The Allen Consulting Group

A feasibility study for a university on the Central Coast

Final Report

December 2011

Final Report to the Central Coast Regional Development Corporation

The Allen Consulting Group

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Executive summary

Purpose of the project

The Allen Consulting Group, commissioned by the Central Coast Regional Development Corporation (CCRDC), undertook research and analysis as Stage One of a possible two stage feasibility study of a new university on the Central Coast. The purpose of this project is to discern whether a sound policy argument exists for the establishment or otherwise of a new university on the Central Coast. In conducting this project, the Allen Consulting Group identified and investigated four key issues:

- changes to the higher education funding, authorisation and regulation framework in Australia;
- regional supply and demand for higher education;
- student and course profile, with implications for public revenue streams; and
- feasibility benchmarks.

Based on analysis and assessment of these issues, the Allen Consulting Group has been able to make recommendations for the consideration of the CCRDC.

Changes to higher education funding, authorisation and regulation

The framework surrounding the funding and regulation of existing higher education providers and the authorisation of new universities will change considerably in 2012. Funding for students will shift to a demand based system and the quality assurance activities of the Australian Universities Quality Agency and the state-based authorisation processes for new universities will both move to the Tertiary Education Quality and Standards Agency. The standards relating to the provision of higher education have not yet been finalised nor has the process of establishing a new university. Across these changes, the extensive involvement and support of the State government will continue to be a necessary element in the establishment of a new university.

Regional supply and demand for higher education

The analysis of regional supply and demand for higher education employed the Allen Consulting Group's regional demographic-economic modelling tool to assess the likely supply of higher education students to a university on the Central Coast and the demand for skills and qualifications based on industry and occupations data. This modelling was based on a catchment area that included the Local Government Areas of Cessnock, Gosford, Hawkesbury, Lake Macquarie, Pittwater and Wyong.

From this modelling, it is estimated that there is a potential enrolment at this point in time of approximately 11,500 students across full- and part-time study modes. This figure represents a gap enrolment — the number of additional students that would occur if higher education participation rates in the catchment area were similar to the Sydney Statistical Division (Sydney SD). In further analysis contained in this report, it is not assumed that all these students would attend a university on the Central Coast.

Additionally, socio-economic and education data from the region was analysed to estimate likely future patterns of participation and attainment in higher education. The results of this analysis indicated strong student preference for participation at the University of Newcastle, out-of-area study associated with higher levels of achievement in Year 12 and an association between lower Year 9 literacy and numeracy outcomes with lower participation in higher education.

Student and course profile

Analysis and modelling of student and course profile was based on the results of the regional economic-demographic analysis. Four scenarios regarding the likely take up rates by students are presented and the effects of two course profiles on public revenue streams are modelled. The two minimal enrolment growth rates are considered the most likely to occur due to current levels of education participation and attainment in the catchment area, as well as demand for higher education qualifications based on the catchment areas' industry and occupation profile.

Based on the gap enrolment (the pool of available students) of 11,500, the expected enrolments by 2031 for these growth projections are sub 4,000 (minimal and delayed take up with constant enrolment share) or 8,000 (minimal take up with slow increase in enrolment share).

The two course profiles modelled for their effects on public revenue streams are:

- business and humanities only; and
- business, humanities and health and other services.

The results of this modelling indicate that significant effort would be required in the planning and establishment phase to ensure that student take-up rates were as high as possible and generated sufficient public revenue streams.

Feasibility benchmarks

A full feasibility assessment of a new university for the Central Coast is outside the scope of this project. However, it is appropriate to consider a number of factors prior to considering further investigation into feasibility:

- the procedural and regulatory requirements for the establishment of a new university;
- campus location, infrastructure and course profile;
- consideration of financial viability; and
- the likely responses of catchment area universities.

The scale of the challenge in establishing a new university in a transformed funding and accreditation environment is considerable. The idea of the university will need to be compelling and grounded in current needs and aspirations for higher education as well as in realistic assessments of capacity of the region's industry and occupations base to support a developing university. The ongoing support of key stakeholders from the Central Coast and at the State level will be critical.

Should a body be formed to pursue new higher education provision on the Central Coast, it will have to undertake rigorous assessment and analysis of the required capital investment, the ongoing costs of campus infrastructure, analysis of staff and student profile and the recurring income needed to develop and sustain the university in its first decade.

Assessment and recommendations

This Report indicates that there is not sufficient evidence for the Committee to invest additional resources in a full business case for a new university on the Central Coast. There is, however, a strong case for the extension of higher education provision on the Central Coast, particularly in the form of a university campus in the Gosford CBD.

In recommending against further investigation into the establishment of a new university on the Central Coast, this Report notes the following key indicators:

- the expected pool of available students (11,500) together with the likely rates of enrolment increase in the short to medium term represent an insufficient basis for a new university;
- the current industry and occupational profile now and into the medium term do not create sufficient demand for higher education qualifications;
- revenue in the short to medium term is likely to be well short of the costs of establishing and maintaining a new university;
- meeting the accreditation requirements for a new university will be difficult and expensive, in particular meeting requirements for research and building a postgraduate course and student profile;
- there is a very strong preference by eligible Central Coast students to study at the University of Newcastle and those students with a high Australian Tertiary Admissions Rank prefer study at out-of-area universities, particularly the University of Sydney and Macquarie University.

However, there is a strong case for extension of higher education provision on the Central Coast to at least bring participation levels into line with the Sydney SD. There are other factors which encourage the pursuit of expanded higher education provision such as:

- the potential for strong increase in higher education enrolment if State and Commonwealth attainment targets are vigorously pursued;
- changes to the Central Coast's industry and occupation profile over time to reflect Sydney SD will have demand effects for higher education; and
- improved transport and accessibility to the Central Coast may support more than one location for higher education provision.

These factors indicate potential demand for a viable campus based in the Gosford CBD. This is particularly so for a campus which is highly focussed on professional and technical occupations related to the CBD and Gosford as a commuter and transport hub. A campus such as this would be differentiated from the Ourimbah campus of the University of Newcastle.

Such an approach will require further detailed assessment of potential demand and provision, drawing on the initial analysis undertaken for this Report as the basis of discussions between the Committee and potential university partners, such as the University of Newcastle.

Chapter 1

Introduction and background

1.1 This project

The Education Committee of the Central Coast Regional Development Corporation commissioned the Allen Consulting Group to conduct Stage One of a feasibility study for the establishment of a university on the Central Coast.

The purpose of Stage One was defined by the Education Committee as providing a sound policy argument for the establishment or otherwise of a new university campus on the Central Coast and to identify the issues that should be pursued in the second phase. In particular, the following research questions were defined:

a. *What are the implications of the changes in higher education policy and funding for the establishment of a new university, particularly in a demand based funding system?*

b. *What are the implications of the changes in quality assurance arrangements for higher education following the establishment of TEQSA, particularly with regard to process for approval of new universities?*

c. *What are the advantages and disadvantages of seeking accreditation as either a university or a university college?*

d. *What size would any new university need to be and over what timeframe?*

e. *What is the current and projected level of demand for higher education in the region and what share of that demand would be required for a university to achieve required size?*

f. *What comparable regions have stand alone universities and what are the differences and similarities between those regions and the Central Coast?*

g. *Whose legislative support for a new university would be required?*

h. *Who might 'own' such a University?*

i. *What are likely responses by existing universities, particularly those who draw heavily from the Central Coast catchment area, and in terms of sponsoring a university college?*

j. *What potential is there to attract domestic and international students from outside of the Central Coast region?*

k. *What opportunities exist for partnerships and collaboration with TAFE?*

l. *Where are Central Coast school leaver currently accessing tertiary education?*

m. *What factors determine the optimum location of a University and where on the Central Coast would those factors best be met.*

In response to these research questions, the Allen Consulting Group developed the project methodology as outlined below.

1.2 Project methodology

The methodology agreed with the Education Committee comprised three phases.

1. *Feasibility benchmarks* — setting out the feasibility benchmarks for university establishment and sustainable operation in the higher education regulatory and funding environment that will come into full operation from January 2012.

2. *Analysis and modelling of supply and demand* — a comprehensive analysis and modelling of supply and demand for a university through economic and demographic analysis of the region. This will clarify the potential supply of students, the demand for skills and qualifications and the potential for regional research activity.

3. *Final report and recommendations* — our analysis and recommendations as to the feasibility of a university in Gosford with particular reference to the options for university provision in the form of a university, university college, or dual sector institution through a presentation and draft report.

During project initiation, it was agreed that an additional phase of limited modelling would be included. This modelling would use the results of the regional supply and demand analysis to produce likely scenarios of student enrolment, likely course profile and take up rates. The results of the modelling, together with data and information gathered in the first two project phases, would provide a sound evidence basis for the Committee when considering the appropriateness of proceeding to Stage Two of the feasibility study. Over the course of the project and during discussions with the Education Committee, it was accepted that enrolments by international students could not be reliably estimated and would be excluded from the scope of the project.

1.3 This report

This draft report has drawn on consultation with members of the Education Committee, modelling conducted by the Allen Consulting Group, data from secondary schools from the Central Coast, publicly available and unpublished data from the Department of Employment, Education and Workplace Relations (DEEWR) and a desktop review of reforms to the higher education policy, regulatory and funding framework.

The remainder of this report is structured as follows:

- Chapter Two provides an overview of the funding and regulatory reforms that will come into effect from January 2012. The authorising and regulatory framework has not been fully outlined at time of writing but this draft report reflects the latest publicly available information.
- Chapter Three analyses regional supply and demand for higher education and reviews patterns of education participation and attainment and provides an estimate of the total pool of students.
- Chapter Four presents four rates of growth for a university and models two course profile scenarios to generate estimates of public revenue streams.

- Chapter Five addresses feasibility benchmarks to indicate the scope and scale of planning and investment required to support a university on the Central Coast.
- Chapter Six contains a preliminary assessment of the feasibility of a university on the Central Coast and outlines next steps for the Education Committee's consideration.

1.4 Membership of the Education Committee

The Committee membership comprises of community leaders, specialist advisors on education, an economic advisor and a representative of the NSW Government's Department of Premier and Cabinet:

- Ken A Jolly AM, Chair;
- Jan McClelland, Deputy Chair;
- Professor Terry Lovat, Emeritus Professor Terry Lovat, former Pro Vice-Chancellor (Education & Arts) and former Pro Vice-Chancellor (Central Coast), The University of Newcastle
- Dr Gregor Ramsey AM;
- Emeritus Professor Denise Bradley AC;
- John Tilston, Advisor, Economic Development, Gosford City Council; and
- Leoni Baldwin, Regional Coordinator – Central Coast, Department of Premier and Cabinet.

Helen Polkinghorne, Senior Development Manager, Central Coast Regional Development Corporation managed the work of the Education Committee.

Chapter 2

Establishing a new university in Australia

2.1 Introduction

This chapter outlines the considerable reform process that is underway in Australian higher education. These reforms encompass the authorisation, regulation and funding of universities operating in Australia and involves transition from a set of nationally agreed protocols to a set of standards enforceable by an independent regulator. The purpose of the chapter is to assess the implications of the new funding, authorising and regulatory framework for the establishment of a greenfield university.

This chapter will:

- examine the changes to the authorising process for new universities in Australia that will be in place from 31 January 2012;
- briefly describe the funding framework in place for universities from 2012; and
- assess the implications of these changes for the development of a university on the Central Coast.

A full discussion of two of the most recent examples of greenfield universities, Murdoch University (1975) and the University of the Sunshine Coast (1996) is given at Appendix A. The type and extent of support received from the state government of the day is reviewed, as is the scope and purpose of each university and their development in the first ten years of operation. These examples are provided as useful comparators to the situation and experience of the Central Coast.

2.2 Changes to the authorising and regulatory framework for new universities

The authorising and regulatory regime for new universities in Australia is currently in a state of transition. It is moving from a set of nationally agreed protocols to a standards-based regulatory regime overseen by an independent national body, the Tertiary Education Quality and Standards Agency (TEQSA). While the move does not introduce new policies, it does shift the location of the authorising and regulatory regime from predominantly state-based administration to an independent body external to state and federal education departments.

The new Higher Education Standards Framework will ensure the consistent application of a clear set of standards encompassing:

- providers;
- qualifications;
- teaching and learning;
- information; and
- research.

The provider and qualification standards will act as threshold standards which must be met before a provider can be listed on the National Register of Higher Education Providers.

Authorising framework

From 2012 a new public university will have to undergo the following processes in order to operate:

- it will have to be established as a legal entity established by or under an Australian legislative instrument;
- it will have to be accredited by TEQSA; and
- it will have to be approved for funding by the Commonwealth Minister for Education.

The intent of these new processes does not depart significantly from the procedure outlined in *National Protocols for Higher Education Approval Processes* which has been in operation since October 2007. State governments will continue to be heavily involved in the legislative founding of a university. Part 3 of the *Tertiary Education Quality and Standards Agency Act 2011* requires TEQSA to consult state and territory ministers of education in those cases where the applicant requests or is eligible for the provider category of 'university'. This continues the involvement of state governments and education departments in the establishment processes. However, it does remain unclear how this will translate into formal and informal procedures and the exchanges of information necessarily involved in such a comprehensive exercise as planning a new university. The final step in the process is approval for public funding by the Commonwealth Minister for Education under the *Higher Education Support Act 2003*.

2.3 Changes to the funding framework for Australian universities

In its 2009 policy statement, *Transforming Australia's Higher Education*, the Commonwealth government announced significant reform in funding mechanisms for the higher education sector. From 2012, funding for teaching and learning activities at universities will not be based on a pre-determined number of students ('capped enrolment') attracting Commonwealth funding support. Instead, public universities will be funded for student places on the basis of student demand:

> The Government will fund a Commonwealth supported place for all undergraduate domestic students accepted into an eligible, accredited higher education course at a recognised public higher education provider. Universities will not be funded for places that they do not fill.
>
> DEEWR 2009: 17

Furthermore, the current Student Learning Entitlement which currently imposes a lifetime limit of seven years' full time study for a Commonwealth supported place, will be abolished from 2012.

The funding for each university will be managed through a 'mission-based compact' between the university and DEEWR and the Department of Innovation, Industry, Science and Research (DIISR). These compacts will run for three years and, based on each university's individual mission, will detail major higher education and research funding and performance targets. The final template for such compacts has been released and outlines the Commonwealth objectives for teaching and learning, performance funding, research, research training and innovation. Against each of these objectives, the university will outline its particular strategies, performance categories and targets. This will include performance targets triggering reward payments for participation by students from a low socio-economic status background and Indigenous students.

2.4 What the new authorising and funding frameworks mean for a new university

The changes to the Australian higher education policy environment that will take effect from 2012 represent both continuity and change. The substance of the current National Protocols regarding the establishment and operation of universities will be translated into the Higher Education Standards Framework. The higher education regulatory and authorising functions now held by state departments of education will be transferred to TEQSA and thereby create a more transparent system of monitoring and assessment. While this is not likely to affect significantly the operations of most existing universities, there is some uncertainty regarding the processes that will support and guide the development of a new university. This circumstance is not addressed in detail by currently released standards or guidelines.

The involvement and support of state governments is crucial in the planning and establishment of new public universities. This will remain the case even when authorising and regulatory functions are transferred to TEQSA. Negotiating and managing state government support in the absence of their previous authorisation responsibility will be a critical function in the establishment of a new university.

What is most uncertain is the effect of the demand-based funding system. As illustrated in Appendix A with the establishment of Murdoch University and the University of the Sunshine Coast, considerable support was provided in the form of planning load and funding for capital works including from state governments. That is, both institutions were able to plan for student enrolments at an expected level and receive funding even if places went unfilled. The approach by the Commonwealth to funding new universities is not clear and this increases the degree of uncertainty surrounding the establishment phase of a new university.

2.5 Implications

The preceding analysis highlights the significant shift in the rigour and complexity of the process of establishing a new greenfield university. External bodies have always existed to advise and monitor the development of universities but the Australian Universities Quality Agency and now TEQSA have cemented the place of quality assurance in the delivery of higher education. This indicates the need for sophisticated planning for a new university across multiple domains even before final approval is gained.

There has also been a shift in the locus of responsibility for the establishment of new universities from state governments to a national and independent body. While the influence of the Commonwealth government is not direct, it does locate the decision to establish a new university within the national higher education policy framework. This indicates a shift in favour of Commonwealth policy priorities rather than state policy preferences and drivers when Commonwealth support is being considered.

These policy and regulatory shifts do not diminish the continuing importance of state government support in the form of enabling legislation, direct and indirect financial support and additional supports that may be required by TEQSA. The separation of the processes of legislative establishment and accreditation will mean recasting the role of state governments as partners in the proposal. This in itself may have implications for shaping the terms of state government support and the form of its relationship with the proposers of the new university.

The challenge for any new university posed by demand based funding lies in determining how the costs of initial establishment will be met and managing liquidity in the initial years of operation. In effect, the new university will have to address how the costs of start up capital are to be met. The demand-based funding system highlights the importance of reaching critical mass quickly. Quantifying critical mass is difficult and the Review of Higher Education in Australia noted that research conducted in the mid-1980s indicated that an economic student load would be 5,000. However, as the Review commented,

> trends in financing for teaching and research lead the panel to believe that a student load of 5,000 is unlikely to be sufficient to support a comprehensive university in Australia.
>
> Bradley 2009: 111

Significant effort would need to be applied to determine likely student enrolment in the first five to ten years so as to inform financial and strategic planning for the new university.

Chapter 3

Analysis of regional supply and demand for higher education

3.1 Introduction

This chapter uses outcomes from the Allen Consulting Group's regional demographic-economic modelling tool to assess the likely supply of higher education students to a university on the Central Coast.

Assessing potential demand for a new university on the Central Coast is not straightforward. For example, if a university drawing high ATAR scores offered prestigious courses, demand would be very high. A new university also offering courses such as medicine and law would also quickly attract strong demand. However, these offerings are not typically available to new universities. Some newer universities and campuses of existing universities in regional and outer metropolitan areas have also struggled to attract enrolments with consequent planned or actual campus rationalisations evident in recent years.

For these reasons, potential demand was assessed at a broad level by analysing age participation levels in higher education in the region and comparing these to the average participation level for the Sydney SD using 2006 census data. While it is recognised that data will have changed since that time – participation levels may have increased – they will have changed for the Sydney SD as well.

There are four elements to this methodology:

- identifying the geographic location of potential students;
- estimating the population projections for those localities;
- analysing labour force and employment patterns; and
- analysing rates of participation and attainment in education.

The data obtained from this modelling will indicate the pool of students available to a university on the Central Coast and its likely composition by full-time and part-time status. Furthermore, the analysis of labour force and employment will develop a profile of the Central Coast's industry base and indicate the types of skills and qualifications likely to be in demand. Finally, the data on current education participation and attainment will provide further insight into the expected supply of future higher education students.

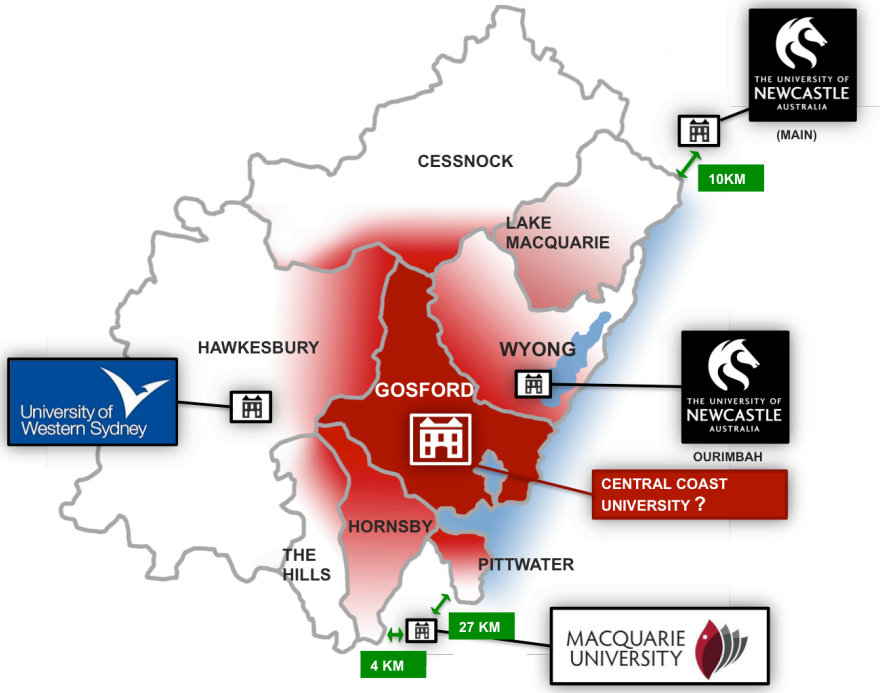
3.2 The catchment area and its population projections

The core catchment area is comprised of the local government areas (LGAs) of Gosford and Wyong. Investigation of travel patterns for the purposes of work and education indicated that this pool of potential students should be extended to include Cessnock, Baulkham Hills, Hawkesbury, Lake Macquarie and Pittwater. The map at Figure 3.1 also indicates the locations of existing universities and campuses within the catchment area.

For the purposes of analyses contained in this report, the 'Central Coast' refers to the LGAs of Gosford and Wyong; the 'catchment area' refers to these LGAs as well as the LGAs of Cessnock, Baulkham Hills, Hawkesbury, Lake Macquarie and Pittwater.

Figure 3.1

CATCHMENT AREA – LOCAL GOVERNMENT AREAS AND EXISTING UNIVERSITIES

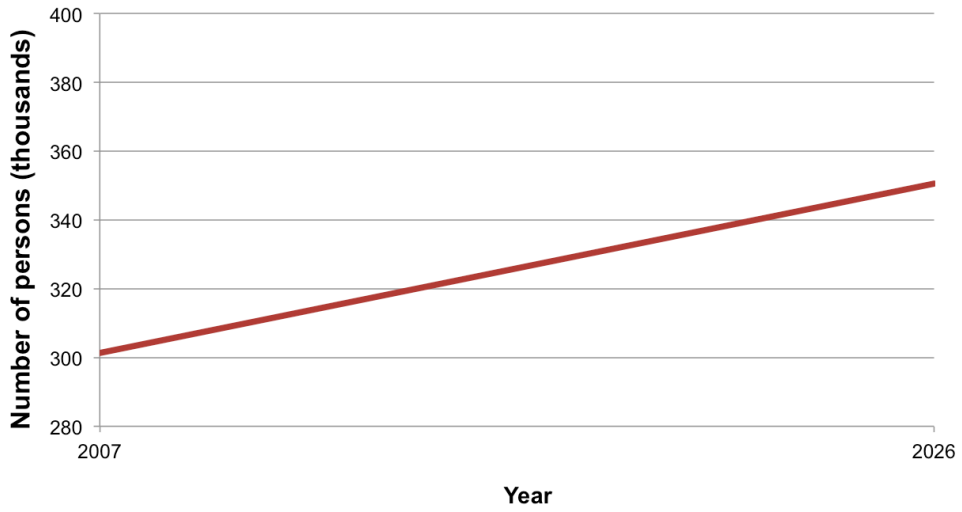


Source: The Allen Consulting Group 2011

Population projections for the Central Coast to 2026, as seen in Figure 3.2 below, indicate growth from approximately 300,000 in 2007 to approximately 350,000 in 2026.

Figure 3.2

POPULATION PROJECTIONS TO 2026 – GOSFORD AND WYONG

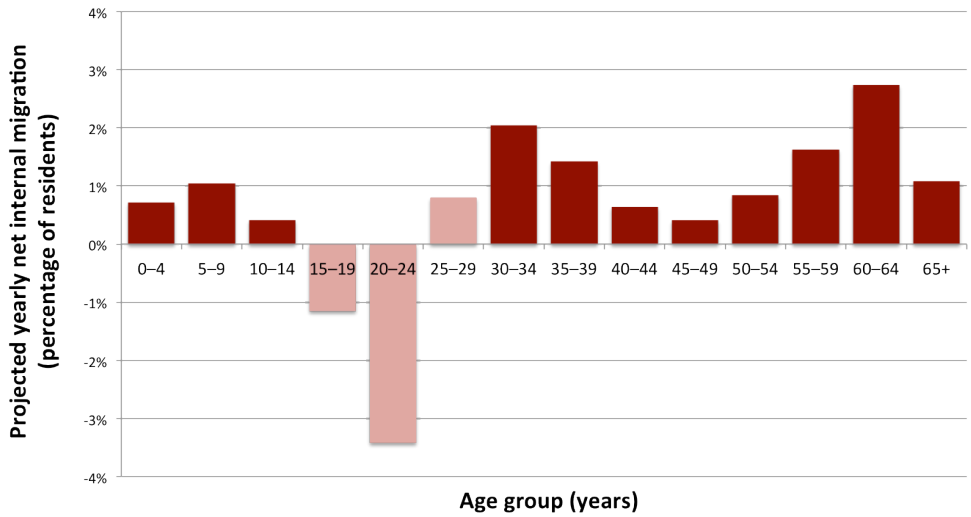


Source: The Allen Consulting Group 2011

This population growth will vary significantly across age groups, as indicated in Figure 3.3 which demonstrates the yearly percentage increase in population by age group. The net internal migration is positive for all age groups with the exception of 15-19 and 20-24 year olds (indicated in a lighter shade). This phenomenon is referred to as a demographic 'hollowing out'.

Figure 3.3

HOLLOWING OUT IN THE CENTRAL COAST POPULATION



Source: The Allen Consulting Group 2011

What is noticeable from this graph is that the Central Coast is an attractive destination for young working families, as indicated by the high migration rates of 30-40 year olds. So while there is a discernible 'youth flight' from the Central Coast, the youth demographic is still being replenished by this migration of young families.

A closer investigation of demographic projections is seen in Table 3.1 which details the growth in the population of 15-24 year olds across the the catchment area.

Table 3.1

PROJECTIONS OF 15-24 YEAR OLDS IN THE CENTRAL COAST

LGA	2006	2011	2016
Cessnock	5,880	6,978	7,379
Gosford	19,365	23,935	23,439
Hawkesbury	8,842	10,250	10,098
Hornsby	21,609	23,550	21,742
Lake Macquarie	23,160	26,972	25,936
Pittwater	6,161	7,295	7,860
The Hills	23,363	27,199	28,697
Wyong	16,674	22,124	24,203

Source: The Allen Consulting Group 2011

3.3 The level of current and potential students in the catchment area

Based on the data contained in Table 3.1, we can further examine patterns of study in the catchment area. Taking the population of 15-24 year olds recorded in 2006 we can elaborate their status as full-time or part-time students. This is recorded in Table 3.2.

Table 3.2

LEVEL OF CURRENT STUDENTS IN CATCHMENT AREA: FULL AND PART-TIME

LGA	No. of 15-24 yo	Full-time university	% in full-time study	Part-time university	% in part-time study
Cessnock	5,880	487	3%	487	8%
Gosford	19,365	1,583	8%	336	2%
Hawkesbury	8,842	714	2%	157	2%
Hornsby	21,609	4,927	23%	642	5%
Lake Macquarie	23,160	2,437	11%	454	2%
Pittwater	6,161	774	13%	156	3%
The Hills	23,363	4,552	19%	685	3%
Wyong	16,674	955	6%	200	1%
Sydney SD	**569,903**	**94490**	**17%**	**12384**	**2%**

Source: The Allen Consulting Group 2011

From this point, Baulkham Hills and Hornsby are excluded from the catchment area as less likely to contribute significantly to potential student numbers at a university on the Central Coast. This is primarily due to proximity to other universities and difficulty of access to a Central Coast campus. Were the students of the (revised) catchment area to participate in higher education at the same rate of the Sydney SD, the following rates of participation would be seen (Table 3.3).

Table 3.3

ESTIMATE OF EXPECTED POTENTIAL STUDENTS GIVEN SYDNEY SD PARTICIPATION RATES

LGA	Students in university	Expected attendees (based on Sydney ave)	Expected additional students
Cessnock	647	1,102	455
Gosford	1,919	3,632	1,713
Hawkesbury	871	1,657	787
Lake Macquarie	2,891	4,343	1,452
Pittwater	930	1,156	226
Wyong	1,155	3,126	1,971
TOTAL	**8,413**	**15,016**	**6,604**

Source: The Allen Consulting Group 2011

This analysis estimates additional student numbers at 6,604 for the catchment area. It does not include those students already attending a university and therefore represents a 'gap' enrolment figure — the difference between current and anticipated participation rates should catchment area participation rates reflect the average rate of participation found in the Sydney SD.

Potential students and the mix of full-time and part-time students

In order to gain a more thorough assessment of potential student numbers, it is necessary to examine the distribution of full-time and part-time students (Table 3.4). This will have implications for later calculations of effective full-time student load (EFTSL) as well as appropriate forms of course delivery.

Table 3.4

ESTIMATE OF EXPECTED POTENTIAL STUDENTS BY FULL- AND PART-TIME SPLIT

LGA	Extra students	Extra part-time	Extra full-time
Cessnock	455	-359	814
Gosford	1,713	85	1,628
Hawkesbury	787	35	752
Lake Macquarie	1,452	49	1,403
Pittwater	226	-22	248
Wyong	1,971	-592	2,564
TOTAL	**6,604**	**-804**	**7,409**

Source: The Allen Consulting Group 2011

Current and projected supply of mature age students

Table 3.5 demonstrates the current supply of mature age students across the catchment area and the Sydney SD. Assessing the number of mature age students has implications for course profile since it is more likely that mature age students will be seeking to upgrade their skills and qualifications. This will influence the types of courses and qualifications these students are seeking.

Table 3.5

THE SUPPLY OF MATURE AGE STUDENTS — CATCHMENT AREA AND SYDNEY SD

	Number of >25 year olds	Full-time university	% in full-time university	Part-time university	% in part-time university
Cessnock	30,280	83	0.6	163	1.1
Gosford	107,732	499	0.5	1,299	1.2
Hawkesbury	37,204	83	0.2	157	0.4
Lake Macquarie	124,100	707	0.4	1,359	1.5
Pittwater	37,212	156	0.3	550	0.5
Wyong	93,289	410	0.4	755	0.8
SYDNEY SD	2,744,263	26,900	1.0	44,290	1.6

Source: The Allen Consulting Group 2011

Were the catchment's mature age students to participate in higher education at the same rate as the Sydney SD, the following supply of mature age students would be observed (Table 3.6).

Table 3.6

SUPPLY OF MATURE AGE STUDENTS – CATCHMENT AREA PARTICIPATION AT SYDNEY SD RATES

LGA	Additional full-time students	Additional part-time students
Cessnock	214	325
Gosford	557	439
Hawkesbury	281	443
Lake Macquarie	509	644
Pittwater	209	51
Wyong	505	751
TOTAL	**2,275**	**2,653**

Source: The Allen Consulting Group 2011

At this point in the analysis, we can bring together consideration of participation by 15-24 year olds (full-time and part-time) and mature age students to gain an understanding of the total pool of potential students to 2031. This is detailed in Table 3.7.

Table 3.7

TOTAL POOL OF POTENTIAL STUDENTS TO 2031

Year	Full-time 15-24	Part-time 15-24	Full-time mature age	Part-time mature age
2011	8,065	-995	2,273	2,739
2016	8,210	-1,024	2,329	2,809
2021	7,996	-1,006	2,415	2,921
2026	8,130	-1,004	2,471	2,999
2031	8,239	-1,015	2,514	3,013

Source: The Allen Consulting Group 2011

The predominant trends emerging from this analysis indicate that an ageing population means that the numbers of potential new school leavers will plateau in the catchment area. This is coupled with growth in the area dominated by potential mature-aged students. This provides the following assessment of the potential total pool, as outlined in Table 3.8.

Table 3.8

POTENTIAL TOTAL POOL OF STUDENTS

	Full-time	Part-time	TOTAL
Total catchment area	9,685	1,849	11,534

Source: The Allen Consulting Group 2011

3.4 Central Coast industry and its demand for skills and qualifications

This section considers the demand for higher education on the Central Coast. It does this by examining labour force, occupations and industry data in order to gain an indication of the scale of possible demand for skills and knowledge. Labour force participation rates indicate the available pool for reskilling or upgrading skills. Main occupations data indicates the catchment area's current levels of skills and qualifications while the main industries data provides an indicator of the broad field of study needed to support those skills and qualifications. Taken together, these data provide essential information for student and course profile modelling.

Labour force and participation rates

Table 3.9 and Table 3.10 compare labour force and participation rates and the breakdown by full-time, part-time and unemployed across the catchment area and the Sydney SD.

Table 3.9

LABOUR FORCE AND PARTICIPATION RATES

LGA	Labour force	Participation rate
Cessnock	19,633	57.1%
Gosford	71,296	60.5%
Hawkesbury	31,033	70.8%
Lake Macquarie	140,741	58.4%
Pittwater	28,025	69.1%
Wyong	58,666	56.5%
Sydney SD	**2,010,009**	**65.6%**

Source: The Allen Consulting Group 2011

Table 3.10

FULL-TIME, PART-TIME AND UNEMPLOYED

LGA	Full-time %	Part-time %	Employed other %	Unemployed %
Cessnock	55.7	29.1	6.6	8.6
Gosford	56.3	31.1	6.3	6.2
Hawkesbury	62.9	26.8	6.3	4.1
Lake Macquarie	56.2	30.8	6.4	6.7
Pittwater	58.8	32.8	5.8	2.7
Wyong	55.0	30.5	6.4	8.2
Sydney SD	**63.1**	**25.7**	**6.0**	**5.3**

Source: The Allen Consulting Group 2011

The variation between catchment area LGAs can be significant. Labour force participation rates vary between approximately 70% for Hawkesbury and Pittwater to approximately 57% in Cessnock and Wyong. While the variation in full-time and part-time employment is not as distinct across the catchment area, the variation in unemployment rate is significant, ranging from a low of 2.7% in Pittwater to 8.6% in Cessnock. Only Hawkesbury and Pittwater have unemployment rates lower than the Sydney SD.

This data suggests expanding the pool of potential students may be challenging in the short to medium term given lower than average labour force participation and consequently lower demand for reskilling and upgrading qualifications at higher education rather than Certificate levels.

Main occupations in the catchment area

Table 3.11 presents data on the main occupations of labour force participants in the catchment area.

Table 3.11

MAIN OCCUPATION — % OF EMPLOYED PERSONS

	Cessnock	Gosford	H'bury	Lake Macq	Pittwater	Wyong	Sydney SD
Administration / clerical	*11*	16	16	*13*	15	*14*	17
Community / personal services	**10**	**10**	9	9	8	**11**	8
Labourers	**15**	**10**	**10**	**10**	5	**13**	8
Machinery op & drivers	**13**	5	**8**	7	3	**8**	6
Managers	9	12	13	10	**18**	*10*	13
Professionals	*10*	*20*	*15*	*18*	26	*13*	24
Sales	10	11	*8*	11	10	12	10
Technical and trades	**20**	**15**	**19**	**17**	14	**17**	12

Source: The Allen Consulting Group 2011 *Note: italics indicates rates lower than the Sydney SD, bold indicates rates higher than the Sydney SD.*

From this data it is evident that the majority of the catchment is well over-represented in areas such as trades, labourers and machinery operators. There is some over-representation in service workers while there is under-representation in professionals, managers and administration — occupations most likely to support part-time higher education enrolments. Pittwater is dissimilar to the remainder of the catchment area in the distribution of occupations where it is over-represented in managers and professionals.

Main industries in the catchment area

Table 3.12 presents data on the distribution of industries across the catchment area.

Table 3.12

MAIN INDUSTRIES — % OF EMPLOYED PERSONS

	Cessnock	Gosford	H'bury	Lake Macq	Pittwater	Wyong	Sydney SD
Retail trade	**13**	**13**	10	**13**	11	**15**	11
Health care / social assist.	11	**14**	9	**13**	10	**12**	10
Manufact.	**14**	8	11	11	8	11	10
Prof / scientific	*3*	*6*	*5*	*5*	11	*4*	9
Education and training	5	7	8	8	8	6	7
Construct.	7	9	**12**	9	10	10	7
Financial / insurance	2	*4*	2	*3*	5	*3*	6
Accomm / food	**10**	6	5	6	5	7	6
Wholesale	*3*	*4*	5	*4*	7	*4*	6
Public admin.	4	6	**9**	6	4	6	6

Source: The Allen Consulting Group 2011 *Note: italics indicates rates lower than the Sydney SD, bold indicates rates higher than the Sydney SD.*

This industry analysis demonstrates less obvious patterns of over-representation. Some coastal LGAs have an over-representation in health which may reflect advanced ageing and the need for increased health and support services. It is also clear that different LGAs have different specialisations: manufacturing predominates in Cessnock, retail trade in Wyong and construction in Hawkesbury. However, patterns of under-representation are more obvious. With the exception of Pittwater, all LGAs are under-represented in financial services and professional/scientific.

This distribution of industries is factored into the presentation of a possible course profile for a university on the Central Coast at Chapter 4.

3.5 Education participation and attainment on the Central Coast

There are additional factors that will shape participation in higher education on the Central Coast. These relate to predictors of higher education participation in those students currently attending primary and secondary school. These indicators are socio-economic status, parental education and Year 9 NAPLAN results. Given the data currently available for this region, this section focuses on socio-economic status as indicated by median income, Year 9 NAPLAN results and current higher education participation by students on the Central Coast.

Median income

The following table indicates median income across the catchment area and compared to the Sydney SD.

Table 3.13

MEDIAN INCOMES — CENTRAL COAST AND SYDNEY SD

LGA	Median individual income ($ per week)	Median household income ($ per week)	Median family income ($ per week)
Cessnock	358	786	1,015
Gosford	438	944	1,147
Hawkesbury	527	1,146	1,290
Lake Macquarie	394	922	1,102
Pittwater	653	1,486	1,767
Wyong	381	770	1,013
Sydney SD	**518**	**1,154**	**1,350**

Source: The Allen Consulting Group 2011

Higher levels of household income correlate with higher levels of tertiary education participation. From the data contained in Table 3.13 it is evident that Hawkesbury and Pittwater have median incomes closest to or above the Sydney SD across the catchment area. Of the remaining LGAs, Gosford and Lake Macquarie demonstrate median income levels closer to the Sydney SD. This data suggests that there are levels of socio-economic disadvantage in the catchment area to the extent that education participation and attainment may be affected, particularly in terms of higher education.

Educational advantage

One of the reports produced for the Review of Funding for Schools, *Assessment of Current Process for Targeting of Schools Funding to Disadvantaged Students*, noted that in NSW social disadvantage continued to exert a very strong effect on school performance (Rorris et al 2011, p 66). Results from the Programme for International Student Assessment 2009 demonstrate that Australia has difficulty in ameliorating socio-economic background impacts on the academic performance of students.

The Australian Curriculum, Assessment and Reporting Authority (ACARA) has developed the Index of Community Socio-Educational Advantage (ICSEA) as a scale to numerically represent the level of educational advantage or disadvantage of a school's student population. It is not a measure of the school itself but rather recognition that there are key factors in students' backgrounds that influence their educational attainment. The Australian ICSEA average is 1000.

Analysis of the ICSEA values of secondary schools in the catchment area, together with Year 9 NAPLAN results, may provide an indication of likely outcomes at Year 12 and likely participation in higher education. Research into the growth of higher education enrolments has shown that this phenomenon has not necessarily been accompanied by greater equity in participation (ACER 2003). For school leavers, participation in higher education relies heavily on Year 12 attainment; successful Year 12 attainment is correlated with earlier school success (ACER 2003, p 3). Furthermore, this research concluded that socio-economic background influences entry to Year 12 and higher education through its association with school achievement and as a direct effect on entry. Upon examining tertiary entry scores, the research concluded that the strongest influence on those scores was Year 9 achievement in literacy and numeracy (ACER 2003, p 4).

Information from the My School website regarding the ICSEA values of secondary schools in the catchment area indicated that 40% had an ICSEA value in the range 900-999, another 40% in the range 1000-1099 and the remaining 20% of schools recorded an ICSEA value above 1100. Of those schools in the range 900-999, Year 9 NAPLAN results tended to be substantially below or below the Australian average. For the range 1000-1099, the Year 9 NAPLAN results ranged from below to similar to the Australian average. For the 20% of schools that recorded an ICSEA value above 1100, the Year 9 NAPLAN results were substantially above the Australian average. When the data were limited to secondary schools on the Central Coast, the proportion of secondary schools within these ICSEA ranges remained the same. However, there was a slightly higher incidence of below national average outcomes in Year 9 NAPLAN results for Central Coast schools in the ICSEA ranges of 900-999 and 1000-1099 (ACARA My School website).

These data tend to indicate that there will need to be improvement in the Year 9 NAPLAN results (as a measure of broader levels of literacy and numeracy) in order for increasing numbers of students to complete Year 12 and to have the required skills and knowledge to successfully undertake higher education programs.

Higher education participation on the Central Coast

As the basis of further analysis of potential demand, current rates of higher education participation in the region have been analysed to provide a base for later calculations on likely student take up of higher education and likely rates of enrolment growth. Data includes undergraduate enrolment by postcode at six selected universities (DEEWR 2011) and destinations data supplied by Central Coast secondary schools.

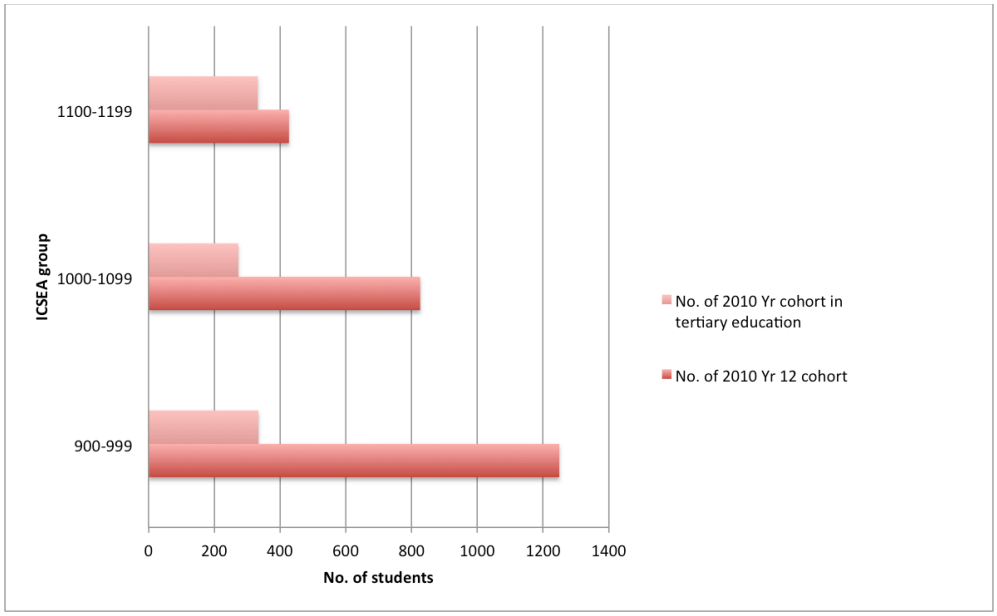
Indicative data on participation in higher education was obtained from a sample of secondary schools on the Central Coast. All secondary schools in the LGAs of Gosford and Wyong were invited to provide the following data on 2011 higher education participation of the 2010 Year 12 cohort:

- total Year 12 cohort;
- number of students enrolled in higher education;
- destination by institute; and
- destination by broad field of study.

From the responses gained, analysis showed that the ICSEA 1100-1199 group of schools represented approximately 17% of the 2010 Year 12 cohort and that 78% of those students are participating in higher education in 2011. The ICSEA 1000-1099 group of schools represented 33% of the 2010 Year 12 cohort with 33% participating in higher education in 2011. The ICSEA 900-999 group of schools represented approximately 50% of the 2010 Year 12 cohort and had 27% of those students going on to university participation. This variation is represented in Figure 3.4 below.

Figure 3.4

RATES OF PARTICIPATION IN HIGHER EDUCATION BY ICSEA GROUP



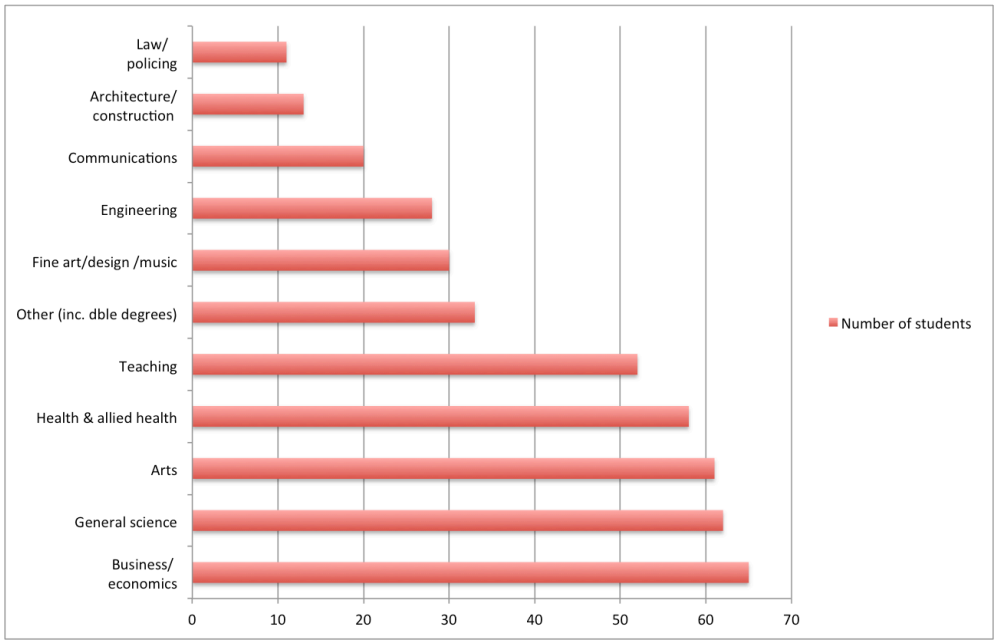
Source: The Allen Consulting Group 2011

Overall, data indicate an average higher education participation rate of 38% of 2010 students in the Central Coast. If, however, the two schools with substantially above average rates of participation were removed, the region's rate of higher education participation among school leavers would stand at 30%. Recalling the previous discussion regarding outcomes in Year 9 literacy and numeracy, this data demonstrates the strong connection between levels of earlier education attainment, ICSEA levels and participation in higher education.

Analysis of destinations data demonstrates course preferences and strong preferences in institutions. Figure 3.5 shows course preferences by broad field of study.

Figure 3.5

PREFERRED DESTINATIONS OF CENTRAL COAST SCHOOL LEAVERS BY FIELD OF STUDY



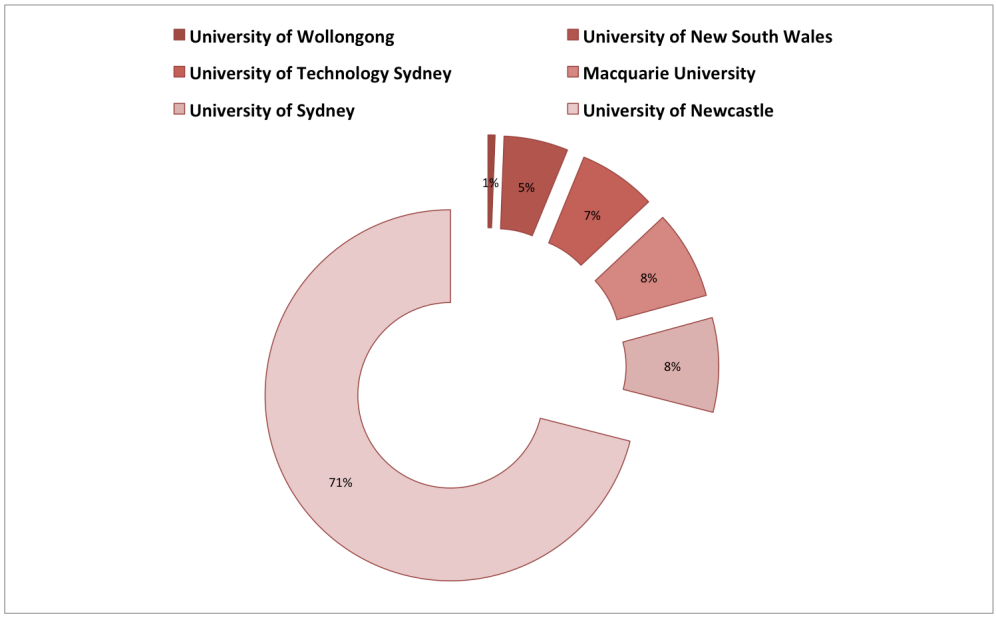
Source: The Allen Consulting Group 2011

Within the health and allied health field of education, the majority of enrolments were in nursing. Other allied health courses include occupational therapy, speech pathology and clinical psychology. Food science featured within the science field of study.

Overall, among the Central Coast's school leavers there is a strong preference for study at the University of Newcastle whether at its main or Ourimbah campus. Unpublished data from DEEWR for 2010 enrolments at six nearby universities shows stark student preferences. This chart shows that of 5,839 students living in the Central Coast, 71% were enrolled at the University of Newcastle (both commencing and continuing students). This is consistent with indicative schools data showing some 33% of commencing students select the University of Newcastle.

Figure 3.6

CENTRAL COAST UNDERGRADUATE ENROLMENT AT SIX UNIVERSITIES

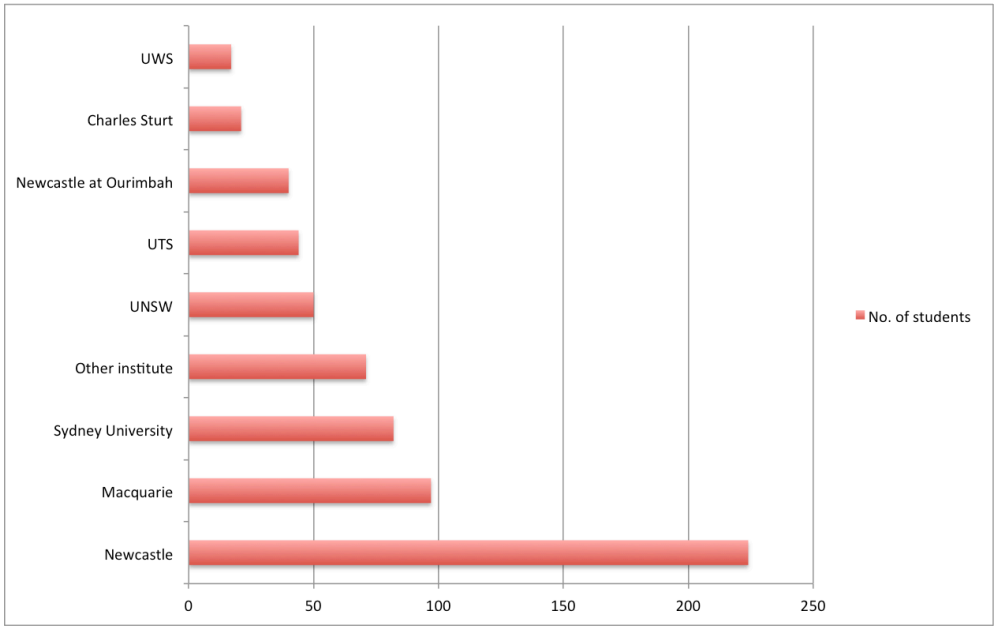


Source: DEEWR unpublished data 2011

Data obtained from Central Coast secondary schools confirmed this strong trend and also provided some finer detail. Study outside the Central Coast was positively associated with higher school ICSEA values. Preferences are seen in Figure 3.7 — 'other institute' refers to interstate or other regional universities in NSW and accounts for 70 of the 230 students.

Figure 3.7

PREFERRED DESTINATIONS OF CENTRAL COAST SCHOOL LEAVERS BY INSTITUTION — 2011 SCHOOLS DATA



Source: The Allen Consulting Group 2011

According to both the indicative data from secondary schools and the data provided by DEEWR, the University of Newcastle represents the preferred destination of students on the Central Coast. Macquarie University and the University of Sydney are the next two preferred institutions.

3.6 Implications

The regional economic-demographic modelling projected a total pool of potential students of 11,534 including both full- and part-time students. It is important to recall certain assumptions on which this figure is based. Firstly, it presumes that higher education participation rates in the catchment area will increase to levels seen in the Sydney SD. In most LGAs, this would require a near doubling of current participation rates; one LGA would need to more than double its participation rate (see Table 3.3). While both the Commonwealth and State governments have policies and targets in place to considerably increase higher education participation (particularly among students from low socio-economic groups), achievement of these targets would require significant effort at the regional level.

Secondly, examination of the likely split of the student cohort between full-time and part-time students indicates 9,685 full-time and 1,849 part-time students. In calculating EFTSL upon which funding rates are calculated, part-time students are funded pro-rata. Therefore, there is not a one-to-one relationship between total number of students and funding per EFTSL. This is taken into account in Chapter 4 and calculations of revenue streams.

Analysis of regional industry has demonstrated that the catchment area is over-represented in health services and that different LGA have different industry bases. Importantly, with the exception of Pittwater, all LGAs are under-represented in financial services and professional/scientific areas. Within these industry areas, there is a pattern of over-representation occupations such as trades, labourers and machinery operators and service workers. There is under-representation in professionals, managers and administration, except in Pittwater. This indicates there is currently less than the Sydney SD average demand for higher education qualifications in the catchment area. This analysis also supports the argument that there is a pool of mature age students within the catchment who may be looking to reskill or upgrade their qualifications.

Strategies for the Central Coast to diversify its industry base and expand demand for knowledge-intensive industry are in place. However, these strategies are medium to long-term in delivery and effect and their impact on demand for higher education qualifications cannot be determined at this stage.

Reviewing the preliminary data on higher education participation, significant variation occurs across schools in the Central Coast and the larger catchment area. In Central Coast secondary schools, this ranges from 12% to 78% of the 2010 Year 12 cohort. This indicates that growth in higher education participation rates among school leavers is most likely to occur in lower socio-economic groups with higher levels of educational disadvantage. Support for student learning and counselling would need to be factored into planning for provision of higher education on the Central Coast. While this would represent a higher cost, Commonwealth funding policy does include incentives for universities to increase the proportion of students enrolled from low socio-economic backgrounds.

Overall, while there are indicators of potential demand for higher education provision on the Central Coast:

- there is an over-representation of part-time and mature age students;
- there is a demographic opportunity provided by shift of younger families into the catchment area; and
- opportunity exists to build demand through increasing school outcomes generally and Year 12 outcomes in particular, particularly in the context of Commonwealth and Council of Australian Governments' objectives to improve school retention rates and post-school educational attainment rates. However, there is a significant lag in measures associated with these objectives taking effect; students who have fallen behind by Year 9 in NAPLAN outcomes will require substantial assistance to not only to complete year 12 but to meet higher education entrance requirements.

In considering the extent of this demand and the appropriate form of higher education provision, particular issues arise. At current rates of enrolment, one third of commencing Central Coast students access higher education through the University of Newcastle, predominantly its main campus. Students with a higher Australian Tertiary Admissions Rank tend to migrate to an out-of-area university, such as Macquarie University and the University of Sydney. In developing a course profile, care would need to be taken not to duplicate course provision while balancing student course preferences. Destinations data indicated strong demand for nursing and teaching and these are already provided at the Ourimbah campus of the University of Newcastle. Demand for business/economics and humanities courses are very strong and provide a reasonable basis for course profiling.

The regional setting has a strong influence on higher education provision with regard to demand for skills and qualifications, as well as the potential for research partnerships and activities. The current industry and occupation profile of the Central Coast is unlikely to generate sufficient local demand in the short to medium term. The granting of university status will depend on research partnerships that will prove difficult in the current environment and into the medium term. Success in this area will depend on the results of strategies to diversify the industry base of the Central Coast and shift towards a more knowledge intensive regional economy.

This creates something of a 'chicken and egg' situation – a new university will help to build a more knowledge based regional economy and help to attract and retain 'knowledge workers' and their families, in turn generating demand for higher education in the region. However, a strong business case would need to be built that a new university could become financially viable quickly in a demand based funding system. While a full business case may be the subject of a further stage of this project, indicative resource modelling has been undertaken based on the outcomes of the modelling in this section.

Chapter 4

Developing a student and course profile for the Central Coast

4.1 Introduction

This chapter presents scenarios regarding the likely take up rates by students and then models the effects of two course profiles on public revenue streams. It is based on the data and analysis presented in Chapter Two, with particular regard to the potential pool of students and the region's industry and occupations profile.

In the first section, four rates of take up by students are discussed and indicate potential enrolment growth over time.

In the second section, two scenarios for course profile are presented and their impact on public revenue streams modelled. The modelling demonstrates the variation in public revenue streams that would occur under the four rates of enrolment growth.

The implications of modelling results are discussed in the last section.

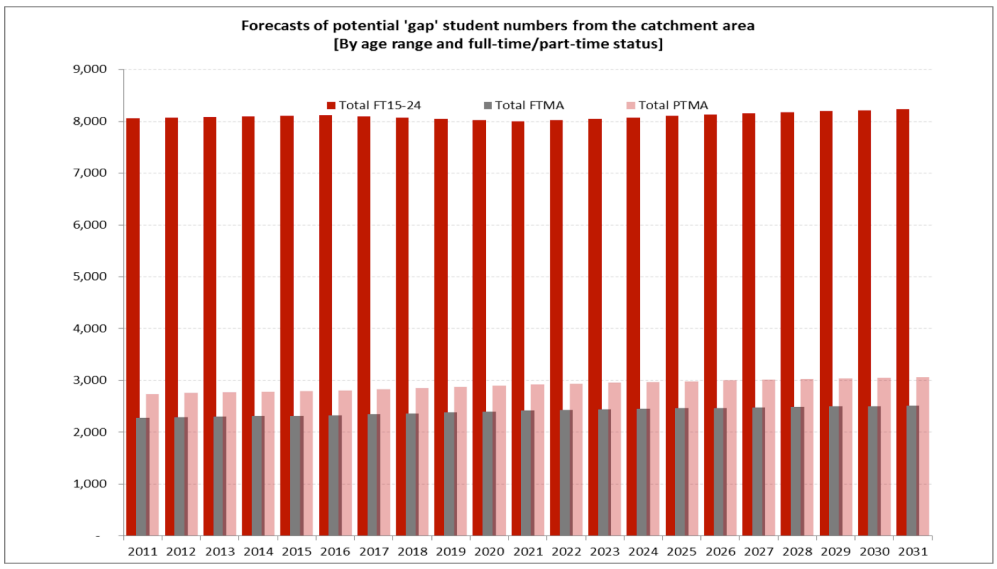
4.2 Gap enrolment and projected take up rates by students

As defined earlier in Chapter Two, forecasts of enrolment are based on the gap that is estimated to exist between current and future rates of higher education participation should the catchment area reflect the Sydney SD. It is important to emphasise that this is *not* a forecast of actual new numbers at a university; actual enrolment would vary due to the institutional preferences of students and the course profile of the institution, among other factors. Figure 4.1 demonstrates this gap number of potential students broken into three groups to demonstrate variation in demand:

- full-time 15-24 year olds;
- full-time mature age; and
- part-time mature age.

Figure 4.1

FORECASTS OF 'GAP' STUDENT NUMBERS FROM THE CATCHMENT AREA

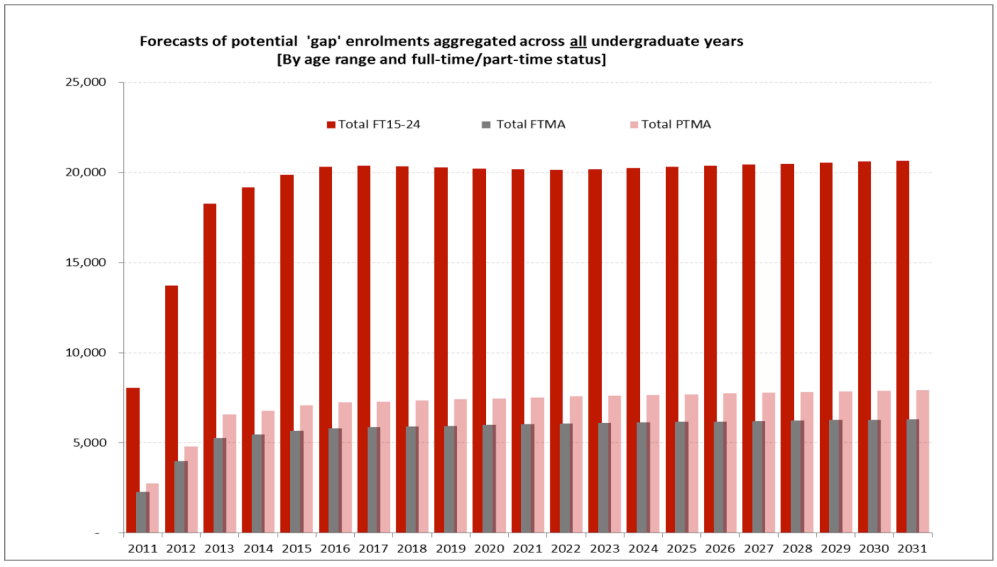


Source: The Allen Consulting Group 2011

From this is generated the forecast of potential student numbers into potential enrolments. The numbers represent all enrolments across all undergraduate years, including commencing students for each year as well as continuing students.

Figure 4.2

FORECASTS OF POTENTIAL 'GAP' ENROLMENTS ACROSS ALL UNDERGRADUATE YEARS

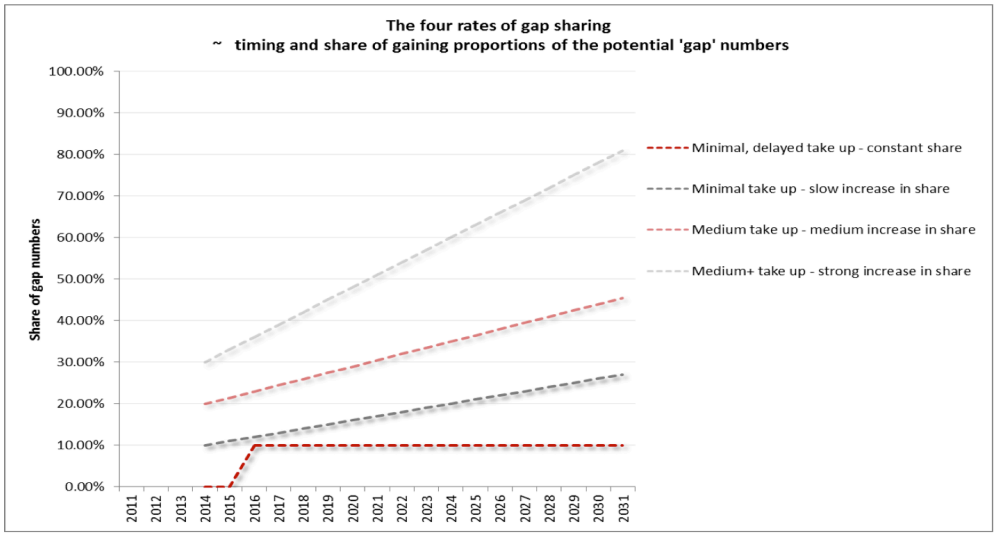


Source: The Allen Consulting Group 2011

Four scenarios of enrolment growth have been developed:

- *Minimal, delayed take up, with constant share* — this is the most conservative projection. It sees take up begin in 2016 at 10% share of gap enrolment and that share remaining constant to 2031;
- *Minimal take up, with slow increase in share* — take up commences in 2014 at 10% share of gap enrolment and rises to 27% share by 2031;
- *Medium take up, with medium increase in share* — enrolments begin at 20% share of gap enrolment, increasing to 45% share by 2031; and
- *Medium+ take up, strong increase in share* — enrolments begin with 30% share of gap enrolment and rise to 80% share of gap enrolment by 2031.

Figure 4.3

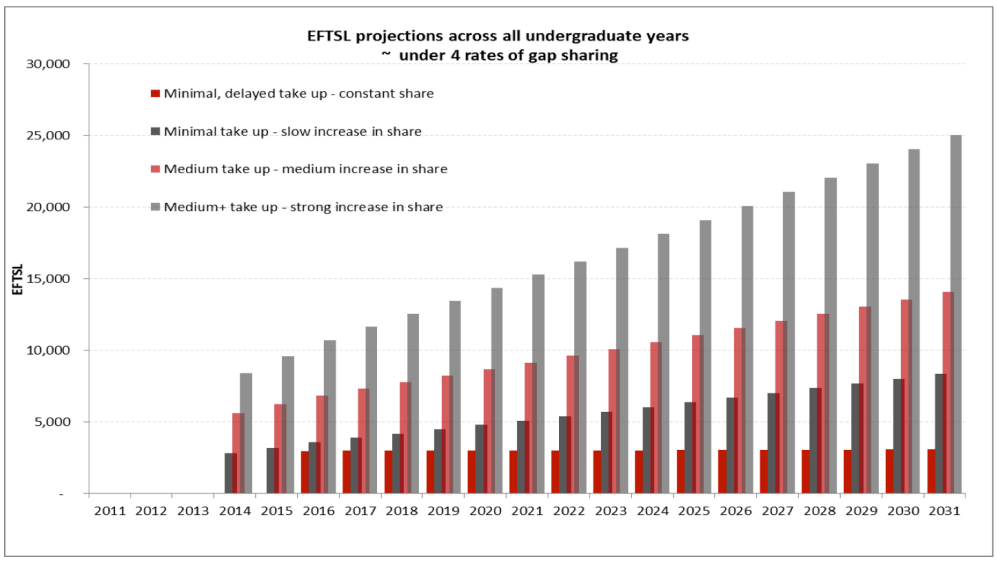


Source: The Allen Consulting Group 2011

Translating these shares of gap enrolments into student numbers and taking into account the likely split between full-time and part-time students, EFTSL projections can be developed for each take up scenario. This is presented in Figure 4.4.

Figure 4.4

EFTSL PROJECTIONS UNDER FOUR RATES OF GAP SHARING



Source: The Allen Consulting Group 2011

EFTSL projections are the necessary basis for estimating public revenue funding streams as this reflects the manner in which Commonwealth funding of universities is calculated.

4.3 Projected public revenue streams

The forecasts presented below bring together the four projections of take up with two scenarios for course profiles. These course profile assumptions are based on labour force and employment data used in the regional economic-demographic modelling conducted for analysis of regional demand for higher education in the catchment area.

Revenue streams are calculated using current Commonwealth Grant Scheme (CGS) and Higher Education Contribution Scheme (HECS) rates for undergraduate courses only. These rates vary according to course funding cluster and are described in the *Higher Education Support Act 2003*. While indexation rates as specified in the Act are built into these forecasts, all other sources of income are excluded.

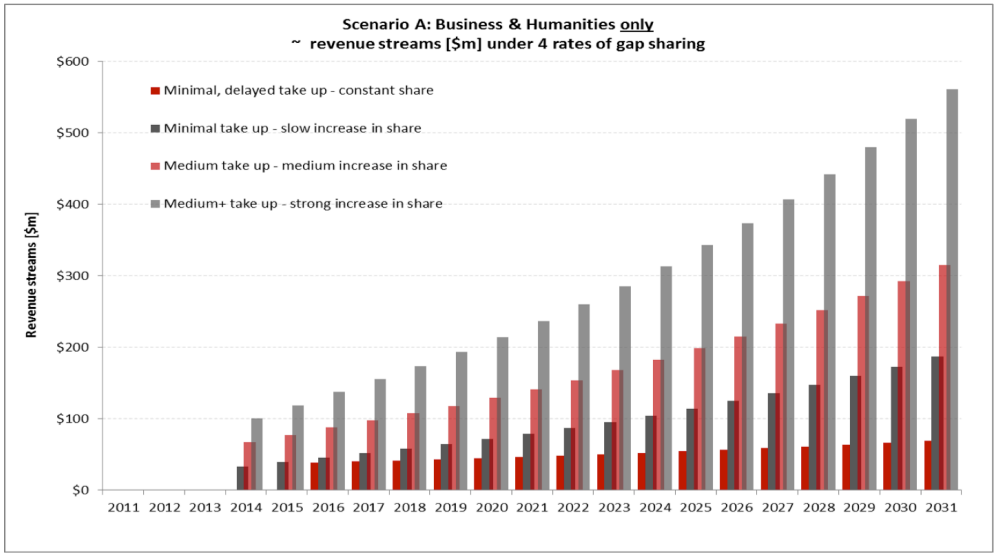
It is essential to note that these do not represent actual revenue projections but rather a projection of potential revenue available. Furthermore, it excludes consideration of capital and infrastructure start-up costs.

Scenario A: Business and Humanities only

This scenario reflects key industry bases in the catchment area as well as trends in student course preferences which favour business and generalist arts courses.

Figure 4.5

SCENARIO A: BUSINESS AND HUMANITIES ONLY



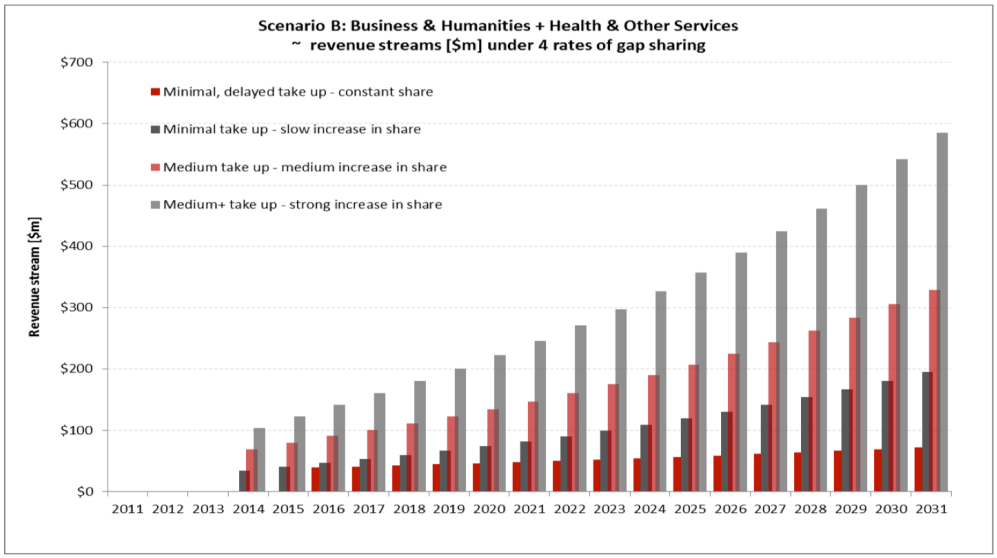
Source: The Allen Consulting Group 2011

Scenario B: Business, humanities, and health and other services

In this scenario, health and other health services are added to the course profile. This reflects the current strong demand for health services on the Central Coast.

Figure 4.6

SCENARIO B: BUSINESS, HUMANITIES AND HEALTH AND OTHER SERVICES



Source: The Allen Consulting Group 2011

4.4 What is a critical mass of students?

In considering projected enrolments and public revenue streams, it is necessary to consider the critical mass of students that would sustain higher education provision on the Central Coast. As discussed in Chapter One, a baseline figure of 5,000 students has been used in this report while recognising the comments of the Bradley Review that such a figure was unlikely to be sufficient to support a comprehensive university in current policy and funding settings.

The smallest regional universities in Australia — University of the Sunshine Coast, Charles Darwin University and the University of Ballarat — each have enrolments under 8,000. A closer comparison of their enrolment and public revenue streams is provided at Table 4.1.

Table 4.1

THREE REGIONAL UNIVERSITIES AND PUBLIC REVENUE STREAMS (2010)

University	Enrolment	CGS/HECS revenue
University of Ballarat (dual sector)	5,579	$62. 870m
Charles Darwin University	7,178	$59.167m
University of the Sunshine Coast	7,633	$85.436m

Source: DEEWR Higher Education Financial Report 2010

Variation in funding is attributable to the differing course profiles of each of the universities. Other resources and significant revenue streams are necessary to support the initial and ongoing costs of sustaining a university. This is further discussed in Chapter Four in the context of financial viability.

4.5 Implications

Of the four take up rates presented in this chapter, the most likely are considered to be:

- *Minimal, delayed take up, with constant share* — beginning in 2016 at 10% share of gap enrolment and that share remaining constant to 2031; and
- *Minimal take up, with slow increase in share* — take up commences in 2014 at 10% share of gap enrolment and rises to 27% share by 2031.

In the first rate of take up, EFTSL begins and remains at levels below 4,000. In the second rate of take up, EFTSL moves from below 4,000 in 2011 and slowly rises to 8,000 by 2031.

While the three other regional universities have enrolments below 8,000, their particular circumstances must be considered before drawing comparisons with the position of the Central Coast. The University of Ballarat was the result of institutional amalgamations, thereby avoiding the considerable costs of initial capital and infrastructure investment. It is also a dual sector institution which allows it to draw on other revenue streams to support its capital and infrastructure costs. Pathways from vocational education and training to higher education may also assist in maintaining a supply of higher education enrolments, including partnerships the University is entering into with regional TAFE institutes to offer degree programs in regional Victoria – that is outside of its immediate catchment area. Charles Darwin University, the only university in the Northern Territory, receives considerable support from both the Territory and Commonwealth governments (DEEWR 2010) and is also a dual sector institution.

The University of the Sunshine Coast (USC) does represent a sound comparator to the experience of the Central Coast. Necessary to the establishment of the USC was significant State government support and the certainty of planning load — that is, the knowledge that the Commonwealth government would fund a given number of places over a specified timeframe. This certainty is not likely to be available to a new university under the funding arrangements that come into effect in 2012.

The recently released final report of the Higher Education Base Funding Review reached the conclusion that current funding clusters no longer reflect the costs of delivery of teaching, scholarship and base research capability in all disciplines. It nominated accounting, administration, economics and commerce as one of those clusters that are underfunded and in need of additional funding. The Review also found that the escalating costs associated with sourcing, supporting and funding clinical placements and teaching practicums appear to make these activities increasingly unsustainable (Lomax-Smith et al 2011).

The response of the Commonwealth government to the Base Funding Review will not be available until 2012. However, it is not expected that the response will commit to funding for the higher education sector beyond that provided in the response to the Bradley Review. In the absence of further increases to higher education funding, significant effort would be required in the planning and establishment phase to ensure that student take-up rates were as high as possible and generated sufficient public revenue streams.

Chapter 5

Feasibility benchmarks

5.1 Introduction

This chapter examines other feasibility benchmarks that concern the provision of higher education on the Central Coast:

- understanding what is the university, the negotiating body required to support establishment and the establishment phase and the relationship with State and Commonwealth governments;
- the implications of the regulatory framework to come into effect from 2012;
- campus location, infrastructure and course profile;
- consideration of financial viability; and
- the likely responses of catchment area universities.

5.2 What is required to launch a new university?

A sense of the scope and purpose of the new university is essential to the initial process of gaining support from the public and key stakeholders. The role of the institution within the Central Coast will need to be clearly identified and articulated. An essential component of this task is reflecting its regional context and pursuing the establishment of relationships across the region.

A body will need to be established with the capacity and authority to develop, negotiate and shepherd the proposed university through the accreditation process. Under current arrangements provided for in the NSW *Higher Education Act 2001*, accreditation as an Australian higher education institute may be sought by:

- a company (including a foreign company) that is registered under the Corporations Act 2001 of the Commonwealth; or
- any other body corporate constituted in Australia; or
- an unincorporated body of persons associated together in Australia; or
- any other institution established in Australia.

Though not yet clarified by TEQSA, it is assumed in this report that these conditions will be maintained under the new regulatory regime.

In considering membership of such a body, representation will need to cover key stakeholders such as education providers, business leaders and relevant government departments. Members of the body would need to demonstrate a clear commitment to a process that may take two — three years and involve extensive consultation, planning and assessment.

A significant role of the body would be to develop and maintain a comprehensive relationship with the State and Commonwealth governments. Such a relationship would need to encompass planning, education, business and industry and, most importantly, the office of Premier and Cabinet and Ministerial offices. A proposal for a new university will struggle without a whole of government commitment to the process and the intended outcome.

5.3 Regulatory requirements and standards

Draft provider and qualifications standards have been provided by DEEWR, together with a period of public consultation (now closed). The following analysis is based on the draft versions released in 2011.

In the new regulatory environment TEQSA will have the authority to 'register, evaluate and quality assure the performance of higher education providers' against the Higher Education Standards Framework. It will be necessary for higher education providers to meet or exceed the standards contained within the Framework.

The provider standards are concerned with:

- provider standing: the higher education provider is reputable and accountable for the higher education it offers;
- financial viability and safeguards: the provider has the financial resources and management capacity to sustain provision consistent with the Provider Registration Standards;
- corporate and academic governance: the provider shows sound corporate and academic governance of its higher education operations;
- primary of academic quality and integrity: the provider maintains academic quality and integrity in all its higher education operations;
- management and human resources: the provider's higher education operations are well-managed and human resources are appropriate;
- responsibilities to students: the provider defines and meets its responsibilities to students, including the provision of information, support and equitable treatment; and
- physical and electronic resources and infrastructure: the provider ensures there are well-maintained physical and electronic resources and infrastructure sufficient to enable the achievement of its higher education objectives.

The provider standards also define the categories of providers — Australian university, Australian university college, Australian university of specialisation, higher education provider, overseas university and overseas university of specialisation (TEQSA 2011a).

The qualification standards are defined by the Australian Qualifications Framework (AQF) which establishes the standards for all education and training qualifications across senior secondary, vocational education and training and higher education. The primary objectives of the qualification standards for higher education are to ensure that:

- the higher education awards delivered meet the appropriate criteria in the AQF;
- that certification documentation issued is accurate and protected against fraudulent use; and
- that articulation and recognition of prior learning and credit arrangements appropriately balance the opportunity for students to gain credit with the integrity of the learning outcomes or discipline requirements of the award.

The draft qualifications standards paper advises that from 30 January 2012 — when TEQSA assumes its regulatory functions — all registered higher education providers will be listed on the National Register of Higher Education Providers. This Register will contain 'accurate, current and verifiable information about the provider and the awards they offer' (TEQSA 2011b: 1).

The key point about these standards is that it is highly likely they will be required to be met in a far shorter time period than under previous arrangements as no regulator can maintain the registration of a provider if it knows that standards are not being met.

5.4 Campus location and infrastructure

In selecting an appropriate location for higher education provision on the Central Coast consideration will need to be given to a number of factors:

- physical size — a campus site will need to be large enough to accommodate growth in student and staff numbers;
- teaching, research and training facilities — these will be determined by the course profile adopted by the higher education provider;
- student services — learning support, library, counselling, IT, sport and recreation facilities, cafeteria;
- administration services — office space for administration of the higher education provider;
- accessibility — the ease with which students, staff and the community can access the campus and its facilities; and
- student accommodation — whether on or off campus, access to student accommodation will be necessary.

The campus facilities required for business and humanities courses focus on group learning spaces, library, IT support, offices for academic and general staff and associated services such as food outlets, sport and recreation services and student support and counselling. The addition of health and other services to the course and research profile will make provision of learning spaces more complex. Practice learning centres will need to be considered for courses in nursing, aged care and allied health services. Access to teaching practicums and clinical placements would also need to be negotiated and paid for.

Transport accessibility is an important consideration in a region marked by an over-representation of part-time and mature age students. Regular transport across a variety of modes will make a campus more attractive to this cohort. Where multiple transport options are available to potential students, it is not uncommon to find more than one university campus in operation.

5.5 Financial viability

It is not within the scope of this report to deliver an assessment of the financial viability of higher education provision on the Central Coast. It is possible to describe the scope of costs likely to be involved through reference to similar providers such as the USC.

The USC has a course and research profile approximate to the business, humanities and health and other services profile proposed in this report. As reported in Table 4.1, the USC received in 2010 public revenue streams of $85.436 million. In total, its revenue from continuing operations in that year was $121.046 million (DEEWR 2011).

The total expenses from continuing operations for the USC in 2010 were $104.759 million. The major categories of expenses were employee benefits, depreciation and amortisation, repairs and maintenance, finance costs, impairment of assets and other expenses (including scholarship, advertising and marketing and non-capitalised equipment).

The USC receives over $35 million in other revenue streams in addition to CGS and HECS funding, representing one third of its total revenue. Given the demand based funding environment in which higher education providers will operate from 2012, this indicates the need for strong additional revenues to be available as quickly as possible to new providers.

5.6 Responses to a new university

The accreditation process for a new university involves a formal mentoring relationship with an established and nearby institution. The role of the mentor institution is to provide advice and guidance in the first five years of provisional operation as a new university. The success of such a relationship would depend on the extent of common purpose (perhaps expertise in fields of education) without competing interests in developing higher education provision in the region.

The responses of catchment area universities to a proposal for higher education provision on the Central Coast are likely to vary according to the degree to which they draw their own enrolment from the Central Coast. As the data at Figure 3.5 indicates, current enrolment patterns show significant support for the University of Newcastle.

Within a demand based funding system all universities will be engaged in stronger efforts to retain and increase their share of enrolments. While the Central Coast is experiencing some unmet demand for higher education and this demand will grow over time, established universities both in and outside of the catchment area can be expected to compete for this enrolment gap, and to either not support or strongly oppose a new university, in particular if its establishment draws resources away from existing institutions.

5.7 Implications

This review of feasibility benchmarks is not comprehensive but does indicate the scale of the challenge in establishing a new university in a transformed funding and accreditation environment. A compelling idea of a university and what it means for the region will need to be developed in order to garner the support of key stakeholders within the Central Coast and at State level. This idea will have to encompass current needs and aspirations for higher education in anticipation of meeting State and Commonwealth Government targets for higher education participation. As it does this it will also need to be grounded in the most realistic assessments of the capacity of the region's industry and occupations base to support a developing university.

Should a body be formed to pursue new higher education provision on the Central Coast, it will have to be prepared for additional rigorous assessment and analysis of the required capital investment, the ongoing costs of campus infrastructure, analysis of staff and student profile and the recurring income needed to develop and sustain the university in its first decade. The scale of this task will be compounded by the uncertainty arising from an accreditation process not yet defined by TEQSA.

Chapter 6

Assessment and recommendations

6.1 The business case for a new university

The evidence presented in this report indicates that there is not sufficient evidence for the Committee to invest additional resources in a full business case for a new university on the Central Coast. Key indicators are:

- the level of the enrolment gap on the Central Coast currently together with conservative expectations of enrolment increase in the short to medium term;
- the current industry and occupational profile now and into the medium term and its effect on demand for higher education qualifications;
- revenue in the short to medium term is likely to be well short of the costs of establishing and maintaining a new university;
- meeting the accreditation requirements for a new university will be difficult and expensive, in particular meeting requirements for research and building a postgraduate course and student profile;
- there is a very strong preference by Central Coast eligible students for study at other universities, in particular the University of Newcastle. While it is open to the Committee to undertake a full business case, such an assessment is highly likely to show a significant gap between resource requirements and revenue without significant external investment by a third party.

However, there is a strong case for extension of higher education provision on the Central Coast to at least bring participation levels into line with the Sydney SD. There are other factors which encourage the pursuit of expanded higher education provision:

- there is potential for strong increase in higher education enrolment if State and Commonwealth attainment targets are vigorously pursued;
- changes to the Central Coast's industry and occupation profile over time to reflect Sydney SD will have demand effects for higher education; and
- improved transport and accessibility to the Central Coast may support more than one location for higher education provision.

6.2 The case for a university campus in Gosford

While a business case for a new university cannot be supported, the case for a university campus located in the Gosford CBD should be further explored.

The benefits of such an approach lie in a number of factors:

- its lower requirements for capital investment at the establishment phase;
- it does not require a separate process of accreditation or regulatory approval;

- a campus course profile can be carefully matched to catchment area requirements without the constraints of comprehensive course provision required for university status; and
- a university campus may prove a more appropriate scale for engagement with catchment area industries and occupations.

Although the enrolment gap identified in this report does not support a business case for a full university, there is potential demand for a viable campus based in the Gosford CBD.

Clearly a major factor in the assessment of the case for a university campus in Gosford is the level of interest of existing universities, in particular the University of Newcastle and its future strategic intentions in terms of campus development and geographic focus. Other universities are also seeking to grow and diversify. The Gosford CBD which continues to develop as a major business, administrative and transport hub with over 10,000 people working in the CBD each day is likely to be seen as a potential source of growth. The population of the Central Coast is currently over 300,000 and projected to grow to over 350,000 by 2026. Other regions of this size already have more than one university campus. The impending roll out of the National Broadband Network in Gosford is another major driver of potential interest in a campus in Gosford.

An appropriate focus for a campus in this location would be one which was highly focussed on professional and technical occupations, related to the CBD and to Gosford as a commuter and transport hub and to older and part-time students in the workforce. It would also be differentiated from the Ourimbah campus of the University of Newcastle.

However further detailed assessment of potential demand and provision is required, drawing on the initial analysis undertaken for this Report. This assessment could then serve as the basis of discussions between the Committee and potential university partners, in particular The University of Newcastle.

Appendix A

The experience of recent greenfield universities

A.1 Overview

This section summarises the establishment experience of the University of the Sunshine Coast and Murdoch University as the two most recent greenfield universities in Australia; that is universities that were not formed from mergers or amalgamations and re-designation of the former Colleges of Advanced Education and Institutes of Technology that followed the Dawkins reforms of the 1980s and early 1990s. The type and extent of support received from the State government of the day is reviewed, as is the scope and purpose of each university and their development in the first ten years of operation.

A.2 Murdoch University

Murdoch University, established in 1975, is the second most recent greenfield university in Australia. Similarly to the USC, it was established to respond to growing demand for higher education and with particular reference to the needs of its anticipated student cohort and local demand for skills and qualifications.

The University was established in response to the State government's 1966 Review of Tertiary Education which found a strong case for a second university. A site for the new university was earmarked by the State government in late 1967, at a size of 565 hectares at Melville, east of Fremantle. Even at this early stage, critical decisions had been made about the model and purpose of the new university.

There seemed to be four possible choices for Western Australia's second university:

- a rural university based in Bunbury or Albany;
- an independent metropolitan university;
- a second campus of the University of Western Australia; or
- the expansion of the Western Australian Institute of Technology.

There were several factors that led to the decision for an independent metropolitan university. Firstly, it was acknowledge that the population of Western Australia was heavily urbanised and that demand for a university was greatest in Perth. Secondly, the University of Western Australia was experiencing unprecedented growth in student numbers and would become overcrowded by 1975. This suggested sufficient student demand for an independent university rather than a university college. Thirdly, there was strong demand for a school of veterinary science in Western Australia. There was no such school at the University of Western Australia which did not then have the financial capacity to build one. This came to be the deciding factor in establishing Murdoch as an independent metropolitan university when the Australian Universities Commission announced that the fourth school of veterinary science would be located in Perth (Bolton 1985).

Commonwealth government support for the new university had been garnered by early 1970 and in July of that year a 12-person Planning Board was established to plan the first phase of development. Considerable planning support was provided by the University of Western Australia and the State government which provided $200,000 for that purpose. Much of the planning for Murdoch University took place between 1970 and 1973 with the Act of State Parliament establishing the university proclaimed in 1972.

Murdoch University achieved university status through state legislation; that is, the process of establishment was also the *de facto* process for accreditation. However, it is clear that the process was both comprehensive and thorough in terms of the planning process outlined below.

In his history of the first ten years of Murdoch University, Geoffrey Bolton noted the major planning elements that had to be addressed by the Board:

- creation of the academic plan;
- liaison with federal and state governments, and the University of Western Australia;
- appointment of foundation staff;
- planning for accommodation, equipment and expenditure; and
- estimates of student numbers.

It was the last that proved most difficult to establish with clarity. It was expected that Murdoch would grow in student numbers so quickly that it would reach 10,000 students by the end of its first decade. The recession of the early 1970s necessitated a revision of student numbers and the Australian Universities Commission (AUC) urged the postponement of the opening of Murdoch University until 1975 to ensure sufficient student numbers (Bolton 1985: 10-12).

To support its activities, the Planning Board received $1.161 million for the 1970-72 triennium, in addition to the $200,000 in planning support provided to the University of Western Australia. Its request for the 1973-75 triennium was $4.512 million for recurrent expenses and $15.907 million for capital, equipment and building. The AUC rejected this amount and eventually allocated $8.641 million with an additional $700,000 for equipment (Bolton 1985: 13).

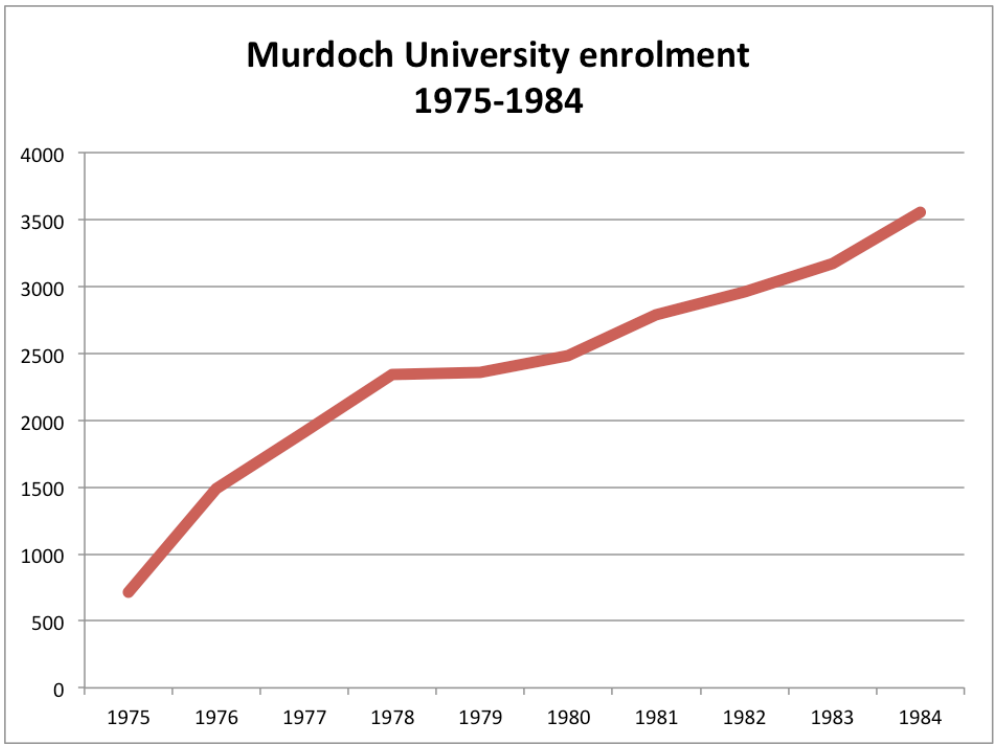
An important theme running through the planning for Murdoch University was the insistence that it should be a modern university, offering innovative approaches to teaching and student involvement in university governance. The Planning Board sought to encourage interdisciplinary studies, some type of special provision for first year students and agreed to offer external and part-time study option in excess of that provided by the University of Western Australia. Bolton argues that Murdoch University's decision to grant external study eligibility to all

> [brought] tertiary education within the reach of housewives, people holding full-time jobs and others whose circumstances made it difficult for them to attend regularly on campus. This was innovative thinking at its best, and in the early years of struggle the external students represented for several of Murdoch's programmes the essential margin, which made for viability.
>
> Bolton 1985: 16

In 1975, Murdoch University opened its doors to 714 foundation students. Student enrolment growth was slower than the first optimistic predictions. The rate of growth is represented in Figure 6.1, showing enrolment figures from 1975-1984.

Figure 6.1

MURCHOCH UNIVERSITY ENROLMENT GROWTH 1975-1984



Source: Murdoch University Records Management and Archives 2010

The University did not reach enrolments in excess of 10,000 until 1996, eleven years past original estimates. In 2011, Murdoch University has a student enrolment of over 18,000 students, including 2,000 international students, and approximately 1,400 staff members. It has expanded from six schools of study to fourteen.

It is also relevant to note that there have been 2 major, though ultimately unsuccessful, proposals for Murdoch University to merge. In 1989 the University of Western Australia and Murdoch University Senates agreed to merge with the support of the State government but enabling legislation was defeated in the State Upper House. In 2007 merger discussions with Curtin University were held but both institutions opted not to proceed with a merger.

A.3 University of the Sunshine Coast

The University of the Sunshine Coast, established in 1999 after three years as the Sunshine Coast University College, is Australia's most recent publicly funded new university. The University of the Sunshine Coast did not involve any existing institutions or established facilities. It was a greenfield development that required land, considerable planning for campus and facilities, strategic planning for the development and organisation of the university and significant insight into the immediate and long term needs of the region.

The University of the Sunshine Coast commenced classes in 1996 as the Sunshine Coast University College, enacted by *The Sunshine Coast University College Act 1994*. The University College was assessed under the National Higher Education Protocols by an accreditation panel under the auspices the Office of Higher Education in Queensland. A Review of the Office by the Australian Universities Quality Agency in 2002 made the following assessment of this process:

> The Audit Panel was struck by the slimness of the report of the review (on a whole institution) in comparison with reports of some of the accreditation panels for non-self accrediting institutions (NSAIs) on individual courses only. However, this institution already had the powers, functions and obligations in legislation applying to other universities; it had had a period of mentoring from an established institution; it had a governance structure, financial accountabilities, public funding and the status of a statutory body: much of this material, which might be the subject of a review in an institution which was established as a teaching-only college, or which was a new private institution, had already been tested at an earlier stage. More generally, there is a total context that contributes to the security of a university-related decision that is absent from a decision about a NSAI. For a university, this context includes cabinet and parliamentary approval, establishment in legislation, and ministerial and/or government nominees on the Council. Also, there is often a publicly appointed steering committee an/or identification of another university as mentor. Significant public funding is also usually available. With accreditation of a NSAI, on the other hand, the consequences of the decision are less easily influenced subsequently. The Audit Panel was confident that in context the recommendation made about the Sunshine Coast University College, by a very senior and highly respected group of reviewers, was secure.
>
> Australian Universities Quality Agency 2002: 13

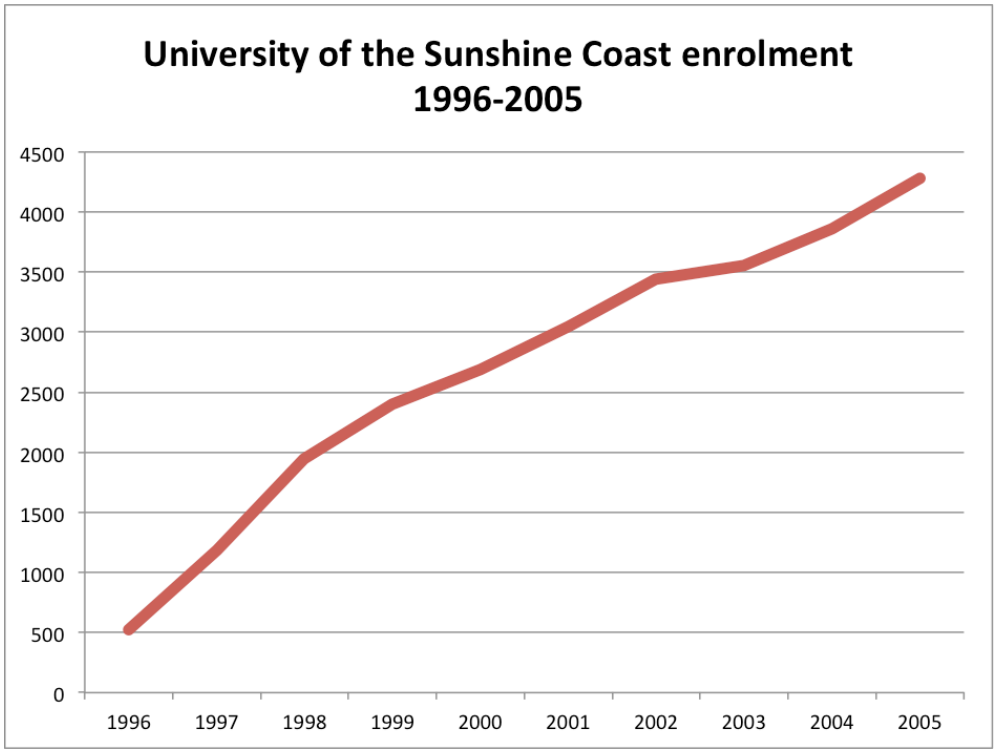
Commonwealth government approval for the University College had been given in 1989 and in 1992 it provided $9.5 million towards its establishment. Support from the State government began with the provision of land at Sippy Downs, worth $1.95 million. Between 1994 and 1998, the State government supported the development of the University of the Sunshine Coast with a total of $14.95 million in funding for land, site services and capital works.

The Sippy Downs site was chosen primarily for its central location within the Sunshine Coast and its proximity to the Bruce Highway and other major transport routes. Construction commenced on the site in late 1994 with Stage 1 works complete before the University College's first day of classes on 26 February 1996.

In November 1998, the State Parliament passed *The University of the Sunshine Coast Act 1998*, establishing the institution as an independent university some years ahead of schedule. Enrolments in the first ten years of operation — two as a university college, the remainder as an independent university — have been steady. Figure 6.2 shows the growth in enrolments from 1996-2005.

Figure 6.2

UNIVERSITY OF THE SUNSHINE COAST ENROLMENT GROWTH, 1996-2005



Source: University of the Sunshine Coast 2011

In 2003, the Commonwealth government supported an additional 1,080 student places over four years. In 2011, the University of the Sunshine Coast has 7,766 students of whom 805 are overseas students and expects to reach 15,000 students by 2021. Forty nine per cent of students studying a bachelor or associate degree are the first in their family to attend a university (USC 2011).

A.4 Common themes in developing greenfield universities

Although their establishment is separated by some twenty years, both Murdoch University and the University of the Sunshine Coast share remarkable similarities in their planning and establishment processes.

The most significant of these is the involvement of the state government in funding and planning. This activity was sustained for at least a decade and required the commitment of both public funds and the time and expertise of state public servants. Commonwealth support was necessary to provide a connection between national higher education policy and the priorities of the state government. In both instances, the Commonwealth government supported the universities through direct financial support and through the funding of student load.

The necessity of responding to the needs of each university's region is apparent from the initial conception of a new university. For Murdoch University, this meant responding to unmet need in developing its course profile (the development of a veterinary school) and ensuring that the mode of course delivery supported the broadest possible participation in higher education. In the case of the University of the Sunshine Coast, significant attention was paid to the features of its student cohort – largely first in family attendees at university — and decisions were made to provide high levels of student learning support. Given the nature of the Sunshine Coast as a fast growing regional area, the University also made a strong commitment to regionally focused research.

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