considerable differences in curriculum, support, teaching and learning styles between the sectors.50 VET providers should be encouraged to develop such transition support programs as part of their access to NSW-administered national training entitlement funding for qualifications at a Certificate III level or above under the National Partnership Agreement on Skills Reform.

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47. The Smith Family website www.thesmithfamily.com.au
RECOMMENDATION 3
That VET providers accessing NSW Government skills funding be encouraged to develop and implement strategies, including student support and study skills programs, to prepare students for transition into higher level qualifications.

For students in rural and regional areas and in some parts of western Sydney, challenges in recruiting and retaining highly qualified and experienced teachers and staff may impact on student readiness for studies. It was commented upon during the consultations that some teachers in these regions may not have the qualifications to teach some subjects, particularly maths and science.

Long-term disengaged students also have particular challenges in meeting the prerequisites to succeed in tertiary education. Long periods of disengagement lead to poor literacy and numeracy skills. The Committee heard that for many of these students disengagement can be traced back to a difficult transition into high school and it is at this stage that many Indigenous students in particular start to drop out of school.

The Committee also noted that for many students from the key equity groups, a home environment that is not conducive to study will also impact on their educational attainment and readiness for further study.

The poor education outcomes for Indigenous students make their readiness for tertiary education particularly challenging to achieve. Indigenous education and training representatives advised the Committee that Indigenous students may not complete high school due to the school environment not meeting their needs. Many Indigenous students do not succeed in core curriculum areas such as maths and science. In addition, only 573 Indigenous students undertook HSC subjects that enabled them to be eligible for an ATAR in 2010 (53 per cent of Indigenous HSC candidates). However, with support in place, improvements in Indigenous education attainment can be achieved, as is suggested by the outcomes of Australian Indigenous Mentoring Experience (AIME).

AIME involves university students providing individual mentoring to Indigenous students in school. The mentors maintain contact with the students for 6 years and the students receive 70 hours of face-to-face time in Years 7-12 (one hour per week). AIME also arranges for school students to attend university campuses and links students with employment opportunities. The AIME program has achieved increases in school attendance, and improvements in the rate of transition into Year 11, completion of Year 12 and entry into university.

For 2010, AIME recorded the following achievements:

- 88 per cent of participating Year 9 students transitioned to Year 10
- 87 per cent of participating Year 10 students transitioned to Year 11
- 86 per cent of participating Year 11 students transitioned into Year 12, with a 100 per cent completion rate; and
- 38 per cent of its Year 12 students transitioned into university.

AIME’s figures suggest that 25.1 per cent of its participating school students will transition from Year 9 through to university. This is comparable to the transition rate for non-Indigenous students (34.6 per cent) and ahead of the national transition rate for Indigenous students (3.2 per cent).
NSW schools participating in the National Partnership for Low Socio-Economic Status School Communities have implemented a range of initiatives to improve student outcomes through National Partnership funding, including teacher professional development, the establishment of homework centres, literacy and numeracy programs and enhanced engagement with parents and the wider community. However, Commonwealth funding under this National Partnership ceases in 2015, and there is a risk that improvements in student outcomes directly attributable to National Partnership initiatives could be short-lived unless ongoing funding is provided beyond 2015. The outcomes arising from the Review of Funding for Schooling – Final Report (the Gonski Review) with regard to ongoing funding of schools with high concentrations of disadvantage will be an important factor impacting the academic achievement of low SES students in the future.

However, improving educational attainment and preparation for tertiary study should not solely be the responsibility of schools. Tertiary institutions, community organisations and industry all have a role to play in assisting schools to prepare these students for the challenges of tertiary education, through tutoring and mentoring activities focusing on areas crucial to tertiary education success, and through raising the profile of tertiary institutions with students and their parents.

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51. Source: Department of Education and Communities.

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RECOMMENDATION 4

That the NSW Department of Education and Communities works with key stakeholders such as schools, tertiary institutions, community organisations and industry to introduce pilot programs to test innovative and integrated approaches aimed at increasing the rates of transition to tertiary education by students with particular regard to those from low socio-economic status, Indigenous, and rural and regional backgrounds. These programs should include:

A. in-school and community support, such as tutoring and mentoring schemes with a focus on numeracy, literacy, study skills, career development planning and tertiary pathway navigation

B. developing students’ and parents’ familiarity with tertiary institutions.
3.3 Equitable financial support

Financial costs associated with tertiary education can be prohibitive, including the availability of transport, living away from home expenses, fees and the resources required for study. For students from low SES backgrounds, this is compounded by them being less likely to receive family financial assistance to support tertiary education compared to their more financially advantaged peers. 54

Students from the key equity backgrounds often need to work in order to support themselves through tertiary studies. The general lack of integrated work and study options was identified during the consultations as a fundamental barrier to tertiary participation by these groups.

Indigenous students are particularly affected by financial barriers. A report on student finances conducted on behalf of Universities Australia found that Indigenous university students spent more hours in the workforce than non-Indigenous students and were more likely to miss classes due to work commitments. The report also found that Indigenous students were more likely to report that they went without food or other necessities compared to other students. 55

Inconsistencies in assistance provided to VET and higher education students

Compounding these financial barriers for students, the Committee heard that VET providers, including TAFE institutes, are not eligible for Commonwealth funding under the Higher Education Participation and Partnerships Program to address socio-economic disadvantage at universities, despite students from the key equity groups being more likely to study VET.

This has implications for the capacity of VET providers, particularly in rural and regional communities where students have limited tertiary options, to implement strategies to improve access and increase retention and completion rates for students from the key equity groups.

The Committee heard that inconsistencies and anomalies in the provision of Commonwealth assistance to tertiary students may also influence tertiary education decisions. These include:

- students undertaking a degree or pathway to a degree (e.g. higher education Diplomas and enabling courses) at a university are eligible for HECS-HELP loans and attract Commonwealth Supported Places which reduce their fees
- HECS is not available for degree programs offered by TAFE NSW and other non-self-accrediting institutions
- students undertaking a full fee-paying VET qualification or a higher education course delivered by TAFE NSW or other non self-accrediting institution pay higher fees as they are not subsidised. They can access FEE-HELP loans to pay these fees but must also pay a loan fee that does not apply to HECS-HELP loans for public university undergraduate students
- students undertaking some accredited higher level VET qualifications are still not eligible for any loans; and
- the Youth Allowance Relocation Scholarship is only available to university students, despite students from the key equity groups being over-represented in the VET sector.

In relation to the provision of Commonwealth FEE-HELP loans, one issue raised by tertiary sector representatives was that the application process to approve eligible education institutions can be lengthy and cumbersome.

Specifically, applicants are required to submit documentation to the Commonwealth that in many cases has already been considered as part of an institution’s registration process with the relevant national regulatory authority. This process should be reviewed by the Commonwealth to ensure that is not imposing an administrative barrier to education institutions seeking approval for their students to be eligible for FEE-HELP assistance.

Current forms of financial support to students

Education providers and non-government organisations provide some scholarships to tertiary students to reduce the financial burdens of study, while Commonwealth financial support is available through the Youth Allowance, Austudy or Abstudy. These forms of Commonwealth financial assistance provide support for a range of students.

Students are eligible for Youth Allowance if they are aged 18-24 studying full time or undertaking a full time apprenticeship. Youth Allowance also provides assistance for 16-20 year olds looking for full time work or undertaking a combination of approved activities. Austudy supports students aged 25 or over studying an approved full time course (generally secondary education, undergraduate and Associate Diplomas). Abstudy is an allowance for Indigenous secondary and tertiary students and full-time apprentices. Importantly, each of these Commonwealth financial support initiatives is subject to personal income testing. However, from 1 July 2012 the amount a student who receives one of these allowances will be able to earn will increase from $236 to $400 per fortnight.

TAFE NSW also provides for reduced fees for government benefit recipients and Indigenous students are not charged fees.

Other schemes enable students to combine work with study. These include Commonwealth cadetships for Indigenous VET and higher education students and programs offered by the Australian Defence Force that support apprenticeships and Bachelor level studies while undertaking military training.

Despite the number of support schemes available, they do not appear to provide sufficient incentive for many students from the key equity groups to undertake tertiary education, particularly compared to the potential for immediate financial reward of paid employment.

In the case of Abstudy, the Committee notes the following issues:

- it begins to cut out at a low level of parental income - at $46,355 per annum
- the parental income test does not take into account the fact that many Indigenous students come from large families
- some scholarships are treated as income and are therefore subject to the Abstudy income test; and
- Indigenous students who have received Abstudy for multiple VET qualifications may not be eligible for additional Abstudy assistance for further education.

The exemption of Abstudy and other tertiary education student scholarships from income tests would help reduce the financial burdens of study, especially for key equity groups.

The Committee notes that HECS creates an anomaly whereby students with the financial means to pay their HECS up-front receive a discount, while those who have no choice but to defer their payments can be left with long-term debt.

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56. Senate Rural and Regional Affairs and Transport References Committee (2009) Rural and Regional access to Secondary and Tertiary Education Opportunities, p70.
RECOMMENDATION 5
That the NSW Government takes the lead in national forums to remove inconsistencies in financial assistance for VET and higher education students and to provide national support for pathways. This should include:

A. expanded funding for Commonwealth equity programs such as the Higher Education Participation and Partnerships Program to include VET providers

B. exploring options to provide government funding and HECS loans for students undertaking Bachelor Degrees (including pathway degrees) delivered by non self-accrediting higher education institutions

C. removing Commonwealth FEE-HELP loan administration charges that apply to students studying at full-fee paying VET institutions and at non self-accrediting higher education institutions

D. streamlining the FEE-HELP assessment process applying to non self-accrediting institutions to ensure that the process does not discourage potential applicants

E. extending the Youth Allowance Relocation Scholarship to VET students.

RECOMMENDATION 6
That the NSW Government takes the lead in national forums to secure the exemption of tertiary education student scholarships from income tests, regardless of the income source.
3.4 Expanded opportunities for rural and regional students

Rural and regional students are less likely to undertake tertiary education than their metropolitan counterparts, reflecting the additional barriers these students experience. These include financial costs associated with relocating or travelling long distances to educational institutions, the need to balance work and study, lack of support if undertaking distance learning and less reliable internet access and lower IT literacy.

The Committee notes that some students, particularly Indigenous students, find it difficult to study away from their peer groups, families and local communities. In addition, long distances to educational institutions and the relative scarcity of public transport in many rural and regional areas make the absence of a drivers licence and/or vehicle genuine barriers to tertiary education. Providing tertiary education closer to those students by using public school facilities and TAFE NSW facilities should be encouraged.

In addition, a limited range of subjects available at school and the challenges associated with recruiting and retaining quality teachers to rural and regional areas may impact upon student attainment. Many rural and regional students have no alternative but to undertake some subjects in distance mode due to limited course offerings, and incur additional travel and accommodation costs to access face-to-face tutorials or study days.57

Rural and regional disadvantage is further compounded by families with more financial resources enrolling their students away at boarding schools, reinforcing educational disadvantage in the local schools and denying students the opportunities derived from more competitive educational environments.58

Given these barriers, it is not surprising that rural and regional students are less likely than their metropolitan counterparts to apply for a place at university, and that even high achieving rural and regional students have lower expectations of undertaking higher education compared to their metropolitan peers.59

The Review consultations revealed that there is often a mismatch in rural and regional areas between the VET courses on offer and local workforce needs, leaving students to question the relevance of tertiary study. One message from the consultations was that greater engagement with local industry is required to ensure tertiary education provides employment opportunities for those students.

A further solution may involve more flexible delivery to expand the range of tertiary education options available to students in rural and regional areas of the State. TAFE NSW, for example, increasingly combines face-to-face delivery from its 130 campuses across NSW with flexible, work-based and delivery. From 2009 to 2011, TAFE NSW increased their electronic delivery, including web-based as well as through video and audio-conferencing, by almost 30 per cent across NSW.60

This approach could be extended to include the facilities and IT resources of government schools in rural and regional areas linking students to VET and higher education teachers, lecturers and other students.

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57. Ibid, p14, 32.
58. Ibid, p34.
60. TAFE NSW internal data, 2011.
**RECOMMENDATION 7**

That the NSW Department of Education and Communities develops initiatives to enable:

A. rural and regional based students to undertake tertiary education study closer to their homes using public school and TAFE NSW facilities

B. access to high quality IT facilities appropriate for online delivery of tertiary education that exist in rural and regional public schools and TAFE NSW facilities

C. the provision of VET programs relevant to the employment opportunities in rural and regional communities.

A further finding from the consultations is that one of the most effective means of increasing educational attainment in rural and regional areas is to target people already living and working in rural and regional areas to upgrade their qualifications. One strategy is to provide incentive payments for rural and regional workers in key industries such as nursing or social work to undertake further studies to upgrade their skills and qualifications, similar to the Commonwealth Aged Care Education and Training Incentive Program. Under this arrangement, incentive payments are provided to eligible workers in their industries to undertake specified education and training programs and upgrade their qualifications in the process.

**RECOMMENDATION 8**

That the NSW Government advocates for the Commonwealth to extend programs designed to upgrade existing worker qualifications in specific occupations critical to rural and regional areas, such as the Aged Care Education and Training Incentive Program.
3.5 Better communication and information for students and parents

The importance of quality and comprehensive careers guidance

A recurring message from the Review consultations was the difficulties facing students and their parents in navigating the various tertiary education and employment options, including the many pathways into tertiary education. This can result in students missing tertiary education opportunities, limiting their choices, and a misalignment between their tertiary education choice and employment options.

The importance of comprehensive career guidance in expanding tertiary education and employment opportunities has been identified in research. For example, Sikora and Lawrence found that the development of ambitious occupational plans in adolescence has a positive effect on career attainment, independent of socio-economic background or academic performance.61 Kintrea et al. found that the full range of educational possibilities is often hidden or unimagined for disadvantaged students with little family experience of higher education or professional jobs and they therefore require high quality career advice and better access to work experience in order to access pathways that lead to the fulfilment of long-term ambitions.62 The Integrated Articulation and Credit Transfer (IACT) Project identified the need for information about the availability of articulation pathways to be targeted at teachers, lecturers, career guidance officers and vocational counsellors, particularly in schools, in order to reach the 16-19 year age group, which according to a survey of VET and higher education students in Queensland is the age group least aware of tertiary pathway options.63

The Review consultations found that career guidance needs to start early as for many key equity group and disengaged students it is too late in Year 9 or Year 10 to then consider career options. Career guidance also needs to make the connection at an earlier age between possible employment outcomes and the relevance of the school curriculum.

In addition to identifying relevant employment and tertiary pathways, a key ingredient to effective career advice is parental engagement, as programs with little or no parental involvement are less likely to be successful.64 This is particularly crucial for the parents of students from the key equity groups who may not be aware of the range of tertiary education and employment opportunities or the prerequisites for undertaking particular career paths, and who are pivotal to supporting their children to develop higher aspirations. This was noted during the consultations as particularly important for Indigenous students due to the inter-generational nature of unemployment in some Indigenous communities.

Concerns were expressed during the Review consultations about the standard of careers and tertiary education advice provided by schools and whether many careers advisers had a contemporary knowledge and understanding of tertiary education and career options. Poor quality advice has a particular impact on students from the key equity groups who do not have a family history of participation in tertiary education.

During the consultations, large employers said that they faced challenges in accessing some schools, particularly government schools, in order to promote career opportunities and that there would be benefit from a more co-ordinated approach to access. They also shared the view that career expos may not be focussed enough on particular industries to be of practical benefit to students.

64. Ibid, p13.
Another issue raised during the consultations was that students can receive messages from their schools that higher education is valued more highly than VET. Given the potential for VET to lead to high levels of employment and earnings, for example in the metals and resources industries, and the potential for pathways from VET into higher education to expand access to higher education for the key equity groups, it is important that students are aware of the pathway opportunities provided by VET. Industry could play a useful role in helping develop and promote pathways so that it can benefit from an increasingly skilled local workforce.

VET and higher education students may also be unaware of the tertiary education options available at private institutions, while some students from rural and regional schools appeared to not be aware of the range of tertiary scholarships available to them.

**RECOMMENDATION 9**
That NSW schools review how they provide advice to students on tertiary education and employment opportunities and, where appropriate, implement local partnerships with stakeholders including industry, VET providers and higher education institutions.

The recently introduced NSW Record of School Achievement could be one avenue of providing students with links to information on further study and employment options. This mechanism would be particularly useful for students who are not considering completing the Higher School Certificate and may not be aware of the full range of employment or tertiary education options open to students who do not complete Year 12.

**RECOMMENDATION 10**
That the NSW Board of Studies ensures that the Record of School Achievement is used to clearly communicate the full extent of student achievement across schooling, including credit gained from VET courses and any related employment. It should also link directly to information on tertiary education and employment opportunities for students.

The need for a single source of information on tertiary education options

One factor identified as a barrier to the provision of clear and consistent information on tertiary education options was the absence of a single source of information on tertiary education options including pathways. The Department of Education and Communities Careers Advisory Service provides students with information and links to external sources in relation to future work and study options. The Commonwealth has a MyFuture website for careers advice, along with a MySkills website on VET skills and qualifications advice, and a MyUniversity website for the provision of information on higher education options. However, they do not provide comprehensive information on pathways opportunities for tertiary education.

The Universities Admissions Centre (UAC) in NSW is a central source of information on admission into universities and some private higher education providers. While UAC is one possibility as a single source of information on tertiary options, it does not process applications for admission into VET courses, the full range of higher education courses offered by private providers or packaged offers via a pathway arrangement.
Another rationale for a single source of information on tertiary pathways is the variability of information on pathways available to students. The Integrated Articulation and Credit Transfer (IACT) Project conducted a search of all Australian university websites for policies and procedures on articulation and credit transfer and found that of the 39 universities, 30 provided searchable information. However, it also found that only 54 per cent of the universities display their precedent credit transfer databases in an easily found and accessible location.65

Studies have also found that many students may not be aware of the availability of credit transfer and articulation or Recognition of Prior Learning (RPL) and may therefore not request it.66 For example, a study in Queensland found that 41 per cent of a sample of students interviewed was completely unaware that they could apply for credit transfer or RPL.67 Wheelahan further notes that few students from low SES backgrounds benefit from RPL.68 Smith and Clayton argue that, due to continued lack of awareness of RPL despite it being promoted in government policy for many years, information about RPL should be provided to students before they leave school.69

It should be noted that NSW compares favourably against other jurisdictions in terms of RPL and credit transfer provided in the VET sector, as the figures for 2010 in Table 22 indicate.

### TABLE 22

<table>
<thead>
<tr>
<th>TAFE NSW</th>
<th>NSW VET sector</th>
<th>Vic VET sector</th>
<th>QLD VET sector</th>
<th>SA VET sector</th>
<th>WA VET sector</th>
<th>Tas VET sector</th>
<th>NT VET sector</th>
<th>ACT VET sector</th>
<th>National VET sector</th>
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<tbody>
<tr>
<td><strong>Recognition of Prior Learning (million)</strong></td>
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<tr>
<td>RPL Hours</td>
<td>7.3</td>
<td>8.5</td>
<td>10.9</td>
<td>7.6</td>
<td>2.3</td>
<td>3.1</td>
<td>0.6</td>
<td>0.1</td>
<td>0.4</td>
</tr>
<tr>
<td><strong>Credit Transfer (unit enrolments) (‘000)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit transfer</td>
<td>519.8</td>
<td>535.4</td>
<td>184.0</td>
<td>136.1</td>
<td>16.1</td>
<td>83.2</td>
<td>29.2</td>
<td>16.3</td>
<td>121.4</td>
</tr>
</tbody>
</table>

Source: National Centre for Vocational Education Research (NCVER), Students & Course 2010. Credit transfer figures sourced from unpublished NCVER data

Examples of single source of information on tertiary education options

Queensland Tertiary Admissions Centre (QTAC)  
(www.qtac.edu.a/index.html)

QTAC is a centralised tertiary application system that covers courses at universities, TAFE Institutes and some private providers of tertiary education. QTAC also provides information on courses provided by institutions who manage their own admissions processes.

QTAC allows students to seek enrolment in Diploma and Associate Degree level courses, as well as provide the option of applying for entry directly into a dual offer or pathway arrangement with its own unique QTAC code (for example, a Diploma of Information Technology (Networking)/Bachelor of Information Technology offered by Southbank Institute of Technology at the initial stage and Griffith University at the completion stage).

The QTAC system of dual or pathway offers, as per the above information technology example, allows for the student’s place in the degree program to be secured from the outset of their studies and the student will receive a pre-determined amount of credit, which is reflected in the duration of the dual offer/pathway arrangement. This option allows students to see clearly how a VET program can lead to higher education. Between 2005 and 2010, the Southbank Institute of Technology has recorded an 800 per cent increase in enrolments into these type of arrangements through the QTAC system. These QTAC offers are dependent on the university and VET provider first making the pathway arrangement.

Ontario Council on Articulation and Transfer website  
(www.ocutg.on.ca/index_en.php)

This website is a central source of information on credit transfer for all colleges and universities. It provides an easy to navigate site for students graduating from either high school or a tertiary education institution about options for further study, including links to career advice, pathway options, admission requirements and transfer policies for each organisation. Responsibility for updating information rests with individual institutions.

RECOMMENDATION 13

That the NSW Government advocates nationally for a refocus of the national MyFuture careers website, and the MySkills and MyUniversity course websites so that they better explain and promote pathway programs for tertiary education.


3.6 Incentives for innovation

Inwardly-focused organisational and institutional practices can impede student accessing pathways within the tertiary education sector. This was noted in the Bradley Review of Higher Education, which referred to limited success in strengthening the connections between VET and higher education due to structural rigidities, as well as differences in curriculum, pedagogy and assessment.\(^\text{72}\)

Credit transfer and articulation arrangements are ad hoc

As mentioned previously, one key barrier to the establishment of pathways, and the successful transition across the tertiary education sector, is the differing VET and higher education pedagogies. The VET sector’s focus on competencies and job readiness compared to the higher education sector’s focus on broader knowledge can create negative perceptions about the compatibility of the two pedagogical approaches and whether VET students would meet the requirements for successful higher education study. This has implications for the extent of credit granted by higher education institutions for previous VET studies and whether students moving from VET have the necessary academic skills to succeed in higher education.\(^\text{73}\)

Decisions around the granting of credit for previous studies often come down to whether an institution has trust in the quality of outcomes of prior programs of study. For example, VET providers may mistrust the quality of VET delivered in schools and higher education providers may mistrust the quality of education provision within the VET sector. Universities also appear to be more receptive of TAFE graduates, treating private VET graduates less favourably.\(^\text{74}\)

It became apparent during the Review consultations that inconsistencies in the level of credit granted by higher education institutions for prior learning make it difficult to navigate the different pathways to tertiary education. Even within the higher education sector qualifications across different institutions are not automatically equivalent. In one example, four universities granted different levels of credit towards their Bachelor of Early Childhood for a VET Diploma in Children’s Services.\(^\text{75}\) The Committee also heard that while VET in Schools is an important avenue for students to then move into future VET studies at the tertiary level, inconsistencies apply in the recognition of prior learning by VET providers for VET in Schools studies.

The revised AQF provides guidelines for the awarding of credit for previous learning. However, levels of credit for previous VET studies are not mandated and are subject to individual institutional judgements. For example, some institutions may not grant credit for core units or for units that are prerequisite units. This approach could result in students repeating work already completed in VET, thereby wasting time, effort and money.\(^\text{76}\)

\(^\text{73}\) See Watson L. Barriers to successful transitions from VET to HE – a case study of student pathways in early childhood education and care. Paper presented to the ninth annual conference of the Australian Vocational Education and Training Research Association (AVETRA), University of Wollongong, 19-21 April 2006, p5 concerning the levels of academic literacy of higher education students who entered via a VET Diploma.
Even where there is provision for the granting of credit for previous studies, this may not guarantee access to some institutions. Wheelahan, for example, notes that previous VET studies are highly unlikely to lead to admission into a high-demand, elite university.\textsuperscript{77} One finding from the consultations was the need for universities to provide pathways for VET students into their high demand programs, not just use such pathway arrangements to fill numbers in areas of low demand.

Research indicates that ad hoc, case by case credit transfer arrangements are inefficient and more expensive in terms of total staff time spent administering them than for structured credit transfer arrangements. For example, the IACT Project cites a study undertaken by J Jarvis & Associates (2004) for the British Columbia Council on Admissions and Transfer in Canada, which found that it took 3.5 times longer to assess credit transfer where there was no precedent database or structured credit pathway agreement in place.\textsuperscript{78}

\textbf{Organisational barriers to pathway development}

During the consultations, it was noted that higher education institutions and TAFE institutes are increasing their collaboration in the development of pathways between the two sectors with the endorsement of senior officers on both sides. However, the Committee heard of examples of staff members who can be reluctant to engage in pathway development work due to entrenched views about the purpose of their institution. Competition for students between VET and higher education providers may also create disincentives for cross-sectoral collaboration. This competition also could risk the tertiary participation and attainment targets being met for one sector at the expense of the other.

Other barriers to greater integration of VET and higher education delivery revealed in the consultations include different student management systems, variations in timetabling and course review cycles and different industrial awards. Concerns were also expressed about the limited collaboration between schools, industry, communities and local government in developing pathways between school and VET.

The Committee noted that the requirements of professional registration bodies may also impact on articulation and credit transfer decisions. For example, Dowling (2010) notes that no training package-based Advanced Diplomas in engineering studies have been accredited by Engineers Australia on the basis that they lacked rigour, breadth and depth of knowledge and skills, and provide too much flexibility in unit choice. As a result, universities are reluctant to develop standardised credit arrangements for graduates of these programs.\textsuperscript{79}

A further challenge in granting credit for VET courses based on training packages is that they do not stipulate curriculum or learning outcomes but are solely designed to suit industry requirements, whereas higher education courses are based on a curriculum model.\textsuperscript{80} VET assessments are also based on competency, rather than graded assessment for higher education qualifications. Also, as Training Packages are subject to regular review, individual course credit transfer agreements may often change.

The Committee noted feedback from the consultations about the importance of tertiary education institutions assigning responsibility to senior officers for the development and successful implementation of pathways. This position is supported by research.

\textsuperscript{77} Wheelahan L. (2009) Op cit – see section “What is the institutional destination of VET to higher education student transfers”.

\textsuperscript{78} Paez D et al. (2011) Op cit, p23


\textsuperscript{80} Byrnes J. et al. ibid, p44.
For example, Phillips KPA (2006) identified the importance of senior people within institutions acting as "champions" for the cause" in the development of successful credit transfer and articulation arrangements. 81

Other researchers have identified the need for high level commitment and leadership within institutions to support the investment of time and resources into articulation and credit transfer as critical to successful relationships. 82

Barriers to pathways development between the VET and higher education sectors have been noted in other research. Jackson et al. identified the following barriers to seamless articulation and credit transfer arrangements in their study of Queensland VET providers and universities:

- the faculty-driven ‘silo’ structure of universities, with individualised rather than centralised or precedent-based credit transfer mechanisms
- the employment focus of VET training packages which are not designed to facilitate credit transfer to higher education
- lack of planning or allowance by senior management for the considerable time and cost involved in developing new articulation and credit transfer arrangements
- lack of dedicated articulation and credit transfer personnel roles in tertiary institutions
- inertia and conservative organisational culture which is antithetical to change
- paucity of industry involvement in articulation arrangements or agreements
- administrative arrangements which make innovative approaches such as concurrent enrolment almost impossible

- differences in fee structures between the sectors; and
- lack of strategies to assist VET students to comfortably make the transition to the higher education environment. 83

The impact of the differing VET and higher education regulatory requirements

Differing regulatory arrangements, and the associated time-lags for the approval of programs by regulatory authorities, also impact on the development of seamless articulation and credit transfer arrangements between the VET and higher education sectors. Programs delivered by VET providers are accredited by the Australian Skills Quality Authority based on specific industry-related standards. Programs delivered by private higher education providers are accredited under standards specific to higher education provision by a separate agency, the Tertiary Education Quality and Standards Agency. Universities self-accredit their own programs.

The development of seamless pathway arrangements therefore involves navigating the separate VET and higher education regulatory requirements for course design and delivery. Interview responses reported by Moodie et al. found that institutions considered the differing program accreditation requirements, along with the separate governance and quality assurance requirements that apply to VET and higher education providers, were an onerous imposition that limited the way they could develop their programs. 84

SECTION 4.0
KEY STUDENT PATHWAYS

4.1 School to VET pathway

As indicated in the previous section, key equity group students are more likely to consider pursuing VET over higher education studies following the completion of secondary school.

Despite this, there is scope for increasing pathways from school into VET, and this requires addressing some of the barriers students face in successfully making this transition, particularly into higher level Diploma and Advanced Diploma VET courses. These barriers include:

- perceptions that VET is less valued than higher education
- lack of knowledge about the benefits of VET, including its potential to lead to highly paid jobs and to open up pathways to higher education
- low levels of educational attainment, particularly in numeracy, which can impact on a student’s capacity to undertake the more technical VET courses
- available courses not matching workforce opportunities in rural and regional areas; and
- financial costs associated with further studies, including VET students not being eligible for the Youth Allowance Relocation Scholarship.

Precise data on the size of the numbers of student accessing the school to VET pathway are not available. However, an indication of the number of students moving from school to VET comes from NCVER data for 2009, which suggests that around 296,000 VET students in NSW recorded Year 12 or below as their highest qualification.85

VET's role in engaging students in further education

VET is in a unique position to help address the State Plan targets for education attainment and to promote lifelong learning in the community, particularly as it caters for large numbers of students from the key equity groups.

In particular, VET provides opportunities for disengaged students to re-engage with education and training through applied learning relevant to workforce needs. This was noted during consultations with Indigenous education and training representatives, who argued that many disengaged Indigenous students do not complete secondary school but undertake further studies at TAFE NSW, possibly due to its more flexible learning environment and connection with employment opportunities.

One way that TAFE NSW provides opportunities for disengaged students is through offering Higher School Certificate (HSC) equivalent studies for those not part of the mainstream school environment. This can include HSC-equivalent studies via distance education. Students can also complete a Certificate IV in Tertiary Preparation which is recognised as a Year 12 equivalent credential for entry into a VET Diploma and by higher education institutions for the purpose of assessing entry into an undergraduate course. Students may also undertake individual HSC subjects through TAFE NSW.

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85. National Centre for Vocational Education Research, Tertiary Education in Australia 2009, Table 14.
The potential for the VET sector to engage groups of students under-represented in higher education can be seen by the growth, albeit off a low base, in qualification completions at TAFE NSW by Indigenous students from 2006 to 2010 as shown in Graph 14 below.

Overall, while low qualification completion rates in the VET sector have been noted in the literature, completion rates at TAFE NSW between 2006 and 2010, particularly for the upper level VET qualifications key to accessing pathways into higher education, have increased as can be seen Graph 15.

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86. See, for example, Bednarz A. (2012) Lifting the lid on completion rates in the VET sector: how they are defined and derived, National Centre for Vocational Education Research, Adelaide.
VET in Schools is a key to encouraging further VET studies

Another finding from the Review consultations was that VET in Schools is regarded as an important avenue for students to access the school to VET pathway. VET in Schools programs have the following aims:

- they introduce students to some of the employment options available through VET
- they provide an opportunity for students to experience work directly
- they improve school retention by engaging students who might otherwise leave or be disengaged in practical learning options; and
- they provide a pathway for students that can lead to a full VET qualification.

Senior secondary school students can start a nationally recognised VET qualification and count their VET in Schools studies towards the Higher School Certificate. The most common type of VET in Schools courses are based on Industry Curriculum Frameworks linked to specific industries such as construction, hospitality, primary industries and information technology. Students who complete a 240 hour Industry Curriculum Framework course are eligible to sit the optional HSC exam which will be counted towards their ATAR. Industry Curriculum Framework courses also involve a compulsory work placement component.

NSW Board of Studies content-endorsed VET in Schools courses are based on national training packages and developed where existing VET options do not meet local needs. VET in Schools is delivered either by the school or by a VET provider including TAFE NSW on behalf of the school. In 2010, there were a total of 75,659 enrolments in VET in Schools programs, an increase of 8 per cent from 2006.87

TAFE-delivered VET in Schools is popular with Indigenous students, with enrolments increasing by 97.8 per cent from 2006 to 2010.88

However, questions were raised during the consultations about the effectiveness and capacity of VET in Schools to provide students with a seamless transition into post-school VET. One issue relates to data gaps in measuring VET in Schools outcomes because it is not known to what extent undertaking VET in Schools leads student to undertake higher level post-school VET qualifications.

No easily accessible data were available on VET delivered by VET providers in schools. The Department of Education and Communities only has data available for government school students undertaking VET in Schools. In 2010, there were 57,294 Year 11 and 12 students enrolled in VET in Schools, which was delivered by schools or TAFE NSW Institutes. Of the 39,872 Year 11 and 12 students undertaking school-delivered VET, there were 7,014 Year 12 qualification completions. A further 7,942 Year 12 school-delivered VET students gained a Statement of Attainment.89

Students undertaking TAFE-delivered VET in Schools often do not enrol in a whole VET qualification, therefore a more indicative outcome measure may be the rate of module completion. In 2010, 17,422 Year 11 and 12 government school students studied VET at TAFE NSW. Internal Departmental data show that the module completion rate in 2010 for TAFE-delivered VET in Schools was 79 per cent.

The capacity of VET in Schools to lead to further post-school VET education and training will also depend upon the literacy and numeracy skills of the students. Some TAFE NSW Institutes, for example, have identified the need to increase contextualised language, literacy and numeracy within VET in Schools courses to improve completion rates.90

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88. Source: TAFE NSW, Department of Education and Communities.
89. Year 12 qualification completions refer to Certificate I-III VET qualifications awarded to Year 12 students as part of the HSC. Statements of Attainment are for completion of single or multiple units that are a subset of a full qualification. Statements of Attainment are normally not counted towards an ATAR.
90. TAFE NSW internal document.
This is consistent with concerns the Committee heard during the consultation process about the poor numeracy skills of some VET students who enter directly from school and who have difficulty with more technical courses.

The Committee also heard during the consultation process that VET providers do not adopt a consistent approach to the recognition of prior learning for VET in Schools studies partly due to a perception that VET in Schools is of lower quality than that delivered by a VET provider. The same perception was also shared by some employers. The Committee was made aware of disincentives applying to schools, in terms of staffing entitlements, when VET provision is undertaken outside school by external VET providers.

The Committee noted the importance of ensuring that the ability of VET in Schools courses to adapt to the constantly changing industry requirements is not affected by accreditation timeframes for Board of Studies content-endorsed VET courses, and to ensure that Board of Studies content-endorsed VET in Schools courses do not become too generic so as to diminish its value for students seeking credit as part of future VET studies. The latter issue could be addressed through the Board of Studies, VET and higher education providers working together to agree on credible school to VET to higher education pathways.

Despite these perceived issues relating to VET in Schools, it provides a valuable means of introducing students to VET studies. Formal recognition of VET in Schools learning through the provision of advanced standing towards a post-school VET course could enhance the uptake of the School to VET pathway.

The Committee heard that many school students undertake part-time employment which is not formally recognised as part of a school-based qualification unless it is recognised towards a work placement component of a VET in Schools course. Students should be encouraged to actively seek formal recognition for employment experience where it is directly relevant to a VET in Schools unit of study.

This should be possible in the context of the Record of School Achievement and beyond which it may also assist students to transition into post-school VET via articulation or credit transfer arrangements.

Representatives from the private VET sector advised the Committee that private they face obstacles in gaining access to schools for the purposes of providing VET in Schools, and that this hampers their efforts to inform students about the post-school options available in the sector. This was particularly the case according to private VET providers in relation to government schools. Information on VET options should be available to students in schools through provision of careers guidance and through schools exploring options for expanding VET in Schools delivery to include private providers. Examples of VET in Schools programs are set out below.

**VET IN SCHOOLS AT WHITEHOUSE INSTITUTE OF DESIGN, AUSTRALIA**

Whitehouse Institute of Design, Australia, is a Registered Training Organisation in NSW as well as a registered higher education institution offering a Bachelor of Design. It prepares graduates for careers in the creative industries as designers in fashion, interiors and styling.

Whitehouse Institute offers a VET in Schools program for Year 11 and 12 students. The program is designed to provide students with practical skills and an insight into the fashion, interior decoration and styling industries.

The program is delivered at Whitehouse’s premises via intensive block mode during school holidays. Upon successful completion of the program students are awarded one of the following:

- Certificate II in Fashion Visualisation
- Certificate II in Interior Decoration and Visualisation
- Certificate II in Style Visualisation.

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The V Tracks program was developed by TAFE NSW – North Coast Institute in collaboration with schools and communities to provide access to broader and more flexible curriculum opportunities for young Indigenous learners. The objectives of V Tracks are to increase high school completions and post-school pathways for Indigenous students by increasing the visibility and availability of VET to Years 8 to 10 school students. V Tracks programs are locally designed with communities of schools to provide learning activities for students to develop employment, study and communication skills, workplace readiness, cultural awareness and enhanced confidence and self-esteem.

V Tracks is delivered in 3 stages:

- **Stage 1** involves non-accredited ‘taster’ activities from a range of vocational learning areas and occupations. It includes hands-on and project-based learning.
- **Stage 2** includes accredited Certificate I and II units from particular vocational areas combined with key learning, communication and employability competencies. Theoretical learning is introduced gradually and students can move into TAFE or School delivered VET in Schools programs; and
- **Stage 3** provides highly supported workplace-based learning, matched to the industry area explored in Stage 2.

The V Tracks programs are strongly linked to the ‘Deadly Days’ festivals hosted by TAFE NSW – North Coast Institute. These festivals provide V Tracks students with opportunities to consolidate and showcase their learning throughout the year and to participate in activities promoting and sustaining culture, identity and community interaction.

Key outcomes from these initiatives include:

- Over 1,300 students participated in V Tracks programs in 2009.
- In September 2011, over 2,000 Indigenous students from North Coast schools participated in the fourth annual Deadly Days festival at Coffs Harbour campus; and
- North Coast Institute has experienced a growth in Indigenous enrolments at Diploma, Certificate IV and Certificate III levels over the past five years.

Source: TAFE NSW, Department of Education and Communities.

**Recommendation 14**

That the NSW Government ensures that better access in NSW schools is given to quality VET providers to create additional VET opportunities for school students.

**VET in rural and regional locations**

For rural and regional students, the Committee noted the importance of ensuring that VET courses are relevant to local employment opportunities so that students have the option to take up those opportunities in the regions. The Committee also identified the need for local industries in regional areas to work closely with VET students and providers to provide apprenticeship and other workplace training opportunities.

TAFE NSW is well placed to provide VET to rural and regional students, with more than 130 campuses across NSW including in rural and regional areas. TAFE NSW also provides access through e-learning and in developing pathways with partner universities. This geographical coverage also provides the potential for the sharing of resources across educational institutions, which would further extend the reach of VET provision.

In relation to significantly disadvantaged and disengaged students, the Committee noted some initiatives which provide VET to disadvantaged students though familiar and supportive settings. These include:

- Youth Off the Streets delivering a social work traineeship to some of its former students on its own premises.
- Mission Australia’s Youth Drug and Alcohol Residential Program whereby participants undertake studies towards a Certificate II through TAFE Outreach. The course is delivered separately from other TAFE courses; and
- Indigenous Police Recruitment Our Way Delivery (IPROWD) which is a partnership between TAFE NSW, the NSW Police Force and the Commonwealth Department of Education, Employment and Workplace Relations. The program assists Indigenous people to gain the skills and confidence to succeed in joining the NSW Police Force.
INDIGENOUS POLICE RECRUITMENT OUR WAY DELIVERY (IPROWD)

The program involves the completion of a Certificate III in Vocational and Study Pathways at TAFE NSW, which meets the entry requirements of the Associate Degree in Policing Practice offered by Charles Sturt University. The program also incorporates a full-time training program over 18 weeks, excursions to the NSW Police College at Goulburn, and skills development in communication, information technology, writing and presentation skills, ethics and responsibilities, Indigenous studies, fitness and first aid. Mentoring is also provided by teachers and the NSW Police Force during and after the course. Following completion of the program, participants can apply to join the NSW Police Force.

The program, which commenced in Dubbo in 2008, is now delivered across various NSW TAFE institutes, including Casino, Macquarie Fields, Maitland, Mount Druitt, Nowra and Redfern.

The program has provided various forms of assistance to IPROWD students, including:

- accommodation support and financial assistance for students required to travel long distances to attend training
- financial assistance for students to cover the medical costs associated with applying to the NSW Police Force
- financial assistance to complete driving lessons and gain their Driver’s Licence; and
- on completion of the program, all students are provided with intensive support to gain employment or progress with applications to the NSW Police Force College.

Key outcomes of the IPROWD program include:

- 119 Indigenous students commenced IPROWD courses in 2010/2011
- 102 students have accepted places for 2012 IPROWD courses
- 104 students have successfully completed the Certificate III in Vocational and Study Pathways
- 60 per cent of students who have completed the program have progressed with applications to join the NSW Police Force
- 17 students commenced at the NSW Police College in January 2012, with a further 49 students progressing with applications for intakes later in 2012
- 1 student has graduated from NSW Police College and has commenced employment as a Probationary Constable
- 2 students are expected to complete the Associate Degree in Policing Studies in May 2012, and 2 other students have progressed to other university courses
- 28 students have gained employment since completing the program; and
- 6 students have completed other higher level VET qualifications with TAFE NSW since completing the program.

Promoting VET as a pathway to higher education

VET providers are increasingly delivering higher education qualifications or partnering with higher education providers to deliver a component of a higher education course. However, Committee consultations with secondary school students found that there was limited awareness of the opportunities VET provides for further higher education studies. This meant students believed that their tertiary education options are limited to a choice of either VET or higher education.

Better promotion within schools of VET’s links to higher education would allow students to consider VET as a pathway into higher education while also giving students the benefits of applied learning relevant to the workplace during their VET studies. One proposal suggested during the consultations was for partnering VET and higher education institutions to prepare joint marketing materials targeting school students.

A single source of information covering VET and higher education, as proposed in the previous section, could enhance opportunities for promoting VET to higher education links, as well as information on credit transfer and articulation arrangements between VET and higher education providers and tertiary admissions.
4.2 School to higher education pathway for low SES, Indigenous and rural and regional students

The barriers facing low SES, Indigenous and rural and regional students successfully navigating the school to higher education pathway, as noted in Section 3 of this report, include:

- lower levels of education achievement
- low aspirations for higher education studies
- fewer role models who have undertaken higher education
- insufficient information on higher education options
- financial costs associated with higher education
- limited integrated work and study options; and
- limited higher education opportunities available in some regional and rural areas.

Secondary education results remain the most common basis for entry into university for all the key equity groups. However, as shown in Graph 16, students from the key equity groups are less likely to transition into a NSW university on the basis of secondary education results compared to the total student population.

It should be noted, however, that this may under-estimate the extent of transition to higher education via secondary education for students from the key equity groups as the figures do not include entry following secondary education via Indigenous entry programs, recommendations from school principals or special consideration. What the figures suggest is that for many students from the key equity groups, secondary education results alone are not sufficient for entry into university.

Higher education outcomes for students from the key equity groups

Data on completions provided by eight of the eleven NSW Universities confirm that students admitted into university on the basis of secondary education results perform well in terms of higher success rates (units passed as a percentage of units attempted) and lower attrition rates compared to students admitted via other pathways.

This pattern also applies to students from the key equity groups admitted to university via the secondary education pathway. This is illustrated with the data in Tables 23 and 24 on the rates of success and attrition.

GRAPH 16: NSW SECONDARY EDUCATION TO UNIVERSITY ADMISSIONS AS A PERCENTAGE OF TOTAL ADMISSIONS OF KEY EQUITY GROUP STUDENTS

Source: NSW public universities 2012
These figures demonstrate that students from the key equity groups who successfully secure a higher education place on the basis of their secondary education results have similar success rates in higher education as other students. The key is ensuring that more students from the key equity groups are being sufficiently prepared during their school years to meet higher education entry requirements.

One important observation from the data is the increasing attrition rates for Indigenous students entering higher education through the secondary education pathway. This increase in the rate of attrition coincides with a 37.3 per cent increase from 2009 to 2011 in Indigenous enrolments into NSW Universities on the basis of secondary education results.

However, this outcome needs to be put into perspective by observing that attrition rates for Indigenous students via this pathway remain much lower compared with attrition rates for Indigenous students admitted to a NSW university via other pathways, as the data in Table 25 show.

### TABLE 23: SUCCESS RATES FOR STUDENTS FROM THE SECONDARY EDUCATION TO UNIVERSITY PATHWAY (%)

<table>
<thead>
<tr>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low SES</td>
<td>88.7</td>
<td>88.1</td>
<td>87.6</td>
</tr>
<tr>
<td>Indigenous</td>
<td>82.7</td>
<td>80.6</td>
<td>82.5</td>
</tr>
<tr>
<td>Rural and Regional</td>
<td>90.0</td>
<td>89.3</td>
<td>90.1</td>
</tr>
<tr>
<td>All Students</td>
<td>89.6</td>
<td>89.2</td>
<td>88.6</td>
</tr>
</tbody>
</table>

Source: NSW public universities 2012
Success Rate = Effective Full-Time Student Load (EFTSL) of units passed as a percentage of all units attempted.

### TABLE 24: ATTRITION RATES FOR STUDENTS FROM THE SECONDARY EDUCATION TO UNIVERSITY PATHWAY (%)

<table>
<thead>
<tr>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low SES</td>
<td>10.3</td>
<td>10.2</td>
</tr>
<tr>
<td>Indigenous</td>
<td>11.2</td>
<td>15.3</td>
</tr>
<tr>
<td>Rural and Regional</td>
<td>10.9</td>
<td>11.1</td>
</tr>
<tr>
<td>All Students</td>
<td>9.9</td>
<td>10.6</td>
</tr>
</tbody>
</table>

Source: NSW public universities 2012
Attrition Rate = Percentage of domestic undergraduate enrolments in a given year that do not complete or return in the following year.

### TABLE 25: ATTRITION RATES FOR INDIGENOUS DOMESTIC UNDERGRADUATE ENROLMENTS BY ADMISSIONS PATHWAY (%)

<table>
<thead>
<tr>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>20.2</td>
<td>25.9</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>11.2</td>
<td>15.3</td>
</tr>
<tr>
<td>VET</td>
<td>19.0</td>
<td>19.1</td>
</tr>
<tr>
<td>Special Entry</td>
<td>23.3</td>
<td>28.3</td>
</tr>
<tr>
<td>Other</td>
<td>25.7</td>
<td>25.3</td>
</tr>
</tbody>
</table>

Source: NSW Universities
Data concerning the increasing attrition rates for Indigenous students suggest that the development of various strategies and pathways to increase participation in higher education for the key equity groups must take into account the potential challenges these students encounter during their higher education studies.

Recent Commonwealth developments

In 2011, legislation was passed in the Federal Parliament amending the Commonwealth Grants Scheme to provide for demand-driven funding of undergraduate student places at universities. Previous caps on undergraduate university places were abolished. The intention of this initiative was to produce more graduates to meet Australia’s future economic needs.92

Figures provided in a Media Release from the Minister for Tertiary Education and Skills suggest that, as a result of the introduction of uncapped places, enrolments of low SES background students across Australian universities increased by almost 19 per cent in 2012.93

However, it may be too soon to assess the long-term impact of this strategy for students from the key equity groups. Ongoing monitoring by governments and the university sector will be required to ensure that these additional students complete their programs and graduate with the required skills and knowledge to achieve positive employment outcomes and to meet industry needs.

Equity initiatives in the higher education sector

Universities in NSW have recognised the particular needs of students in the key equity groups and have implemented a range of strategies to encourage these students to either consider university as an option, or to assist them through admission or scholarship arrangements. Some strategies already in place include:

- the Australian Catholic University provides Mission Australia with social science lecturers to assist in the delivery of its programs. This initiative exposes students to university study as a future option.
- the University of Newcastle invites around 300 local teachers to attend the University for one day to keep them informed of developments in higher education. The University also runs programs for parents so that they gain a better understanding of what goes on at a university.
- the University of Technology, Sydney runs after-hours homework clubs at schools.
- the University of Sydney’s Compass program, in partnership with the Department of Education and Communities, aims to encourage primary and secondary school children to participate in higher education through activities that promote attainment and aspiration; and
- the Aspire program at Charles Sturt University and the University of New South Wales involves the Universities working with school students to support their aspirations and access a university education, with a focus on school students who may not have previously considered university education.

93. Senator the Hon Chris Evans, Minister for Tertiary Education, Skills, Science and Research, Media Release: Elitist perceptions of university breaking down as more students enrol, 23 April 2012.
University of Newcastle

The University of Newcastle has invested in a number of outreach programs which have proven to be valuable in assisting students, particularly from rural and regional areas, to realise their educational potential and to understand the opportunities provided by tertiary study. Programs include:

- Higher School Certificate Study Days in Newcastle and the Central Coast
- a Year 9 Girls + Maths + Science = Choices residential summer school, which targets Indigenous and female students from equity groups
- the SMART (Science Maths, And Real Technology) program, which aims to inspire, inform and involve students with science through the provision of resources for teachers on science and technology in the classroom and in presenting entertaining science shows. It has delivered science shows in remote Arnhem Land communities.

Higher education institutions can also reduce the impact of disadvantage through various access schemes for students who do not achieve a sufficient ATAR for entry into their preferred course. These include: bonus points for local or regional students, students who experience long-term disadvantage or for students who perform well in relevant HSC subjects; entry on the basis of a principal’s recommendation; and specific access programs for Indigenous students. Many of these schemes, including regional bonus point schemes and some subject bonus point schemes, do not require separate applications as they are automatically processed through UAC. These schemes usually do not apply to high demand courses such as Medicine.

Examples of access schemes at NSW universities

Australian Catholic University

- The Entry Bonus Scheme provides up to 10 bonus points if a student performs well in specific Year 12 subjects relevant to their preferred course.
- A geographic region bonus of 5 points is available for students who reside within or adjacent to the local government area of the University campus or in a geographically relevant campus where there is a low participation rate in higher education.
- Students can enrol in pathway programs that lead to further studies, including Certificates, Diplomas and Associate Degrees.
- Indigenous applicants may be given special entry under the Aboriginal and Torres Strait Islander Special Entry Scheme, based on the applicant’s potential to succeed in the relevant course. Assessment includes an interview with faculty and staff from the Indigenous Higher Education Unit.

Charles Sturt University

- The Principal’s Report Entry Program aims to attract academically talented students from high schools in non-metropolitan areas on the basis of a principal’s assessment of the student’s performance and potential to succeed.
- Students can sample university study by enrolling in single subjects without having to meet prerequisites. Successfully completed subjects can be credited towards a future Bachelor degree.
- The Diploma of General Studies is a pathway program aimed at school leavers who do not meet the entry criteria or require further preparation for higher education study. It is a combination of subjects from the TAFE NSW Tertiary Preparation Certificate and four University Bachelor level subjects. On successful completion, students are guaranteed entry into a Charles Sturt University degree, and in some cases with credit for up to four subjects.
The **Darrambal Skills Assessment Program** gives Indigenous students the opportunity to attend university-style classes to learn the skills for success at university. It is a 3-day program where students undergo an assessment of their skills and potential to succeed in their preferred course.

**Macquarie University**

- The **Rural Bonus Scheme** offers bonus points to students from rural and regional areas, aligned to the Accessibility/Remoteness Index of Australia of the student’s primary residential postcode. Bonus points range from 5 to 9 points. These bonus points can be combined with other University access schemes, up to a maximum of 9 bonus points.

- The **Lighthouse Scheme** provides for 4 bonus points for students who are deemed to have been educationally or socially disadvantaged in Years 11 or 12, or who have other special circumstances.

- Non-award study, Associate Degrees and Foundation Programs are also available for students with a low ATAR.

- Under the **Academic Advantage** program, students who do well in relevant HSC subjects may receive up to 5 bonus points.

- The **Warawara Alternative Entry** program is available for Indigenous students who may not have completed the HSC or acquired the necessary entry score for their program of choice. As part of the selection process, students attend a 2-day workshop where they are given the opportunity to demonstrate the skills required to successfully participate in their chosen course.

**Southern Cross University**

- The **STAR Entry Scheme** allows for Year 12 students in the University’s feeder region to gain admission on the basis of a Principal’s or school’s recommendation.

- The **Regional Year 12 Bonus Scheme** adds 5 bonus points for students from schools within the feeder region.

- Special admission is considered for students who were disadvantaged during Years 11 and/or 12 but have good academic potential.

- The **Preparing for Success at SCU Program** is an alternative entry path into Southern Cross University and assists students to develop the skills needed to succeed at university. The 12-week program teaches time-management, practical essay writing, research and numeracy skills.

- Indigenous students can apply through the **Testing and Assessment Program**, which incorporates information on student services and meetings with course coordinators and current students.

**The University of New England**

- Regional bonus points are available for students from regional, rural and remote locations.

- The **Early Entry** scheme allocates a place to Year 12 students on the basis of the school’s recommendation, prior to the student receiving their final marks. This includes consideration for students who studied subjects that are ATAR ineligible.

- The Pathways Enabling Course is a fee-exempt program for students without the educational background for admission to an undergraduate course. Completion of the courses provides the basis for admission to undergraduate courses at the University.

- The **Internal Selection Program** is an alternative entry program for Indigenous students. It involves students undertaking an interview, completing a personal statement on their suitability for university study, and completing academic literacy tests. Unsuccessful applicants will be offered a place in the **TRACKS** program, which is a university preparation program for Indigenous students that assists with study skills.
The University of New South Wales

- The **HSC Plus** program rewards a maximum five bonus points to students who perform well in subjects relevant to their preferred university course.

- The **Indigenous Admissions Scheme** provides access for Indigenous people into most undergraduate degree programs where the applicant did not achieve the required ATAR for entry or if the applicant is returning to study after a long period. Applicants are assessed on other relevant experiences.

The University of Newcastle

- The **Year 12 Bonus Points Scheme** awards up to four bonus points to students who perform well in subjects relevant to the undergraduate degree, specifically:
  - English advanced
  - Aboriginal studies
  - Languages
  - Mathematics
  - Chemistry
  - Physics.

- Under the **Regional Bonus Points Scheme**, students will be awarded up to 4 bonus points if they attended schools in the Hunter, Central Coast, Central West, Northern Rivers, Mid-North Coast, New England, Western Plains and Broken Hill areas.

- The **Educational Access Scheme** provides for up to 4 bonus points to students who have experienced educational or other long-term disadvantage.

- Newstep is a one-year tertiary preparation program for 17-20 year olds who did not complete the HSC or who did not gain sufficient marks for entry into university. It provides an opportunity for students to gain the skills necessary for success in a university study environment. Fees do not apply to this program.

- The **Aboriginal and Torres Strait Islander Entry Program** provides Indigenous students with an additional means of gaining entry into university. Interviews are conducted with the applicants to confirm Aboriginality and to assess an applicant’s academic and employment history, skills and ability to undertake a degree.

The University of Sydney

- Flexible Entry is available to students wishing to study specific courses, where up to 5 bonus points are awarded for students who perform well in relevant HSC subjects.

- Under the **Special Consideration for Admission Scheme**, students who have experienced some form of disadvantage may apply for admission if they fall just short of the entry score for their chosen course.

- The **Cadigal Alternative Entry Program** is available to Indigenous students. It is both a special entry scheme and an academic support program, with students attending orientation and academic skills workshops as part of the program.

University of Technology, Sydney

- The **inpUTS** educational access scheme is available for students with high academic potential but who have experienced educational disadvantage, including a disability, disrupted education, low income, language difficulties, serious family problems or lack of support for study. Eligible students receive up to 10 point concession on the standard ATAR cut-off.

- The **UTS Principals’ Recommendation Scheme** invites school principals to nominate up to 2 eligible students for a guaranteed offer into their selected undergraduate course. Eligibility is based on a minimum ATAR score of 69, whether the school is identified as disadvantaged through participation in various Commonwealth or NSW programs, or if the student or carer is in receipt of Centrelink means-tested income support.

- The **Jumbunna Direct Entry Program** is an entry program for Indigenous students. Applicants are selected on a range of criteria, including previous life, education and work experience, performance in a written task and an interview.
University of Western Sydney

- **Unitrack** allows students to enrol in individual units from a range of degree programs. Upon the successful completion of 2 units, a student can apply for admission into a degree through the UAC process and will receive credit for these units if they form part of the degree.

- Students from the Greater Western Sydney region automatically receive 5 regional bonus points.

- A maximum of 10 bonus points are available to students who achieve a Band 5 or 6 in HSC subjects relevant to the preferred undergraduate course.

- UWS College offers foundation programs to provide students with an introduction to the knowledge and skills needed for an undergraduate degree. On successful completion of the program, students are guaranteed direct entry into the first year of an undergraduate degree. Alternatively, students can study a UWS College Diploma and on completion are guaranteed a place in the relevant undergraduate degree with one year’s advanced standing.

- The **Badanami Alternative Entry Program** is for Indigenous students who do not have a HSC or other qualifications, or have an ATAR score lower than required for their chosen course. It involves a 2-day assessment workshop where students undertake a literacy and numeracy assessment and an informal interview. Students are also given a tour of the campus, are provided with information on student services, and are given the opportunity to meet other students and academic staff.

University of Wollongong

- Students from schools in the local area or from regional NSW automatically receive 3 bonus points.

- Under the **Educational Access Scheme**, Year 12 students may receive bonus points if they experienced long-term disadvantage in preparing for university or if educational performance was seriously affected by circumstances beyond the student’s control.

- Indigenous students can apply under the **Woolyungah Alternative Admissions Program**, and are assessed for university based on tests and interviews as an alternative to the ATAR.

Source: University websites.

Equity initiatives in the non-government sector

Non-government organisations also have initiatives to assist low SES, Indigenous and rural and regional students to navigate the school to higher education pathway. Examples include the The Smith Family Learning for Life program mentioned previously and the CareerTrackers program, a national program which works with Indigenous university students through the provision of private sector internships and leadership training (see further details below).

CareerTrackers

The CareerTrackers Indigenous Internship Program is a national non-profit organisation established to create private sector pathways for Indigenous university students. The program aims to introduce Indigenous university students to the professional work environment where they develop their skills and immediately go into full-time employment upon completion of their degree.

Under the program, students are assisted in identifying their passions and in developing a career pathway. CareerTrackers work with the students in seeking employers willing to offer a minimum of 12 weeks paid employment over 12 months, with the aim of the student remaining with that employer for duration of the student’s university studies. Some students have received full-time employment offers from their sponsoring employer. Students also benefit through experiencing financial independence while studying, with students on average earning $9,000 during their 12-month internship. For students who are required to relocate for employment purposes, CareerTrackers provides support for travel, housing, meals and mental health.

CareerTrackers works with several major employers, including Qantas, Leighton Contractors, Orica, PricewaterhouseCoopers, Freehills, KPMG, Lend Lease and Westpac. In 2011, CareerTrackers supported 125 students across 17 universities and expects to support around 300 students in 2012. The program is now embedded within many Indigenous Education Units at universities, including orientation programs and through advertising within these Units.
Partnerships between the VET and higher education sectors

Partnerships between the VET and higher education sectors also provide opportunities for students from the key equity groups to access the school to higher education pathway. For example, TAFE NSW has articulation agreements with several higher education institutions, including the Australian Catholic University, Charles Sturt University, Raffles College of Design and Commerce, Southern Cross University, the University of New England, the University of Newcastle, and the University of Western Sydney, which provide various admission and advanced standing arrangements.

Another example of VET-higher education collaboration is Deakin University’s Deakin at Your Doorstep. This scheme is a partnership between the University and regional TAFE institutes in Victoria, whereby students who may have not met the prerequisites for their chosen higher education course can undertake an Associate Degree at a regional TAFE institute and receive up to 18 months credit towards a Bachelor degree.

One advantage for students in the VET-higher education partnership model is that it potentially allows students to forgo higher education HECS fees and reduce future HECS debts by only requiring the student to undertake part of an undergraduate course at the higher education institution. However, this advantage could be reduced by possible foregone income for students where these arrangements involve longer course durations.94

VET-higher education partnerships can also assist certain students in a successful transition into higher education. As mentioned previously, VET characteristically provides a more ‘hands on’ pedagogical approach integrating practical and foundation academic skills, which can better assist some students to complete their higher education qualification.

The effectiveness of current higher education equity schemes

It was noted in the consultations that many of the initiatives undertaken by universities to get low SES, Indigenous and rural and regional students into university may not necessarily address the challenges these students experience once they commence their studies. This can lead to high drop-out rates. For example, when these students transition from school into university, they may struggle at university due to the lack of individual support they may require.

Representatives from the government school sector also indicated that the vast range of university social inclusion initiatives and scholarships was ad hoc, and that a more coordinated approach to equity initiatives across the higher education sector was needed.

One suggestion put to the Committee is that higher education institutions should shift the focus of their equity programs away from scholarships, which often only assist at the admissions stage, into ongoing student support.

Given the plethora of initiatives to assist students from the key equity groups to access the school to higher education pathway, and the limited information available about the effectiveness of these initiatives, a review of these programs could assist both schools and higher education institutions to better target their efforts. This review should be informed by the recent review by Gale et al for the Department of Education, Employment and Workplace Relations on school interventions to improve higher education outcomes.95 would assist both schools and higher education institutions to better target their efforts.

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4.3 VET to higher education pathway

There are many arrangements in place covering VET to higher education pathways including credit transfer and articulation arrangements, joint VET and higher education delivery, franchise or auspice arrangements and VET delivered higher education. To date, these arrangements have largely been ad hoc with success dependent on individual relationships between relevant staff of the various tertiary institutions. Significant institutional barriers apply to the development of a systemic sector-wide approach collaboration in program design and delivery.

Size of the VET to higher education pathway

The higher education enrolment data in the tables below have been provided by the 11 universities in NSW.

There has been a growth in the use of VET as a pathway to higher education with the pathway growing from 8,438 enrolments in 2009 to 10,363 in 2011, a growth of 22.8 per cent. It is important to note that the VET pathway includes both complete and incomplete courses and is cross-sectoral, including both private providers and TAFE NSW. It is also comprised of either formal articulation arrangements or individual assessments of eligibility.

However, many NSW universities do not record whether or not a student was admitted through a formal arrangement.

Currently the rates of transfer for students who used VET as the basis for articulation to higher education are considerably lower than those transferring from secondary education. All categories of admissions pathways have experienced a growth in enrolments with the exception of ‘other’ (all admissions pathways that are not included in higher education, secondary education, VET and special entry).

The data in Table 26 show the significant increase in the VET to higher education pathway enrolments between 2009 – 2011 (22.8 per cent). However, the same table clearly shows that the increase in the overall percentage of students using that pathway to enter university only experienced an increase of 1.3 per cent over the same period.

Low SES enrolments

The low SES enrolment figures in Table 27 show that the VET to higher education pathway is growing as a proportion of total enrolments by low SES students. In 2011 the VET to higher education pathway accounted for 19.4 per cent of admissions pathways for low SES enrolments at all NSW public universities. In the same year the school to higher education pathway was the most popular pathway with 39.2 per cent of students transitioning from school to higher education.

TABLE 26: ADMISSION PATHWAYS TO NSW UNIVERSITIES – TOTAL COMMENCING DOMESTIC UNDERGRADUATE ENROLMENTS IN UNIVERSITIES

<table>
<thead>
<tr>
<th>Admissions Pathways</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2009 to 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>15,026</td>
<td>17,050</td>
<td>16,439</td>
<td>9.4%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>32,273</td>
<td>33,486</td>
<td>35,093</td>
<td>8.7%</td>
</tr>
<tr>
<td>VET</td>
<td>8,438</td>
<td>9,819</td>
<td>10,363</td>
<td>22.8%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>3,205</td>
<td>4,108</td>
<td>3,805</td>
<td>18.7%</td>
</tr>
<tr>
<td>Other</td>
<td>8,239</td>
<td>8,462</td>
<td>8,070</td>
<td>-2.1%</td>
</tr>
<tr>
<td><strong>Cohort Total</strong></td>
<td>67,180</td>
<td>72,925</td>
<td>73,770</td>
<td>9.8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percentages</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2009 to 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>21.4%</td>
<td>22.9%</td>
<td>22.1%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>46.0%</td>
<td>43.6%</td>
<td>45.1%</td>
<td>-0.9%</td>
</tr>
<tr>
<td>VET</td>
<td>14.2%</td>
<td>15.1%</td>
<td>15.5%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>5.2%</td>
<td>6.1%</td>
<td>5.6%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Other</td>
<td>13.2%</td>
<td>12.2%</td>
<td>11.7%</td>
<td>-1.4%</td>
</tr>
</tbody>
</table>

Source: NSW public universities 2012
Indigenous enrolments

Indigenous enrolments, although very small, have increased from 1,071 in 2009 to 1,308 in 2011. Of the 1,308, the proportion of Indigenous students using the VET to higher education pathway is gradually increasing, from 15.6 per cent of total enrolments in 2009 to 18.0 per cent in 2011. Table 28 shows the spread of pathway uptake among Indigenous students at all NSW public universities.

Rural and regional student enrolments

When examining rural and regional enrolments as a proportion of all enrolments in the table below, the VET to higher education pathway is stronger. In 2011, 22.5 per cent of those rural and regional students enrolling used the VET to higher education pathway (Table 29). However, Table 29 also shows that only 14.6 per cent of rural and regional students entered from school compared with 45.1 per cent overall (Table 26).

### TABLE 27: ADMISSION PATHWAYS TO NSW UNIVERSITIES – TOTAL COMMENCING DOMESTIC LOW SES UNDERGRADUATE ENROLMENTS IN UNIVERSITIES

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>20.7%</td>
<td>21.2%</td>
<td>20.9%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>39.5%</td>
<td>38.5%</td>
<td>39.2%</td>
<td>-0.3%</td>
</tr>
<tr>
<td>VET</td>
<td>18.2%</td>
<td>18.8%</td>
<td>19.4%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>7.7%</td>
<td>9.5%</td>
<td>8.7%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Other</td>
<td>13.9%</td>
<td>12.0%</td>
<td>11.7%</td>
<td>-2.2%</td>
</tr>
<tr>
<td><strong>Cohort Total</strong></td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Source: NSW public universities 2012

Note: Percentage figures rounded to one decimal place and may not equal 100 per cent.

### TABLE 28: ADMISSION PATHWAYS TO NSW UNIVERSITIES – TOTAL COMMENCING DOMESTIC INDIGENOUS UNDERGRADUATE ENROLMENTS IN UNIVERSITIES

<table>
<thead>
<tr>
<th>Percentages</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2009 to 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>19.3%</td>
<td>20.6%</td>
<td>20.0%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>25.3%</td>
<td>26.8%</td>
<td>28.4%</td>
<td>3.1%</td>
</tr>
<tr>
<td>VET</td>
<td>15.6%</td>
<td>14.5%</td>
<td>18.0%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>17.2%</td>
<td>17.9%</td>
<td>14.8%</td>
<td>-2.3%</td>
</tr>
<tr>
<td>Other</td>
<td>22.5%</td>
<td>20.2%</td>
<td>18.7%</td>
<td>-3.8%</td>
</tr>
<tr>
<td><strong>Cohort Total</strong></td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Source: NSW public universities 2012

Note: Figures rounded to one decimal place and may not equal 100 per cent.

### TABLE 29: ADMISSION PATHWAYS TO NSW UNIVERSITIES – TOTAL COMMENCING DOMESTIC RURAL AND REGIONAL UNDERGRADUATE ENROLMENTS IN UNIVERSITIES

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td>21.2%</td>
<td>15.2%</td>
<td>15.9%</td>
<td>-5.3%</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>13.9%</td>
<td>14.6%</td>
<td>14.6%</td>
<td>0.7%</td>
</tr>
<tr>
<td>VET</td>
<td>22.3%</td>
<td>22.5%</td>
<td>22.5%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Special Entry</td>
<td>24.7%</td>
<td>26.9%</td>
<td>27.5%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Other</td>
<td>17.9%</td>
<td>17.0%</td>
<td>17.6%</td>
<td>-0.3%</td>
</tr>
<tr>
<td><strong>Cohort Total</strong></td>
<td>16.2%</td>
<td>16.8%</td>
<td>17.0%</td>
<td>0.8%</td>
</tr>
</tbody>
</table>

Source: NSW public universities 2012

Note: Percentage figures rounded to one decimal place and may not equal 100 per cent.
It is clear that although the number of students using the VET to higher education pathway has increased across all key equity groups and total enrolments in all institutions included in the tables, the effectiveness of this pathway can be improved.

The following section outlines the key institutional barriers facing VET and higher education institutions and proposes a number of strategies to address them and encourage larger numbers of students to transfer along the VET to higher education pathway.

**Credit transfer arrangements**

Consultation with higher education and VET providers (both public and private) confirms that there has not been a strong history of collaboration in service delivery of tertiary education programs between the VET and higher education sectors. The historical connection between higher education and VET has relied upon individually negotiated credit transfer arrangements. The 2008 Bradley Review of Higher Education noted that over the past twenty-five years the limited success of credit transfer was ‘due to structural rigidities as well as to differences in curriculum, pedagogy and assessment’.96

Currently, credit can be granted through a number of processes:

- Articulation allows progression from one completed qualification to another in a defined pathway (such as from TAFE NSW to a university)
- Credit transfer allows an agreed amount of credit for previous learning which is considered to be equivalent in content and learning outcomes to a nominated course; and
- RPL allows credit to be granted based on an assessment of previous learning and unique experience, if there are equivalent outcomes.

Granting credit through the three processes is resource intensive for both VET and higher education providers. In the consultations, tertiary institutions highlighted the significant time and the resource investment required in mapping a VET qualification’s curriculum against a higher education qualification’s curriculum.

During the consultations stakeholders identified the problem of VET students being unable to navigate and understand the complex array of available credit transfer arrangements available. Students were described as having limited understanding of the process of applying for credit into higher education, what kind of preparation and readiness is required to effectively transition to university and the academic support processes available to them.

**A systemic approach to credit transfer**

The Committee formed the view that to encourage more students to flow from VET to higher education, credit transfer must be broader than individual assessments of eligibility.

A more streamlined and systematic approach can be achieved when VET institutions enter into a formal articulation agreement with a higher education provider whereby all graduates from an identified range of VET courses are guaranteed a place in a higher education degree course in similar or closely related fields of study.

The Committee heard during the consultations that one Australian university requires all new courses to be considered for pathway potential as part of the course approval process.

Examples of some TAFE NSW to university credit transfer arrangements are as follows.

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A study by PhillipsKPA (2010) has highlighted the effective use of block credit arrangements. By recognising the level and extent of learning in the VET qualification rather than defined provision of credit, the need for close mapping of the curricula is avoided.\footnote{PhillipsKPA (2010) Board of Vocational Education and Training, Innovative tertiary pathway models – Final Report, p17.}

A significant barrier to systematic and sector wide credit transfer arrangements continues to be caused by a perceived mismatch between VET courses which are competency-based and higher education courses which are assessment-based. The Committee heard during the consultations that giving credit for prior study was difficult because higher education institutions could not differentiate between the level of attainment of one student compared to another in the VET system.

The Committee also heard that although the revised AQF has been designed to alleviate these problems by stipulating the requirement for all tertiary qualifications to provide graduates with the skills for further learning, this requirement is often not fulfilled.

The Committee was provided with examples of students who did gain admission (through credit transfer or RPL) on the basis of previous VET studies but who did not have the necessary prerequisites to succeed in a university course, particularly in maths-related courses such as engineering. One initiative to address this gap is the TAFE NSW Tertiary Preparation Certificate which aims to ensure the appropriate literacy and numeracy foundations for successful study at higher levels of tertiary education are obtained.

During the consultation process, VET and higher education representatives confirmed that a key characteristic of successful credit transfer arrangements is the building of strong local relationships between VET and higher education providers. Combined with the strong relationship, providers must also negotiate a shared understanding of the outcomes of the VET and higher education qualifications so that students can transition through one seamless program.

### Integrated tertiary pathways models

A common message from the consultations was the importance of innovation and collaboration in supporting greater levels of tertiary education participation through tertiary pathway models. In NSW there are many examples of joint VET, higher education delivery and recently TAFE NSW has become a higher education provider in its own right.
TAFE NSW – Illawarra Institute and University of Wollongong Bachelor of Digital Media

A joint initiative of the University of Wollongong (UoW) and TAFE NSW – Illawarra Institute, this program is offered at the Digital Media Centre located on the UoW Innovation Campus.

In their first year students complete a Certificate IV in Interactive Digital Media, in their second year a Diploma of Interactive Digital Media and in their third year an Advanced Diploma of Screen and Media delivered by the UoW Centre for Digital Media and Design. Throughout their TAFE studies students also complete the same number of University units so that on completion of the three year course they also receive a Bachelor of Digital Media from the UoW.

The program, while only started recently, has shown good retention rates with 100 per cent of students (a total of 40) moving into the final year of the Bachelor of Digital Media.

The joint VET and higher education delivery model involves program development and/or delivery of a combined VET and higher education program by TAFE NSW in partnership with a university. Delivery of these models is often integrated with students enrolling in both a TAFE and university qualification at the same time. For the TAFE component the student is eligible for VET FEE-HELP funding and for the university component the student is eligible for HECS. The program provides VET qualification exit points for students who do not wish to complete the degree program.

TAFE NSW – Hunter Institute and the University of Newcastle Bachelor of Industrial Design

The program consists of the Diploma of Product Design, gained in the first two years of study followed by the Advanced Diploma of Product Design and Innovation, both delivered at TAFE NSW – Hunter Institute’s Newcastle Campus.

Completion of the Advanced Diploma provides direct articulation into the final year of a Bachelor of Industrial Design at the University of Newcastle.

As with credit transfer arrangements, the Committee heard that building local relationships between universities, VET providers, industry and key individuals is an important step in developing effective pathway programs.

NSW Board of Vocational Education and Training Integrated Pathway Models

The NSW Board of Vocational Education and Training (BVET) is funding three tertiary pathway models linking VET and higher education to support greater levels of tertiary participation. The programs are on track to start delivering courses in 2013.

The first of the models is the Tertiary Pathway in Accounting developed by a consortium comprising Charles Sturt University, Macquarie University, University of New England, TAFE NSW, CPA Australia, Innovation and Business Skills Australia.

In the first two years the program will be taught at TAFE NSW institutes with an exit point after Year 2, an Associate Degree of Accounting. In the third and final year the student will complete their studies at a partner university and gain a Bachelor of Accounting.

The second model is the Tertiary Pathway in Early Childhood developed by a consortium comprising Charles Sturt University, TAFE NSW Western and Riverina Institutes.

Students will have exit points at Certificate III after Year 1, a Diploma or Associate Degree of Early Childhood Education and Care after Year 2 or a Bachelor of Teaching and/or Education to be completed at partner universities in Years 3 or 4.

The third model is the Tertiary Pathway in Applied Engineering developed by a consortium comprising University of Newcastle, TAFE NSW Hunter, Sydney and Western Sydney Institutes.

Students will have exit points at Associate Degree of Applied Engineering after Year 2 and a Bachelor of Applied Engineering (Renewable Energy Technologies) after Year 3 at the University of Newcastle.

Further details on the models are in Appendix 4.

The consultations revealed that the joint delivery of VET and higher education is a useful enabler for all students, but in particular low SES and Indigenous students. Jointly delivered programs can give students...
exposure to the rigours of higher education while studying in a local familiar TAFE NSW setting, with supportive structures for the first one or two years of the program.

Private providers also have a role to play in offering integrated pathways into higher education. In NSW there are a number of non-university higher education providers that deliver university foundation programs that lead directly into the second year of a Bachelor degree including INSEARCH Limited, ITC Education Limited, Navitas and the International College of Management.

With many jointly delivered programs currently in their infancy, including the NSW BVET models it is important to evaluate these projects to assess student outcomes and the value of these models for further expansion.

TAFE NSW-delivered higher education programs

In 2011, TAFE NSW began delivery of the Bachelor of Design (Interior Design). In 2012 accredited TAFE NSW higher education qualifications currently include:

- Bachelor of Design (Interior Design)
- Bachelor of Information Technology (Network Security)
- Bachelor of Early Childhood Education and Care (Birth - 5)
- Bachelor of 3D Art and Animation
- Bachelor of Applied Finance (Financial Planning)
- Associate Degree of 3D Art and Animation
- Associate Degree of Accounting; and
- Diploma of Accounting.

Students studying a higher education qualification through TAFE NSW are not eligible to access HECS and are full-fee paying. The cost of the TAFE Higher Education course will thus be higher than for students studying at a university. However, students studying these qualifications do have access to FEE-HELP in order to meet the cost of the course.

These programs, designed with industry to meet specific industry or occupational needs, transition students who have completed VET qualifications in these fields into higher education programs through credit transfer and articulation arrangements. They combine vocational skills and academic learning applied in authentic work environments with exit points to enable students to take up employment.
Auspice or franchise model

Another model for VET-delivery of higher education courses involves VET providers being contracted by a higher education provider to deliver a higher education qualification, or components of a qualification on their behalf.

The higher education provider develops and accredits the curriculum, enrolls the students and issues the qualification with the TAFE NSW Institute delivering part of the qualification under the quality assurance of the university.

VET-delivery is funded through a commercial arrangement with the higher education provider and enables students to study for a higher education qualification using the VET provider footprint. An example of such a model is set out below.

TAFE NSW – North Sydney Institute (NSI) and Charles Sturt University (CSU)

NSI and CSU have a partnership to provide bachelor degree programs on behalf of CSU at NSI colleges. The articulated model is designed to provide a pathway for students from diploma or advanced diploma into a bachelor degree qualification. The integrated model at NSI allows students to enrol in a VET qualification at CSU and obtain two qualifications (Advanced Diploma and Bachelor of Business Studies). All three years of the qualification are delivered on campus at NSI including the CSU subjects in the final year.

RECOMMENDATION 15
That the NSW Government:
A. seeks to expand the number of pathway programs combining VET and higher education, including those collaboratively developed with industry by TAFE NSW
B. encourages the NSW universities to review their credit transfer/articulation arrangements to provide simplified pathways for students wishing to enrol on the basis of their VET qualifications
C. encourages VET providers and higher education institutions to assign senior staff as ‘boundary spanners’ to negotiate and implement pathway programs between those institutions
D. seeks to revise the existing Australian Qualifications Framework Pathways Policy through its representatives on the National Skills Standards Council to mandate the provision of credit transfers and pathways to higher education.
The Review found that numerous tertiary pathways exist in NSW to enable students to move from school to tertiary education, including both VET and higher education. Pathways are also in place to allow students to move between the tertiary education sectors, particularly from VET to higher education.

However, there are limited data available on the key tertiary pathways which were the focus of the Review - school to VET, school to higher education (for the key equity groups) and VET to higher education. The collection of, and access to, these data would enable the NSW Government to better develop evidence-based policies and programs and facilitate tertiary pathways. This would help maximise the educational and employment opportunities for students and support the achievement of the State Plan goals and targets.

For tertiary pathways to effectively improve opportunities and outcomes for a wide range of students complementary action is required to:

- provide improved and more widely available aspiration-building programs to encourage more students and particularly those in the key equity groups to pursue VET and higher education studies
- provide more and better coordinated mentoring and preparation programs in schools to improve participation and attainment in VET and higher education studies, particularly for students in the key equity groups
- rectify the current restrictions and inconsistencies in Commonwealth funding which disadvantage students enrolled in VET and non-university higher education programs
- broaden the opportunities for rural and regional students to undertake tertiary education within their communities
- provide better information to school students on VET, higher education and employment opportunities, including pathway programs
- expand the VET in Schools program; and
- simplify credit transfer and articulation arrangements for students.

There is also scope for further collaboration and innovation in the development and implementation of additional tertiary pathways. To this end, VET and higher education providers should be encouraged to work more closely to develop and implement pathway programs. Existing Diploma and Associate Degree programs offered by TAFE NSW and private providers should also be expanded and made more widely available, particular to students from the key equity groups.

SECTION 5.0
CONCLUSIONS
APPENDIX 1.0
TERTIARY PATHWAYS REVIEW CONSULTATION PROCESS

Consistent with the Review’s Terms of Reference, the Tertiary Pathways Review Committee considered the perspectives of education providers, employers, industry, community and Indigenous education representatives, researchers and students on the effectiveness of current tertiary pathway models.

The Parliamentary Secretary for Tertiary Education and Skills, Ms Gabrielle Upton MP, invited key stakeholders to a series of consultation sessions in 2012. Committee members were also invited to attend the consultations. A schedule of stakeholder sessions is at the end of Appendix 1.

Stakeholders were invited to provide their perspectives to the Committee about the barriers students face in identifying and accessing the various pathways into tertiary education, as well as examples of successful strategies to increase the uptake of tertiary pathways. Of particular interest to the Committee were issues relating to:

■ barriers and enablers for students transitioning from school to VET
■ barriers and enablers for students from low SES backgrounds, Indigenous students, and students from rural and regional locations transitioning from school to higher education; and
■ barriers and enablers for VET students transitioning into higher education.

For education providers, community and Indigenous education representatives, and industry groups, input was sought in response to the following consultation questions:

1. What barriers restrict student pathways across the sectors? For example, barriers faced by tertiary education providers in developing pathways, barriers experienced by students in accessing pathways, especially students from low SES backgrounds, Indigenous students, and students from rural and regional locations.

2. How might these barriers be addressed? For example, what support processes or communication strategies can be used to encourage more students to seek tertiary education (VET or higher education) as an attractive option for further study?

3. How can tertiary education providers be assisted in developing stronger pathways or extending current pathways, or what role can industry and community groups play in facilitating access to tertiary pathways? For example, building links between schools, tertiary education providers, industry and communities, the sharing of data relating to pathways that would help identify trends in enrolment and attainment.

4. Drawing upon experience, are there any specific programs or strategies that have been successful in encouraging more students from key equity groups to participate in tertiary education?

5. Any further suggestions about what could enable greater uptake and completion of tertiary education qualifications?

Feedback from students as part of this Review was based on the following questions:

1. Have you thought of continuing studies after school or your current course? Why/why not?

2. What are the benefits of going to a VET or higher education provider? What jobs would be available to you?

3. Do you know anyone who has done a vocational education and training qualification and then gone to a university or higher education college? Would you consider this?

4. If you think back to when you started planning your future study were you always planning to study what you are studying now? Why did you choose the course you are studying?

5. For tertiary education students, what challenges have you faced in doing your course? Did you have all the support and information you need or is it a struggle to be studying instead of working?

6. Do you have any ideas on how we can help more young people to get the best qualifications they can?

Meeting notes for each consultation session were circulated to all Review Committee members, and informed the Committee’s findings and recommendations in this Report.
KEY MESSAGES FROM
THE CONSULTATIONS

Australian Council for Private Education and Training (ACPET)

- There is a general undervaluing of vocational education across the school and higher education sectors.
- The quality of education and career advice provided in schools is variable.
- Private providers face obstacles in gaining access to public schools, limiting their capacity to provide VET in Schools and to inform students of private tertiary education options.
- The quality of VET in Schools is variable.
- Complex articulation and credit transfer arrangements with universities restrict development of pathways with private providers.
- Private providers consider they are at a disadvantage when competing with TAFE NSW, in terms of accessing schools and costing of courses.

University senior representatives

- Universities Admissions Centre (UAC) procedures do not deal effectively with non-ATAR admissions.
- There is a limited history of universities and VET providers working together, and competition between the two sectors for students may inhibit collaboration.
- VET students often do not meet higher education academic expectations.
- The education and training requirements of professional bodies pose challenges to the development of pathways between VET and higher education.
- Consideration of pathway models should be broadened to include the needs of mature-aged students.
- Community cultural factors and the school environment can limit the aspirations and expectations of students, although universities have developed strategies to increase the aspirations of school students.
- There are some examples of collaboration with the VET sector, including working together on course design and the joint teaching of courses.

TAFE Executive Group

School to VET pathway

- Strong relationships with schools, employers, communities and local government are critical to developing school to VET pathways.
- Student attitudes towards VET impact upon the uptake of the school to VET pathway.
- Students and parents need support and guidance on school VET options and planning for future educational pathways, including clarification of the purpose of the different VET options.
- Schools may choose to provide VET in schools rather than sending students to TAFE based on perceived financial incentives.
- There is the potential for duplication of resources with courses being offered via VET in schools and through TAFE.
- There is a need to ensure VET in schools remains relevant and keeps up to date with changing business and industry needs and national standards.
- Consideration should be given to expanding the range of VET offerings in high school, including offering VET to younger students.

VET to higher education pathway

- Building relationships with higher education institutions is fundamental to establishing effective pathways.
- Articulation and credit transfer arrangements with universities are often complex and tend to restrict the development of pathways from VET to higher education.
- TAFE is in competition for students with universities’ own colleges that provide pathway programs, which may discourage collaboration between the two sectors.
- While articulation and credit transfer arrangements are still the main pathway, there is growing emphasis upon jointly developed and integrated TAFE and higher education courses as the basis for effective pathways.
- There are financial inequities in the funding available for students undertaking TAFE courses (FEE-HELP) and higher education in universities (HECS).
<table>
<thead>
<tr>
<th>Industry and business representatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ There is limited knowledge and understanding of available pathways by schools, parents and students.</td>
</tr>
<tr>
<td>■ Limited collaboration between VET and higher education institutions is a barrier to effective pathways.</td>
</tr>
<tr>
<td>■ The level of proficiency in mathematics is a significant barrier to students engaging in quantitative tertiary courses.</td>
</tr>
<tr>
<td>■ Student attitudes have shifted away from valuing VET to seeing higher education as the primary way to succeed in business.</td>
</tr>
<tr>
<td>■ Industry must take responsibility for communicating future career opportunities to schools, students and communities.</td>
</tr>
<tr>
<td>■ Mentoring is essential to the successful navigation of tertiary pathways.</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Community sector representatives</th>
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<tbody>
<tr>
<td>■ Long-term disengagement and gaps in education impact on literacy and numeracy skills.</td>
</tr>
<tr>
<td>■ Students from low SES backgrounds have low aspirations for themselves, reinforced by low aspirations from families, their community and their teachers.</td>
</tr>
<tr>
<td>■ Low SES students need early engagement with possible career and education options.</td>
</tr>
<tr>
<td>■ There is a need to build relationships with low SES students to give them a sense of belonging to their educational institution.</td>
</tr>
<tr>
<td>■ Some disadvantaged students do not feel comfortable with unfamiliar learning environments or leaving their communities to undertake further education.</td>
</tr>
<tr>
<td>■ VET in Schools is an important means for disadvantaged students to engage with future VET studies.</td>
</tr>
<tr>
<td>■ Disadvantaged students value recognition for their education and training achievements.</td>
</tr>
<tr>
<td>■ Support for students needs to be long-term and needs to be available throughout an individual’s education.</td>
</tr>
<tr>
<td>■ Disadvantaged students can find the tertiary education system complicated and uncomfortable.</td>
</tr>
<tr>
<td>■ Higher education equity scholarships are not sufficient in assisting disadvantaged students as they are often overly-focused on the admissions stage.</td>
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<tr>
<th>Public schools executive group</th>
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<tr>
<td>■ Careers advisers in schools often lack the contemporary knowledge of the various pathway programs available to students.</td>
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<tr>
<td>■ The staffing formula in schools can be a disincentive for principals to encourage their students into TAFE-delivered VET in schools.</td>
</tr>
<tr>
<td>■ VET and higher education cannot be delivered locally in many rural and regional communities, and when they are available the courses are often not aligned with local demand.</td>
</tr>
<tr>
<td>■ Systemic recognition of prior learning is vital to enable students to articulate between school, VET and higher education.</td>
</tr>
<tr>
<td>■ The conversation around tertiary pathways, aspiration and expectations needs to happen at an earlier age – starting in primary school.</td>
</tr>
<tr>
<td>■ Universities and their access programs should have a coordinated approach to social inclusion across the whole sector.</td>
</tr>
<tr>
<td>■ Mentoring is an essential part of the success of pathway programs.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Indigenous education and training representatives</th>
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<tbody>
<tr>
<td>■ Schools do not always meet the needs of Indigenous students.</td>
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<tr>
<td>■ VET programs during the school years provide an important pathway for Indigenous students.</td>
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<tr>
<td>■ There is a shortage of Indigenous people with qualifications to fill job vacancies.</td>
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<tr>
<td>■ Career guidance needs to better engage the students, be better coordinated and involve families.</td>
</tr>
<tr>
<td>■ Blended delivery of VET and higher education courses may provide desirable study arrangements for Indigenous students.</td>
</tr>
<tr>
<td>■ Mentors are critical to providing support and instilling confidence in students.</td>
</tr>
<tr>
<td>■ The affordability of undertaking higher education is a particular issue for Indigenous students.</td>
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<tr>
<td>■ There needs to be an appreciation of Indigenous culture in the education process.</td>
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<tr>
<td>■ Consideration needs to be given to increasing the qualifications of mature aged Indigenous people.</td>
</tr>
</tbody>
</table>
NSW Schools Advisory Council

- There is a perceived lack of prestige around VET courses in comparison to those offered by higher education institutions.
- The conversation around pathways, aspiration and expectations needs to happen at an earlier age.
- More effective recognition of prior learning is vital to enable students to articulate between school, VET and higher education.
- Applied learning needs to happen earlier in Years 9 and 10 to allow students to gain formal qualifications while working.
- The differing mandatory qualification requirements for teaching in schools and TAFE create a barrier for many VET teachers to deliver courses in schools.

Researchers and experts

- The Review should clearly identify occupational pathways to tertiary education as an important route for people in employment.
- There has been a decline in the uptake of diplomas and advanced diplomas but these are valuable qualifications for disadvantaged learners.
- Guidance officers or careers advisers are vitally important for raising aspirations and expectations.
- The conversation around pathways into higher education needs to happen when students commence their VET qualification.
- “Boundary spanners” or pathway brokers are important to build trust between VET and higher education providers.
- It is very difficult to track students who articulate from VET to higher education without a unique student identifier.
- The revised AQF is a step in the right direction toward a more flexible qualifications environment.
- Credit transfer arrangements are too difficult to mandate but individual, effective arrangements are possible.
- Concerns about the requirements of professional bodies being a barrier to pathway development are often over-stated.
- The development of pathways should form part of an institution’s strategic planning.

Students from private VET and higher education institutions

- Many students leaving school do not have the financial capacity to continue their study at a tertiary level.
- Students are often proactive and search independently for information about pathway opportunities.
- Support for students from the key equity groups needs to be long-term and needs to be available throughout an individual’s education or training.
- Students from low SES backgrounds often have low aspirations for themselves, reinforced by low expectations from families, their community and teachers.
- Low SES students need early engagement with possible career and education options.
- Courses at a tertiary level need to have employment outcomes.

Students from NSW government schools

- Mentoring is crucial to building aspirations.
- Information on career and study options needs to be clear, easily accessible and available at an earlier age.
- University studies are preferred over VET, although many students are unclear about their future direction.
- School subject options may be limited due to insufficient student numbers.
- Financial considerations are a factor in choosing tertiary study options.
Students from TAFE NSW

- Students learnt about courses delivered by TAFE NSW from a range of sources.
- Students felt that TAFE NSW provided a high level of individual mentoring and support.
- Information and advice on career and study options needs to be clear and proactive.
- Studying a VET qualification gives students more confidence to undertake further study at university.
- Distance learning can be useful for mature age students.
- Options for university courses in regional areas are limited which discourages students from pursuing a university qualification.
- Teachers are vital in advising students on what TAFE NSW units of study are eligible for credit at universities.
- Students need up-to-date and clear information on the course fee structure at both VET and higher education institutions.

VET in Schools students from NSW government schools

- Student decisions on VET in schools are often linked to their career goals.
- Some VET in schools students have plans for university study.
- Careers advisers assisted students in choosing VET in schools units.
- Visits from employers and institutions were a useful source of career information.
- There is a limited awareness of pathways between VET and higher education.
- Future decisions on relocating for post-school education and training are linked to education and training opportunities.

VET in schools students from NSW independent schools

- Many students decide to do VET in schools as a way to get practical experience for future employment.
- The majority of VET in schools students consulted would like to go to university.
- Careers advisers were instrumental in helping students choose VET in schools units.
- A one-stop shop for information would be helpful in guiding students into the right career and study path.

Large employer representatives

- Some large employers provide programs in schools leading to VET qualifications through RTOs for students from the key equity groups.
- Representatives noted that their aspiration-building programs in schools tended to be focussed on Indigenous students rather than low SES or rural and regional students. It is difficult to measure the success of these programs and tertiary education programs.
- Employers face challenges in accessing some schools, particularly government schools, in order to promote career opportunities, and a more coordinated approach to employer access would be useful.
- Careers advisers sometimes lack contemporary knowledge of tertiary education and employment opportunities.
- Careers expos are logistically more feasible for employers than attending individual schools, but employers acknowledge that expos might not be focussed enough on particular industries to be of benefit to students.
- Government tender processes for construction or community projects could provide an opportunity to encourage employers to provide learning and training to students.
- A portal linking students to careers advice and directly to industry representatives is one possible mechanism for disseminating career advice to students.
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<tr>
<th>DATE</th>
<th>STAKEHOLDER GROUP</th>
<th>REPRESENTATIVES</th>
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<tbody>
<tr>
<td>30 January 2012</td>
<td>Australian Council for Private Education</td>
<td>BCA National Training Group</td>
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<td>Education Export Services</td>
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<td>Australian Catholic University</td>
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<td>University of Wollongong</td>
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<td>Date</td>
<td>Stakeholder Group</td>
<td>Representatives</td>
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<tr>
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<td>Industry and business representatives</td>
<td>AgriFood NSW, Arts, Communications, Finance Industries and Property Services Industry Training Advisory Body (ITAB), Australian Industry Group, Australian Institute of Company Directors, NSW Board of Vocational Education and Training, Business Council of Australia, Construction and Property Services Industry Skills Council, CPA Australia, ForestWorks (NSW), Manufacturing Skills Australia, NSW Business Chamber, NSW Community Services and Health ITAB, NSW Public Sector ITAB, NSW Utilities &amp; Electrotechnology ITAB, SkillsDMC, The Pharmacy Guild of Australia - Service Skills NSW</td>
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<td>1 March 2012</td>
<td>Community sector representatives</td>
<td>Edmund Rice Education Australia, Mission Australia, Schools Industry Partnership, Social Ventures Australia, The Smith Family, Youth Off The Streets</td>
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<td>5 March 2012</td>
<td>Public schools executive group</td>
<td>NSW Department of Education and Communities Public Schools Portfolio: Access &amp; Equity, Learning &amp; Development, School and Regional Operations, Hunter/Central Coast Region, Illawarra and South East Region, New England Region, North Coast Region, Northern Sydney Region, Riverina Region, South Western Sydney Region, Sydney Region, Western NSW Region, Western Sydney Region</td>
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<td>DATE</td>
<td>STAKEHOLDER GROUP</td>
<td>REPRESENTATIVES</td>
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<td>22 March 2012</td>
<td>NSW Schools Advisory Council</td>
<td>Association of Independent Schools NSW, Catholic Education Commission of NSW, NSW Board of Studies, NSW Institute of Teachers</td>
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<td>Students from private VET and higher education institutions</td>
<td>BCA National Training Group, Actors College of Theatre and Television, Whitehouse Institute of Design</td>
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<tr>
<td>23 April 2012</td>
<td>Researchers and experts</td>
<td>Professor Kerri-Lee Krause, Pro-Vice Chancellor (Education), University of Western Sydney, Professor Erica Smith, Professor of Education, University of Ballarat, Associate Professor Leesa Wheelahan, LH Martin Institute, University of Melbourne</td>
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<td>Students from NSW government schools</td>
<td>Brewarrina Central School (Western NSW), Granville South Creative and Performing Arts High School (South Western Sydney), Murray High School (Riverina), Peel High School (New England), Pendle Hill High School (Western Sydney), Urana Central School (Riverina)</td>
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<td>18 June 2012</td>
<td>Large employer representatives</td>
<td>Johnson Partners</td>
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<td>Qantas Airways Limited</td>
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**SEPARATE MEETINGS HELD BY THE PARLIAMENTARY SECRETARY FOR TERTIARY EDUCATION AND SKILLS**

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<td>Universities Admissions Centre</td>
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<td>Open Universities</td>
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<td>22 December 2011</td>
<td>Council of Private Higher Education</td>
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<td>CareerTrackers</td>
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<td>Navitas</td>
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<td>23 May 2012</td>
<td>Community Colleges Australia</td>
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<tr>
<td>24 May 2012</td>
<td>Robert Griew, Associate Secretary, Commonwealth Department of Industry, Innovation, Science, Research and Tertiary Education</td>
</tr>
<tr>
<td>1 June 2012</td>
<td>Study Group Australia</td>
</tr>
<tr>
<td>12 June 2012</td>
<td>NSW Vice-Chancellors Committee</td>
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</tbody>
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APPENDIX 2.0
TERTIARY PATHWAYS

EXISTING PATHWAYS INTO TERTIARY EDUCATION AND EMPLOYMENT

KEY
RTOs (Registered Training Organisations)
NSA (Non Self-Accrediting)
APPENDIX 3.0
KEY TERTIARY PATHWAYS

School (Vocational Education and Training in Schools) → Vocational Education and Training

Key Equity Groups
• Indigenous
• low SES
• regional and rural → Higher Education

Vocational Education and Training → Higher Education
In 2011-12, the NSW Board of Vocational Education and Training has funded three tertiary education consortia including TAFE NSW, to develop new degree qualifications that provide an integrated pathway and incorporate the practical, job-ready strengths of vocational training with conceptual and higher level skills associated with higher education programs. The projects are:

**Tertiary Pathway in Early Childhood:** This tertiary pathway is being jointly developed by TAFE NSW Western Institute and Charles Sturt University (CSU) Faculty of Education in response to Commonwealth and States’ agreement to increasing the level of qualifications required of Early Childhood Education and Care (ECEC) professionals by January 2014. The Associate Degree will provide a pathway for students wanting to enter the ECEC sector and will encompass university standards and competencies from the Community Services Training Package, thus allowing students to move seamlessly from a Certificate III to an Associate Degree in Early Childhood Education and Care, and then entry into the Bachelor of Teaching and/or Bachelor of Education. The program is specifically targeting students in rural and remote areas and will utilise online and distance learning to improve access for these students.

TAFE NSW graduates from the Certificate III in Children’s Services who have completed the first semester of the Diploma of Children’s Services (Early Childhood Education and Care) with the relevant TAFE Institute will gain automatic entry to the Associate Degree (Early Childhood), which TAFE NSW will deliver on behalf of CSU. Graduates of the Associate Degree will gain automatic entry to either an existing Bachelor Degree in Teaching (birth - 5 years) or Education (birth - 5 years) with Charles Sturt University. The current Diploma of Children’s Services will be embedded within the Associate Degree. The embedded Diploma qualification will be granted by recognition on successful completion of the Associate Degree.

The new Associate Degree will provide an alternative pathway to satisfying the requirements of the Diploma of Children’s Services while at the same time building the body of knowledge, academic literacy and graduate attributes required for advanced level studies within a higher education qualification.

The Associate Degree will be accredited through Charles Sturt University as part of the Bachelor of Teaching (0-5 years). The Associate Degree will be offered as an exit point for students who do not wish to continue into the final year of the Bachelor of Teaching or final two years of Bachelor Education. The program will commence in semester one, 2013. The target group for the Associate Degree is TAFE NSW Certificate III graduates.

**Tertiary Pathway in Applied Engineering (Renewable Energy Technologies):** This pathway is being developed by TAFE NSW Higher Education, TAFE NSW - Hunter, Sydney and Western Sydney Institutes in close collaboration with the University of Newcastle and Engineers Australia. The engineering profession is experiencing skills shortages in all professions, including electrical and mechanical engineers and trades people with experience in environmentally sustainable energy design and implementation (DEEWR, 2010).

Students will enrol through TAFE NSW Higher Education in the TAFE NSW Associate Degree in Applied Engineering at TAFE NSW - Hunter, Sydney or Western Sydney Institutes and, on graduation, transfer seamlessly into the Bachelor in Applied Engineering (Renewable Energy Technologies) at the University of Newcastle.

The program will offer multiple entry points, taking into account the entry skills, knowledge and skill and knowledge gaps of course applicants. There will be specialisations and multiple exit points. The program will provide articulation pathways for graduates from related Certificate IV, Diploma and Advanced Diploma qualifications, and exit points into related VET qualifications as well as the Associate Degree. The University of Newcastle will offer appropriately qualified graduates of the program, credit transfer into the Bachelor in Applied Engineering (Renewable Energy Technologies) which leads to the four year Bachelor of Engineering. Other NSW universities could also offer entry or credit transfer arrangements to graduates of the Associate Degree.

Applications are expected from existing professionals with field experience and TAFE NSW or university qualifications in relevant disciplines including Electrical Trades, Electrical Engineering, Electronics and/or Building Design, Environmental Science and related areas. The program will also attract enrolments from school students and entry level job seekers wishing to enter the renewable energy and sustainability sector. In NSW just over 14 per cent of school-based apprentices and trainees in 2009 and just over 10 per cent of other school students studying VET were enrolled in engineering and related technologies. This market sector will be a specific target for enrolment in the program.

Graduates of the Associate Degree can design, develop, install, commission, maintain, repair and/or decommission renewable and sustainable energy technologies within energy, technical and safety regulations.

The program will commence in Semester Two, 2013. Qualifications that provide a suitable foundation leading to enrolment in this qualification include Certificate IV in Engineering, Diploma in Engineering, Certificate IV in Electrical (Renewable Energy) and Electrotechnology and Electrical (Photovoltaic systems) qualifications.

Tertiary Pathway in Accounting: TAFE NSW is working with, CPA Australia, the Institute of Chartered Accountants in Australia (ICAA), the Institute of Public Accountants (IPA) and Innovation and Business Skills Australia (IBSA) the Australian Catholic University, Charles Sturt University, Macquarie University and the University of New England, to develop this pathway.

Students will enrol through TAFE NSW Higher Education into the two year Associate Degree with delivery proposed initially at TAFE NSW - Northern Sydney, Riverina, South Western Sydney, Sydney and Western Sydney Institutes from Semester Two 2012. On completion of the Associate Degree graduates may progress to the third year of a relevant accounting degree with the partnering universities. The program will offer multiple exit points.
The Associate Degree will provide students with applied vocational ‘hands on’ learning in an authentic work environment, combined with academic and research skills. The program is designed to give students a transition to university academic requirements in a supportive learning environment. The program will also offer marketable qualifications at exit points so graduates can get work in the industry and return to studies at a later date.

Students who wish to exit after the first year of the Associate Degree will be eligible for a Diploma enabling them to work in entry-level technical and assistant positions in the industry. Diploma graduates will also meet the educational requirements for registration as a Business Activity Statement (BAS) Agent. Graduates of the Associate Degree can work in the accounting profession in positions including self-employed bookkeeper, tax accountant, industry or small business accountant, payroll supervisor. Graduates of the Bachelor Degree can work in the above jobs as well as an auditor or liquidator and with professional accreditation via the industry bodies CPA Australia, ICAA and IPA.

The target groups for this pathway include current TAFE NSW students studying VET accounting qualifications, school leavers and existing workers in the industry who wish to progress their careers.
APPENDIX 5.0
OVERSEAS MODELS

In evaluating the effectiveness of current pathway models in NSW, the Review Committee examined the various approaches to tertiary pathways in Singapore, Malaysia, the United Kingdom and the United States of America.

The following section outlines some pathways that exist in those countries.

UK Foundation Degrees

Foundation Degrees were introduced by the Department for Education and Skills in 2000 to provide graduates who are needed within the labour market to address shortages in particular skills.\(^{100}\)

Foundation Degrees integrate academic and work-based learning through close collaboration between employers and program providers. They are designed to equip students with the skills and knowledge to succeed in employment. The degrees are also self-standing qualifications but are normally linked to at least one program leading to a Bachelor Degree with honours.\(^{101}\)

An integral part of the course design is the ability to offer students flexible modes of study to accommodate the learning needs of different types of students. Students are able to study while gaining credit for work-based learning, both full or part-time. Work-based learning is resource intensive in the design phase as there is the requirement for programs to have identified and defined levels of achievement and learning outcomes.

Enrolments in UK Foundation Degrees

The Higher Education Funding Council for England reports that the total number of students in Foundation Degrees increased from 4,320 students in 2001-02 to 99,475 in 2009-2010. The number of commencing students has also experienced a large increase from 3,995 in 2001-02 to 53,750 in 2009-10.\(^{102}\)

Statistics from the Higher Education Funding Council for England indicate that of the 2007-08 Foundation Degree qualifiers almost 60 per cent of full time students went onto further study and completion of the Bachelor Honours Degree program.

The most interesting comparison to be drawn between the UK context and NSW is the composition of program delivery between Further Education Colleges (FECs) and Higher Education Institutions (HEIs). FECs, similar to TAFE NSW and private RTOs, wholly or partly delivered foundation programs to 67 per cent of full time entrants in 2006-07. Among part-time entrants 49 per cent of entrants were taught wholly or partly by an FEC.\(^{103}\)

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100 The Quality Assurance Agency for Higher Education (2010), Foundation Degree qualification benchmark
101 Ibid, p5.
103 Ibid, p16.
USA – Community Colleges

Community Colleges are a part of a large and diverse education sector in the United States of America. A large number of Community Colleges, technical colleges and junior colleges offer post-school qualifications below Bachelor Degree level. These qualifications include Associate Degrees, Advanced Certificates and Certificates although only Associate Degree level programs offer an articulation pathway to Bachelor Degree qualifications.104

Community Colleges offer students qualifications at the Certificate and Associate Degree level in a wide range of professions such as business, health and engineering.

Selected statistics from Community Colleges

In 2011 there were 1,167 Community Colleges across the United States, of which 993 were public, 143 were independent and 31 were tribal.105

In 2008 there were 12.4 million students enrolled in Community College programs however approximately 5 million of them were non-credit students. In the same year 609,016 associate degrees and 323,649 certificates were awarded to graduating students.106

A primary function of Community Colleges is to prepare students to transfer to a 4-year college however obtaining nationwide data is extremely problematic.107 According to the National Center for Education Statistics the percentage of first-time beginning Community College students who went on to transfer to a 4-year institution was 21 per cent.108

Singapore – Polytechnics

Singapore’s Polytechnics were set up with the mission to train middle-level professionals to support the technological and economic development of Singapore. The Polytechnics seek to train students with relevant and specific skills for the workplace and are designed to encourage further higher education. Singapore currently has five Polytechnics:

- Nanyang Polytechnic
- Ngee Ann Polytechnic
- Republic Polytechnic
- Singapore Polytechnic
- Temasek Polytechnic

Polytechnics offer full-time and part-time Diplomas and Advanced Diplomas. Course duration for those students who study in a full-time capacity is three years.

Selected statistics from Singapore’s Polytechnics

In 2010 there were 83,542 students in Singapore’s Polytechnics up from 58,372 in 2000. For males in 2010 the most popular courses were in Engineering Sciences with 48 per cent of total male enrolment and for females the most popular field of education was in Business and Administration with 29 per cent.109

The statistics indicate that in the Polytechnics in 2010, Diploma level courses fielded the significant majority of students with 80,900 enrolments compared to a total of 2,642 in the Advanced Diploma.

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106 Ibid.
The University of New South Wales (UNSW) has a strong relationship with the Polytechnics in Singapore. UNSW offers advanced standing for a range of Diploma courses at each of the five Polytechnics in Singapore – providing up to two years of RPL.\textsuperscript{110}

**Malaysia Tertiary Colleges and Polytechnics**

The role of Polytechnics in Malaysia is to build capacity for developing new technical skills to meet the Malaysian target of 37 per cent of the population as a highly skilled worker by 2015.

Polytechnics in Malaysia have courses at both the Certificate and Diploma level with specific training relating to employment, skills and other vocational outcomes. There are 27 Polytechnics and three metro Polytechnics in Malaysia.\textsuperscript{111}

**Selected statistics from Malaysia’s Polytechnics**

In 2008 Malaysian Polytechnics had 85,280 enrolments of which 24,155 were new commencing students. Of those students 30,861 were enrolled in Certificate level courses and 54,419 were in Diploma level courses.\textsuperscript{112}

In 2008 13,723 students graduated with a Certificate and 19,060 graduated with a Diploma.

The Malaysian Department of Polytechnic and Community College Education conducts a Polytechnic Tracer Study that is designed to identify the destination and the employment rate of Polytechnic graduates. Of the 2006 Polytechnic graduate cohort 20.1 per cent were participating in further higher education and 76.3 per cent were joining the job market.\textsuperscript{113}

\textsuperscript{110} Refer to UNSW articulation arrangements available at: http://articulation.unsw.edu.au/by-overseas-qualification/singapore/.


\textsuperscript{112} Department of Polytechnic and Community College Education (2008), *Quick Facts*, Ministry of Education, Malaysia.

\textsuperscript{113} Ibid, p51.


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