

**The Destination of On-Campus
Graduates of Charles Sturt University
2006 Update**

Prepared for Office of Planning and Audit

By the Western Research Institute

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1 EXECUTIVE SUMMARY

The Western Research Institute completed a report in 2004 which examined the relationship between home location and initial employment location of on campus students at Charles Sturt University. This report updates the initial findings with additional data from 2003-2005. The results indicate a strengthening of the relationships found in the first study and a rising response to the survey increases confidence in the reliability of these findings.

The results of the study are as follows:

- Sixty percent of all graduate students in the study were initially employed in a regional location, which is an increase from 58% in the previous report.
- Seventy-three percent of graduate students with a regional home location took up initial employment in a regional location, which is an increase from 71% in the previous report.
- Twenty percent of graduate students with a metropolitan home location took up initial employment in a regional location. This is an increase from 18% in the previous study.
- Three-quarters (75%) of all graduate students from CSU had a regional home location.
- Initial employment by graduates in regional areas continues to grow significantly in the Faculties of Commerce, Health Studies, and Science and Agriculture, however the growth rate has slowed in the Health Studies and Science and Agriculture Faculties. Whilst the increase in employment in regional locations was mostly by regional students, the Faculties of Education and Science and Agriculture reported significant growth in employment of metropolitan students in regional areas.
- The Faculty of Commerce continues to show significant growth of graduates in employment in regional areas. However, this growth has been primarily driven by regional students.
- The Faculty of Education reported the largest proportion of graduates employed in regional locations and this figure has remained relatively steady. The Faculty of Arts continues to record the lowest proportion of graduates employed in regional areas.
- The results show a consistent relocation of graduates to metropolitan areas at the expense of regional areas.

2 INTRODUCTION

2.1 Background

The Western Research Institute completed a report in 2004 which examined the relationship between home location and initial employment location of students at Charles Sturt University. The initial report used data from 1995 to 2002 and found the major determinant of where CSU students are employed following graduation is their home location. Specifically a student with a regional home location will be more likely to be initially employed in a regional location. Similarly, a student with a metropolitan home location will be more likely to be initially employed in a metropolitan location. This report updates the initial findings with additional data from 2003-2005.

1.2 Objective

The objective of this study is to update the 2004 report "*The destination of on-campus graduates of Charles Sturt University*" using data for the period 2003-2005.

3 DATA

The data used in this analysis contained 7,483 student records. This dataset includes 5,229 records from 1995-2002 used in the original study, and an additional 2,254 records from 2003-2005. The additional individual student records used in this analysis were obtained using the following steps.

1. Graduates complete the Graduate Destination Survey in April each year. The information gathered in this survey includes a postcode of the location of employment at 30 April in the year following completion of a course. There was a rise in the number of records for 2005 (an increase of approximately 400 surveys or 61% from 2004) which can be attributed to an increase in the response rate for the Graduate Destination Survey. The response rate for the survey was 57% in 2003 and increased to 67% in 2005. The data was gathered from graduates for the years 2003-2005 inclusive.
2. The data collected in the Graduate Destination Survey was matched with enrolment data from Charles Sturt University. This process provides an initial home location and course undertaken for each graduate as well as demographic data such as age and gender. The matching process was undertaken by the Office of Planning and Audit at Charles Sturt University. A complete list of the elements contained in the matched file is included in Appendix 1.
3. The resulting file was sent to the WRI for filtering so that all responses had the same characteristics. The filtering process resulted in 2,254 valid student records to analyse. These individual student records were added to the initial dataset which results in 7,483 student records. These students have the following characteristics:
 - Internal (on-campus)
 - Completed a Bachelor degree, Bachelor Honours or Graduate Diploma (new academic requirement)
 - An Australian home location
 - An Australian initial employment location
 - Completed the Graduate Destination Survey
 - Were employed full-time or part-time in the year after completing study

4. Each student record was assigned to a Statistical Division based on the home and initial employment postcode fields. The records were then assigned to one of two broad categories:
- Metropolitan (includes the ABS statistical divisions of Sydney, Hunter, Illawarra, Perth, Adelaide, Melbourne, Brisbane, Darwin, Greater Hobart)
 - Regional (all other statistical divisions)

The data has also been examined based on CSU Regions of Interest as provided by the Office of Planning and Audit. These regions include Bathurst, Wagga Wagga, Albury, Dubbo, Orange and Cowra/Parkes/Forbes.

Distance Education student records were again omitted as this attendance mode at University would seem less likely to affect the initial employment location of the student. It may be appropriate to undertake a study into the pattern of employment for distance education students at a later date.

4 RESULTS

4.1 The Matrix

To examine the data initially, the records were aggregated into the matrix shown below. The matrix shows the distribution of all students based on two criteria, their home location at the start of their course and the initial employment location after completion of their course.

The matrix represents the data for all students within the data set. Each cell contains a number and two percentage figures. The number is the raw number of students that fit the criteria on both sides of the matrix. For example, the 4,105 figure in the first cell indicates that 4,105 students came from a regional home location and had their initial employment in a regional location.

The percentage in the top left corner of each cell shows the proportion of students from either a regional or metropolitan home location for each initial employment location. These percentages are calculated down. For example, for all the students that had an initial employment in a regional location, 92% came from regional areas and 8% came from metropolitan areas.

The percentage in the bottom right hand corner of each cell shows the proportion of students with a regional or metropolitan initial employment location for each home location. These percentages are calculated across. For example, of all the students that came from a regional home location, 73% were employed initially in a regional location, whilst 27% were employed initially in a metropolitan location.

The numbers and percentages in brackets and italics are the figures from the previous report (1995-2002). For example, in the top left hand corner cell, there were 4,105 students from the region employed in the region (1995-2005) compared to 2,778 students in the previous report (1995-2002).

Overall matrix

		Initial Employment Location		
		Regional	Metro	Total
Home Location	Regional	92% (92%) ↓ 4,105 (2,778) → 73% (71%)	50% (51%) 1,513 (1,120) → 27% (29%)	75% (75%) 5,618 (3,898) 100%
	Metro	8% (8%) ↓ 368 (243) → 20% (18%)	50% (49%) 1,497 (1,088) → 80% (82%)	25% (25%) 1,865 (1,331) 100%
	Total	100% 4,473 (3,021) 60% (58%)	100% 3,010 (2,208) 40% (42%)	100% 7,483 (5,229) 100%

The main results from the overall data matrix are as follows:

- Three-quarters (75%) of all graduate students had a regional home location. This figure remained constant between the two reports.
- Sixty percent of graduate students were initially employed in a regional location. This is an increase from 58% in the last report.
- Seventy-three percent of graduate students with a regional home location took up initial employment in a regional location which is an increase from 71% in the last report.
- Twenty percent of graduates with a metropolitan home location took up initial employment in a regional location. This is an increase from 18% in the last study.

The relationship between home location and initial employment location was also examined using a phi coefficient correlation and the association between these factors was found to be statistically significant (phi coefficient .471). This coefficient has increased since the previous report (phi coefficient .468) which compared data between 1995 and 2002. The increase indicates a strengthening of the relationship between home location and initial employment.

This association suggests that a student with a regional home location will be more likely to be initially employed in a regional location. Similarly, a student with a metropolitan home location will be more likely to be initially employed in a metropolitan location.

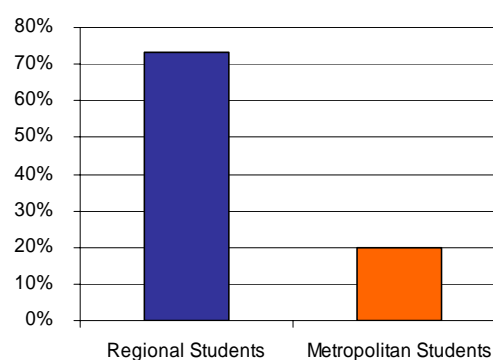
4.2 Metropolitan versus Regional Students

This section examines the percentage of regional and metropolitan students that are employed in regional areas in the first year following the completion of their course. The data shows the result from 1995-2005. Differences that have occurred between this report and the previous report are summarised in *Section 5 Comparison with Previous Study*.

Metropolitan versus Regional Students

- 73% of students originating from a regional home location were also initially employed in a regional location.
- 20% of students originating from metropolitan areas were initially employed in regional areas.

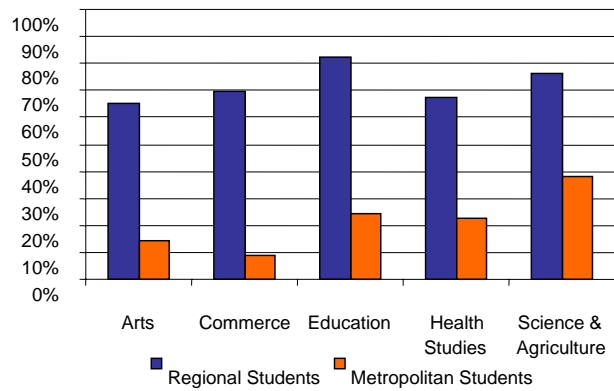
Percentage of students from regional and metropolitan areas employed in the regions
1995-2005



Metropolitan versus Regional Students by Faculty

- The Faculty of Education reported the largest percentage of regional students being employed in regional areas (82%), with the lowest percentage being 65% for students from the Faculty of Arts.
- The Faculty of Science and Agriculture reported the largest percentage of metropolitan students employed in regional areas (38%) with the lowest percentage being 9% for students from the Faculty of Commerce.

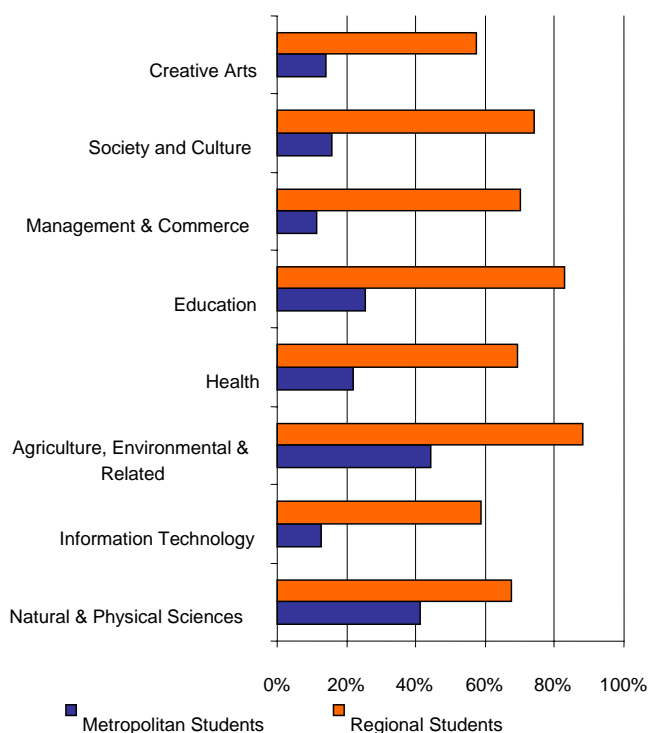
Percentage of students from regional and metropolitan areas employed in the regions by Faculty
1995-2005



Metropolitan versus Regional Students by Field of Education

- The Agriculture and Environmental field of education reported the largest percentage of regional students being employed in regional areas (88%) with the lowest percentage being 57% for students from the Creative Arts field of education.
- The Agriculture and Environmental field of education reported the largest percentage of metropolitan students employed in regional areas (44%) with the lowest percentage being 11% for students from the Management and Commerce field of education.

Percentage of students from regional and metropolitan areas employed in the regions by Field of Education 1995-2005

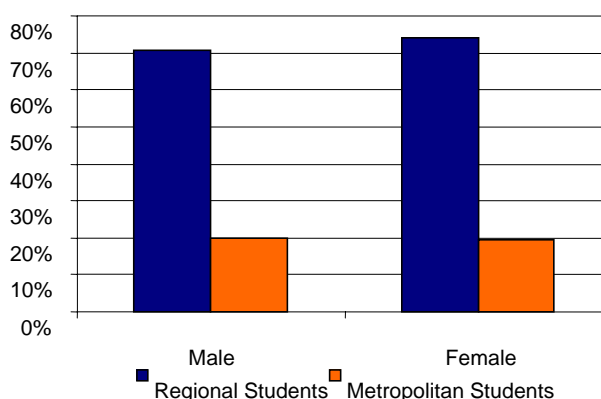


Note: Data from Engineering and Related Technologies and Architecture and Building have not been presented due to low numbers

Metropolitan versus Regional Students by Gender

- Slightly more females (74%) than males (71%) who originated from regional areas were initially employed in a regional location.

Percentage of students from regional and metropolitan areas employed in the regions by Gender 1995-2005



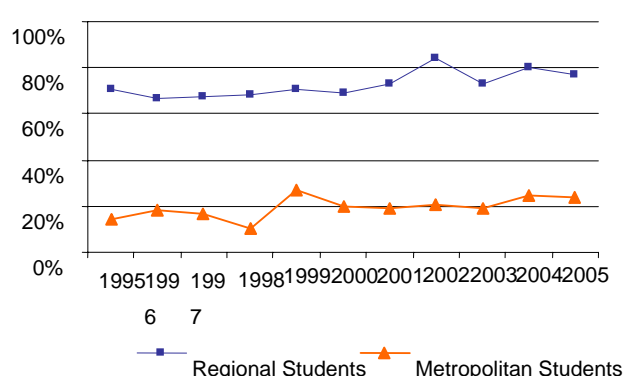
4.3 Metropolitan versus Regional Students Over Time

This section examines the difference between regional employment for metropolitan and regional students between 1995 and 2005. The graphs show the percentage of regional and metropolitan students initially employed in the regions each year. Trends over time were also examined using regression analysis. Differences that have occurred between this report and the previous report are summarised in *Section 5 Comparison with Previous Study*.

Metropolitan versus Regional Students Over Time

- The percentage of regional students initially employed in a regional location ranges between 66% and 84% and has shown a **statistically significant upward trend** since 1995, increasing at an average rate of 1.3% per year.
- The percentage of metropolitan students initially employed in a regional location has shown **no statistically significant trend**, and tracks within the range of 16% to 23%.

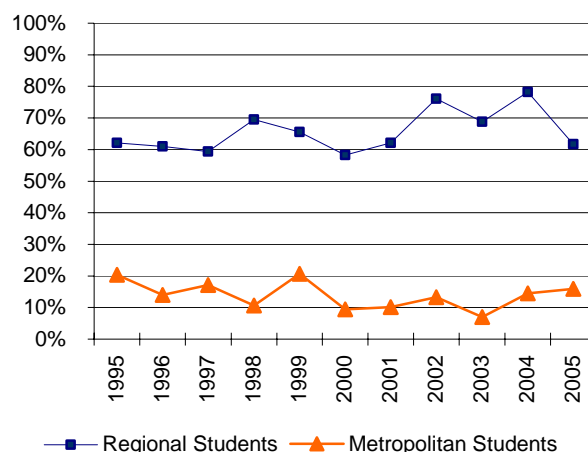
Percentage of students from regional and metropolitan areas employed in the regions - 1995-2005



Metropolitan versus Regional Students Over Time for the Faculty of Arts

- The percentage of regional students from the Faculty of Arts initially employed in a regional area has shown **no statistically significant trend** and tracks within the range of 61% to 70%.
- The percentage of metropolitan students employed in regional areas has also shown **no statistically significant trend**, and tracks within the range of 11% to 17%.

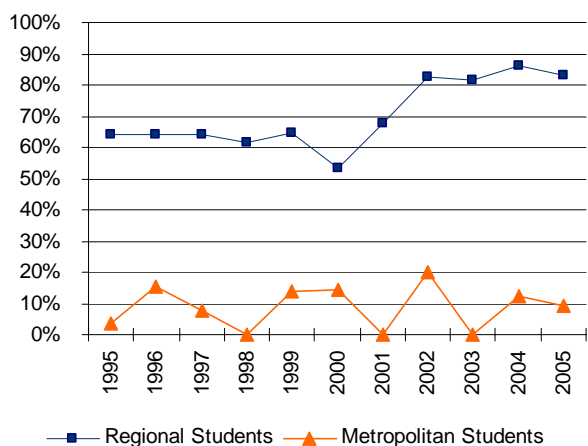
Percentage of students from regional and metropolitan areas employed in the regions - 1995-2005
Faculty of Arts



Metropolitan versus Regional Students Over Time for the Faculty of Commerce

- The percentage of regional students from the Faculty of Commerce initially employed in a regional location has ranged between 54% and 86%, and has shown a **statistically significant upward trend** since 1995, increasing at an average rate of 2.5% per year.
- The percentage of metropolitan students initially employed in a regional location has shown **no statistically significant trend** and tracks within the range of 4% to 14%.

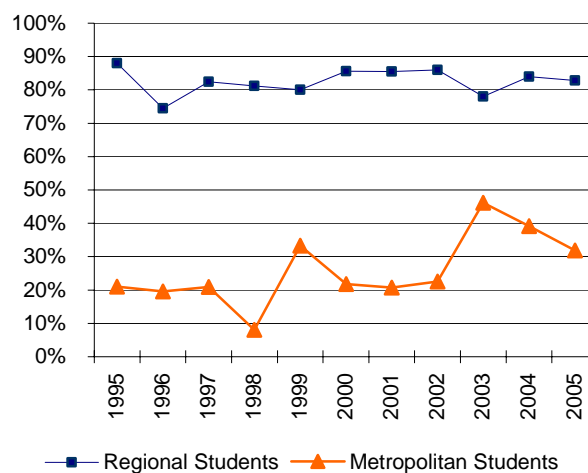
Percentage of students from regional and metropolitan areas employed in the regions - 1995-2005
Faculty of Commerce



Metropolitan versus Regional Students Over Time for the Faculty of Education

- The percentage of regional students from the Faculty of Education initially employed in a regional location recorded **no statistically significant trend**, and tracks within the range of 80% to 85%.
- The percentage of metropolitan students initially employed in a regional location has shown **a statistically significant upward trend** since 1995, increasing at an average rate of 1.9% each year.

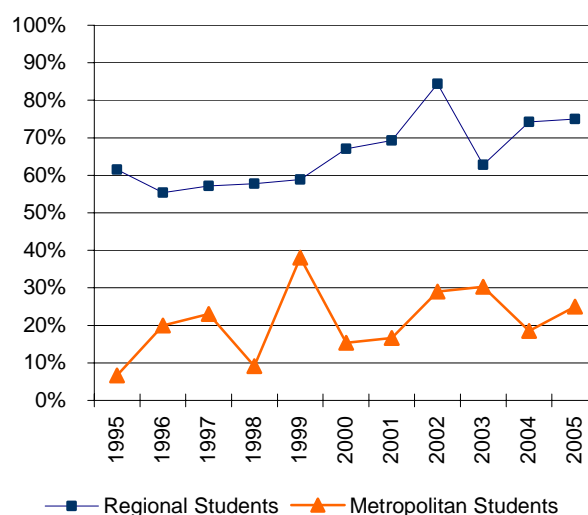
Percentage of students from regional and metropolitan areas employed in the regions - 1995-2005
Faculty of Education



Metropolitan versus Regional Students Over Time for the Faculty of Health Studies

- The percentage of regional students from the Faculty of Health Studies initially employed in a regional location has ranged between 55% and 84% and has shown **a statistically significant upward trend**, increasing by an average of 2% each year.
- The percentage of metropolitan students initially employed in a regional location has shown **no statistically significant trend** and tracks within the range of 15% to 27%.

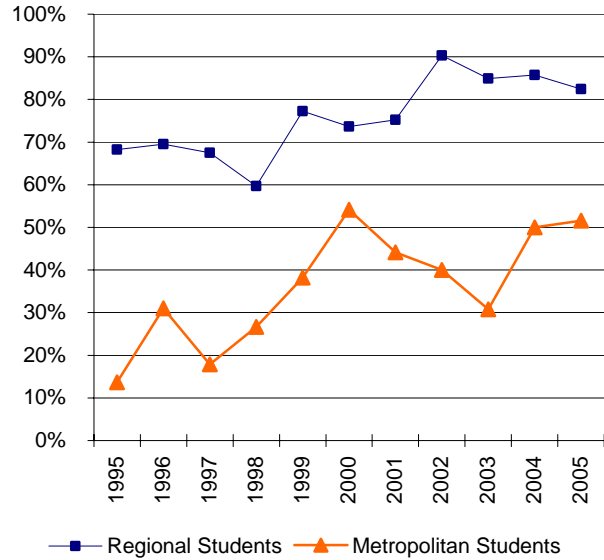
Percentage of students from regional and metropolitan areas employed in the regions - 1995-2005
Faculty of Health Studies



Metropolitan versus Regional Students Over Time for the Faculty of Science and Agriculture

- The percentage of regional students from the Faculty of Science and Agriculture initially employed in a regional location has ranged between 60% and 90% and has shown a **statistically significant upward trend**, increasing by an average of 2.2% each year.
- The percentage of metropolitan students initially employed in a regional location has ranged between 14% and 54% and has also shown a **statistically significant upward trend**, increasing by an average of 3.1% each year.

Percentage of students from regional and metropolitan areas employed in the regions - 1995-2005
Faculty of Science & Agriculture



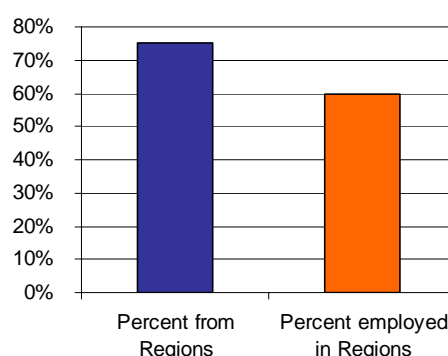
4.4 Regional Origin and Destination

This section examines the proportion of students with a regional home location and the percentage of students initially employed in a regional location. Differences that have occurred between this report and the previous report are summarised in *Section 5 Comparison with Previous Study*.

Regional origin and destination

- Overall, 75% of students had a regional home location (5,618 out of 7,483 students).
- Sixty percent of all students were initially employed in a regional location (4,473 out of 7,483 students).
- Of all the students that were initially employed in a regional location, 92% came from regional areas and 8% came from metropolitan areas.
- The results show a consistent relocation of graduates to metropolitan areas at the expense of regional areas.

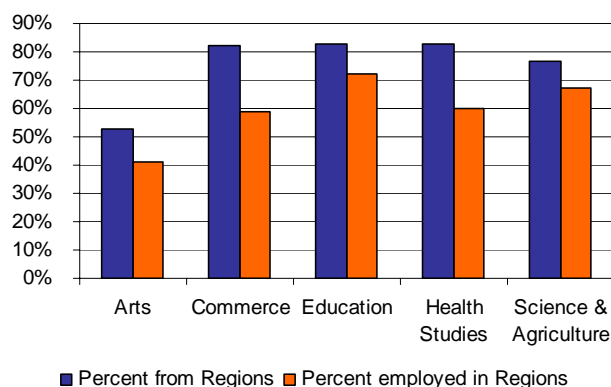
Percent of students from regions
and employed in regions
1995-2005



Regional Origin and Destination by Faculty

- The Faculty of Health Studies and the Faculty of Education had the largest proportion of regional students (83%) with the lowest percentage being 53% of students from the Faculty of Arts.
- The Faculty of Education reported the largest proportion of graduates employed in regional locations (72%), with the lowest percentage being 41% of graduates from the Faculty of Arts.

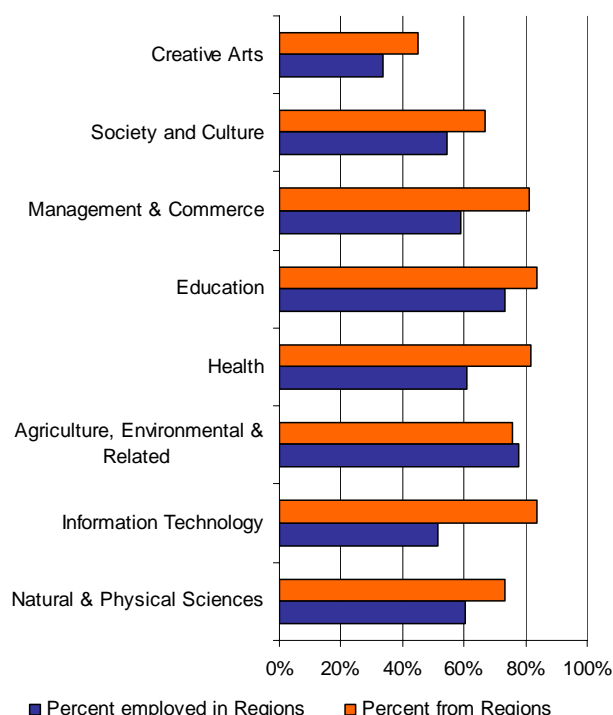
Percent of students from regions
and employed in regions by Faculty
1995-2005



Regional origin and destination by Field of Education

- The Education (84%) and Information Technology (84%) fields of education had the highest percentage of students originating from a regional location.
- The Creative Arts field of education (45%) had the lowest proportion of students with a regional home location.
- The Creative Arts (34%) and Information Technology (51%) fields of education had the lowest percentage of graduates with an initial employment location in a regional location.
- The Information Technology field reported the largest gap between those originating from regional areas and those employed in regional areas.

Percent of students from regions and employed in regions by Field of Education 1995-2005

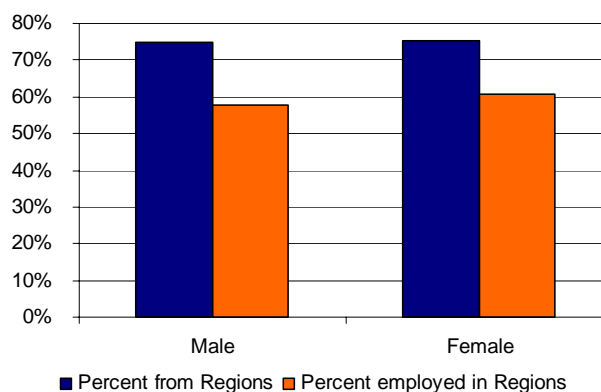


Note: Data from Engineering & Related Technologies and Architecture & Building have not been presented due to low numbers

Regional Origin and Destination by Gender

- Equal proportions of males and females (75%) had a regional home location.
- Slightly more females (61%) were initially employed in regional areas than males (58%).

Percent of students from regions and employed in regions by Gender 1995-2005



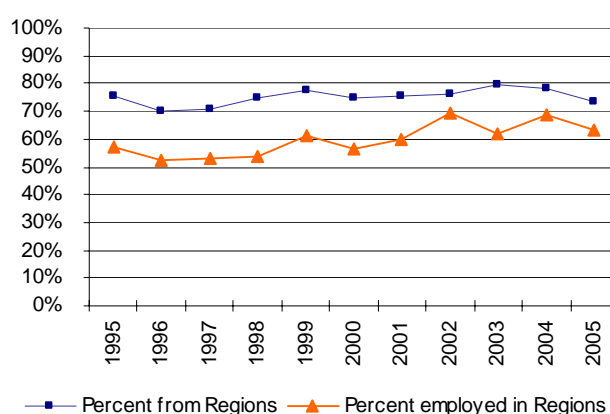
4.5 Regional Origin and Destination Over Time

This section examines regional origin and destination between 1995 and 2005. The graphs show the percentage of students from a regional home location each year compared to the percentage of graduates employed initially in a regional location each year. Trends over time were also analysed using regression analysis. Differences that have occurred between this report and the previous report are summarised in *Section 5 Comparison with Previous Study*.

Regional Origin and Destination Over Time

- The percentage of students from regional locations has shown **no statistically significant trend**, and tracks within a range of 73% to 77%.
- The percentage of graduates initially employed in regional locations has ranged between 52% and 69% and has shown **a statistically significant upward trend**, increasing on average by 1.4% per year.

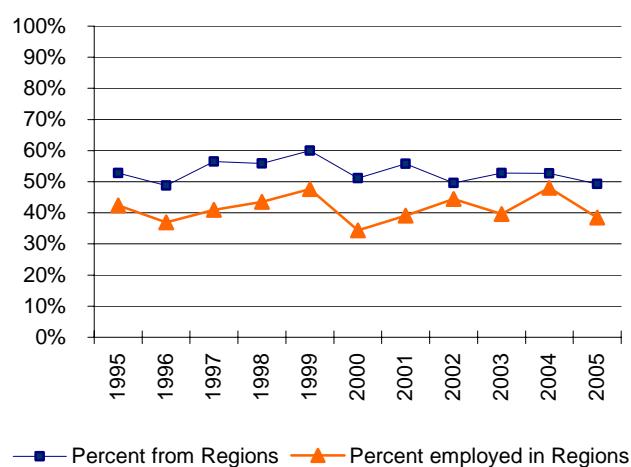
Percent of students from regions and employed in regions 1995-2005



Regional Origin and Destination Over Time for the Faculty of Arts

- The percentage of students from regional areas in the Faculty of Arts has shown **no statistically significant trend**, and tracks within the range of 51% to 56%.
- The percentage of graduates employed in regional locations from the Faculty of Arts has shown **no statistically significant trend** and tracks within the range of 39% to 44%.

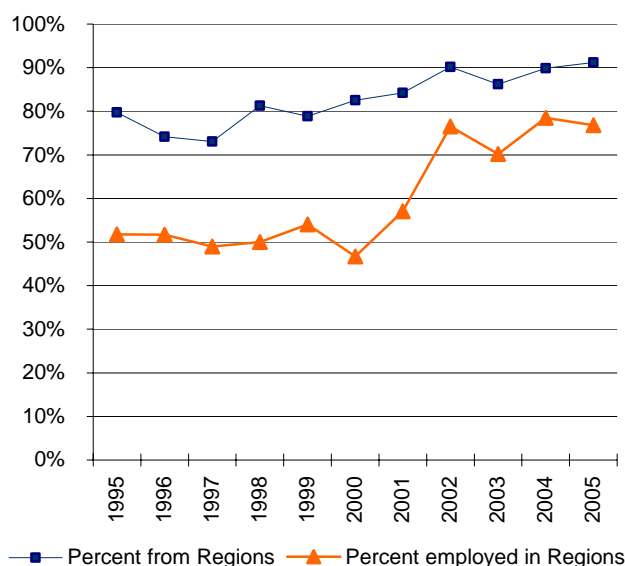
Percent of students from regions and employed in regions 1995-2005
Faculty of Arts



Regional Origin and Destination Over Time for the Faculty of Commerce

- The percentage of students from regional locations in the Faculty of Commerce has shown a **statistically significant upward trend** between 1995 and 2005, with an average increase of 1.7% each year.
- The percentage of graduates employed initially in regional areas has also shown a **statistically significant upward trend** increase since 1995, increasing on average by 3.2% each year.

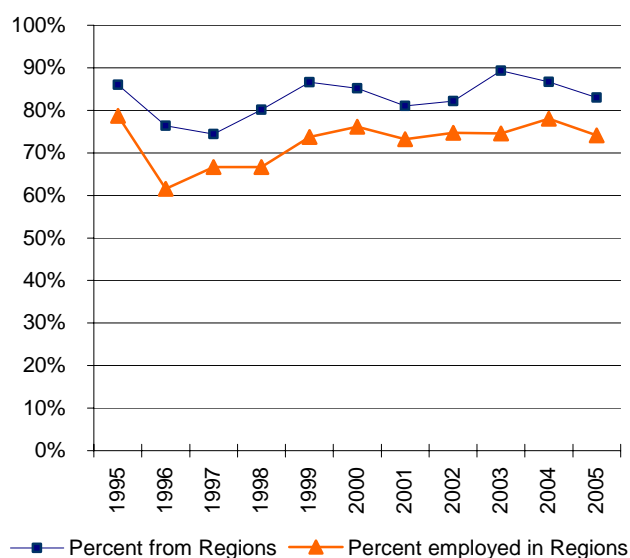
Percent of students from regions and employed in regions 1995-2005
Faculty of Commerce



Regional Origin and Destination Over Time for the Faculty of Education

- The percentage of students from regional areas in the Faculty of Education has shown **no statistically significant trend**, and tracks within the range of 80% to 86%.
- The percentage of graduates employed in regional locations has also shown **no statistically significant trend**, and tracks within the range of 69% to 76%.

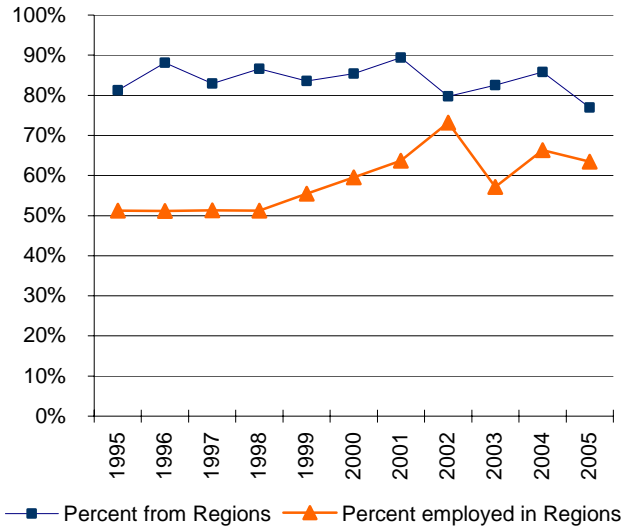
Percent of students from regions and employed in regions 1995-2005
Faculty of Education



Regional Origin and Destination Over Time for the Faculty of Health Studies

- The percentage of students from regional locations in the Faculty of Health Studies has shown **no statistically significant trend** and tracks within the range of 81% to 86%.
- The percentage of graduates initially employed in regional locations has shown **a statistically significant upward trend**, increasing on average by 1.7% per year.

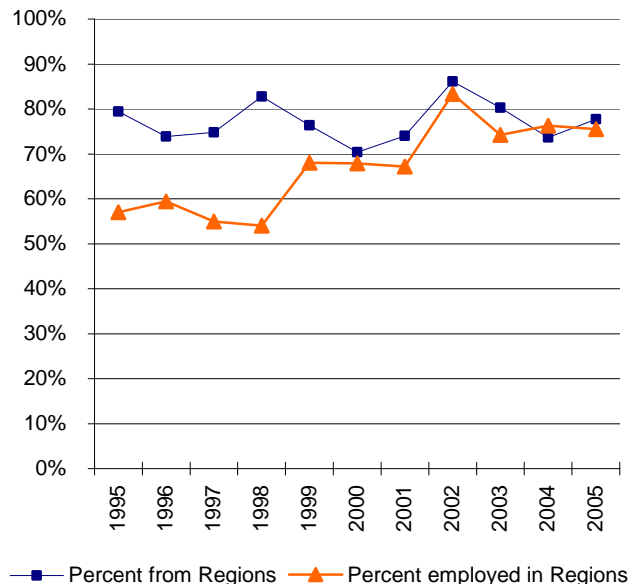
Percent of students from regions and employed in regions 1995-2005
Faculty of Health Studies



Regional Origin and Destination Over Time for the Faculty of Science and Agriculture

- The percentage of students from regional areas in the Faculty of Science and Agriculture has shown **no statistically significant trend**, and tracks within the range of 74% to 80%.
- The percentage of graduates initially employed in regional locations has shown **a statistically significant upward trend**, increasing on average by 2.5% per year.

Percent of students from regions and employed in regions 1995-2005
Faculty of Science & Agriculture



4.6 CSU Regions of Interest

This section analyses the home location of students and the initial employment location of graduates based on CSU Regions of Interest. These regions were defined in the original data set by the Office of Planning and Audit. The table below shows the home location and initial employment location in the CSU Regions Bathurst, Orange, Dubbo, Wagga Wagga, Albury, and Cowra/Parkes/Forbes. The columns show the distribution of students based on their home location and the rows show the distribution of graduates based on their initial employment location. For example, 473 students had a home location of Bathurst and an initial employment location of Bathurst.

CSU Regions of Interest

		Initial employment location								Total
		Albury	Bathurst	Cowra / Parkes / Forbes	Dubbo	Orange	Wagga Wagga	Other NSW Regional	Metro and other states	
Home location	Albury	571	5	4	1	1	59	23	257	926
	Bathurst	4	473	10	28	17	25	41	242	840
	Cowra / Parkes / Forbes	7	32	166	17	9	42	24	115	413
	Dubbo	8	40	5	245	8	24	33	125	489
	Orange	1	42	11	16	211	16	21	122	441
	Wagga Wagga	32	15	17	22	8	869	64	448	1476
	Other NSW Regional	23	34	10	13	11	65	304	333	796
	Metropolitan and other states	105	76	9	29	18	72	79	1709	2102
	Total	751	717	232	371	283	1172	589	3351	7483

Overall, the data indicates that a large proportion of students find their first employment in their original home location. Sixty-two percent of students originating from Albury found their first employment in Albury, 59% of students from Wagga Wagga were initially employed in Wagga Wagga, 56% of students from Bathurst were initially employed in Bathurst and 50% of students from Dubbo were initially employed in Dubbo.

The Orange¹ and Cowra/Parkes/Forbes regions do not have a CSU campus. However, they are within commuting distance of a campus. A large percentage of these students also found initial employment in their home region, 48% in Orange and 40% in Cowra/Parkes/Forbes.

¹ The Orange campus officially became part of CSU in 2006. This report covers the period 1995-2005.

5 COMPARISON WITH PREVIOUS STUDY

The tables on the following pages summarise the data from the previous report (1995-2002) and this report (1995-2005). The main differences were:

- There was a small increase in the percent of graduates employed in the regions.
- All Faculties, except for Education, increased the proportion of regional students initially employed in the regions.
- All Faculties either increased or maintained the proportion of metropolitan students initially employed in the regions.
- All Faculties increased or maintained the proportion of graduates employed in the regions.
- Natural and Physical Sciences, Information Technology, Agriculture, Environmental and Related, Education and Creative Arts fields of education increased the proportion of regional students initially employed in the regions.
- All fields of education have increased or maintained the proportion of metropolitan students initially employed in the regions.
- Information Technology, Education, Management and Commerce and Creative Arts fields of education increased the proportion of graduates employed in the regions.
- All fields of education, except Society and Culture, increased the proportion of students from the regions.
- The trend for both regional and metropolitan students being initially employed in the region have generally remained the same, however the growth rates for the cohorts that reported upward trends have slowed.
- The percent of students from the regions remained constant, however there was a small increase in the percent of students employed in the regions.
- The Faculties of Arts, Commerce and Education increased the proportion of students originating from the regions.
- The trend for both students from the regions and graduates employed in the regions have generally remained the same, however the growth rates for the cohorts that reported upward trends have generally slowed.

5.1 Regional and metropolitan students employed in regions

Cohort	1992-2005		1995-2005	
	Regional Students	Metro Students	Regional Students	Metro Students
Overall	71%	18%	73%	20%
Faculty				
Arts	64%	14%	65%	14%
Commerce	65%	9%	70%	9%
Education	83%	20%	82%	24%
Health Studies	66%	22%	68%	23%
Science & Agriculture	73%	34%	76%	38%
Gender				
Male	68%	19%	71%	20%
Female	73%	18%	74%	20%
Field of Education				
Natural & Physical Sciences	43%	65%	41%	68%
Information Technology	10%	55%	13%	59%
Agriculture, Environmental & Related	38%	87%	44%	88%
Health	22%	68%	22%	69%
Education	20%	82%	25%	83%
Management & Commerce	12%	65%	11%	70%
Society and Culture	17%	74%	16%	74%
Creative Arts	13%	54%	14%	57%

5.2 Regional and metropolitan students employed in regions over time

	Percentage of student with a regional home location and initially employed in regions		Percentage of students with a metropolitan home location and initially employed in the regions	
	1995-2002	1995-2005	1995-2002	1995-2005
Overall	Upward trend, increasing at an average rate of 1.6% per year	Upward trend, increasing at an average rate of 1.3% per year	No trend	No trend
The Faculty of Arts	No trend	No trend	No trend	No trend
The Faculty of Commerce	Upward trend, increasing at an average rate of 2.0% per year.	Upward trend, increasing at an average rate of 2.5% per year	No trend	No trend
The Faculty of Education	No trend	No trend	No trend	Upward trend, increasing at an average rate of 1.9% per year
The Faculty of Health Studies	Upward trend, increasing at an average rate of 3.1% per year.	Upward trend, increasing at an average rate of 2.0% per year	No trend	No trend
The Faculty of Science and Agriculture	Upward trend, increasing at an average rate of 2.6% per year.	Upward trend, increasing at an average rate of 2.2% per year	Upward trend, increasing at an average rate of 4.4% per year.	Upward trend, increasing at an average rate of 3.1% per year

5.3 Regional origin and destination

Cohort	Percent from Regions		Percent employed in Regions	
	1995-2002	1995-2005	1995-2002	1995-2005
Overall	75%	75%	58%	60%
Faculty				
Arts	54%	53%	41%	41%
Commerce	80%	82%	54%	59%
Education	81%	83%	71%	72%
Health Studies	84%	83%	59%	60%
Science & Agriculture	77%	77%	64%	67%
Gender				
Male	75%	75%	56%	58%
Female	74%	75%	59%	61%
Field of Education				
Natural & Physical Sciences	59%	61%	75%	73%
Information Technology	47%	51%	82%	84%
Agriculture, Environmental & Related	75%	78%	76%	76%
Health	60%	61%	83%	82%
Education	71%	73%	82%	84%
Management & Commerce	54%	59%	79%	81%
Society and Culture	57%	55%	70%	67%
Creative Arts	31%	34%	44%	45%

5.4 Regional origin and destination over time

	Percentage of students from regions		Percentage of students initially employed in regions	
	1995-2002	1995-2005	1995-2002	1995-2005
Overall	No trend	No trend	Upward trend, increasing at an average rate of 1.7% per year	Upward trend, increasing at an average rate of 1.4% per year
The Faculty of Arts	No trend	No trend	No trend	No trend
The Faculty of Commerce	Upward trend, increasing at an average rate of 1.7% per year	Upward trend, increasing at an average rate of 1.7% per year	Upward trend, increasing at an average rate of 2.0% per year	Upward trend, increasing at an average rate of 3.2% per year
The Faculty of Education	No trend	No trend	No trend	No trend
The Faculty of Health Studies	No trend	No trend	Upward trend, increasing at an average rate of 2.9% per year	Upward trend, increasing at an average rate of 1.7% per year
The Faculty of Science and Agriculture	No trend	No trend	Upward trend, increasing at an average rate of 3.3% per year	Upward trend, increasing at an average rate of 2.5% per year

6 CONCLUSIONS

The results of this study show that there continues to be a strong relationship between the home location of a student and the location of their employment upon completion of their studies at Charles Sturt University. A student with a regional home location has been shown to be more likely to be initially employed in a regional location. Similarly, a student with a metropolitan home location is more likely to be initially employed in a metropolitan location.

Overall the proportion of graduates initially employed in a regional area has increased since the previous study. Seventy-three percent of regional students found initial employment in a regional area which is an increase from the previous study (71%). There continues to be an upward trend in the proportion of graduates being employed in the regions, however the growth rate has slowed slightly.

In addition to the regional students, 20% of metropolitan students found initial employment in regional areas which is an increase from the previous study (18%). The increasing employment of graduates in regional areas would suggest an increasing contribution by Charles Sturt University to the regional economy.

Seventy-five percent of all internal graduate students attending Charles Sturt University originated from a regional location. This percentage is consistent with the previous study. There was a slight increase in the proportion of students employed in the regions however these results show a consistent relocation of graduates to metropolitan areas at the expense of regional areas.

7 THE WESTERN RESEARCH INSTITUTE

The WRI is a non-profit economic, business and social research organisation located on the Bathurst campus of Charles Sturt University. The WRI holds a wealth of knowledge on employment, business development and investment issues affecting regional Australia. It has worked with Commonwealth, State and Local Governments and industry groups on numerous investment and development programs in regional areas. The WRI has strong credentials in business and commercial market consulting and applied economic modelling including input-output analysis, shift-share, agribusiness and regional socio-economic surveys and analysis.

7.1 The Research Team

Tom Murphy - Chief Executive Officer BEc. (Hons I) MSc. (Econ) Lancaster

Tom Murphy holds the degrees of Bachelor of Economics from the University of New England and Master of Science (Economics) from the University of Lancaster. He is currently Chief Executive Officer of the WRI. Mr Murphy has previously held academic positions as senior lecturer in Economics and Director of the Regional Economics Research Unit in the Faculty of Commerce, Charles Sturt University, Bathurst and positions at the University of New England and Macquarie University. He has also held the positions of Economic Analyst with the Office of National Assessments in Canberra, with responsibility for the ASEAN economies and Senior Consultant with KPMG Peat Marwick Management Consultants.

Kathy Sloan – Senior Research Officer BAppSc (Geography) UC, GDip InfoSys CSU

Kathy provides statistical analysis in WRI projects and is an experienced researcher in both the private and public sectors. Her strengths in information communication technology ensure WRI work is enhanced through the use of current computer applications. Her experience in private consultancy and the Planning and Audit Division of CSU provides a strong background in project management and quality assurance.

Luciana Mazzotti - Senior Research Officer BBus (Hons 1) BBus (Marketing) CSU

Luciana is research manager of the WRI, with a strong background in marketing and a keen understanding of complex economic modelling. Her strong analytical capabilities and excellent written communication skills are demonstrated by the clear and simple language that characterises WRI research reports. Prior to working with the WRI, Luciana worked in the retail, hospitality and advertising industries and brings a diverse range of skills to the WRI.

Rachel Somerville – Research Assistant BEquineBusMgt (Hons2/1)

Rachel holds a Bachelor of Equine Business Management with second class, first division honours from the University of Sydney where she also listed on the Deans Honour List for Business Law. Rachel has experience in the hospitality and retail industries as well as having spent several years working as a sales representative for a local newspaper, developing a sound understanding of regional business. With a strong interest in agricultural and environmental areas, particularly land and stock management, Rachel brings a variety of skills to her support role at the WRI.

Lin Jiang – Research Assistant BA, MSc (BusMgt), MA Educational Studies

Lin has Masters in Business Management and Education which coupled with her international business experience gives her a keen understanding of industry research. Lin has specific skills in statistical data analysis, including normal distribution, cross-tabulation and correlation coefficients in SPSS, teaching and counselling, administration and international trade and brings a variety of strengths to the WRI. Lin originates from Mainland China, where she worked at Qing Dao University.

8 Appendix 1 – List of Data elements

PCCF_STUDENT_ID	Student Id as appeared in PCCF
PCCF_COURSE	DEST Course code as appeared in PCCF
PCCF_SPECIALISATION	DEST Specialisation as appeared in PCCF
PCCF_YEAR	Year that record was reported to DEST
PCCF_YEAR2	Year that student actually completed (COMP_YEAR)
PCCF_CIT_RESIDENT	PCCF CITIZEN RESIDENT value for student
FIRST_YEAR	First Year that student appeared in CSU/DEST ENROL files for any course
FIRST_SUB	First Submission that student appeared in CSU/DEST ENROL files for any course
FIRST_HOME_LOCATION	HOME_LOCATION as appeared in first ENROL record for student for any course
FIRST_COMMENCEMENT_DATE	The Date that the student first enrolled for any course at CSU
FIRST_GENDER	Gender of student as appeared in first ENROL records for any course
FIRST_ATT_MODE	Attendance Mode from first ENROL record for any course (Internal, Mixed mode, D/E)
FIRST_ATT_TYPE	Attendance Type from first ENROL record for any course (Full time, Part time)
FIRST_DOB	Date of Birth from first ENROL record for any course
FIRST_ATSI	Aboriginal Torres Strait Islander value from first ENROL record for any course
FIRST_MEMBER_LOCATION	Member Location from first ENROL record for any course
FIRST_HECS	HECS Exemption status from first ENROL record for any course
HOME_REGION	CSU Region based on FIRST_HOME_LOCATION
FACULTY	Faculty code for PCCF_COURSE
COURSE_TYPE	DEST Course type for PCCF Course
FOS	DEST Field of Study (Pre 2000) for PCCF_COURSE
FOE	DEST Field of Education (Post 2000 - ASCED) for PCCF_COURSE
FACULTY_NAME	Faculty name for PCCF_COURSE
CURRENT_FOE	FOE equivalent for PCCF Courses with an FOS
FOE_NAME	ASCED FOE name
ACTIVITY	GCCA value for Activity as at 31 October
STUDY	GCCA value for Study mode in final year
STL_WTH_EMP	GCCA value - Still with employer
DESTINATION_PCODE	GCCA value, Destination postcode
ACTIVITY_NAME	Name for ACTIVITY - CSU aggregate
WORK_FINAL_YEAR	Did student have work in final year?
SAME_EMPLOYER	CSU aggregate for STL_WTH_EMP (Still with employer)
STUDY_MODE	In what mode (FT, PT, none) did student study in final year
DESTINATION_REGION	CSU region based on DESTINATION_PCODE