



Department of Education,  
Science and Training

# **Access**

## **Effect of campus proximity and socio-economic status on university participation rates in regions**

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01/C

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# 1. Introduction

The OECD (1997) found that while expansion has tended to dominate educational developments in OECD countries, many of the most familiar inequalities continue to persist. The report states: ‘...it is clear that socio-economic concerns lie at the core of many issues of equity, access and participation in education and training, whether addressing causes or consequences’ (p. 131). The report further contends that social, home and educational factors combine to explain educational disadvantage, and that these factors tend to be located in particular spatial and geographical settings (p. 67).

This review is supported by the findings of Stevenson et al. (1999) which demonstrated that there is a stronger relationship between regional participation and university provision in non-metropolitan areas. Nevertheless, large variation in regional participation rates in metropolitan areas suggested that factors other than proximity to a campus are important.

This study builds on Stevenson et al. (1999) by using multivariate analysis to explore the relative importance of socio-economic characteristics and access to university campuses in determining participation rates in metropolitan and non-metropolitan regions. The major findings to emerge are:

- Access (proximity to university campuses) and socio-economic status of regions contribute to university participation (p. 8, regression results).
- In metropolitan areas educational aspirations (as measured by education and occupation levels) explain the bulk of the variation in participation rates, although the level of access and the level of economic resources explain a significant proportion of that variation (p. 12, Table 2a).
- In exploring the variation in participation rates of non-metropolitan regions none of the variables is dominant, with the level of economic resources and access being marginally more important than the level of education and occupation (p. 13, Table 2b).
- While the number of university places per head of population in non-metropolitan areas is significantly lower than in metropolitan areas, equality of provision would only reduce the difference in participation to a small degree (pp. 14–15).
- A decomposition of the difference between average metropolitan and non-metropolitan participation rates indicates that a substantial part of the difference cannot be explained by the variables used in this analysis (p. 15). This result suggests that building campuses in non-metropolitan regions is not the way to bring university participation rates up to metropolitan levels. Fundamentally it appears that overall perceptions of the value of university education need to change in non-metropolitan regions before participation rates could approach those of metropolitan regions.



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## 2. Methodology

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### 2.1 Participation rates

University participation rates were derived by Stevenson et al. (1999) from 1996 Australian Bureau Statistics (ABS) Census data for 290 regions across Australia (see Appendix A, Table A1). Participation at university means that at Census night, 6 August 1996, a person was attending university. The participation rate for a geographic area is the percentage of 19–21-year-olds who lived in that spatial unit five years ago and are currently attending university. By capturing the students' location five years previously (when they were 14–16 years of age) their region of origin is reflected, rather than their location at the time of attending university. This avoids the problem of regions close to university campuses having their participation rate inflated and regions distant from campuses having their participation rate deflated as people move away to study.

The regional structure used consists of 290 regions made up of single Statistical Local Areas (SLAs), Statistical Subdivisions (SSDs) and Statistical Divisions (SDs) or groupings of neighbouring SLAs or SSDs.

The 290 regions were classified into metropolitan and non-metropolitan regions using the *Rural, Remote and Metropolitan Areas Classification 1991 Census Edition* (1994)<sup>1</sup>.

The regional structure and an alphabetical index of regions are shown at Appendix A. For the 290 regions across Australia, university participation of 19–21 year-olds in August 1996 ranged from 3.5 to 64.2 per cent. The national average was 24.2 per cent, with the average in metropolitan regions 26.6 per cent and 18.8 per cent in non-metropolitan regions.

Before attempting to measure and understand the effects of socio-economic characteristics and proximity to a university on university participation rates, appropriate variables to represent socio-economic characteristics and proximity to university provision need to be constructed.

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<sup>1</sup> The classification categorises all statistical local areas (SLAs) in Australia into three zones: metropolitan areas, rural zones and remote zones. As this classification was not undertaken on the 1996 Census boundaries, classifications from the 1991 edition have been applied to 1996 geographic units which are the basis of the regional structure in this study. This was a difficult process as there were many major geographic changes between 1991 and 1996. There was a further difficulty as the classification is based on each SLA being classified but in this study nearly half the regions consist of groups of SLAs. As a result, there were 29 regions with composite zone classifications. These composites were across the rural and remote categories, so the two categories were combined to form the 'non-metropolitan' zone used in this study.

## 2.2 Socio-economic characteristics

The ABS produces a set of five socio-economic indexes for areas for each census using a broad range of social and economic characteristics of the population<sup>2</sup>:

- Urban Index of Relative Socio-Economic Advantage
- Rural Index of Relative Socio-Economic Advantage
- Index of Relative Socio-Economic Disadvantage
- Index of Economic Resources
- Index of Education and Occupation

This study used two indexes from the 1996 Census—the Index of Economic Resources and the Index of Education and Occupation—as measures of the socio-economic status of regions.

The Index of Economic Resources highlights what could be called disposable income, focusing on economic resources of households in the region. Variables summarised by this index reflect the income, expenditure, home ownership, dwelling size and car ownership of families in the regions. High index values indicate that the region has a higher proportion of families on high income, a lower proportion of low-income families, more households purchasing or owning dwellings and living in large houses.

The Index of Education and Occupation reflects the educational and occupational structure of communities. High index values indicate that a region would have a high concentration of persons with higher education or undergoing further education, and people being employed in the higher skilled occupations.

The Index of Relative Socio-Economic Disadvantage was excluded because most of its variables were also in the Indexes of Economic Resources and Education and Occupation. This was also the case for the two Indexes of Relative Socio-Economic Advantage.

## 2.3 Access

A simple measure of access to university would be whether a region has a campus or not and, if it does, the size of the campus in terms of equivalent full-time student units (EFTSU). However, such a concept is problematic. It is possible, for example, that access is high in a region without a campus because it is adjacent to regions with accessible campuses. To overcome this, a more sophisticated measure of access for each region is required.

The approach taken here is to hypothesise that access for individuals will increase with the size of campuses but decrease with distance to a campus. That is, we define  $A_i$ , access for individuals in region  $i$ , to be

<sup>2</sup> The index scores have been standardised to have a mean of 1000 for the whole of Australia, and a standard deviation of 100 across all collection districts (CDs) in Australia. In practice this means that around 95 per cent of index scores are between 800 and 1200.

$$A_i = \sum_j \frac{M_j}{D_{ij}^\gamma} \quad (1)$$

where  $M_j$  is the size of campus  $j$  and  $D_{ij}$  is the distance between region  $i$  and campus  $j$ , and  $\gamma$  is a parameter determining the effect of distance on access. The size of the campus is EFTSU at each campus (Stevenson et al. 1999, Appendix D). The access an individual has to higher education depends on the size of all institutions (positively) and distance (negatively) from the region, thus a single (average) university access measure for each region can be derived.

Distances between each region and the campuses were calculated by using Equidistant (Simple Conic) projection between the central point (centroid) of each region and the campus location.

This measure itself suffers from boundary problems. In particular, many rural regions are very large and the locations of population centres are unlikely to correspond to the region's centroid. For example, using (1) the measure of access for the Northern Tablelands was relatively low. This result is contentious since the region includes the University of New England and the reasonably large town of Armidale is adjacent to the university. The access to a university of many people in the area should, therefore, be relatively high. The low access value of the region was, however, due to the fact that the centroid of the region does not coincide with the major population centres. To overcome this problem for rural areas we calculate access at a more disaggregated level and then aggregate to the region. That is

$$A_i = \sum_K \frac{P_{ik}}{P_i} \sum_j \frac{M_j}{D_{kj}^\gamma} \quad (2)$$

where  $k$  refers to population centres within region  $i$ ,  $P_{ik}$  is the population of sub-region  $k$ , and  $P_i$  is the population of region  $i$ <sup>3</sup>. This methodology allows the access value to be more aligned to population centres.

A further problem is that measures in (1) or (2) increase without limit as the distance goes to zero and the size of the campuses increase. This causes difficulties for metropolitan regions adjacent to large universities. To overcome this problem a minimum distance constraint set at 5 km is imposed, on the basis that travel of that distance would not pose any constraint on attendance.

<sup>3</sup> While this formula appears complicated, it has the property of consistency in the sense that it is independent of the level of regional classification. That is, access at a regional level is the average of access at a sub-regional level.



### 3. Modelling

The university participation rates were modelled as simple linear regressions for various values of  $\gamma$ . On the basis that the participation behaviour of those living in cities was likely to be different to that of non-metropolitan residents, separate regressions were used for metropolitan and non-metropolitan regions<sup>4</sup>. State dummies were included to pick up interstate differences.

Furthermore, a cap was applied to access values for metropolitan regions as it was found that a point of saturation was reached where having more access resulted in no increase in participation. Consequently, for the metropolitan model the maximum access value (the saturation point) was set at 650. This value was chosen on the basis of regression results which indicated that access added nothing to the explanatory power of the model for values above 650<sup>5</sup>.

In the final models  $\gamma=2$  was used in the access variable. This value of  $\gamma$  was the optimal value for metropolitan regions (to the nearest 0.25) and there was little to be gained in using a different value for non-metropolitan regions. As a check of the measure of access we included a regional EFTSU variable and found that the access variable was clearly superior in metropolitan regions, but there was nothing to choose between EFTSU and access in the non-metropolitan model. For consistency, access rather than EFTSU is used. The final regression models were:

$$\begin{aligned} \text{UPR}_m = & \beta_0 + \beta_1 \text{access} + \beta_2 \text{index of education and occupation} \\ & + \beta_3 \text{index of economic resources} + \beta_4 \text{NSW} + \beta_5 \text{VIC} + \beta_6 \text{QLD} \\ & + \beta_7 \text{SA} + \beta_8 \text{WA} + \beta_9 \text{TAS} + \beta_{10} \text{ACT} \end{aligned} \quad (3)$$

$$\begin{aligned} \text{UPR}_{n-m} = & \beta_0 + \beta_1 \text{access} + \beta_2 \text{index of education and occupation} \\ & + \beta_3 \text{index of economic resources} + \beta_4 \text{NSW} + \beta_5 \text{VIC} + \beta_6 \text{QLD} \\ & + \beta_7 \text{SA} + \beta_8 \text{WA} + \beta_9 \text{TAS} \end{aligned} \quad (4)$$

The results of the regression analysis are given in Table 1.

<sup>4</sup>This approach was confirmed by an F test.

<sup>5</sup>That is, a saturation point of 650 maximised the R<sup>2</sup> of the model.

**Table 1** Regression estimates of university participation

	Metropolitan regions (n=185) (Adj R <sup>2</sup> = 0.85)		Non-metropolitan regions (n=105) (Adj R <sup>2</sup> = 0.74)	
	Parameter estimate	t Value*	Parameter estimate	t Value*
Intercept	-111.32	-14.46	-49.74	-3.94
Access	0.01	6.45	0.02	4.42
Index of Education and Occupation	0.09	11.87	0.03	2.12
Index of Economic Resources	0.04	5.12	0.03	3.05
NSW	-1.59	-0.33	8.93	4.34
VIC	3.62	0.76	11.94	5.62
QLD	1.52	0.32	6.59	2.93
SA	3.20	0.66	6.32	2.84
WA	-1.29	-0.27	1.47	0.63
TAS	4.29	0.75	5.85	2.39
ACT	-3.40	-0.67	N/A	N/A

\* Although none of the state dummy variables were significant individually, jointly they were significant at the .05 level.

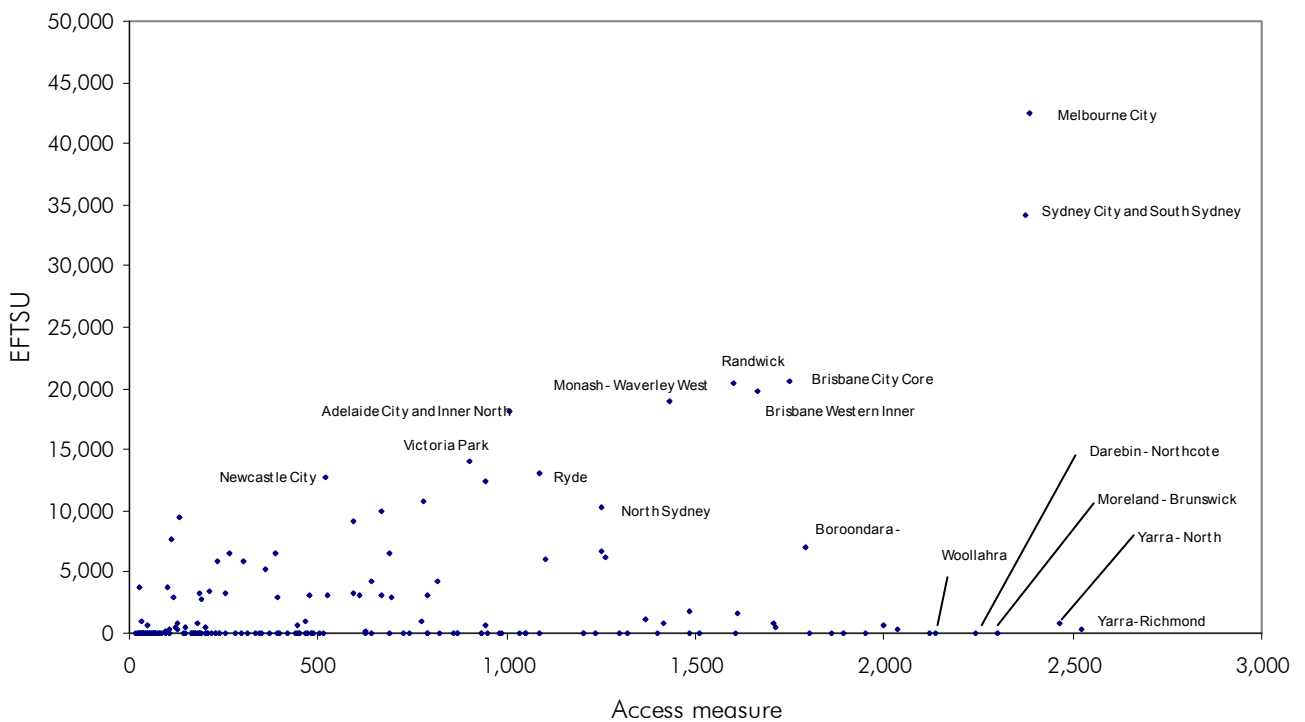
We observe that the metropolitan model has a larger R<sup>2</sup> than the non-metropolitan model. That is, the model explains a greater proportion of the variation across regions in metropolitan regions than in non-metropolitan regions.

## 4. Discussion

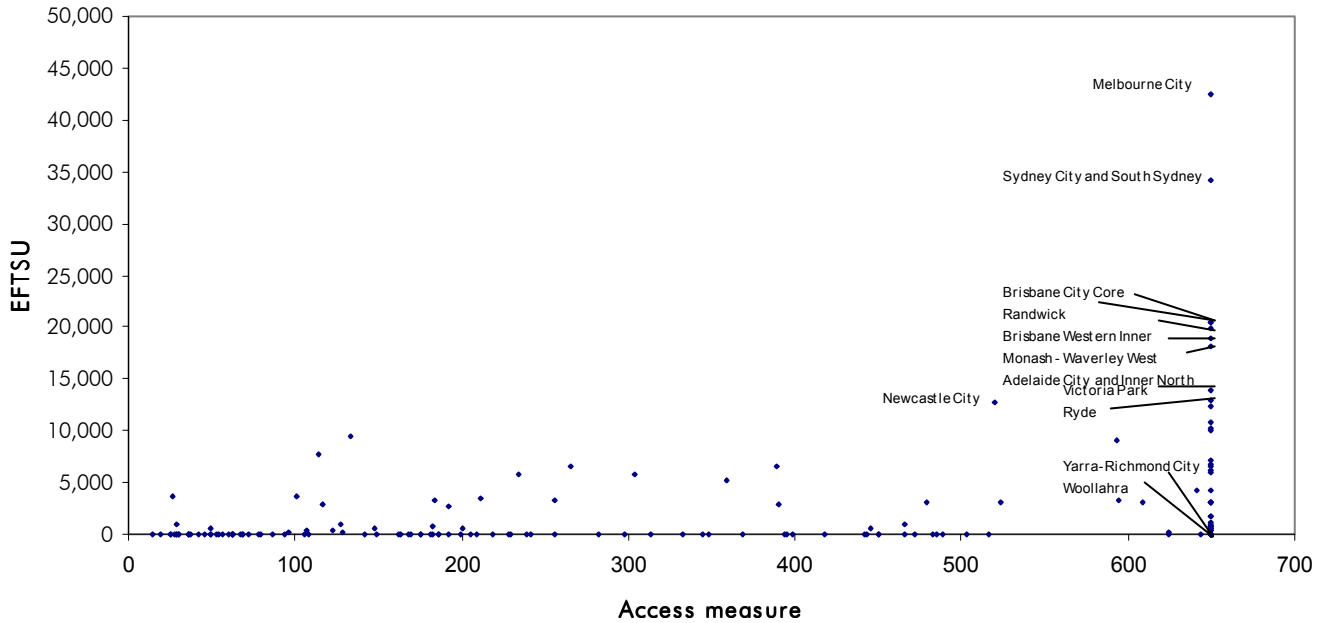
The regional distribution of the regression variables is provided in the maps at Appendix D.

We first consider the access variable. Figure 1A plots the calculated access measure against EFTSU for each metropolitan region. Not surprisingly, regions with high EFTSU have high access, for example Melbourne City (88) and Sydney City–South Sydney (4). However, many regions with high access have no campuses actually within the region, for example Yarra–Richmond (93) and Woollahra (7). Figure 1B shows the same data with the saturation point of 650 applied. Of the 185 metropolitan regions, 69 have an access value greater than the saturation value of 650.

Figure 1A Metropolitan regions—EFTSU and access measure



**Figure 1B Metropolitan regions—EFTSU and access measure with saturation point 650**



The access variable, because it is made up of a combination of distance and EFTSU, does not have an intuitive metric. To describe the differential access of regions we consider the impact of access on predicted participation, focusing on variation relative to the average. Therefore, if access of the  $i^{th}$  region is  $a_i$  and average access is  $\bar{a}$  then our variable is:

$$(a_i - \bar{a}) \times \text{regression coefficient } a_i \tag{5}$$

The access measure and index values, as well as the calculated mean-relative effect of these variables on predicted participation rates, are presented for metropolitan regions in Appendix B, Table B1.

The Manly region (region 39) is used as an example to demonstrate the interpretation of these calculated values. The Manly access measure of 625, is 240 greater than the mean metropolitan access measure of 385. This improves the participation rate for Manly by 3.1 percentage points relative to the participation rate Manly might have had if its access was the mean metropolitan access. In other words, if Manly’s access was the mean metropolitan access its participation rate would have been expected to be 3.1 percentage points lower.

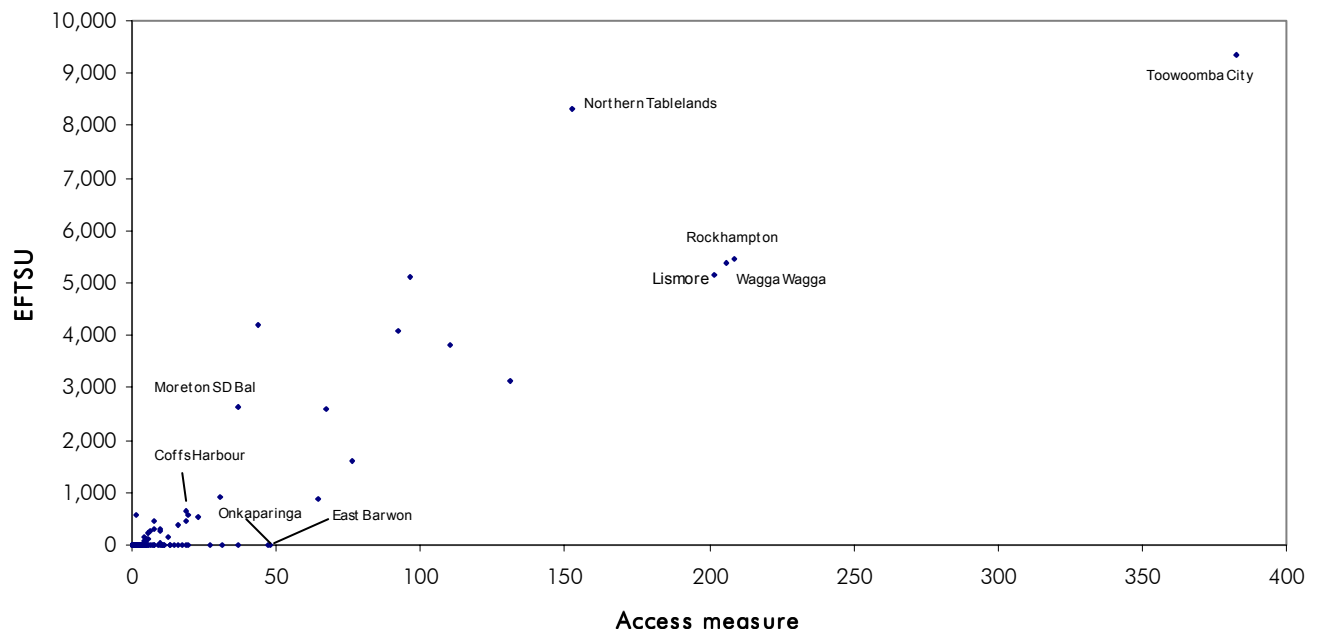
The metropolitan region with the least access is Tweed Heads–Pt A (59). This region has an access value of 14.0 which implies that its expected participation is 4.7 percentage points less than a region with average access. By contrast, regions at the saturation point have an expected participation rate 3.4 percentage points higher than a region with average access.

Figure 2 plots access against EFTSU for non-metropolitan regions. Again it can be seen that regions with high EFTSU have high access, for example Toowoomba City (199) and Rockhampton (202). It is also evident that some regions without a campus, for example East Barwon (151) and Onkaparinga (232) have higher access

levels than some regions with campuses, for example Moreton SD Bal (194) and Coffs Harbour (61).

However, comparing Figures 1 and 2, it is clear that the correlation between regional EFTSU and the access measure is much higher for non-metropolitan regions than for metropolitan regions<sup>6</sup>.

**Figure 2 Non-metropolitan regions—EFTSU and access measure**



As with the metropolitan regions, the effect on participation by access (relative to the mean access measure) is calculated using (5)—see Appendix B, Table B2. The mean access for non-metropolitan regions is 24.7. The regions with the highest access are all non-metropolitan centres with a campus: Toowoomba City (199), Rockhampton (202), Wagga Wagga (81) and Lismore (59). These centres have expected participation rates at least 4 percentage points higher than regions with average access.

By contrast, Far West (NSW) (87) has virtually no access to a campus and its participation rate is 0.6 percentage points lower than an average region. From these examples, it is evident that non-metropolitan access is highly skewed towards the large regional centres where most of the non-metropolitan population lives.

We use an analogous formula to (5) to describe the socio-economic status of regions in terms of impact on participation. The values for each region are presented in the tables at Appendix B.

While Appendix B shows the effect of the variables on access for each region it is useful to summarise the results. This is achieved by taking each variable in turn, holding the other variables constant, and looking at the effect of moving from the 5<sup>th</sup> percentile to the 95<sup>th</sup> percentile (Tables 2a and 2b).

<sup>6</sup> In fact, as noted earlier, it makes little difference in the fit of the model for non-metropolitan regions if we use regional EFTSU rather than the access measures.

**Table 2a Metropolitan regions—Effect on university participation rates of moving from 5<sup>th</sup> to 95<sup>th</sup> percentile for each variable while holding other variables constant**

	Regions	Effect on participation rate (percentage points)
Access	<b>0–5<sup>th</sup> percentile</b> Tweed Heads—Pt A, Cessnock, Maitland, Rockingham, Hawkesbury, Kiama & Shellharbour, Mundaring, Wollondilly, Wyong	7.9
	<b>95<sup>th</sup>–100<sup>th</sup> percentile</b> Auburn, North Canberra, Enfield—Pt A, Melville, Ku-ring-gai, Canterbury, Burnside, Strathfield, Brisbane Southern Outer, Moreland—North, Canning, Whittlesea—South, Parramatta, Moonee Valley—West, Rockdale, Banyule—North, Bayside—Brighton, Victoria Park, Concord, Hobsons Bay—Williamstown, Perth Central Metropolitan, Willoughby, Whitehorse—Nunawading W., Glen Eira—South, Burwood, Adelaide City & Inner North and East, Unley, Monash—Waverley East, Brisbane Northern Inner, Ryde, Mosman, Whitehorse—Box Hill, Banyule—Heidelberg, South Perth, Hunter's Hill & Lane Cove, Glen Eira—Caulfield, Darebin—Preston, Maribyrnong, Boroondara—Camberwell N., Monash—South-West, North Sydney, Port Phillip—St Kilda, Brisbane Eastern Inner, Monash—Waverley West, Moreland—Coburg, Drummoyne, Ashfield, Randwick, Boroondara—Camberwell S., Stonnington—Malvern, Brisbane Western Inner, Moonee Valley—Essendon, Boroondara—Kew, Brisbane City Core, Boroondara—Hawthorn, Waverley, Botany, Brisbane Southern Inner, Marrickville, Leichhardt, Stonnington—Prahran, Woollahra, Port Phillip—West, Darebin—Northcote, Moreland—Brunswick, Sydney City & South Sydney, Melbourne City, Yarra—North, Yarra—Richmond	
Index of Education and Occupation	<b>0–5<sup>th</sup> percentile</b> Elizabeth, Kwinana, Brimbank—Sunshine, Cessnock, Hume—Broadmeadows, Gr. Dandenong Bal, Salisbury, Port Adelaide, Enfield—Pt B & Unincorp. Western, Munno Para & Gawler, Fairfield	38.0
	<b>95<sup>th</sup>–100<sup>th</sup> percentile</b> Boroondara—Camberwell S., Hunter's Hill & Lane Cove, Boroondara—Kew, Boroondara—Hawthorn, Woollahra, Ku-ring-gai, North Sydney, Mosman	
Index of Economic Resources	<b>0–5<sup>th</sup> percentile</b> Elizabeth, Port Adelaide, Enfield—Pt B & Unincorp. Western, Enfield—Pt A, Maribyrnong, Victoria Park, Yarra—Richmond, Sydney City & South Sydney, Port Phillip—St Kilda, Moreland—Brunswick	8.2
	<b>95<sup>th</sup>–100<sup>th</sup> percentile</b> Manningham—East & West, Willoughby, Bayside—Brighton, Hunter's Hill & Lane Cove, Woollahra, Pittwater, Hornsby, Mosman, Baulkham Hills, Ku-ring-gai	

**Table 2b Non-metropolitan regions—Effect on university participation rates of moving from 5<sup>th</sup> to 95<sup>th</sup> percentile for each variable while holding other variables constant**

	Regions	Effect on participation rate (percentage points)
Access	<b>0–5<sup>th</sup> percentile</b> Kimberley, Pilbara, Central NT, North West & Central West, Central	2.8
	<b>95<sup>th</sup>–100<sup>th</sup> percentile</b> Greater Bendigo City Part A, Northern Tablelands, Lismore, Wagga Wagga, Rockhampton, Toowoomba City	
Index of Education and Occupation	<b>0–5<sup>th</sup> percentile</b> Wide Bay—Burnett SD Bal (SSD Bal), Murray Mallee, Dale, Northern SD Bal, Riverland	2.3
	<b>95<sup>th</sup>–100<sup>th</sup> percentile</b> Lismore, Wagga Wagga, Wingecarribee, Snowy, East Barwon, South Loddon	
Index of Economic Resources	<b>0–5<sup>th</sup> percentile</b> Northern Territory—Bal SD, Kimberley, Macquarie-Barwon & Upper Darling, Central NT, Flinders Ranges & Far North	3.1
	<b>95<sup>th</sup>–100<sup>th</sup> percentile</b> Upper Hunter, South Eastern (WA), Pilbara, Wingecarribee, Preston (SSD Bal), South Loddon	

As can be seen from Table 2a, in metropolitan regions the education and occupation index has by far the greatest impact on university participation rates. Furthermore, the impact of economic resources was also greater than that of access.

For non-metropolitan regions (Table 2b) the variation across the variables is not as large. This is not surprising because, as pointed out in Stevenson et al. (1999), the amount of variation in regional participation rates is not as high in non-metropolitan regions compared with metropolitan regions.

Each of the three variables has a similar impact in non-metropolitan regions with the economic resource index having a marginally larger impact than the other variables. The access variable has a significant effect on participation but its effect in substantive terms is not huge. Thus regions with sizable campuses, such as Bendigo (168) and Northern Tablelands (68) which includes Armidale, only have participation rates around three percentage points higher than regions with virtually no access (holding socio-economic status constant).

## 4.1 Difference between metropolitan and non-metropolitan participation

Throughout this paper, discussions on access and socio-economic status have focused on metropolitan and non-metropolitan regions separately. The two models can now be used to examine the difference in metropolitan and non-metropolitan participation rates through a series of mind experiments.

We ask the question: To what extent can the difference be attributed to differences in average socio-economic status and access values? We answer this by imagining that socio-economic status and access values in non-metropolitan regions increases to those pertaining in metropolitan regions. We undertake this mind experiment by, first, inserting the average metropolitan values for education and occupation and for economic resources in the non-metropolitan regions. (See Appendix C for the average values of the regression variables.) This according to the non-metropolitan model would have the effect of increasing participation in the non-metropolitan regions (from the predicted value of 18.3 per cent) to 20.5 per cent for education and occupation and 20.7 per cent for economic resources, differences of 2.2 and 2.4 percentage points respectively<sup>7</sup>.

The effect of access is more complex because it makes little sense to hypothesise a metropolitan sized campus in non-metropolitan regions. The difficulty is essentially a difference in size between the metropolitan and non-metropolitan regions. This difficulty is addressed by calculating the level of access corresponding to the ratio of EFTSU/19–21-year-old population at the aggregate levels. The relevant ratios are 0.89 for metropolitan regions and 0.33 for non-metropolitan regions. It is then hypothesised that the average access in non-metropolitan regions by the ratio  $0.89/0.33$ , that is increased from 24.7 to 67.0. This would increase participation by 1.0 percentage point on average in non-metropolitan regions<sup>8</sup>.

The combination of these results generates a decomposition of the difference between the average metropolitan and non-metropolitan university participation rates (Table 3).

<sup>7</sup> Alternatively we could have looked at the effect of reduced socio-economic status in the metropolitan regions, using the metropolitan model. The corresponding result would be to reduce participation in metropolitan regions (from the predicted value of 28.4 per cent) to 21.7 per cent for education and occupation and 25.3 per cent for economic resources. However, from a common sense perspective, it is preferable to think of improving living standards in non-metropolitan areas rather than reducing them in metropolitan regions.

<sup>8</sup> Similarly, if we conduct the experiment in the opposite direction we would reduce access in metropolitan regions from 385.4 to 142.0. This would reduce participation in metropolitan regions by 3.1 percentage points.

**Table 3**      **Difference between average metropolitan and non-metropolitan university participation rates**

	percentage points
Average metropolitan participation*	28.4
Difference due to access	1.0
Difference due to education and occupation	2.2
Difference due to economic resources	2.4
Unexplained difference	4.5
Average non-metropolitan participation*	18.3

\*            The average is the predicted participation rate based on average characteristics. This is equivalent to a simple average of regional participation rates.

The two striking features of Table 3 are the relative unimportance of access to a campus and the large unexplained difference. These results suggest that building campuses in non-metropolitan regions is not the way to bring university participation rates up to metropolitan levels; rather the differences in social and economic conditions are more important. Numerically, 1.0 percentage point of the difference between average metropolitan and non-metropolitan participation rates, can be attributed to differences in access, while (summing the differences due to the two socio-economic status variables) 4.6 percentage points is explained by differences in socio-economic status. However, a further 4.5 percentage points remains unexplained. This unexplained component reflects differences in the way participation is related to access and socio-economic status. For given values of access and socio-economic status university participation is lower in non-metropolitan regions than in metropolitan regions. Fundamentally it appears that overall perceptions of the value of university education need to change in non-metropolitan regions before participation rates could approach those of metropolitan regions.



## 5. Conclusion

This study has modelled university participation rates at the regional level to explore the importance of access and socio-economic status in participation rate variations. We found that both access and socio-economic status were significant in explaining differences in regional participation rates for both metropolitan and non-metropolitan areas.

A number of findings emerged. Access is statistically significant but does not play a major role in explaining variation in participation rates. For metropolitan regions differences in the education and occupation levels explain the bulk of variability across metropolitan regions. Across non-metropolitan regions the three variables all play a role in explaining the variation in participation, with economic resources and access being slightly more important than education and occupation.

Overall, the modelling suggests that the difference between metropolitan and non-metropolitan participation is fundamental; differences in access play a very minor role. Differences in socio-economic status are more important but still are only part of the story. Much of the difference in participation appears to relate to the way regional communities relate to the education system.



# Appendix A

## University participation rate for regions, regional structure and index of regions

Table A1	
University participation rate for regions (for 19–21 year olds at August 1996) and regional structure—ordered by ABS, Australian Standard Geographical Classification (ASGC) main hierarchy structure .....	20

Table A2	
Index of regions—ordered alphabetically by region within state/territory.....	40

**Table A1 University participation rate for regions (for 19–20 year olds at August 1996) and regional structure —ordered by ABS, Australian Standard Geographical Classification (ASGC) main hierarchy structure**

Region Number	Region Name	State	University Participation		Statistical Local Areas (SLAs)	Number of SLAs	Region Type	Population	Zone
			Rate	Rate					
1	Botany	NSW	20.7%	20.7%	Botany (A)	1	SLA	35,886	Metro
2	Leichhardt	NSW	25.9%	25.9%	Leichhardt (A)	1	SLA	60,720	Metro
3	Marrickville	NSW	21.3%	21.3%	Marrickville (A)	1	SLA	79,717	Metro
4	Sydney City & South Sydney	NSW	24.0%	24.0%	South Sydney (C), Sydney (C) - Inner, Sydney (C) - Remainder	3	SLAs	93,301	Metro
5	Randwick	NSW	34.1%	34.1%	Randwick (C)	1	SLA	123,338	Metro
6	Waverley	NSW	38.0%	38.0%	Waverley (A)	1	SLA	65,007	Metro
7	Woollahra	NSW	56.1%	56.1%	Woollahra (A)	1	SLA	53,412	Metro
8	Hurstville	NSW	30.5%	30.5%	Hurstville (C)	1	SLA	68,511	Metro
9	Kogarah	NSW	32.2%	32.2%	Kogarah (A)	1	SLA	49,924	Metro
10	Rockdale	NSW	25.5%	25.5%	Rockdale (C)	1	SLA	88,850	Metro
11	Sutherland Shire	NSW	24.1%	24.1%	Sutherland Shire (A)	1	SLA	203,758	Metro
12	Bankstown	NSW	21.7%	21.7%	Bankstown (C)	1	SLA	164,256	Metro
13	Canterbury	NSW	24.3%	24.3%	Canterbury (C)	1	SLA	138,532	Metro
14	Fairfield	NSW	22.3%	22.3%	Fairfield (C)	1	SLA	188,849	Metro
15	Liverpool	NSW	15.4%	15.4%	Liverpool (C)	1	SLA	124,424	Metro
16	Camden	NSW	17.4%	17.4%	Camden (A)	1	SLA	33,129	Metro
17	Campbelltown	NSW	15.0%	15.0%	Campbelltown (C)	1	SLA	148,249	Metro
18	Wollondilly	NSW	15.6%	15.6%	Wollondilly (A)	1	SLA	34,639	Metro
19	Ashfield	NSW	30.0%	30.0%	Ashfield (A)	1	SLA	41,693	Metro
20	Burwood	NSW	36.7%	36.7%	Burwood (A)	1	SLA	29,630	Metro
21	Concord	NSW	30.1%	30.1%	Concord (A)	1	SLA	24,494	Metro

(continued)

**Table A1** University participation rate for regions (for 19-20 year olds at August 1996) and regional structure  
—ordered by ABS, Australian Standard Geographical Classification (ASGC) main hierarchy structure (continued)

Region Number	Region Name	State	University Participation		Statistical Local Areas (SLAs)	Number of SLAs	Region Type	Population	Zone
			Rate	Rate					
22	Drummoyne	NSW	26.2%	Drummoyne (A)	1	SLA	31,962	Metro	
23	Strathfield	NSW	48.2%	Strathfield (A)	1	SLA	27,128	Metro	
24	Auburn	NSW	25.4%	Auburn (A)	1	SLA	53,140	Metro	
25	Holroyd	NSW	18.9%	Holroyd (C)	1	SLA	83,681	Metro	
26	Parramatta	NSW	25.0%	Parramatta (C)	1	SLA	142,993	Metro	
27	Blue Mountains	NSW	24.9%	Blue Mountains (C)	1	SLA	74,870	Metro	
28	Hawkesbury	NSW	17.8%	Hawkesbury (C)	1	SLA	59,137	Metro	
29	Penrith	NSW	15.1%	Penrith (C)	1	SLA	167,927	Metro	
30	Baulkham Hills	NSW	36.3%	Baulkham Hills (A)	1	SLA	125,553	Metro	
31	Blacktown	NSW	14.7%	Blacktown (C)	1	SLA	239,765	Metro	
32	Hunter's Hill & Lane Cove	NSW	51.9%	Hunter's Hill (A), Lane Cove (A)	2	SLAs	43,922	Metro	
33	Mosman	NSW	54.9%	Mosman (A)	1	SLA	27,437	Metro	
34	North Sydney	NSW	44.5%	North Sydney (A)	1	SLA	56,235	Metro	
35	Ryde	NSW	32.9%	Ryde (C)	1	SLA	96,334	Metro	
36	Willoughby	NSW	47.6%	Willoughby (C)	1	SLA	56,401	Metro	
37	Hornsby	NSW	41.0%	Hornsby (A)	1	SLA	143,466	Metro	
38	Ku-ring-gai	NSW	60.5%	Ku-ring-gai (A)	1	SLA	105,225	Metro	
39	Manly	NSW	35.3%	Manly (A)	1	SLA	37,632	Metro	
40	Pittwater	NSW	24.9%	Pittwater (A)	1	SLA	54,617	Metro	
41	Warringah	NSW	28.7%	Warringah (A)	1	SLA	131,070	Metro	
42	Gosford	NSW	19.0%	Gosford (C)	1	SLA	150,261	Metro	
43	Wyong	NSW	14.2%	Wyong (A)	1	SLA	120,295	Metro	

(continued)

Table A1 University participation rate for regions (for 19-20 year olds at August 1996) and regional structure —ordered by ABS, Australian Standard Geographical Classification (ASGC) main hierarchy structure (continued)

Region Number	Region Name	State	University Participation		Statistical Local Areas (SLAs)	Number of SLAs	Region Type	Population	Zone
			Rate	Rate					
44	Cessnock	NSW	9.8%	Cessnock (C)		1	SLA	45,705	Metro
45	Lake Macquarie	NSW	19.8%	Lake Macquarie (C)		1	SLA	176,860	Metro
46	Maitland	NSW	17.2%	Maitland (C)		1	SLA	51,416	Metro
47	Newcastle City	NSW	22.2%	Newcastle (C) - Inner, Newcastle (C) - Remainder		2	SLAs	137,391	Metro
48	Port Stephens	NSW	17.6%	Port Stephens (A)		1	SLA	52,307	Metro
49	Lower Hunter	NSW	18.7%	Dungog (A), Gloucester (A), Great Lakes (A)		3	SLAs	41,598	Non-metro
50	Upper Hunter	NSW	14.1%	Merrima (A), Murrurundi (A), Muswellbrook (A), Scone (A), Singleton (A)		5	SLAs	50,226	Non-metro
51	Kiama & Shellharbour	NSW	15.0%	Kiama (A), Shellharbour (A)		2	SLAs	72,288	Metro
52	Wollongong	NSW	19.5%	Wollongong (C)		1	SLA	183,448	Metro
53	Shoalhaven	NSW	14.2%	Shoalhaven (C)		1	SLA	79,168	Non-metro
54	Wingecarribee	NSW	26.4%	Wingecarribee (A)		1	SLA	38,069	Non-metro
55	Tweed Heads - Pt A	NSW	19.7%	Tweed (A) - Pt A		1	SLA/SSD	39,196	Metro
56	Ballina	NSW	25.8%	Ballina (A)		1	SLA	34,683	Non-metro
57	Byron	NSW	18.8%	Byron (A)		1	SLA	26,626	Non-metro
58	Casino, Kyogle & Richmond River	NSW	17.1%	Casino (A), Kyogle (A), Richmond River (A)		3	SLAs	30,696	Non-metro
59	Lismore	NSW	26.3%	Lismore (C)		1	SLA	43,547	Non-metro
60	Tweed - Pt B	NSW	22.1%	Tweed (A) - Pt B		1	SLA	25,915	Non-metro
61	Coffs Harbour	NSW	21.4%	Coffs Harbour (C)		1	SLA	57,316	Non-metro
62	Clarence (SSD Bal)	NSW	20.3%	Bellingen (A), Copmanhurst (A), Grafton (C), Maclean (A), Nambucca (A), Nymboida (A), Ulmarra (A)		7	SSD Bal	77,628	Non-metro
63	Greater Taree	NSW	17.0%	Greater Taree (C)		1	SLA	43,566	Non-metro

(continued)

**Table A1** University participation rate for regions (for 19-20 year olds at August 1996) and regional structure  
—ordered by ABS, Australian Standard Geographical Classification (ASGC) main hierarchy structure (continued)

Region Number	Region Name	State	University Participation Rate	Statistical Local Areas (SLAs)			Number of SLAs	Region Type	Population	Zone
64	Hastings	NSW	21.2%	Hastings (A)			1	SLA	57,281	Non-metro
65	Kempsey	NSW	16.1%	Kempsey (A)			1	SLA	26,479	Non-metro
66	Tamworth	NSW	23.3%	Tamworth (C)			1	SLA	35,592	Non-metro
67	Northern Slopes (SSD Bal)	NSW	17.9%	Barraba (A), Bingara (A), Gunnedah (A), Inverell (A) - Pt A, Manilla (A), Nundle (A), Parry (A), Quirindi (A), Yallaroi (A)			9	SSD Bal	47,541	Non-metro
68	Northern Tablelands	NSW	26.6%	Armidale (C), Dumaresq (A), Glen Innes (A), Guyra (A), Inverell (A) - Pt B, Severn (A), Tenterfield (A), Uralla (A), Walcha (A)			9	SSD	65,748	Non-metro
69	North Central Plain	NSW	15.5%	Moree Plains (A), Narrabri (A)			2	SSD	29,708	Non-metro
70	Dubbo	NSW	18.0%	Dubbo (A)			1	SLA	36,542	Non-metro
71	Central Macquarie (SSD Bal)	NSW	18.1%	Coolah (A), Coonabarabran (A), Gilgandra (A), Mudgee (A), Narromine (A), Wellington (A)			6	SSD Bal	48,872	Non-metro
72	Macquarie-Barwon & Upper Darling	NSW	11.6%	Bogan (A), Coonamble (A), Walgett (A), Warren (A) + Bourke (A), Brewarrina (A), Cobar (A)			7	SSDs	31,861	Non-metro
73	Bathurst-Orange	NSW	25.3%	Bathurst (C), Blayney (A) - Pt A, Cabonne (A) - Pt A, Evans (A) - Pt A, Orange (C)			5	SSD	71,660	Non-metro
74	Central Tablelands	NSW	15.8%	Blayney (A) - Pt B, Cabonne (A) - Pt B, Evans (A) - Pt B, Greater Lithgow (C), Oberon (A), Rylstone (A)			6	SSD	35,021	Non-metro
75	Lachlan	NSW	20.4%	Bland (A), Cabonne (A) - Pt C, Cowra (A), Forbes (A), Lachlan (A), Parkes (A), Weedin (A)			7	SSD	65,802	Non-metro
76	Queanbeyan	NSW	15.5%	Queanbeyan (C), Yarrowlumla (A) - Pt A			2	SSD	37,156	Metro
77	Southern Tablelands	NSW	17.6%	Boorowa (A), Crookwell (A), Goulburn (C), Gunning (A), Harden (A), Mulwaree (A), Tallaganda (A), Yarrowlumla (A) - Pt B, Yass (A), Young (A)			10	SSD	64,061	Non-metro
78	Bega Valley	NSW	17.1%	Bega Valley (A)			1	SLA	28,286	Non-metro
79	Eurobodalla	NSW	18.0%	Eurobodalla (A)			1	SLA	30,461	Non-metro
80	Snowy	NSW	15.7%	Bombala (A), Cooma-Monaro (A), Snowy River (A)			3	SSD	19,038	Non-metro

(continued)

**Table A1** University participation rate for regions (for 19-20 year olds at August 1996) and regional structure —ordered by ABS, Australian Standard Geographical Classification (ASGC) main hierarchy structure (continued)

Region Number	Region Name	State	University Participation		Statistical Local Areas (SLAs)	Number of SLAs	Region Type	Population	Zone
			Rate	Rate					
81	Wagga Wagga	NSW	21.8%		Wagga Wagga (C)	1	SLA	56,097	Non-metro
82	Central Murrumbidgee (SSD Bal)	NSW	18.0%		Coolamon (A), Cootamundra (A), Gundagai (A), Junee (A), Lockhart (A), Narrandera (A), Temora (A), Tumut (A)	8	SSD Bal	49,882	Non-metro
83	Lower Murrumbidgee	NSW	18.7%		Carrathool (A), Griffith (C), Hay (A), Leeton (A), Murrumbidgee (A)	5	SSD	43,177	Non-metro
84	Albury	NSW	23.6%		Albury (C), Hume (A)	2	SSD	49,386	Non-metro
85	Upper Murray	NSW	22.8%		Corowa (A), Culcairn (A), Holbrook (A), Tumbarumba (A), Urana (A)	5	SSD	20,692	Non-metro
86	Central Murray & Murray-Darling	NSW	22.0%		Berrigan (A), Conargo (A), Deniliquin (A), Jerilderie (A), Murray (A), Wakool (A), Windouran (A) + Bairnald (A), Wentworth (A)	9	SSDs	40,859	Non-metro
87	Far West	NSW	15.1%		Broken Hill (C), Central Darling (A), Unincorp. Far West	3	SSD/SD	25,341	Non-metro
88	Melbourne City	VIC	38.8%		Melbourne (C) - Inner, Melbourne (C) - Remainder	2	SLAs	39,802	Metro
89	Port Phillip - St Kilda	VIC	38.6%		Port Phillip (C) - St Kilda	1	SLA	48,801	Metro
90	Port Phillip - West	VIC	35.9%		Port Phillip (C) - West	1	SLA	27,268	Metro
91	Stonnington - Prahran	VIC	48.4%		Stonnington (C) - Prahran	1	SLA	44,082	Metro
92	Yarra - North	VIC	35.1%		Yarra (C) - North	1	SLA	43,471	Metro
93	Yarra - Richmond	VIC	32.2%		Yarra (C) - Richmond	1	SLA	23,564	Metro
94	Brimbank - Keilor	VIC	26.6%		Brimbank (C) - Keilor	1	SLA	76,621	Metro
95	Brimbank - Sunshine	VIC	23.4%		Brimbank (C) - Sunshine	1	SLA	78,934	Metro
96	Hobsons Bay - Altona	VIC	21.8%		Hobsons Bay (C) - Altona	1	SLA	50,362	Metro
97	Hobsons Bay - Williamstown	VIC	27.2%		Hobsons Bay (C) - Williamstown	1	SLA	27,406	Metro
98	Maribyrnong	VIC	27.0%		Maribyrnong (C)	1	SLA	61,288	Metro
99	Moonee Valley - Essendon	VIC	35.3%		Moonee Valley (C) - Essendon	1	SLA	67,360	Metro
100	Moonee Valley - West	VIC	33.7%		Moonee Valley (C) - West	1	SLA	42,505	Metro

(continued)

**Table A1 University participation rate for regions (for 19-20 year olds at August 1996) and regional structure —ordered by ABS, Australian Standard Geographical Classification (ASGC) main hierarchy structure (continued)**

Region Number	Region Name	State	University Participation		Statistical Local Areas (SLAs)	Number of SLAs	Region Type	Population	Zone
			Rate	Rate					
101	Wyndham - Werribee	VIC	22.0%		Wyndham (C) - Werribee	1	SLA	70,149	Metro
102	Melton-Wyndham (SSD Bal)	VIC	18.6%		Melton (S) - East, Melton (S) Bal, Wyndham (C) - North-West, Wyndham (C) Bal	4	SSD Bal	46,752	Metro
103	Moreland - Brunswick	VIC	23.0%		Moreland (C) - Brunswick	1	SLA	41,188	Metro
104	Moreland - Coburg	VIC	24.6%		Moreland (C) - Coburg	1	SLA	49,965	Metro
105	Moreland - North	VIC	21.1%		Moreland (C) - North	1	SLA	45,526	Metro
106	Banyule - Heidelberg	VIC	38.0%		Banyule (C) - Heidelberg	1	SLA	62,395	Metro
107	Banyule - North	VIC	31.5%		Banyule (C) - North	1	SLA	55,515	Metro
108	Darebin - Northcote	VIC	25.5%		Darebin (C) - Northcote	1	SLA	46,286	Metro
109	Darebin - Preston	VIC	22.9%		Darebin (C) - Preston	1	SLA	81,046	Metro
110	Hume - Broadmeadows	VIC	20.8%		Hume (C) - Broadmeadows	1	SLA	68,077	Metro
111	Hume - Craigieburn	VIC	21.7%		Hume (C) - Craigieburn	1	SLA	27,106	Metro
112	Hume - Sunbury	VIC	27.1%		Hume (C) - Sunbury	1	SLA	25,647	Metro
113	Whittlesea - South	VIC	21.8%		Whittlesea (C) - South	1	SLA	96,563	Metro
114	Northern Outer Melbourne (SSD Bal)	VIC	33.7%		Whittlesea (C) - North, Nillumbik (S) - South, Nillumbik (S) - South-West, Nillumbik (S) Bal	4	SSD Bal	66,850	Metro
115	Boroondara - Camberwell N.	VIC	64.0%		Boroondara (C) - Camberwell N.	1	SLA	42,357	Metro
116	Boroondara - Camberwell S.	VIC	58.6%		Boroondara (C) - Camberwell S.	1	SLA	49,161	Metro
117	Boroondara - Hawthorn	VIC	57.6%		Boroondara (C) - Hawthorn	1	SLA	32,488	Metro
118	Boroondara - Kew	VIC	64.2%		Boroondara (C) - Kew	1	SLA	29,893	Metro
119	Manningham - East & West	VIC	47.3%		Manningham (C) - East, Manningham (C) - West	2	SLAs	110,481	Metro
120	Monash - South-West	VIC	30.5%		Monash (C) - South-West	1	SLA	40,714	Metro

(continued)

**Table A1** University participation rate for regions (for 19-20 year olds at August 1996) and regional structure —ordered by ABS, Australian Standard Geographical Classification (ASGC) main hierarchy structure (continued)

Region Number	Region Name	State	University Participation		Statistical Local Areas (SLAs)	Number of SLAs	Region Type	Population	Zone
			Rate	Rate					
121	Monash - Waverley East	VIC	43.1%		Monash (C) - Waverley East	1	SLA	60,799	Metro
122	Monash - Waverley West	VIC	44.3%		Monash (C) - Waverley West	1	SLA	59,028	Metro
123	Whitehorse - Box Hill	VIC	43.4%		Whitehorse (C) - Box Hill	1	SLA	48,556	Metro
124	Whitehorse - Nunawading E.	VIC	39.7%		Whitehorse (C) - Nunawading E.	1	SLA	45,052	Metro
125	Whitehorse - Nunawading W.	VIC	39.7%		Whitehorse (C) - Nunawading W.	1	SLA	49,428	Metro
126	Knox - North	VIC	26.2%		Knox (C) - North	1	SLA	109,365	Metro
127	Knox - South	VIC	26.6%		Knox (C) - South	1	SLA	27,533	Metro
128	Maroondah - Croydon	VIC	25.6%		Maroondah (C) - Croydon	1	SLA	53,706	Metro
129	Maroondah - Ringwood	VIC	34.6%		Maroondah (C) - Ringwood	1	SLA	42,222	Metro
130	Yarra Ranges - South-West	VIC	23.7%		Yarra Ranges (S) - South-West	1	SLA	109,819	Metro
131	Yarra Ranges - Central & North	VIC	18.4%		Yarra Ranges (S) - Central, Yarra Ranges (S) - North	2	SLAs	26,692	Metro
132	Bayside - Brighton	VIC	55.0%		Bayside (C) - Brighton	1	SLA	34,847	Metro
133	Bayside - South	VIC	43.3%		Bayside (C) - South	1	SLA	51,462	Metro
134	Glen Eira - Caulfield	VIC	49.9%		Glen Eira (C) - Caulfield	1	SLA	74,408	Metro
135	Glen Eira - South	VIC	38.1%		Glen Eira (C) - South	1	SLA	45,818	Metro
136	Kingston - North	VIC	33.2%		Kingston (C) - North	1	SLA	89,510	Metro
137	Kingston - South	VIC	21.3%		Kingston (C) - South	1	SLA	40,115	Metro
138	Stonnington - Malvern	VIC	56.5%		Stonnington (C) - Malvern	1	SLA	44,426	Metro
139	Gr. Dandenong - Dandenong	VIC	23.5%		Gr. Dandenong (C) - Dandenong	1	SLA	57,763	Metro
140	Gr. Dandenong Bal	VIC	24.6%		Gr. Dandenong (C) Bal	1	SLA	73,901	Metro
141	Casey - Berwick	VIC	21.2%		Casey (C) - Berwick	1	SLA	45,685	Metro

(continued)

**Table A1 University participation rate for regions (for 19-20 year olds at August 1996) and regional structure**  
—ordered by ABS, Australian Standard Geographical Classification (ASGC) main hierarchy structure (continued)

Region Number	Region Name	State	University Participation		Statistical Local Areas (SLAs)	Number of SLAs	Region Type	Population	Zone
			Rate	Rate					
142	Casey - Cranbourne	VIC	13.9%		Casey (C) - Cranbourne	1	SLA	46,000	Metro
143	Casey - Hallam	VIC	19.1%		Casey (C) - Hallam	1	SLA	47,099	Metro
144	Cardinia & Casey - South	VIC	21.0%		Cardinia (S) - North, Cardinia (S) - Pakenham, Cardinia (S) - South, Casey (C) - South	4	SLAs	53,019	Metro
145	Frankston - East	VIC	21.6%		Frankston (C) - East	1	SLA	31,023	Metro
146	Frankston - West	VIC	22.4%		Frankston (C) - West	1	SLA	78,220	Metro
147	Mornington Peninsula - East	VIC	19.0%		Mornington Peninsula (S) - East	1	SLA	33,691	Metro
148	Mornington Peninsula - South	VIC	19.0%		Mornington Peninsula (S) - South	1	SLA	41,817	Metro
149	Mornington Peninsula - West	VIC	32.8%		Mornington Peninsula (S) - West	1	SLA	42,387	Metro
150	Greater Geelong City Part A	VIC	26.6%		Bellarine - Inner, Corio - Inner, Geelong, Geelong West, Newtown, South Barwon - Inner	6	SSD	152,357	Metro
151	East Barwon	VIC	25.8%		Greater Geelong (C) - Pt B, Queenscliffe (B), Surf Coast (S) - East, Surf Coast (S) - West	4	SSD	50,328	Non-metro
152	West Barwon	VIC	22.6%		Colac-Otway (S) - Colac, Colac-Otway (S) - North, Colac-Otway (S) - South, Golden Plains (S) - North-West, Golden Plains (S) - South-East, Greater Geelong (C) - Pt C	6	SSD	37,037	Non-metro
153	Hopkins	VIC	24.8%		Corangamite (S) - North, Corangamite (S) - South, Moyne (S) - North-East, Moyne (S) - North-West, Moyne (S) - South, Warrnambool (C), Lady Julia Percy Island	7	SSD	61,731	Non-metro
154	Glenelg	VIC	24.4%		Glenelg (S) - Heywood, Glenelg (S) - North, Glenelg (S) - Portland, S. Grampians (S) - Hamilton, S. Grampians (S) - Wannon, S. Grampians (S) - Bal	6	SSD	38,497	Non-metro
155	Ballarat City	VIC	26.0%		Ballarat (C) - Central, Ballarat (C) - Inner North, Ballarat (C) - North, Ballarat (C) - South	4	SSD	79,195	Non-metro

(continued)

**Table A1** University participation rate for regions (for 19–20 year olds at August 1996) and regional structure —ordered by ABS, Australian Standard Geographical Classification (ASGC) main hierarchy structure (continued)

Region Number	Region Name	State	University Participation Rate	Statistical Local Areas (SLAs)	Number of SLAs	Region Type	Population	Zone
156	East & West Central Highlands	VIC	21.8%	Hepburn (S) - East, Hepburn (S) - West, Moorabool (S) - Bacchus March, Moorabool (S) - Ballan, Moorabool (S) - West + Ararat (RC), Pyrenees (S) - North, Pyrenees (S) - South	8	SSDs	55,572	Non-metro
157	Wimmera	VIC	24.2%	Horsham (RC) - Central, Horsham (RC) Bal, N. Grampians (S) - St Arnaud, N. Grampians (S) - Stawell, West Wimmera (S) + Hindmarsh (S), Yarriambiack (S) - North, Yarriambiack (S) - South	8	SD	52,233	Non-metro
158	Mildura - Pt A	VIC	21.7%	Mildura (RC) - Pt A	1	SLA/SSD	41,167	Non-metro
159	East & West Mallee	VIC	24.6%	Gannawarra (S), Swan Hill (RC) - Central, Swan Hill (RC) - Robinvale, Swan Hill (RC) Bal + Buloke (S) - North, Buloke (S) - South, Mildura (RC) - Pt B	7	SSDs	46,072	Non-metro
160	Greater Bendigo City Part A	VIC	26.6%	Gr. Bendigo (C) - Central, Gr. Bendigo (C) - Eaglehawk, Gr. Bendigo (C) - Inner East, Gr. Bendigo (C) - Inner North, Gr. Bendigo (C) - Inner West, Gr. Bendigo (C) - Ssaye	6	SSD	74,275	Non-metro
161	North Loddon	VIC	21.3%	C. Goldfields (S) - M'borough, C. Goldfields (S) Bal, Gr. Bendigo (C) - Pt B, Loddon (S) - North, Loddon (S) - South, Mount Alexander (S) - Cramaie, Mount Alexander (S) Bal	7	SSD	49,080	Non-metro
162	South Loddon	VIC	30.0%	Macedon Ranges (S) - Kyneton, Macedon Ranges (S) - Romsey, Macedon Ranges (S) Bal	3	SSD	34,117	Non-metro
163	Gr. Shepparton - Pt A	VIC	23.4%	Gr. Shepparton (C) - Pt A	1	SLA/SSD	41,160	Non-metro
164	North Goulburn	VIC	25.0%	Campaspe (S) - Echuca, Campaspe (S) - Kyabram, Campaspe (S) - Rochester, Campaspe (S) - South, Gr. Shepparton (C) - Pt B East, Gr. Shepparton (C) - Pt B West, Moira (S) - East, Moira (S) - West	8	SSD	73,644	Non-metro
165	South Goulburn	VIC	22.3%	Delatite (S) - Benalla, Delatite (S) - North, Delatite (S) - South, Strathbogie (S)	4	SSD	29,376	Non-metro
166	South West Goulburn	VIC	18.5%	Mitchell (S) - North, Mitchell (S) - South, Murrindindi (S) - East, Murrindindi (S) - West	4	SSD	38,616	Non-metro
167	Wodonga	VIC	23.6%	Indigo (S) - Pt A, Towong (S) - Pt A, Wodonga (RC)	3	SSD	43,342	Non-metro

(continued)

**Table A1 University participation rate for regions (for 19-20 year olds at August 1996) and regional structure —ordered by ABS, Australian Standard Geographical Classification (ASGC) main hierarchy structure (continued)**

Region Number	Region Name	State	University Participation Rate	Statistical Local Areas (SLAs)		Number of SLAs	Region Type	Population	Zone
168	West & East Ovens-Murray	VIC	25.5%	Indigo (S) - Pt B, Wangaratta (RC) - Central, Wangaratta (RC) - North, Wangaratta (RC) - South + Alpine (S) - East, Alpine (S) - West, Towong (S) - Pt B		7	SSDs	45,817	Non-metro
169	East Gippsland Shire	VIC	20.8%	E. Gippsland (S) - Bairnsdale, E. Gippsland (S) - Orbost, E. Gippsland (S) - South-West, E. Gippsland (S) Bal		4	SSD	39,098	Non-metro
170	Wellington Shire	VIC	23.6%	Wellington (S) - Alberton, Wellington (S) - Avon, Wellington (SD) - Maffra, Wellington (S) - Rosedale, Wellington (S) - Sale		5	SSD	41,572	Non-metro
171	La Trobe Valley	VIC	21.1%	Baw Baw (S) - Pt A, La Trobe (S) - Moe, La Trobe (S) - Morwell, La Trobe (S) - Traralgon, La Trobe (S) Bal, Yallourn Works Area		6	SSD	75,512	Non-metro
172	West Gippsland	VIC	23.7%	Baw Baw (S) - Pt B East, Baw Baw (S) - Pt B West, Yarra Ranges (S) - Pt B		3	SSD	30,861	Non-metro
173	South Gippsland	VIC	20.0%	Bass Coast (S) - Phillip Is., Bass Coast (S) Bal, South Gippsland (S) - Central, Gippsland (S) - East, Gippsland (S) - West, French Island, Bass Strait Islands		7	SSD	47,144	Non-metro
174	Brisbane City Core	QLD	30.3%	Bowen Hills, City - Inner and Remainder, Duffon Park, Fortitude Valley - Inner and Remainder, Herston, Highgate Hill, Kangaroo Point, Kelvin Grove, Milton, New Farm, Newstead, Paddington, Red Hill, South Brisbane, Spring Hill, West End, Woolloongabba		19	SLAs/SRS	60,431	Metro
175	Brisbane Northern Inner	QLD	34.6%	Albion, Alderley, Ascot, Ashgrove, Bardon, Clayfield, Enoggera, Grange, Hamilton, Hendra, Kedron, Lutwyche, Newmarket, Nundah, Stafford, Stafford Heights, Wilsdon, Windsor, Woolloowin		19	SLAs/SRS	112,214	Metro
176	Brisbane Eastern Inner	QLD	30.8%	Balmoral, Bulimba, Camp Hill, Cannon Hill, Carina, Carina Heights, Carindale, Coorparoo, East Brisbane, Hawthorne, Morningside, Norman Park		12	SLAs/SRS	80,471	Metro
177	Brisbane Southern Inner	QLD	29.9%	Annerley, Fairfield, Greenslopes, Holland Park, Holland Park West, Moorooka, Tarragindi, Yeerongpilly, Yeronga		9	SLAs/SRS	56,331	Metro
178	Brisbane Western Inner	QLD	53.5%	Chelmer, Corinda, Graceville, Indooroopilly, St Lucia, Sherwood, Taringa, Toowoong		8	SLAs/SRS	54,591	Metro

(continued)

30 | Table A1 University participation rate for regions (for 19–20 year olds at August 1996) and regional structure —ordered by ABS, Australian Standard Geographical Classification (ASGC) main hierarchy structure (continued)

Region Number	Region Name	State	University Participation Rate	Statistical Local Areas (SLAs)			Zone
				Number of SLAs	Region Type	Population	
179	Brisbane Northern Outer	QLD	28.0%	28	SLAs/SRS	1 63,609	Metro
				Aspley, Bald Hills, Banyo, Boondall, Bracken Ridge, Bridgeman Downs, Brighton, Carseldine, Chermide, Chermide West, Deagon, Everton Park, Ferny Grove, Geebung, Keperra, McDowall, Mitchelton, Northgate, Nudgee, Nudgee Beach, Pinkenba-Eagle Farm, Sandgate, Taigum-Fitzgibbon, The Gap (incl. Enoggera Res.), Upper Kedron, Virginia, Wavell Heights, Zillmere			
180	Brisbane Eastern Outer	QLD	20.0%	16	SLAs/SRS	54,846	Metro
				Belmont-Mackenzie, Burbank, Capalaba West, Chandler, Gumdale, Hemmant-Lytton, Lota, Manly, Manly West, Moreton Island, Murarrie, Ransome, Tingalpa, Wakerley, Wynnum, Wynnum West			
181	Brisbane Southern Outer	QLD	32.6%	26	SLAs/SRS	131,308	Metro
				Acacia Ridge, Algester, Archerfield, Berrinba-Karawatha, Calamvale, Coopers Plains, Eight Mile Plains, Kuraby, MacGregor, Mansfield, Mount Gravatt, Mount Gravatt East, Naifhan, Pallara-Heathwood-Larapinta, Parkinson-Drewvale, Robertson, Rochedale, Rocklea, Runcorn, Salisbury, Stretton, Sunnybank, Sunnybank Hills, Upper Mount Gravatt, Willowong, Wishart			
182	Brisbane Western Outer	QLD	37.3%	26	SLAs/SRS	106,192	Metro
				Anstead, Bellbowrie, Brookfield (incl Mt Citha), Chapel Hill, Darra-Summer, Doolandella-Forest Lake, Durack, Ellen Grove, Fig Tree Pocket, Inala, Jamboree Heights, Jindalee, Kenmore, Kenmore Hills, Middle Park, Moggill, Mount Ommaney, Oxley, Pinjarra Hills, Pullenvale, Richlands, Riverhills, Seventeen Mile Rocks, Upper Brookfield, Wacol, Westlake			
183	Gold Coast City Part A	QLD	12.1%	7	SSD	41,535	Metro
				Beenleigh, Bethania-Waterford, Eagleby, Edens Landing-Holmview, Mt Warren Park, Windaroo-Bannockburn, Gold Coast (C) Bal in BSD			
184	Beaunesert Shire Part A	QLD	16.3%	2	SSD	23,674	Metro
				Greenbank - Pt A, Beaudesert (S) Bal in BSD			
185	Caboolture Shire Part A	QLD	13.9%	7	SSD	96,086	Metro
				Bribie Island, Burpengary-Narangba, Caboolture (S) - Central, Caboolture (S) - East, Deception Bay, Morayfield, Caboolture (S) Bal in BSD			
186	Ipswich City (Part in BSD)	QLD	18.3%	3	SSD	117,376	Metro
				Ipswich (C) - Central, Ipswich (C) - East, Ipswich (C) - North			

(continued)

**Table A1** University participation rate for regions (for 19-20 year olds at August 1996) and regional structure  
—ordered by ABS, Australian Standard Geographical Classification (ASGC) main hierarchy structure (continued)

Region Number	Region Name	State	University Participation Rate	Statistical Local Areas (SLAs)		Number of SLAs	Region Type	Population	Zone
187	Logan City	QLD	14.6%	Browns Plains, Carbrook-Cornubia, Daisy Hill-Priestdale, Greenbank - Pt B, Kingston, Loganholme, Loganlea, Marsden, Rochedale South, Shailer Park, Slacks Creek, Springwood, Tanah Merah, Underwood, Waterford West, Woodridge, Logan (C) Bal		17	SSD	162,828	Metro
188	Pine Rivers Bal	QLD	27.5%	Pine Rivers (S) Bal		1	SLA	27,547	Metro
189	Pine Rivers Shire (SSD Bal)	QLD	22.4%	Albany Creek, Arana Hills, Bray Park, Everton Hills, Ferny Hills, Kallangur, Lawnton, Peirrie, Strathpine		9	SSD Bal	78,811	Metro
190	Redcliffe City	QLD	15.6%	Ciontarf, Margate-Woody Point, Redcliffe-Scarborough, Rothwell-Kippa-Ring		4	SSD	49,566	Metro
191	Redland Shire	QLD	20.7%	Alexandra Hills, Birkdale, Capalaba, Cleveland, Ormiston, Redland Bay, Sheldon-Mt Cotton, Thorneside, Thornlands, Victoria Point, Wellington Point, Redland (S) Bal		12	SSD	103,180	Metro
192	Gold Coast City Part B	QLD	21.1%	Arundel, Ashmore, Benowa, Biggera Waters, Bilinga, Broadbeach, Broadbeach Waters, Bundall, Burleigh Heads, Burleigh Waters, Carrara-Merrimac, Coolangatta, Coombabah, Coomera-Cedar Creek, Currumbin, Currumbin Waters, Elanora, Ernest-Molendinar, Guanabara-Currumbin Valley, Helensvale, Hollywell, Hope Island, Kerrydale-Stephens, Labrador, Main Beach-Broadwater, Mermaid Beach, Mermaid Waters, Miami, Mudgeeraba, Nerang, Oxenford, Palm Beach, Paradise Point, Parkwood, Robina-Clear Island Waters, Runaway Bay, Southport, Surfers Paradise, Tugun, Worongary-Tallai		40	SSD	315,036	Metro
193	Sunshine Coast	QLD	19.9%	Caloundra (C) - Caloundra N., Caloundra (C) - Caloundra S., Caloundra (C) - Kawana, Maroochy (S) - Buderim, Maroochy (S) - Coastal North, Maroochy (S) - Maroochy, Maroochy (S) - Mooloolaba, Maroochy (S) - Nambour, Maroochy (S) Bal in S Cst SSD, Noosa (S) - Noosa-Noosaville, Noosa (S) - Sunshine-Peregian, Noosa (S) - Tewantin		12	SSD	156,136	Non-metro

(continued)

32 | Table A1 University participation rate for regions (for 19–20 year olds at August 1996) and regional structure —ordered by ABS, Australian Standard Geographical Classification (ASGC) main hierarchy structure (continued)

Region Number	Region Name	State	University Participation Rate	Statistical Local Areas (SLAs)			Number of SLAs	Region Type	Population	Zone
194	Moreton SD Bal	QLD	16.7%	Beaudesert (S) - Pt B, Boonah (S), Caboolture (S) - Pt B, Caloundra (C) - Hinterland, Caloundra (C) - Rail Corridor, Esk (S), Gatton (S), Ipswich (C) - South-West, Ipswich (C) - West, Kilcoy (S), Laidley (S), Maroochy (S) Bal, Noosa (S) Bal		13	SSD	146,888	Non-metro	
195	Bundaberg	QLD	20.2%	Bundaberg (C), Burnett (S) - Pt A		2	SSD	54,032	Non-metro	
196	Hervey Bay	QLD	12.8%	Hervey Bay (S)		1	SLA	38,758	Non-metro	
197	Maryborough	QLD	17.5%	Maryborough (C)		1	SLA	24,831	Non-metro	
198	Wide Bay-Burnett SD Bal (SSD Bal)	QLD	14.6%	Biggenden (S), Burnett (S) - Pt B, Cooloola (S) (excl. Gympie), Cooloola (S) - Gympie only, Eidsvold (S), Gayndah (S), Isis (S), Kilkivan (S), Kingaroy (S), Kolan (S), Miriam Vale (S), Monto (S), Mundubbera (S), Murgon (S), Nanango (S), Perry (S), Tiaro (S), Wondai (S), Woocoo (S)		19	SSD Bal	106,588	Non-metro	
199	Toowoomba City	QLD	26.6%	Toowoomba (C) - Central, Toowoomba (C) - North-East, Toowoomba (C) - North-West, Toowoomba (C) - South-East, Toowoomba (C) - West		5	SSD	86,532	Non-metro	
200	Darling Downs SD Bal	QLD	18.4%	Cambooya (S), Chinchilla (S), Clifton (S), Crow's Nest (S), Dalby (T), Goondiwindi (T), Inglewood (S), Jondaryan (S), Millmerran (S), Murilla (S), Pittsworth (S), Rosalie (S), Stanthorpe (S), Tara (S), Taroom (S), Waggamba (S), Wambo (S), Warwick (S) - Central, Warwick (S) - East, Warwick (S) - North, Warwick (S) - West		21	SSD	113,380	Non-metro	
201	South West	QLD	13.0%	Balonne (S), Bendemere (S), Booringa (S), Bulloo (S), Bungil (S), Murweh (S), Paroo (S), Quilpie (S), Roma (T), Warroo (S)		10	SSD/SD	26,496	Non-metro	
202	Rockhampton	QLD	22.6%	Fitzroy (S) - Pt A, Rockhampton (C)		2	SSD	64,496	Non-metro	
203	Gladstone	QLD	17.0%	Calliope (S) - Pt A, Gladstone (C)		2	SSD	37,381	Non-metro	
204	Fitzroy SD Bal	QLD	14.9%	Banana (S), Bauhinia (S), Calliope (S) - Pt B, Duaringa (S), Emerald (S), Fitzroy (S) - Pt B, Jericho (S), Livingstone (S), Mount Morgan (S), Peak Downs (S)		10	SSD	76,169	Non-metro	
205	Mackay - Pt A	QLD	19.2%	Mackay (C) - Pt A		1	SLA/SSD	61,020	Non-metro	

(continued)

**Table A1** University participation rate for regions (for 19-20 year olds at August 1996) and regional structure  
—ordered by ABS, Australian Standard Geographical Classification (ASGC) main hierarchy structure (continued)

Region Number	Region Name	State	University Participation Rate	Statistical Local Areas (SLAs)		Number of SLAs	Region Type	Population	Zone
206	Mackay SD Bal	QLD	12.4%	Belyando (S), Broadsound (S), Mackay (C) - Pt B, Mirani (S), Nebo (S), Sarina (S), Whitsunday (S)		7	SSD	59,242	Non-metro
207	Townsville City Part A	QLD	22.8%	Aitkenville, City, Cranbrook, Currajong, Douglas, Garbutt, Gulliver, Heatley, Hermit Park, Hyde Park-Mysterion, Magnetic Island, Mt Louisa-Mt St John-Bohle, Mundingburra, Murray, North Ward-Castle Hill, Oonoonba-Idalia-Cluden, Pallarenda-Sheiley Beach, Pimlico, Railway Estate, Rosslea, Rowes Bay-Belgian Gardens, South Townsville, Stuart-Roseneath, Vincent, West End, Wulguru		26	SSD	83,725	Metro
208	Thuringowa City Part A	QLD	20.3%	Kelso, Kirwan, Thuringowa (C) - Pt A Bal		3	SSD	38,862	Metro
209	Northern SD Bal	QLD	15.9%	Bowen (S), Burdekin (S), Charters Towers (S), Dalrymple (S), Hinchinbrook (S), Thuringowa (C) - Pt B, Townsville (C) - Pt B		7	SSD	69,786	Non-metro
210	Cairns City Part A	QLD	19.5%	Cairns (C) - Barron, Cairns (C) - Central Suburbs, Cairns (C) - City, Cairns (C) - Mt Whitfield, Cairns (C) - Northern Suburbs, Cairns (C) - Trinity, Cairns (C) - Western Suburbs		7	SSD	106,563	Non-metro
211	Far North SD Bal	QLD	13.9%	Atherton (S), Aurukun (S), Cairns (C) - Pt B, Cardwell (S), Cook (S) (excl. Weipa), Cook (S) - Weipa only, Croydon (S), Douglas (S), Eacham (S), Etheridge (S), Herberton (S), Johnstone (S), Mareeba (S), Torres (S)		14	SSD	104,132	Non-metro
212	North West & Central West	QLD	11.2%	Burke (S), Carpentaria (S), Cloncurry (S), Flinders (S), McKinlay (S), Mornington (S), Mount Isa (C), Richmond (S), Unincorp. Islands + Aramac (S), Barcardine (S), Barcoo (S), Blackall (S), Boulia (S), Diamantina (S), Ilfracombe (S), Isisford (S), Longreach (S), Tambo (S), Winton (S)		20	SSDs/SDs	48,460	Non-metro
213	Elizabeth	SA	7.6%	Elizabeth (C)		1	SLA	26,365	Metro
214	Enfield - Pt A	SA	18.4%	Enfield (C) - Pt A		1	SLA	45,431	Metro
215	Munno Para & Gawler	SA	12.5%	Munno Para (C), Gawler (M)		2	SLAs	55,755	Metro
216	Salisbury	SA	14.3%	Salisbury (C)		1	SLA	111,767	Metro
217	Tea Tree Gully	SA	24.8%	Tea Tree Gully (C)		1	SLA	95,507	Metro

(continued)

**Table A1** University participation rate for regions (for 19-20 year olds at August 1996) and regional structure  
—ordered by ABS, Australian Standard Geographical Classification (ASGC) main hierarchy structure (continued)

Region Number	Region Name	State	University Participation		Statistical Local Areas (SLAs)	Number of SLAs	Region Type	Population	Zone
			Rate	Rate					
218	Hindmarsh and Woodville & Thebarton	SA	24.7%		Hindmarsh and Woodville (C), Thebarton (M)	2	SLAs	96,011	Metro
219	Port Adelaide, Enfield - Pt B & Unincorp. Western	SA	18.2%		Port Adelaide (C), Enfield (C) - Pt B, Unincorp. Western	3	SLAs	54,704	Metro
220	Henley & Grange and West Torrens	SA	28.7%		Henley & Grange (C), West Torrens (C)	2	SLAs	57,991	Metro
221	Adelaide City & Inner North and East	SA	39.6%		Adelaide (C), Kensington & Norwood (C), Prospect (C), St Peters (M), Walkerville (M)	5	SLAs	56,720	Metro
222	Burnside	SA	53.4%		Burnside (C)	1	SLA	39,989	Metro
223	Campbelltown & Payneham	SA	32.0%		Campbelltown (C), Payneham (C)	2	SLAs	61,810	Metro
224	East Torrens & Stirling	SA	43.2%		East Torrens (DC), Stirling (DC)	2	SLAs	23,885	Metro
225	Unley	SA	40.7%		Unley (C)	1	SLA	36,490	Metro
226	Brighton & Glenelg	SA	31.1%		Brighton (C), Glenelg (C)	2	SLAs	32,396	Metro
227	Happy Valley & Willunga	SA	26.0%		Happy Valley (C), Willunga (DC)	2	SLAs	52,734	Metro
228	Marion	SA	23.7%		Marion (C)	1	SLA	77,471	Metro
229	Mitcham	SA	41.4%		Mitcham (C)	1	SLA	61,564	Metro
230	Noarlunga	SA	13.7%		Noarlunga (C)	1	SLA	92,594	Metro
231	Barossa	SA	19.1%		Angaston (DC), Barossa (DC), Gumeracha (DC), Kapunda (DC), Light (DC), Mallala (DC), Mount Pleasant (DC), Tanunda (DC)	8	SSD	42,033	Non-metro
232	Onkaparinga	SA	18.5%		Mount Barker (DC), Onkaparinga (DC)	2	SSD	29,635	Non-metro
233	Fleurieu & Kangaroo Island	SA	14.8%		Port Elliot & Goolwa (DC), Strathalbyn (DC), Victor Harbor (DC), Yankalilla (DC) + Dudley (DC), Kingscote (DC)	6	SSDs	32,738	Non-metro

(continued)

**Table A1 University participation rate for regions (for 19–20 year olds at August 1996) and regional structure —ordered by ABS, Australian Standard Geographical Classification (ASGC) main hierarchy structure (continued)**

Region Number	Region Name	State	University Participation Rate	Statistical Local Areas (SLAs)			Region Type	Population	Zone
				Number of SLAs					
234	Yorke & Lower North	SA	15.4%	18	Bute (DC), Central Yorke Peninsula (DC), Minlaton (DC), Northern Yorke Peninsula (DC), Port Broughton (DC), Wallaroo (M), Warooka (DC), Yorketown (DC), Unincorp. Yorke + Blyth-Snowtown (DC), Burra Burra (DC), Clare (DC), Eudunda (DC), Riverton (DC), Robertstown (DC), Saddleworth & Auburn (DC), Spalding (DC), Wakefield Plains (DC)	SD	44,071	Non-metro	
235	Riverland	SA	17.0%	9	Barmera (DC), Berrit (DC), Browns Well (DC), Loxton (DC), Morgan (DC), Paringa (DC), Renmark (M), Waikerie (DC), Unincorp. Riverland	SSD	34,856	Non-metro	
236	Murray Mallee	SA	12.8%	10	Coonapllyn Downs (DC), Karoonda-East Murray (DC), Lamerook (DC), Mannum (DC), Meningie (DC), Murray Bridge (RC), Peakle (DC), Pinnaroo (DC), Ridley-Truro (DC), Unincorp. Murray Mallee	SSD	32,621	Non-metro	
237	South East	SA	16.4%	12	Beachport (DC), Millicent (DC), Mount Gambier (C), Mount Gambier (DC), Penola (DC), Port MacDonnell (DC) + Lacapade (DC), Lucindale (DC), Naracoorte (M), Naracoorte (DC), Robe (DC), Taifara (DC)	SD	62,718	Non-metro	
238	Eyre	SA	16.3%	12	Cleve (DC), Elliston (DC), Franklin Harbor (DC), Kimba (DC), Le Hunte (DC), Lower Eyre Peninsula (DC), Port Lincoln (C), Tumber Bay (DC), Unincorp. Lincoln + Ceduna (DC), Streaky Bay (DC), Unincorp. West Coast	SD	33,028	Non-metro	
239	Whyalla	SA	14.6%	2	Whyalla (C), Unincorp. Whyalla	SSD	24,709	Non-metro	
240	Pirrie	SA	14.5%	10	Crystal Brook-Redhill (DC), Hallett (DC), Jamestown (DC), Orroroo (DC), Peterborough (M), Peterborough (DC), Pirie (DC), Port Pirie (C), Rocky River (DC), Unincorp. Pirie	SSD	26,700	Non-metro	
241	Flinders Ranges & Far North	SA	11.8%	9	Carrieton (DC), Hawker (DC), Kanyaka-Quorn (DC), Mount Remarkable (DC), Port Augusta (C), Unincorp. Flinders Ranges + Coober Pedy (DC), Roxby Downs (M), Unincorp. Far North	SSDs	32,096	Non-metro	
242	Perth Central Metropolitan	WA	47.7%	10	Cambridge (T), Claremont (T), Cottesloe (T), Mosman Park (T), Nedlands (C), Peppermint Grove (S), Perth (C) - Inner, Perth (C) - Remainder, Subiaco (C), Vincent (T)	SSD	117,704	Metro	
243	Bassendean & Swan	WA	16.9%	2	Bassendean (T), Swan (S)	SLAs	85,410	Metro	

(continued)

Table A1 University participation rate for regions (for 19-20 year olds at August 1996) and regional structure —ordered by ABS, Australian Standard Geographical Classification (ASGC) main hierarchy structure (continued)

Region Number	Region Name	State	University Participation		Statistical Local Areas (SLAs)	Number of SLAs	Region Type	Population	Zone
			Rate	Rate					
244	Bayswater	WA	22.2%		Bayswater (C)	1	SLA	45,864	Metro
245	Kalamunda	WA	23.1%		Kalamunda (S)	1	SLA	48,529	Metro
246	Mundaring	WA	24.3%		Mundaring (S)	1	SLA	33,294	Metro
247	Stirling - Central	WA	21.6%		Stirling (C) - Central	1	SLA	97,101	Metro
248	Stirling - Coastal	WA	38.4%		Stirling (C) - Coastal	1	SLA	59,498	Metro
249	Stirling - South-Eastern	WA	36.5%		Stirling (C) - South-Eastern	1	SLA	26,193	Metro
250	Wanneroo - Central Coastal	WA	18.5%		Wanneroo (C) - Central Coastal	1	SLA	38,889	Metro
251	Wanneroo - NE, NW & SE	WA	14.0%		Wanneroo (C) - North-East, Wanneroo (C) - North-West, Wanneroo (C) - South-East	3	SLAs	65,027	Metro
252	Wanneroo - South-West	WA	25.3%		Wanneroo (C) - South-West	1	SLA	109,409	Metro
253	Cockburn	WA	14.8%		Cockburn (C)	1	SLA	60,055	Metro
254	Fremantle & East Fremantle	WA	19.3%		East Fremantle (T), Fremantle (C) - Inner, Fremantle (C) - Remainder	3	SLAs	31,188	Metro
255	Kwinana	WA	8.1%		Kwinana (T)	1	SLA	20,173	Metro
256	Melville	WA	39.9%		Melville (C)	1	SLA	94,003	Metro
257	Rockingham	WA	11.9%		Rockingham (C)	1	SLA	61,570	Metro
258	Armadale & Serpentine-Jarrahdale	WA	13.9%		Armadale (C), Serpentine-Jarrahdale (S)	2	SLAs	62,262	Metro
259	Belmont	WA	11.4%		Belmont (C)	1	SLA	27,262	Metro
260	Canning	WA	27.0%		Canning (C)	1	SLA	71,954	Metro
261	Gosnells	WA	12.2%		Gosnells (C)	1	SLA	76,579	Metro
262	South Perth	WA	35.0%		South Perth (C)	1	SLA	36,447	Metro
263	Victoria Park	WA	20.7%		Victoria Park (T)	1	SLA	26,721	Metro

(continued)

**Table A1** University participation rate for regions (for 19-20 year olds at August 1996) and regional structure  
—ordered by ABS, Australian Standard Geographical Classification (ASGC) main hierarchy structure (continued)

Region Number	Region Name	State	University Participation Rate	Statistical Local Areas (SLAs)	Number of SLAs	Region Type	Population	Zone
264	Dale	WA	10.2%	Boddington (S), Mandurah (C), Murray (S), Waroona (S)	4	SSD	54,744	Non-metro
265	Bunbury	WA	14.3%	Bunbury (C)	1	SLA	27,680	Non-metro
266	Preston (SSD Bal)	WA	15.3%	Capel (S), Collie (S), Dardanup (S), Donnybrook-Balingup (S), Harvey (S)	5	SSD Bal	41,533	Non-metro
267	Vasse & Blackwood	WA	14.5%	Augusta-Margaret River (S), Busselton (S) + Boyup Brook (S), Bridgetown-Greenbushes (S), Manjimup (S), Nannup (S)	6	SSDs	43,495	Non-metro
268	Lower Great Southern	WA	16.4%	Albany (T), Albany (S), Cranbrook (S), Denmark (S), Plantagenet (S) + Broomehill (S), Gnowangerup (S), Jerramungup (S), Katanning (S), Kent (S), Kojoonup (S), Tambellup (S), Woodanilling (S)	13	SD	50,168	Non-metro
269	Upper Great Southern	WA	13.2%	Brookton (S), Cuballing (S), Dumbleyung (S), Narrogin (T), Narrogin (S), Pingelly (S), Wagin (S), Wandering (S), West Arthur (S), Wickiepin (S), Williams (S) + Corrigin (S), Kondinin (S), Kulin (S), Lake Grace (S)	15	SD	19,840	Non-metro
270	Midlands	WA	11.8%	Chittering (S), Dandaragan (S), Gingin (S), Moora (S), Victoria Plains (S) + Beverley (S), Cunderdin (S), Dalwallinu (S), Dowerin (S), Goomalling (S), Koorda (S), Northam (T), Northam (S), Quairading (S), Tammin (S), Toodyay (S), Wongan-Ballidu (S), Wyalkatchem (S), York (S) + Bruce Rock (S), Kellerberrin (S), Merredin (S), Mount Marshall (S), Mukinbudin (S), Narembeen (S), Nungarin (S), Trayning (S), Westonia (S), Yilgarn (S)	29	SD	51,484	Non-metro
271	South Eastern (WA)	WA	9.9%	Coolgardie (S), Kalgoorlie/Boulder (C), Laverton (S), Leonora (S), Menzies (S), Ngaanyatjaraku (S) + Dundas (S), Esperance (S), Ravensthorpe (S)	9	SD	56,449	Non-metro
272	Central	WA	10.6%	Carnarvon (S), Exmouth (S), Shark Bay (S), Upper Gascoyne (S) + Cue (S), Meekatharra (S), Mount Magnet (S), Murchison (S), Sandstone (S), Wiluna (S), Yalgoo (S) + Carnamah (S), Chapman Valley (S), Coorow (S), Geraldton (C), Greenough (S), Irwin (S), Minganew (S), Morawa (S), Mullewa (S), Northampton (S), Perenjori (S), Three Springs (S)	23	SD	59,030	Non-metro
273	Pilbara	WA	8.6%	East Pilbara (S), Port Hedland (S) + Ashburton (S), Roebourne (S)	4	SD	40,509	Non-metro
274	Kimberley	WA	3.5%	Halls Creek (S), Wyndham-East Kimberley (S) + Broome (S), Derby-West Kimberley (S)	4	SD	25,674	Non-metro

(continued)

**Table A1** University participation rate for regions (for 19-20 year olds at August 1996) and regional structure —ordered by ABS, Australian Standard Geographical Classification (ASGC) main hierarchy structure (continued)

Region Number	Region Name	State	University Participation Rate	Statistical Local Areas (SLAs)			Number of SLAs	Region Type	Population	Zone
275	Hobart City	TAS	41.3%	Hobart (C) - Inner, Hobart (C) - Remainder,		2	SLAs	46,926	Metro	
276	Greater Hobart (SSD Bal)	TAS	19.5%	Brighton (M), Clarence (M), Derwent Valley (M) - Pt A, Glenorchy (C), Kingborough (M) - Pt A, Sorell (M) - Pt A		6	SSD Bal	148,869	Metro	
277	Southern (TAS)	TAS	12.1%	Central Highlands (M), Derwent Valley (M) - Pt B, Glamorgan/Spring Bay (M), Huon Valley (M), Kingborough (M) - Pt B, Sorell (M) - Pt B, Southern Midlands (M), Tasman (M)		8	SSD/SD	34,466	Non-metro	
278	Greater Launceston	TAS	20.7%	George Town (M) - Pt A, Launceston (C) - Inner, Launceston (C) - Pt B, Meander Valley (M) - Pt A, Northern Midlands (M) - Pt A, West Tamar (M) - Pt A		6	SSD	98,890	Non-metro	
279	Central North & North Eastern	TAS	16.6%	George Town (M) - Pt B, Launceston (C) - Pt C, Meander Valley (M) - Pt B, Northern Midlands (M) - Pt B, West Tamar (M) - Pt B + Break O'Day (M), Dorset (M), Flinders (M)		8	SSDs	35,207	Non-metro	
280	Burnie-Devonport	TAS	16.3%	Burnie (C) - Pt A, Central Coast (M) - Pt A, Devonport (C), Latrobe (M) - Pt A, Waratah/Wynyard (M) - Pt A		5	SSD	79,172	Non-metro	
281	North Western Rural & Lyell	TAS	11.1%	Burnie (C) - Pt B, Central Coast (M) - Pt B, Circular Head (M), Kentish (M), King Island (M), Latrobe (M) - Pt B, Waratah/Wynyard (M) - Pt B + West Coast (M)		8	SSDs	31,062	Non-metro	
282	Darwin	NT	24.5%	Alawa, Anula, Brinkin, City - Inner, Coconut Grove, Fannie Bay, Jingili, Karama, Larrakeyah, Leanyer, Lee Point-Leanyer Swamp, Ludmilla, Malak, Marrara, Millner, Moil, Nakara, Narrows, Nightcliff, Parap, Rapid Creek, Stuart Park, The Gardens, Tiwi, Wagaman, Wanguri, Winnellie, Wulagi, City - Remainder + East Arm, Driver, Gray, Moulden, Woodroffe, Palmerston (T) Bal		35	SD	82,408	Metro	
283	Northern Territory - Bal SD	NT	7.2%	Coomalie (CGC), Cox-Finniss, Litchfield (S) - Pt A, Litchfield (S) - Pt B, Bathurst-Melville, Jabiru (T), South Alligator, West Arnhem, Daly, East Arnhem - Bal, Groote Eylandt, Nhulunbuy, Eisey - Bal, Gulf, Katherine (T), Victoria, Tableland, Tennant Creek (T), Tennant Creek - Bal		19	SSDs	63,230	Non-metro	

(continued)

**Table A1** University participation rate for regions (for 19–20 year olds at August 1996) and regional structure  
—ordered by ABS, Australian Standard Geographical Classification (ASGC) main hierarchy structure (continued)

Region Number	Region Name	State	University Participation Rate	Statistical Local Areas (SLAs)		Number of SLAs	Region Type	Population	Zone
284	Central NT	NT	9.3%	Alice Springs (T) - Charles, Alice Springs (T) - Heavitree, Alice Springs (T) - Larapinta, Alice Springs (T) - Ross, Alice Springs (T) - Stuart, Petermann, Sandover - Bal, Tanami		8	SSD	36,285	Non-metro
285	North Canberra	ACT	35.3%	Acton, Ainslie, Braddon, Campbell, City, Dickson, Downer, Duntroon, Hackett, Kowen, Lyneham, Majura, O'Connor, Reid, Russell, Turner, Watson		17	SSD	38,831	Metro
286	Belconnen & Gungahlin-Hall	ACT	28.9%	Aranda, Belconnen Town Centre, Belconnen - SSD Bal, Bruce, Charmwood, Cook, Dunlop, Evatt, Florey, Flynn, Fraser, Giralang, Hawker, Higgins, Holt, Kaleen, Latham, McKellar, Macgregor, Macquarie, Melba, Page, Scullin, Spence, Weetangera + Amaroo, Gungahlin-Hall - SSD Bal, Hall, Mitchell, Ngunnawal, Nicholls, Palmerston		32	SSDs	98,289	Metro
287	Woden Valley	ACT	38.4%	Chifley, Curtin, Farrer, Garran, Hughes, Isaacs, Lyons, Mawson, O'Malley, Pearce, Phillip, Torrens		12	SSD	33,028	Metro
288	Weston Creek-Stromlo	ACT	34.4%	Chapman, Duffy, Fisher, Holder, Rivett, Stirling, Stromlo, Waramanga, Weston, Weston Creek-Stromlo - SSD Bal		10	SSD	24,864	Metro
289	Tuggeranong & ACT - Bal	ACT	23.0%	Banks, Bonython, Calwell, Chisholm, Conder, Fadden, Gilmore, Gordon, Gowrie, Greenway, Isabella Plains, Kambah, Macarthur, Monash, Oxley, Richardson, Theodore, Tuggeranong - SSD Bal, Wanniasa + Remainder of ACT		20	SSDs	90,287	Metro
290	South Canberra	ACT	45.5%	Barton, Deakin, Forrest, Fyshwick, Griffith, Harman, Hume, Jerrabomberra, Kingston, Narrabundah, Oaks Estate, Parkes, Pralligo, Red Hill, Symonston, Yarralumla		16	SSD	22,726	Metro

Sources: University participation rates for 19–21 year olds were derived from ABS 1996 Census data

Population from ABS 1996 Census

Regions were classified into metropolitan and non-metropolitan zones based on the Rural, Remote and Metropolitan Areas Classification 1991 Census Edition (see footnote 1, p.3)

**Table A2** Index of regions  
—ordered alphabetically by region within state/territory

Region Name	Region Number	Region Type	Zone
<b>Australian Capital Territory</b>			
Belconnen & Gungahlin-Hall	286	SSDs	Metro
North Canberra	285	SSD	Metro
South Canberra	290	SSD	Metro
Tuggeranong & ACT - Bal	289	SSDs	Metro
Weston Creek-Stromlo	288	SSD	Metro
Woden Valley	287	SSD	Metro
<b>New South Wales</b>			
Albury	84	SSD	Non-metro
Ashfield	19	SLA	Metro
Auburn	24	SLA	Metro
Ballina	56	SLA	Non-metro
Bankstown	12	SLA	Metro
Bathurst-Orange	73	SSD	Non-metro
Baulkham Hills	30	SLA	Metro
Bega Valley	78	SLA	Non-metro
Blacktown	31	SLA	Metro
Blue Mountains	27	SLA	Metro
Botany	1	SLA	Metro
Burwood	20	SLA	Metro
Byron	57	SLA	Non-metro
Camden	16	SLA	Metro
Campbelltown	17	SLA	Metro
Canterbury	13	SLA	Metro
Casino, Kyogle & Richmond River	58	SLAs	Non-metro
Central Macquarie (SSD Bal)	71	SSD Bal	Non-metro
Central Murray & Murray-Darling	86	SSDs	Non-metro
Central Murrumbidgee (SSD Bal)	82	SSD Bal	Non-metro
Central Tablelands	74	SSD	Non-metro
Cessnock	44	SLA	Metro
Clarence (SSD Bal)	62	SSD Bal	Non-metro
Coffs Harbour	61	SLA	Non-metro
Concord	21	SLA	Metro
Drummoyne	22	SLA	Metro
Dubbo	70	SLA	Non-metro

(continued)

**Table A2** Index of regions—ordered alphabetically by region within state/territory (continued)

Region Name	Region Number	Region Type	Zone
<b>New South Wales (continued)</b>			
Eurobodalla	79	SLA	Non-metro
Fairfield	14	SLA	Metro
Far West	87	SSD/SD	Non-metro
Gosford	42	SLA	Metro
Greater Taree	63	SLA	Non-metro
Hastings	64	SLA	Non-metro
Hawkesbury	28	SLA	Metro
Holroyd	25	SLA	Metro
Hornsby	37	SLA	Metro
Hunter's Hill & Lane Cove	32	SLAs	Metro
Hurstville	8	SLA	Metro
Kempsey	65	SLA	Non-metro
Kiama & Shellharbour	51	SLAs	Metro
Kogarah	9	SLA	Metro
Ku-ring-gai	38	SLA	Metro
Lachlan	75	SSD	Non-metro
Lake Macquarie	45	SLA	Metro
Leichhardt	2	SLA	Metro
Lismore	59	SLA	Non-metro
Liverpool	15	SLA	Metro
Lower Hunter	49	SLAs	Non-metro
Lower Murrumbidgee	83	SSD	Non-metro
Macquarie-Barwon & Upper Darling	72	SSDs	Non-metro
Maitland	46	SLA	Metro
Manly	39	SLA	Metro
Marrickville	3	SLA	Metro
Mosman	33	SLA	Metro
Newcastle City	47	SLAs	Metro
North Central Plain	69	SSD	Non-metro
North Sydney	34	SLA	Metro
Northern Slopes (SSD Bal)	67	SSD Bal	Non-metro
Northern Tablelands	68	SSD	Non-metro
Parramatta	26	SLA	Metro
Penrith	29	SLA	Metro
Pittwater	40	SLA	Metro

(continued)

**Table A2** Index of regions—ordered alphabetically by region within state/territory (continued)

Region Name	Region Number	Region Type	Zone
<b>New South Wales (continued)</b>			
Port Stephens	48	SLA	Metro
Queanbeyan	76	SSD	Metro
Randwick	5	SLA	Metro
Rockdale	10	SLA	Metro
Ryde	35	SLA	Metro
Shoalhaven	53	SLA	Non-metro
Snowy	80	SSD	Non-metro
Southern Tablelands	77	SSD	Non-metro
Strathfield	23	SLA	Metro
Sutherland Shire	11	SLA	Metro
Sydney City & South Sydney	4	SLAs	Metro
Tamworth	66	SLA	Non-metro
Tweed - Pt B	60	SLA	Non-metro
Tweed Heads - Pt A	55	SLA/SSD	Metro
Upper Hunter	50	SLAs	Non-metro
Upper Murray	85	SSD	Non-metro
Wagga Wagga	81	SLA	Non-metro
Warringah	41	SLA	Metro
Waverley	6	SLA	Metro
Willoughby	36	SLA	Metro
Wingecarribee	54	SLA	Non-metro
Wollondilly	18	SLA	Metro
Wollongong	52	SLA	Metro
Woollahra	7	SLA	Metro
Wyong	43	SLA	Metro
<b>Northern Territory</b>			
Central NT	284	SSD	Non-metro
Darwin	282	SD	Metro
Northern Territory - Bal SD	283	SSDs	Non-metro
<b>Queensland</b>			
Beaudesert Shire Part A	184	SSD	Metro
Brisbane City Core	174	SLAs/SRS	Metro
Brisbane Eastern Inner	176	SLAs/SRS	Metro
Brisbane Eastern Outer	180	SLAs/SRS	Metro
Brisbane Northern Inner	175	SLAs/SRS	Metro

(continued)

**Table A2** Index of regions—ordered alphabetically by region within state/territory (continued)

Region Name	Region Number	Region Type	Zone
<b>Queensland (continued)</b>			
Brisbane Northern Outer	179	SLAs/SRS	Metro
Brisbane Southern Inner	177	SLAs/SRS	Metro
Brisbane Southern Outer	181	SLAs/SRS	Metro
Brisbane Western Inner	178	SLAs/SRS	Metro
Brisbane Western Outer	182	SLAs/SRS	Metro
Bundaberg	195	SSD	Non-metro
Caboolture Shire Part A	185	SSD	Metro
Cairns City Part A	210	SSD	Non-metro
Darling Downs SD Bal	200	SSD	Non-metro
Far North SD Bal	211	SSD	Non-metro
Fitzroy SD Bal	204	SSD	Non-metro
Gladstone	203	SSD	Non-metro
Gold Coast City Part A	183	SSD	Metro
Gold Coast City Part B	192	SSD	Metro
Hervey Bay	196	SLA	Non-metro
Ipswich City (Part in BSD)	186	SSD	Metro
Logan City	187	SSD	Metro
Mackay - Pt A	205	SLA/SSD	Non-metro
Mackay SD Bal	206	SSD	Non-metro
Maryborough	197	SLA	Non-metro
Moreton SD Bal	194	SSD	Non-metro
North West & Central West	212	SSDs/SDs	Non-metro
Northern SD Bal	209	SSD	Non-metro
Pine Rivers Bal	188	SLA	Metro
Pine Rivers Shire (SSD Bal)	189	SSD Bal	Metro
Redcliffe City	190	SSD	Metro
Redland Shire	191	SSD	Metro
Rockhampton	202	SSD	Non-metro
South West	201	SSD/SD	Non-metro
Sunshine Coast	193	SSD	Non-metro
Thuringowa City Part A	208	SSD	Metro
Toowoomba City	199	SSD	Non-metro
Townsville City Part A	207	SSD	Metro
Wide Bay-Burnett SD Bal (SSD Bal)	198	SSD Bal	Non-metro

(continued)

Table A2 Index of regions—ordered alphabetically by region within state/territory (continued)

Region Name	Region Number	Region Type	Zone
<b>South Australia</b>			
Adelaide City & Inner North and East	221	SLAs	Metro
Barossa	231	SSD	Non-metro
Brighton & Glenelg	226	SLAs	Metro
Burnside	222	SLA	Metro
Campbelltown & Payneham	223	SLAs	Metro
East Torrens & Stirling	224	SLAs	Metro
Elizabeth	213	SLA	Metro
Enfield - Pt A	214	SLA	Metro
Eyre	238	SD	Non-metro
Fleurieu & Kangaroo Island	233	SSDs	Non-metro
Flinders Ranges & Far North	241	SSDs	Non-metro
Happy Valley & Willunga	227	SLAs	Metro
Henley & Grange and West Torrens	220	SLAs	Metro
Hindmarsh and Woodville & Thebarton	218	SLAs	Metro
Marion	228	SLA	Metro
Mitcham	229	SLA	Metro
Munno Para & Gawler	215	SLAs	Metro
Murray Mallee	236	SSD	Non-metro
Noarlunga	230	SLA	Metro
Onkaparinga	232	SSD	Non-metro
Pirie	240	SSD	Non-metro
Port Adelaide, Enfield - Pt B & Unincorp. Western	219	SLAs	Metro
Riverland	235	SSD	Non-metro
Salisbury	216	SLA	Metro
South East	237	SD	Non-metro
Tea Tree Gully	217	SLA	Metro
Unley	225	SLA	Metro
Whyalla	239	SSD	Non-metro
Yorke & Lower North	234	SD	Non-metro
<b>Tasmania</b>			
Burnie-Devonport	280	SSD	Non-metro
Central North & North Eastern	279	SSDs	Non-metro
Greater Hobart (SSD Bal)	276	SSD Bal	Metro
Greater Launceston	278	SSD	Non-metro
Hobart City	275	SLAs	Metro

(continued)

**Table A2** Index of regions—ordered alphabetically by region within state/territory (continued)

Region Name	Region Number	Region Type	Zone
<b>Tasmania (continued)</b>			
North Western Rural & Lyell	281	SSDs	Non-metro
Southern (TAS)	277	SSD/SD	Non-metro
<b>Victoria</b>			
Ballarat City	155	SSD	Non-metro
Banyule - Heidelberg	106	SLA	Metro
Banyule - North	107	SLA	Metro
Bayside - Brighton	132	SLA	Metro
Bayside - South	133	SLA	Metro
Boroondara - Camberwell N.	115	SLA	Metro
Boroondara - Camberwell S.	116	SLA	Metro
Boroondara - Hawthorn	117	SLA	Metro
Boroondara - Kew	118	SLA	Metro
Brimbank - Keilor	94	SLA	Metro
Brimbank - Sunshine	95	SLA	Metro
Cardinia & Casey - South	144	SLAs	Metro
Casey - Berwick	141	SLA	Metro
Casey - Cranbourne	142	SLA	Metro
Casey - Hallam	143	SLA	Metro
Darebin - Northcote	108	SLA	Metro
Darebin - Preston	109	SLA	Metro
East & West Central Highlands	156	SSDs	Non-metro
East & West Mallee	159	SSDs	Non-metro
East Barwon	151	SSD	Non-metro
East Gippsland Shire	169	SSD	Non-metro
Frankston - East	145	SLA	Metro
Frankston - West	146	SLA	Metro
Glen Eira - Caulfield	134	SLA	Metro
Glen Eira - South	135	SLA	Metro
Glenelg	154	SSD	Non-metro
Gr. Dandenong - Dandenong	139	SLA	Metro
Gr. Dandenong Bal	140	SLA	Metro
Gr. Shepparton - Pt A	163	SLA/SSD	Non-metro
Greater Bendigo City Part A	160	SSD	Non-metro
Greater Geelong City Part A	150	SSD	Metro
Hobsons Bay - Altona	96	SLA	Metro

(continued)

Table A2 Index of regions—ordered alphabetically by region within state/territory (continued)

Region Name	Region Number	Region Type	Zone
<b>Victoria (continued)</b>			
Hobsons Bay - Williamstown	97	SLA	Metro
Hopkins	153	SSD	Non-metro
Hume - Broadmeadows	110	SLA	Metro
Hume - Craigieburn	111	SLA	Metro
Hume - Sunbury	112	SLA	Metro
Kingston - North	136	SLA	Metro
Kingston - South	137	SLA	Metro
Knox - North	126	SLA	Metro
Knox - South	127	SLA	Metro
La Trobe Valley	171	SSD	Non-metro
Manningham - East & West	119	SLAs	Metro
Maribyrnong	98	SLA	Metro
Maroondah - Croydon	128	SLA	Metro
Maroondah - Ringwood	129	SLA	Metro
Melbourne City	88	SLAs	Metro
Melton-Wyndham (SSD Bal)	102	SSD Bal	Metro
Mildura - Pt A	158	SLA/SSD	Non-metro
Monash - South-West	120	SLA	Metro
Monash - Waverley East	121	SLA	Metro
Monash - Waverley West	122	SLA	Metro
Moonee Valley - Essendon	99	SLA	Metro
Moonee Valley - West	100	SLA	Metro
Moreland - Brunswick	103	SLA	Metro
Moreland - Coburg	104	SLA	Metro
Moreland - North	105	SLA	Metro
Mornington Peninsula - East	147	SLA	Metro
Mornington Peninsula - South	148	SLA	Metro
Mornington Peninsula - West	149	SLA	Metro
North Goulburn	164	SSD	Non-metro
North Loddon	161	SSD	Non-metro
Northern Outer Melbourne (SSD Bal)	114	SSD Bal	Metro
Port Phillip - St Kilda	89	SLA	Metro
Port Phillip - West	90	SLA	Metro
South Gippsland	173	SSD	Non-metro
South Goulburn	165	SSD	Non-metro

(continued)

**Table A2** Index of regions—ordered alphabetically by region within state/territory (continued)

Region Name	Region Number	Region Type	Zone
<b>Victoria (continued)</b>			
South Loddon	162	SSD	Non-metro
South West Goulburn	166	SSD	Non-metro
Stonnington - Malvern	138	SLA	Metro
Stonnington - Prahran	91	SLA	Metro
Wellington Shire	170	SSD	Non-metro
West & East Ovens-Murray	168	SSDs	Non-metro
West Barwon	152	SSD	Non-metro
West Gippsland	172	SSD	Non-metro
Whitehorse - Box Hill	123	SLA	Metro
Whitehorse - Nunawading E.	124	SLA	Metro
Whitehorse - Nunawading W.	125	SLA	Metro
Whittlesea - South	113	SLA	Metro
Wimmera	157	SD	Non-metro
Wodonga	167	SSD	Non-metro
Wyndham - Werribee	101	SLA	Metro
Yarra - North	92	SLA	Metro
Yarra - Richmond	93	SLA	Metro
Yarra Ranges - Central & North	131	SLAs	Metro
Yarra Ranges - South-West	130	SLA	Metro
<b>Western Australia</b>			
Armadale & Serpentine-Jarrahdale	258	SLAs	Metro
Bassendean & Swan	243	SLAs	Metro
Bayswater	244	SLA	Metro
Belmont	259	SLA	Metro
Bunbury	265	SLA	Non-metro
Canning	260	SLA	Metro
Central	272	SD	Non-metro
Cockburn	253	SLA	Metro
Dale	264	SSD	Non-metro
Fremantle & East Fremantle	254	SLAs	Metro
Gosnells	261	SLA	Metro
Kalamunda	245	SLA	Metro
Kimberley	274	SD	Non-metro
Kwinana	255	SLA	Metro
Lower Great Southern	268	SD	Non-metro

(continued)

Table A2 Index of regions—ordered alphabetically by region within state/territory (continued)

Region Name	Region Number	Region Type	Zone
<b>Western Australia (continued)</b>			
Melville	256	SLA	Metro
Midlands	270	SD	Non-metro
Mundaring	246	SLA	Metro
Perth Central Metropolitan	242	SSD	Metro
Pilbara	273	SD	Non-metro
Preston (SSD Bal)	266	SSD Bal	Non-metro
Rockingham	257	SLA	Metro
South Eastern (WA)	271	SD	Non-metro
South Perth	262	SLA	Metro
Stirling - Central	247	SLA	Metro
Stirling - Coastal	248	SLA	Metro
Stirling - South-Eastern	249	SLA	Metro
Upper Great Southern	269	SD	Non-metro
Vasse & Blackwood	267	SSDs	Non-metro
Victoria Park	263	SLA	Metro
Wanneroo - Central Coastal	250	SLA	Metro
Wanneroo - NE, NW & SE	251	SLAs	Metro
Wanneroo - South-West	252	SLA	Metro

# Appendix B

## The effect of the variables on participation estimates

Table B1  
Metropolitan regions—Access measure, index of education and occupation and index of economic resources values and calculated scores showing the effect on participation estimates of these scores, relative to their mean score.....50

Table B2  
Non-metropolitan regions—Access measure, index of education and occupation and index of economic resources values and calculated scores showing the effect on participation estimates of these scores, relative to their mean score.....63

**Table B1 Metropolitan regions—Access measure, index of education and occupation and index of economic resources values and calculated scores showing the effect on participation estimates of these scores, relative to their mean score**

Region number	Region name	State	EFTSU	University participation rate	University participation rate — predicted value	Access measure	Access measure— with saturation point of 650	Effect on participation estimates relative to mean access measure—with saturation point of 650	Index of education and occupation value	Effect on participation estimates relative to mean education and occupation value	Index of economic resources value	Effect on participation estimates relative to mean index of economic resources value
1	Botany	NSW	0	20.7	20.3	1859.9	650.0	3.4	961.3	-6.1	968.7	-2.8
2	Leichhardt	NSW	718	25.9	40.1	1999.8	650.0	3.4	1151.1	10.3	1047.5	0.6
3	Marrickville	NSW	0	21.3	27.6	1951.3	650.0	3.4	1041.4	0.8	978.5	-2.3
4	Sydney City & South Sydney	NSW	34,114	24.0	32.5	2372.3	650.0	3.4	1116.1	7.3	940.1	-4.0
5	Randwick	NSW	20,499	34.1	34.5	1603.2	650.0	3.4	1095.2	5.5	1029.9	-0.1
6	Waverley	NSW	0	38.0	38.7	1801.7	650.0	3.4	1140.1	9.4	1038.1	0.2
7	Woollahra	NSW	0	56.1	48.9	2119.3	650.0	3.4	1201.8	14.7	1150.8	5.0
8	Hurstville	NSW	0	30.5	28.2	483.2	483.2	1.2	1035.9	0.3	1051.7	0.8
9	Kogarah	NSW	959	32.2	32.3	465.4	465.4	1.0	1070.5	3.3	1084.3	2.2
10	Rockdale	NSW	0	25.5	25.7	858.5	650.0	3.4	999.5	-2.8	1017.9	-0.7
11	Sutherland Shire	NSW	0	24.1	30.3	142.2	142.2	-3.1	1069.4	3.2	1134.9	4.4
12	Bankstown	NSW	3,089	21.7	20.4	479.2	479.2	1.2	971.4	-5.3	1001.4	-1.4
13	Canterbury	NSW	0	24.3	20.2	728.2	650.0	3.4	964.8	-5.8	958.9	-3.2
14	Fairfield	NSW	0	22.3	10.4	208.8	208.8	-2.3	912.3	-10.4	969.7	-2.7
15	Liverpool	NSW	0	15.4	15.4	240.8	240.8	-1.8	948.6	-7.2	1002.1	-1.3

(continued)

**Table B1** Metropolitan regions—Access measure, index of education and occupation and index of economic resources values and calculated scores showing the effect on participation estimates of these scores, relative to their mean score (continued)

Region number	Region name	State	EFTSU	University participation rate	University participation rate — predicted value	Access measure	Access measure— with saturation point of 650	Effect on participation estimates relative to mean access measure—with saturation point of 650	Index of education and occupation value	Effect on participation estimates relative to mean education and occupation value	Index of economic resources value	Effect on participation estimates relative to mean index of economic resources value
16	Camden	NSW	116	17.4	22.7	95.8	95.8	-3.7	1010.9	-1.8	1089.4	2.4
20	Burwood	NSW	0	36.7	32.0	984.8	650.0	3.4	1068.5	3.2	1024.7	-0.4
21	Concord	NSW	0	30.1	34.5	931.4	650.0	3.4	1065.6	2.9	1090.4	2.4
22	Drummoyne	NSW	0	26.2	37.6	1483.6	650.0	3.4	1102.4	6.1	1087.6	2.3
23	Strathfield	NSW	1,017	48.2	36.1	774.2	650.0	3.4	1098.0	5.7	1061.6	1.2
24	Auburn	NSW	3,147	25.4	18.3	667.0	650.0	3.4	947.9	-7.3	949.7	-3.6
25	Holroyd	NSW	581	18.9	20.6	445.8	445.8	0.8	978.6	-4.6	1002.4	-1.3
26	Parramatta	NSW	4,250	25.0	27.7	817.6	650.0	3.4	1030.8	-0.1	1000.4	-1.4
27	Blue Mountains	NSW	0	24.9	27.1	35.9	35.9	-4.5	1090.5	5.1	1049.9	0.7
28	Hawkesbury	NSW	3,718	17.8	19.7	26.8	26.8	-4.6	1006.8	-2.2	1048.0	0.6
29	Penrith	NSW	5,806	15.1	20.4	304.3	304.3	-1.0	976.3	-4.8	1044.5	0.5
30	Baulkham Hills	NSW	558	36.3	37.2	147.3	147.3	-3.0	1114.7	7.2	1203.6	7.3
31	Blacktown	NSW	554	14.7	15.4	200.5	200.5	-2.4	954.4	-6.7	1003.5	-1.3
32	Hunter's Hill & Lane Cove	NSW	0	51.9	47.2	1236.5	650.0	3.4	1183.3	13.1	1148.2	4.9
33	Mosman	NSW	0	54.9	50.8	1089.0	650.0	3.4	1207.7	15.2	1182.5	6.4
34	North Sydney	NSW	1,080	44.5	47.3	1368.8	650.0	3.4	1207.3	15.2	1101.3	2.9

(continued)

52 | Table B1 Metropolitan regions—Access measure, index of education and occupation and index of economic resources values and calculated scores showing the effect on participation estimates of these scores, relative to their mean score (continued)

Region number	Region name	State	EFTSU	University participation rate	University participation rate — predicted value	Access measure with saturation point of 650	Access measure—saturation point of 650	Effect on participation estimates relative to mean access measure—with saturation point of 650	Index of education and occupation value	Effect on participation estimates relative to mean education and occupation value	Index of economic resources value	Effect on participation estimates relative to mean index of economic resources value
35	Ryde	NSW	12,999	32.9	36.4	1087.7	650.0	3.4	1099.8	5.9	1065.2	1.4
36	Willoughby	NSW	575	47.6	45.3	945.7	650.0	3.4	1165.9	11.6	1138.4	4.5
37	Hornsby	NSW	0	41.0	37.8	186.2	186.2	-2.5	1138.9	9.3	1156.7	5.3
38	Ku-ring-gai	NSW	3,012	60.5	53.2	693.2	650.0	3.4	1206.7	15.1	1241.3	8.9
39	Manly	NSW	207	35.3	41.7	624.9	624.9	3.1	1142.2	9.5	1111.3	3.3
40	Pittwater	NSW	0	24.9	33.9	169.0	169.0	-2.8	1099.1	5.8	1151.9	5.1
41	Warringah	NSW	0	28.7	32.4	298.3	298.3	-1.1	1075.0	3.7	1126.8	4.0
42	Gosford	NSW	0	19.0	18.2	41.6	41.6	-4.4	1004.7	-2.4	1014.2	-0.8
43	Wyong	NSW	1,014	14.2	10.2	29.2	29.2	-4.5	933.7	-8.5	974.8	-2.5
44	Cessnock	NSW	0	9.8	6.5	18.8	18.8	-4.7	891.6	-12.2	976.2	-2.4
45	Lake Macquarie	NSW	573	19.8	15.0	49.4	49.4	-4.3	970.9	-5.3	1006.0	-1.2
46	Maitland	NSW	0	17.2	13.2	25.3	25.3	-4.6	955.6	-6.6	1001.9	-1.3
47	Newcastle City	NSW	12,778	22.2	21.8	520.0	520.0	1.7	995.7	-3.1	973.0	-2.6
48	Port Stephens	NSW	0	17.6	13.1	35.4	35.4	-4.5	963.1	-6.0	981.2	-2.2
51	Kiama & Shellharbour	NSW	0	15.0	14.2	27.9	27.9	-4.6	963.5	-5.9	1007.0	-1.1
52	Wollongong	NSW	9,447	19.5	17.7	132.8	132.8	-3.2	994.4	-3.3	994.4	-1.7
55	Tweed Heads - Pt A	NSW	0	19.7	8.7	14.0	14.0	-4.7	929.4	-8.9	952.1	-3.5

(continued)

**Table B1 Metropolitan regions—Access measure, index of education and occupation and index of economic resources values and calculated scores showing the effect on participation estimates of these scores, relative to their mean score (continued)**

Region number	Region name	State	EFTSU	University participation rate	University participation rate — predicted value	Access measure	Access measure— with saturation point of 650	Effect on participation estimates relative to mean access measure—with saturation point of 650	Index of education and occupation value	Effect on participation estimates relative to mean education and occupation value	Index of economic resources value	Effect on participation estimates relative to mean index of economic resources value
76	Queanbeyan	NSW	0	15.5	20.3	49.7	49.7	-4.3	1015.7	-1.4	1037.5	0.2
88	Melbourne City	VIC	42,415	38.8	42.2	2384.5	650.0	3.4	1153.0	10.5	972.1	-2.6
89	Port Phillip - St Kilda	VIC	0	38.6	40.5	1397.6	650.0	3.4	1146.5	9.9	944.8	-3.8
90	Port Phillip - West	VIC	0	35.9	41.3	2136.9	650.0	3.4	1119.5	7.6	1016.9	-0.7
91	Stonnington - Prahran	VIC	351	48.4	45.3	2033.8	650.0	3.4	1163.7	11.4	1020.7	-0.5
92	Yarra - North	VIC	813	35.1	40.7	2464.9	650.0	3.4	1139.1	9.3	965.0	-2.9
93	Yarra - Richmond	VIC	310	32.2	32.9	2524.2	650.0	3.4	1063.3	2.7	934.7	-4.2
94	Brimbank - Keilor	VIC	0	26.6	24.1	368.7	368.7	-0.2	953.6	-6.8	1036.4	0.1
95	Brimbank - Sunshine	VIC	3,129	23.4	17.2	523.6	523.6	1.8	885.4	-12.7	967.4	-2.8
96	Hobsons Bay - Altona	VIC	0	21.8	21.0	399.1	399.1	0.2	930.4	-8.8	1001.7	-1.4
97	Hobsons Bay - Williamstown	VIC	0	27.2	35.3	934.4	650.0	3.4	1050.8	1.6	1017.4	-0.7
98	Maribyrnong	VIC	6,166	27.0	21.9	1261.7	650.0	3.4	945.9	-7.5	915.9	-5.0
99	Moonee Valley - Essendon	VIC	769	35.3	36.1	1704.6	650.0	3.4	1072.3	3.5	991.6	-1.8
100	Moonee Valley - West	VIC	0	33.7	31.9	820.9	650.0	3.4	994.8	-3.2	1050.1	0.7
101	Wyndham - Werribee	VIC	737	22.0	24.6	182.2	182.2	-2.6	985.2	-4.1	1039.5	0.3
102	Melton-Wyndham (SSD Bal)	VIC	425	18.6	21.6	122.4	122.4	-3.4	962.7	-6.0	1033.2	0.0

(continued)

**Table B1** Metropolitan regions—Access measure, index of education and occupation and index of economic resources values and calculated scores showing the effect on participation estimates of these scores, relative to their mean score (continued)

Region number	Region name	State	EFTSU	University participation rate	University participation rate — predicted value	Access measure	Access measure— with saturation point of 650	Effect on participation estimates relative to mean access measure—with saturation point of 650	Index of education and occupation value	Effect on participation estimates relative to mean education and occupation value	Index of economic resources value	Effect on participation estimates relative to mean index of economic resources value
103	Moreland - Brunswick	VIC	0	23.0	33.2	2302.2	650.0	3.4	1061.4	2.5	945.8	-3.8
104	Moreland - Coburg	VIC	1,722	24.6	28.3	1482.1	650.0	3.4	989.9	-3.7	976.6	-2.4
105	Moreland - North	VIC	0	21.1	22.9	787.1	650.0	3.4	929.0	-8.9	973.5	-2.6
106	Banyule - Heidelberg	VIC	0	38.0	38.8	1201.0	650.0	3.4	1079.6	4.1	1040.5	0.3
107	Banyule - North	VIC	0	31.5	38.3	870.5	650.0	3.4	1052.5	1.8	1082.3	2.1
108	Darebin - Northcote	VIC	0	25.5	33.9	2244.7	650.0	3.4	1060.8	2.5	965.0	-2.9
109	Darebin - Preston	VIC	10,315	22.9	22.2	1253.5	650.0	3.4	935.0	-8.4	945.9	-3.8
110	Hume - Broadmeadows	VIC	0	20.8	17.7	450.7	450.7	0.8	896.2	-11.8	978.3	-2.4
111	Hume - Craigieburn	VIC	0	21.7	25.5	175.2	175.2	-2.7	976.5	-4.8	1079.1	2.0
112	Hume - Sunbury	VIC	318	27.1	28.8	107.4	107.4	-3.5	1026.5	-0.5	1075.9	1.8
113	Whittlesea - South	VIC	3,083	21.8	25.2	791.8	650.0	3.4	933.0	-8.6	1018.6	-0.6
114	Northern Outer Melbourne (SSD Bal)	VIC	0	33.7	37.9	229.9	229.9	-2.0	1087.6	4.8	1128.1	4.1
115	Boroondara - Camberwell N.	VIC	0	64.0	51.4	1296.1	650.0	3.4	1177.8	12.6	1135.3	4.4
116	Boroondara - Camberwell S.	VIC	0	58.6	51.3	1606.7	650.0	3.4	1182.7	13.1	1124.1	3.9
117	Boroondara - Hawthorn	VIC	7,071	57.6	50.3	1791.1	650.0	3.4	1195.7	14.2	1072.8	1.7

(continued)

**Table B1 Metropolitan regions—Access measure, index of education and occupation and index of economic resources values and calculated scores showing the effect on participation estimates of these scores, relative to their mean score (continued)**

Region number	Region name	State	EFTSU	University participation rate	University participation rate — predicted value	Access measure	Access measure— with saturation point of 650	Effect on participation estimates relative to mean access measure—with saturation point of 650	Index of education and occupation value	Effect on participation estimates relative to mean education and occupation value	Index of economic resources value	Effect on participation estimates relative to mean index of economic resources value
118	Boroondara - Kew	VIC	557	64.2	52.2	1713.2	650.0	3.4	1194.9	14.1	1120.2	3.7
119	Manningham - East & West	VIC	0	47.3	42.7	516.7	516.7	1.7	1096.8	5.6	1136.0	4.4
120	Monash - South-West	VIC	0	30.5	30.6	1319.5	650.0	3.4	1016.9	-1.3	976.4	-2.4
121	Monash - Waverley East	VIC	0	43.1	42.8	1047.8	650.0	3.4	1082.2	4.3	1129.3	4.1
122	Monash - Waverley West	VIC	18,970	44.3	40.4	1430.4	650.0	3.4	1085.9	4.7	1065.7	1.4
123	Whitehorse - Box Hill	VIC	6,035	43.4	42.3	1103.2	650.0	3.4	1115.7	7.3	1047.7	0.6
124	Whitehorse - Nunawading E.	VIC	0	39.7	40.7	643.1	643.1	3.3	1077.8	4.0	1090.2	2.4
125	Whitehorse - Nunawading W.	VIC	0	39.7	39.7	949.0	650.0	3.4	1080.2	4.2	1060.2	1.2
126	Knox - North	VIC	0	26.2	30.9	394.5	394.5	0.1	1013.8	-1.6	1065.4	1.4
127	Knox - South	VIC	0	26.6	35.4	345.1	345.1	-0.5	1050.2	1.6	1110.5	3.3
128	Maroondah - Croydon	VIC	0	25.6	30.7	238.8	238.8	-1.9	1032.8	0.1	1068.2	1.5
129	Maroondah - Ringwood	VIC	0	34.6	33.2	348.0	348.0	-0.5	1053.0	1.8	1052.7	0.8
130	Yarra Ranges - South-West	VIC	879	23.7	28.3	126.8	126.8	-3.3	1024.9	-0.6	1061.2	1.2

(continued)

**Table B1** Metropolitan regions—Access measure, index of education and occupation and index of economic resources values and calculated scores showing the effect on participation estimates of these scores, relative to their mean score (continued)

Region number	Region name	State	EFTSU	University participation rate	University participation rate — predicted value	Access measure with saturation point of 650	Access measure—saturation point of 650	Effect on participation estimates relative to mean access measure—with saturation point of 650	Index of education and occupation value	Effect on participation estimates relative to mean education and occupation value	Index of economic resources value	Effect on participation estimates relative to mean index of economic resources value
131	Yarra Ranges - Central & North	VIC	0	18.4	18.5	52.9	52.9	-4.2	955.9	-6.6	994.5	-1.7
132	Bayside - Brighton	VIC	0	55.0	50.9	871.3	650.0	3.4	1167.6	11.8	1145.1	4.8
133	Bayside - South	VIC	0	43.3	41.2	443.2	443.2	0.7	1113.5	7.1	1089.1	2.4
134	Glen Eira - Caulfield	VIC	6,736	49.9	42.2	1250.8	650.0	3.4	1125.3	8.1	1027.2	-0.3
135	Glen Eira - South	VIC	0	38.1	38.3	979.7	650.0	3.4	1070.9	3.4	1046.9	0.6
136	Kingston - North	VIC	0	33.2	30.0	503.6	503.6	1.5	1006.4	-2.2	1027.5	-0.2
137	Kingston - South	VIC	0	21.3	25.5	199.6	199.6	-2.4	999.6	-2.8	1025.0	-0.4
138	Stonnington - Malvern	VIC	1,711	56.5	50.1	1610.3	650.0	3.4	1176.9	12.6	1108.0	3.2
139	Gr. Dandenong - Dandenong	VIC	0	23.5	16.7	332.2	332.2	-0.7	912.3	-10.4	958.6	-3.2
140	Gr. Dandenong Bal	VIC	0	24.6	16.2	314.0	314.0	-0.9	902.4	-11.2	970.5	-2.7
141	Casey - Berwick	VIC	248	21.2	27.4	128.1	128.1	-3.3	1008.0	-2.1	1075.2	1.8
142	Casey - Cranbourne	VIC	0	13.9	17.8	105.7	105.7	-3.6	928.1	-9.0	1019.3	-0.6
143	Casey - Hallam	VIC	0	19.1	21.9	218.3	218.3	-2.1	953.7	-6.8	1028.7	-0.2
144	Cardinia & Casey - South	VIC	0	21.0	21.9	45.5	45.5	-4.3	972.9	-5.1	1041.7	0.4
145	Frankston - East	VIC	0	21.6	24.6	181.2	181.2	-2.6	980.6	-4.5	1048.6	0.7

(continued)

**Table B1 Metropolitan regions—Access measure, index of education and occupation and index of economic resources values and calculated scores showing the effect on participation estimates of these scores, relative to their mean score (continued)**

Region number	Region name	State	EFTSU	University participation rate	University participation rate — predicted value	Access measure	Access measure— with saturation point of 650	Effect on participation estimates relative to mean access measure—with saturation point of 650	Index of education and occupation value	Effect on participation estimates relative to mean education and occupation value	Index of economic resources value	Effect on participation estimates relative to mean index of economic resources value
146	Frankston - West	VIC	2,713	22.4	22.5	192.5	192.5	-2.5	976.9	-4.8	1004.2	-1.2
147	Mornington Peninsula - East	VIC	0	19.0	20.7	54.4	54.4	-4.2	971.5	-5.2	1014.4	-0.8
148	Mornington Peninsula - South	VIC	0	19.0	16.0	30.2	30.2	-4.5	944.8	-7.6	965.1	-2.9
149	Mornington Peninsula - West	VIC	0	32.8	30.5	68.2	68.2	-4.0	1055.4	2.0	1069.5	1.6
150	Greater Geelong City Part A	VIC	7,692	26.6	20.4	113.8	113.8	-3.5	972.7	-5.1	987.7	-2.0
174	Brisbane City Core	QLD	20,551	30.3	36.0	1750.0	650.0	3.4	1109.0	6.7	963.7	-3.0
175	Brisbane Northern Inner	QLD	0	34.6	35.7	1047.9	650.0	3.4	1078.7	4.0	1019.3	-0.6
176	Brisbane Eastern Inner	QLD	832	30.8	35.2	1417.7	650.0	3.4	1065.1	2.9	1033.5	0.0
177	Brisbane Southern Inner	QLD	0	29.9	33.9	1893.4	650.0	3.4	1066.4	3.0	1002.7	-1.3
178	Brisbane Western Inner	QLD	19,818	53.5	45.9	1662.1	650.0	3.4	1182.3	13.0	1047.2	0.6
179	Brisbane Northern Outer	QLD	2,905	28.0	28.1	390.3	390.3	0.1	1013.9	-1.6	1049.9	0.7

(continued)

**Table B1** Metropolitan regions—Access measure, index of education and occupation and index of economic resources values and calculated scores showing the effect on participation estimates of these scores, relative to their mean score (continued)

Region number	Region name	State	EFTSU	University participation rate	University participation rate — predicted value	Access measure	Access measure— with saturation point of 650	Effect on participation estimates relative to mean access—with saturation point of 650	Index of education and occupation value	Effect on participation estimates relative to mean education and occupation value	Index of economic resources value	Effect on participation estimates relative to mean index of economic resources value
180	Brisbane Eastern Outer	QLD	0	20.0	22.2	281.9	281.9	-1.3	972.3	-5.2	1028.1	-0.2
181	Brisbane Southern Outer	QLD	10,843	32.6	32.3	781.3	650.0	3.4	1023.1	-0.8	1051.9	0.8
182	Brisbane Western Outer	QLD	0	37.3	33.3	442.1	442.1	0.7	1052.3	1.8	1077.4	1.9
183	Gold Coast City Part A	QLD	0	12.1	12.3	62.7	62.7	-4.1	912.8	-10.3	982.1	-2.2
184	Beaudesert Shire Part A	QLD	0	16.3	18.5	59.5	59.5	-4.2	939.6	-8.0	1073.9	1.7
185	Caboolture Shire Part A	QLD	0	13.9	12.3	30.4	30.4	-4.5	916.2	-10.0	985.5	-2.1
186	Ipswich City (Part in BSD)	QLD	0	18.3	15.1	78.6	78.6	-3.9	937.6	-8.2	994.6	-1.7
187	Logan City	QLD	0	14.6	16.1	175.4	175.4	-2.7	931.9	-8.7	1000.5	-1.4
188	Pine Rivers Bal	QLD	0	27.5	30.0	71.9	71.9	-4.0	1045.2	1.1	1126.2	4.0
189	Pine Rivers Shire (SSD Bal)	QLD	0	22.4	23.0	183.0	183.0	-2.6	985.4	-4.0	1050.9	0.8
190	Redcliffe City	QLD	0	15.6	13.0	67.4	67.4	-4.1	931.2	-8.7	959.7	-3.2
191	Redland Shire	QLD	0	20.7	21.2	108.6	108.6	-3.5	979.0	-4.6	1043.2	0.4

(continued)

**Table B1 Metropolitan regions—Access measure, index of education and occupation and index of economic resources values and calculated scores showing the effect on participation estimates of these scores, relative to their mean score (continued)**

Region number	Region name	State	EFTSU	University participation rate	University participation rate — predicted value	Access measure	Access measure— with saturation point of 650	Effect on participation estimates relative to mean access measure—with saturation point of 650	Index of education and occupation value	Effect on participation estimates relative to mean education and occupation value	Index of economic resources value	Effect on participation estimates relative to mean index of economic resources value
192	Gold Coast City Part B	QLD	3,739	21.1	18.9	100.5	100.5	-3.6	978.5	-4.6	993.8	-1.7
207	Townsville City Part A	QLD	5,856	22.8	22.6	234.4	234.4	-1.9	1005.7	-2.3	985.2	-2.1
208	Thuringowa City Part A	QLD	0	20.3	17.0	37.2	37.2	-4.4	957.3	-6.5	1010.1	-1.0
213	Elizabeth	SA	0	7.6	1.7	86.2	86.2	-3.8	825.4	-17.9	865.4	-7.2
214	Enfield - Pt A	SA	0	18.4	20.4	689.7	650.0	3.4	935.5	-8.4	912.1	-5.2
215	Munno Para & Gawler	SA	0	12.5	12.9	56.4	56.4	-4.2	907.6	-10.8	970.6	-2.7
216	Salisbury	SA	3,343	14.3	15.3	255.2	255.2	-1.7	905.0	-11.0	972.0	-2.6
217	Tea Tree Gully	SA	0	24.8	27.1	162.1	162.1	-2.8	1016.8	-1.3	1048.3	0.6
218	Hindmarsh and Woodville & Thebarton	SA	0	24.7	25.1	624.1	624.1	3.0	970.7	-5.3	959.1	-3.2
219	Port Adelaide, Enfield SA - Pt B & Unincorp. Western	SA	0	18.2	11.9	186.0	186.0	-2.5	905.6	-11.0	912.0	-5.2
220	Henley & Grange and West Torrens	SA	3,226	28.7	29.0	594.6	594.6	2.7	1012.3	-1.7	974.5	-2.5

(continued)

**Table B1** Metropolitan regions—Access measure, index of education and occupation and index of economic resources values and calculated scores showing the effect on participation estimates of these scores, relative to their mean score (continued)

Region number	Region name	State	EFTSU	University participation rate	University participation rate — predicted value	Access measure	Access measure— with saturation point of 650	Effect on participation estimates relative to mean access measure—with saturation point of 650	Index of education and occupation value	Effect on participation estimates relative to mean education and occupation value	Index of economic resources value	Effect on participation estimates relative to mean index of economic resources value
221	Adelaide City & Inner North and East	SA	18,167	39.6	42.3	1006.7	650.0	3.4	1136.8	9.1	1015.3	-0.8
222	Burnside	SA	0	53.4	48.9	743.3	650.0	3.4	1171.7	12.1	1099.0	2.8
223	Campbelltown & Payneham	SA	3,080	32.0	30.3	609.1	609.1	2.9	1017.0	-1.3	989.4	-1.9
224	East Torrens & Stirling	SA	0	43.2	40.2	168.5	168.5	-2.8	1141.2	9.5	1100.5	2.9
225	Unley	SA	0	40.7	43.9	1031.8	650.0	3.4	1144.0	9.7	1037.8	0.2
226	Brighton & Glenelg	SA	0	31.1	33.5	488.8	488.8	1.3	1063.7	2.7	1006.1	-1.2
227	Happy Valley & Willunga	SA	0	26.0	27.5	67.9	67.9	-4.0	1029.9	-0.2	1060.8	1.2
228	Marion	SA	0	23.7	26.8	484.9	484.9	1.3	998.8	-2.9	981.8	-2.2
229	Mitcham	SA	9,088	41.4	42.2	593.3	593.3	2.7	1119.1	7.5	1066.7	1.4
230	Noarlunga	SA	0	13.7	15.3	78.9	78.9	-3.9	928.0	-9.0	978.1	-2.4
242	Perth Central Metropolitan	WA	12,393	47.7	42.2	942.6	650.0	3.4	1160.8	11.2	1070.4	1.6
243	Bassendean & Swan	WA	0	16.9	14.6	49.1	49.1	-4.3	953.9	-6.8	1022.1	-0.5
244	Bayswater	WA	0	22.2	22.8	417.9	417.9	0.4	991.6	-3.5	1029.5	-0.2
245	Kalamunda	WA	0	23.1	21.8	62.3	62.3	-4.1	1005.3	-2.3	1083.3	2.1
246	Mundaring	WA	0	24.3	22.6	28.7	28.7	-4.5	1023.9	-0.7	1075.3	1.8

(continued)

**Table B1** Metropolitan regions—Access measure, index of education and occupation and index of economic resources values and calculated scores showing the effect on participation estimates of these scores, relative to their mean score (continued)

Region number	Region name	State	EFTSU	University participation rate	University participation rate — predicted value	Access measure	Access measure—saturation point of 650	Effect on participation estimates relative to mean access measure—with saturation point of 650	Index of education and occupation value	Effect on participation estimates relative to mean education and occupation value	Index of economic resources value	Effect on participation estimates relative to mean index of economic resources value
247	Stirling - Central	WA	0	21.6	19.1	472.4	472.4	1.1	967.1	-5.6	975.0	-2.5
248	Stirling - Coastal	WA	5,298	38.4	31.8	359.2	359.2	-0.3	1087.7	4.8	1062.7	1.3
249	Stirling - South-Eastern	WA	4,234	36.5	31.5	641.2	641.2	3.3	1082.8	4.4	981.3	-2.2
250	Wanneroo - Central Coastal	WA	3,240	18.5	25.4	184.1	184.1	-2.6	1018.2	-1.2	1104.1	3.0
251	Wanneroo - NE, NW & SE	WA	0	14.0	12.8	93.3	93.3	-3.7	927.2	-9.1	1022.5	-0.5
252	Wanneroo - South-West	WA	0	25.3	28.1	163.6	163.6	-2.8	1043.5	1.0	1122.8	3.8
253	Cockburn	WA	0	14.8	15.9	228.3	228.3	-2.0	940.0	-8.0	1029.4	-0.2
254	Fremantle & East Fremantle	WA	0	19.3	25.8	394.0	394.0	0.1	1050.7	1.6	985.7	-2.0
255	Kwinana	WA	0	8.1	6.0	62.3	62.3	-4.1	869.1	-14.1	989.9	-1.9
256	Melville	WA	6,486	39.9	37.5	690.8	650.0	3.4	1092.5	5.2	1097.9	2.8
257	Rockingham	WA	49	11.9	11.4	25.7	25.7	-4.6	919.6	-9.7	1025.9	-0.3
258	Armadale & Serpentine-Jarrahdale	WA	0	13.9	13.6	35.7	35.7	-4.5	936.6	-8.3	1038.2	0.2
259	Belmont	WA	0	11.4	14.5	449.9	449.9	0.8	929.3	-8.9	950.4	-3.6
260	Canning	WA	0	27.0	29.4	789.8	650.0	3.4	1022.0	-0.9	1052.4	0.8

(continued)

Table B1 Metropolitan regions—Access measure, index of education and occupation and index of economic resources values and calculated scores showing the effect on participation estimates of these scores, relative to their mean score (continued)

Region number	Region name	State	EFTSU	University participation rate	University participation rate — predicted value	Access measure	Access measure— with saturation point of 650	Effect on participation estimates relative to mean access measure—with saturation point of 650	Index of education and occupation value	Effect on participation estimates relative to mean education and occupation value	Index of economic resources value	Effect on participation estimates relative to mean index of economic resources value
261	Gosnells	WA	0	12.2	14.9	192.6	192.6	-2.5	930.8	-8.8	1033.9	0.0
262	South Perth	WA	0	35.0	36.4	1204.5	650.0	3.4	1117.0	7.4	1022.3	-0.5
263	Victoria Park	WA	13,975	20.7	24.6	898.6	650.0	3.4	1025.7	-0.5	933.3	-4.3
275	Hobart City	TAS	6,612	41.3	38.6	265.2	265.2	-1.5	1139.5	9.3	1013.1	-0.9
276	Greater Hobart (SSD Bal)	TAS	0	19.5	22.2	255.7	255.7	-1.7	967.3	-5.6	982.3	-2.2
282	Darwin	NT	2,894	24.5	24.5	115.9	115.9	-3.4	1045.6	1.2	1018.2	-0.6
285	North Canberra	ACT	10,043	35.3	36.6	667.2	650.0	3.4	1155.0	10.7	1000.2	-1.4
286	Belconnen & Gungahlin-Hall	ACT	6,534	28.9	33.4	388.9	388.9	0.0	1110.3	6.8	1092.7	2.5
287	Woden Valley	ACT	0	38.4	36.0	205.4	205.4	-2.3	1160.6	11.1	1106.4	3.1
288	Weston Creek-Stromlo	ACT	0	34.4	33.3	148.7	148.7	-3.0	1125.7	8.1	1130.3	4.2
289	Tuggeranong & ACT - Bal	ACT	0	23.0	27.6	62.5	62.5	-4.1	1086.6	4.7	1103.2	3.0
290	South Canberra	ACT	23	45.5	38.6	465.5	465.5	1.0	1173.3	12.2	1065.6	1.4

Sources EFTSU was obtained from DETYA 1996 Higher Education Student Statistics. To enable EFTSU to be disaggregated to regional level, breakdowns to campus level were provided by individual institutions.

University participation rates are for 19 to 21 year olds and were derived from ABS 1996 Census data.

University participation rates – predicted values were obtained from running the model (3) using the coefficients in Table I.

Access measures were calculated using equation (1).

Index of Education and Occupation and Index of Economic Resources values for regions are from ABS 1996 Socio-economic Indexes for Areas.

Effect on participation estimates of access was calculated using formula (5). Analogous formulae were used to calculate the effect on participation estimates of the two socio-economic indexes.

**Table B2 Non-metropolitan regions—Access measure, index of education and occupation and index of economic resources values and calculated scores showing the effect on participation estimates of these scores, relative to their mean score**

Region number	Region name	State	EFTSU	University participation rate	University participation rate — predicted value	Access measure	Effect on participation estimates relative to mean access measure	Index of Education and Occupation value	Effect on estimates mean index of education and occupation value	Index of economic resources value	Effect on participation estimates relative to mean index of economic resources value
49	Lower Hunter	NSW	0	18.7	17.9	5.8	-0.5	935.2	-0.6	945.5	-0.5
50	Upper Hunter	NSW	0	14.1	20.2	7.0	-0.4	939.1	-0.4	1008.5	1.6
53	Shoalhaven	NSW	38	14.2	18.9	9.9	-0.4	955.4	0.0	954.8	-0.2
54	Wingecarribee	NSW	0	26.4	22.9	18.6	-0.1	1013.5	1.6	1020.4	2.0
56	Ballina	NSW	0	25.8	20.4	17.3	-0.2	986.1	0.9	968.7	0.3
57	Byron	NSW	0	18.8	19.2	8.8	-0.4	994.7	1.1	933.5	-1.0
58	Casino, Kyogle & Richmond River	NSW	0	17.1	17.1	10.5	-0.3	921.2	-0.9	930.7	-1.0
59	Lismore	NSW	5,168	26.3	25.0	201.4	4.3	1001.9	1.3	961.4	0.0
60	Tweed - Pt B	NSW	0	22.1	18.3	9.8	-0.4	955.5	0.0	938.4	-0.8
61	Coffs Harbour	NSW	663	21.4	19.1	19.0	-0.1	970.3	0.4	942.1	-0.7
62	Clarence (SSD Bal)	NSW	0	20.3	17.5	3.0	-0.5	941.7	-0.4	930.9	-1.0
63	Greater Taree	NSW	0	17.0	17.9	3.4	-0.5	940.1	-0.4	944.7	-0.6
64	Hastings	NSW	0	21.2	18.5	2.6	-0.5	957.2	0.1	947.2	-0.5
65	Kempsey	NSW	0	16.1	16.5	2.5	-0.5	922.7	-0.9	918.8	-1.5
66	Tamworth	NSW	0	23.3	20.0	3.1	-0.5	981.4	0.7	970.6	0.3
67	Northern Slopes (SSD Bal)	NSW	0	17.9	18.3	2.6	-0.5	949.5	-0.2	948.1	-0.4

(continued)

**Table B2** Non-metropolitan regions—Access measure, index of education and occupation and index of economic resources values and calculated scores showing the effect on participation estimates of these scores, relative to their mean score (continued)

Region number	Region name	State	EFTSU	University participation rate	University participation rate — predicted value	Access measure	Effect on participation estimates relative to mean access measure	Index of Education and Occupation value	Effect on estimates relative to mean index of education and occupation value	Index of economic resources value	Effect on participation estimates relative to mean index of economic resources value
68	Northern Tablelands	NSW	8,335	26.6	23.2	152.4	3.1	1000.4	1.3	944.1	-0.6
69	North Central Plain	NSW	0	15.5	18.1	1.6	-0.6	950.8	-0.1	943.8	-0.6
70	Dubbo	NSW	17	18.0	20.3	3.1	-0.5	984.0	0.8	977.4	0.6
71	Central Macquarie (SSD Bal)	NSW	0	18.1	17.7	3.2	-0.5	944.4	-0.3	933.6	-0.9
72	Macquarie-Barwon & Upper Darling	NSW	0	11.6	16.0	1.2	-0.6	933.2	-0.6	895.6	-2.3
73	Bathurst-Orange	NSW	5,133	25.3	23.4	96.5	1.7	998.7	1.2	992.4	1.1
74	Central Tablelands	NSW	0	15.8	19.1	13.3	-0.3	931.3	-0.7	978.2	0.6
75	Lachlan	NSW	0	20.4	18.3	3.3	-0.5	950.9	-0.1	946.6	-0.5
77	Southern Tablelands	NSW	380	17.6	20.3	15.7	-0.2	977.9	0.6	974.2	0.5
78	Bega Valley	NSW	0	17.1	18.4	2.5	-0.5	967.6	0.4	937.8	-0.8
79	Eurobodalla	NSW	0	18.0	18.5	4.3	-0.5	965.3	0.3	940.1	-0.7
80	Snowy	NSW	0	15.7	21.2	3.5	-0.5	1027.2	2.0	969.0	0.3
81	Wagga Wagga	NSW	5,383	21.8	26.1	206.2	4.4	1003.5	1.4	989.3	1.0
82	Central Murrumbidgee (SSD Bal)	NSW	0	18.0	18.2	5.1	-0.5	940.9	-0.4	951.9	-0.3
83	Lower Murrumbidgee	NSW	0	18.7	19.2	2.2	-0.5	947.5	-0.2	977.2	0.6
84	Albury	NSW	1,589	23.6	22.6	76.0	1.2	997.0	1.2	982.9	0.8

(continued)

**Table B2 Non-metropolitan regions—Access measure, index of education and occupation and index of economic resources values and calculated scores showing the effect on participation estimates of these scores, relative to their mean score (continued)**

Region number	Region name	State	EFTSU	University participation rate	University participation rate — predicted value	Access measure	Effect on participation estimates relative to mean access measure	Index of Education and Occupation value	Effect on estimates relative to mean index of education and occupation value	Index of economic resources value	Effect on participation estimates relative to mean index of economic resources value
85	Upper Murray	NSW	0	22.8	18.5	4.6	-0.5	939.8	-0.4	961.3	0.0
86	Central Murray & Murray-Darling	NSW	0	22.0	18.5	3.1	-0.5	950.0	-0.1	954.0	-0.2
87	Far West	NSW	0	15.1	17.1	0.8	-0.6	928.6	-0.7	932.3	-1.0
151	East Barwon	VIC	0	25.8	26.5	47.4	0.5	1028.0	2.0	1004.5	1.5
152	West Barwon	VIC	0	22.6	23.3	13.2	-0.3	964.5	0.3	987.3	0.9
153	Hopkins	VIC	2,606	24.8	24.3	67.3	1.0	974.1	0.5	969.2	0.3
154	Glenelg	VIC	0	24.4	22.2	2.6	-0.5	960.9	0.2	966.5	0.2
155	Ballarat City	VIC	4,072	26.0	25.7	91.9	1.6	994.5	1.1	977.6	0.6
156	East & West Central Highlands	VIC	0	21.8	23.5	27.4	0.1	971.6	0.5	977.0	0.5
157	Wimmera	VIC	125	24.2	22.5	4.7	-0.5	971.3	0.5	964.6	0.1
158	Mildura - Pt A	VIC	78	21.7	21.3	4.1	-0.5	951.6	-0.1	946.4	-0.5
159	East & West Mallee	VIC	0	24.6	21.8	2.5	-0.5	958.7	0.1	954.1	-0.2
160	Greater Bendigo City Part A	VIC	3,141	26.6	26.4	130.9	2.6	989.8	1.0	973.5	0.4
161	North Loddon	VIC	0	21.3	21.8	10.9	-0.3	950.9	-0.1	955.1	-0.2
162	South Loddon	VIC	0	30.0	28.3	36.6	0.3	1039.7	2.4	1053.5	3.2
163	Gr. Shepparton - Pt A	VIC	149	23.4	22.3	12.2	-0.3	958.4	0.1	964.6	0.1
164	North Goulburn	VIC	236	25.0	22.4	5.5	-0.5	957.0	0.1	972.6	0.4

(continued)

**Table B2** Non-metropolitan regions—Access measure, index of education and occupation and index of economic resources values and calculated scores showing the effect on participation estimates of these scores, relative to their mean score (continued)

Region number	Region name	State	EFTSU	University participation rate	University participation rate — predicted value	Access measure	Effect on participation estimates relative to mean access measure	Index of Education and Occupation value	Effect on estimates relative to mean index of education and occupation value	Index of economic resources value	Effect on participation estimates relative to mean index of economic resources value
165	South Goulburn	VIC	0	22.3	22.1	7.6	-0.4	968.8	0.4	953.4	-0.3
166	South West Goulburn	VIC	0	18.5	24.1	31.2	0.2	975.7	0.6	987.3	0.9
167	Wodonga	VIC	884	23.6	25.3	64.1	0.9	992.3	1.0	985.3	0.8
168	West & East Ovens-Murray	VIC	7	25.5	22.9	5.1	-0.5	979.7	0.7	969.3	0.3
169	East Gippsland Shire	VIC	13	20.8	21.5	3.4	-0.5	966.3	0.3	940.8	-0.7
170	Wellington Shire	VIC	0	23.6	23.0	6.1	-0.4	978.0	0.6	971.9	0.4
171	La Trobe Valley	VIC	4,192	21.1	23.4	43.7	0.5	965.0	0.3	967.1	0.2
172	West Gippsland	VIC	0	23.7	24.1	19.2	-0.1	985.3	0.8	987.5	0.9
173	South Gippsland	VIC	0	20.0	22.5	15.8	-0.2	964.3	0.3	962.1	0.0
193	Sunshine Coast	QLD	461	19.9	17.2	15.9	-0.4	964.1	0.3	962.3	0.0
194	Moreton SD Bal	QLD	2,618	16.7	17.3	36.7	0.3	931.0	-0.7	977.9	0.6
195	Bundaberg	QLD	256	20.2	15.2	10.0	-0.4	916.0	-1.1	949.0	-0.4
196	Hervey Bay	QLD	91	12.8	14.4	4.8	-0.5	920.7	-1.0	924.7	-1.3
197	Maryborough	QLD	0	17.5	15.3	1.9	-0.5	927.4	-0.8	946.0	-0.5
198	Wide Bay-Burnett SD Bal (SSD Bal)	QLD	0	14.6	14.1	3.0	-0.5	895.1	-1.7	936.7	-0.8
199	Toowoomba City	QLD	9,363	26.6	27.3	382.3	8.6	987.3	0.9	981.1	0.7
200	Darling Downs SD Bal	QLD	0	18.4	16.2	14.2	-0.3	930.0	-0.7	963.7	0.1

(continued)

**Table B2 Non-metropolitan regions—Access measure, index of education and occupation and index of economic resources values and calculated scores showing the effect on participation estimates of these scores, relative to their mean score (continued)**

Region number	Region name	State	EFTSU	University participation rate	University participation rate — predicted value	Access measure	Effect on participation estimates relative to mean access measure	Index of Education and Occupation value	Effect on estimates relative to mean index of education and occupation value	Index of economic resources value	Effect on participation estimates relative to mean index of economic resources value
201	South West	QLD	0	13.0	14.9	0.7	-0.6	935.8	-0.5	930.2	-1.1
202	Rockhampton	QLD	5,475	22.6	21.9	208.5	4.4	960.1	0.1	967.3	0.2
203	Gladstone	QLD	132	17.0	17.6	5.4	-0.5	939.4	-0.4	1002.8	1.4
204	Fitzroy SD Bal	QLD	19	14.9	16.1	2.2	-0.5	933.1	-0.6	964.9	0.1
205	Mackay - Pt A	QLD	293	19.2	17.6	9.7	-0.4	952.0	-0.1	987.4	0.9
206	Mackay SD Bal	QLD	0	12.4	16.3	0.5	-0.6	917.3	-1.1	984.5	0.8
209	Northern SD Bal	QLD	0	15.9	15.4	1.6	-0.6	905.1	-1.4	967.9	0.2
210	Cairns City Part A	QLD	913	19.5	19.5	30.2	0.1	998.1	1.2	993.4	1.1
211	Far North SD Bal	QLD	0	13.9	14.8	0.7	-0.6	939.5	-0.4	924.2	-1.3
212	North West & Central West	QLD	0	11.2	15.5	0.2	-0.6	930.8	-0.7	952.3	-0.3
231	Barossa	SA	556	19.1	18.4	19.2	-0.1	960.1	0.1	1008.3	1.6
232	Onkaparinga	SA	0	18.5	20.1	48.1	0.6	997.9	1.2	1005.5	1.5
233	Fleurieu & Kangaroo Island	SA	0	14.8	15.9	10.1	-0.4	948.9	-0.2	948.5	-0.4
234	Yorke & Lower North	SA	0	15.4	14.7	3.9	-0.5	925.8	-0.8	938.8	-0.8
235	Riverland	SA	0	17.0	14.5	1.8	-0.6	909.4	-1.3	947.1	-0.5
236	Murray Mallee	SA	0	12.8	13.6	7.9	-0.4	898.6	-1.6	926.6	-1.2
237	South East	SA	0	16.4	15.8	1.6	-0.6	926.4	-0.8	971.2	0.3
238	Eyre	SA	0	16.3	14.8	0.8	-0.6	944.7	-0.3	928.6	-1.1

(continued)

**Table B2** Non-metropolitan regions—Access measure, index of education and occupation and index of economic resources values and calculated scores showing the effect on participation estimates of these scores, relative to their mean score (continued)

Region number	Region name	State	EFTSU	University participation rate	University participation rate — predicted value	Access measure	Effect on participation estimates relative to mean access measure	Index of Education and Occupation value	Effect on estimates relative to mean index of occupation value	Index of economic resources value	Effect on participation estimates relative to mean index of economic resources value
239	Whyalla	SA	439	14.6	14.9	18.4	-0.2	941.1	-0.4	920.4	-1.4
240	Pirie	SA	0	14.5	13.8	1.5	-0.6	911.2	-1.2	925.8	-1.2
241	Flinders Ranges & Far North	SA	0	11.8	14.5	0.7	-0.6	947.5	-0.2	918.1	-1.5
264	Dale	WA	0	10.2	11.3	10.8	-0.3	900.5	-1.5	996.5	1.2
265	Bunbury	WA	519	14.3	12.0	22.7	0.0	930.0	-0.7	983.5	0.8
266	Preston (SSD Bal)	WA	0	15.3	12.9	4.9	-0.5	927.9	-0.8	1025.0	2.2
267	Vasse & Blackwood	WA	0	14.5	11.3	1.2	-0.6	944.5	-0.3	965.7	0.2
268	Lower Great Southern	WA	0	16.4	11.3	0.5	-0.6	948.1	-0.2	963.8	0.1
269	Upper Great Southern	WA	0	13.2	11.7	1.6	-0.6	941.9	-0.4	979.8	0.6
270	Midlands	WA	261	11.8	11.2	6.1	-0.4	932.0	-0.6	971.8	0.4
271	South Eastern (WA)	WA	306	9.9	13.0	7.5	-0.4	944.6	-0.3	1010.4	1.7
272	Central	WA	0	10.6	10.8	0.3	-0.6	940.4	-0.4	956.5	-0.2
273	Pilbara	WA	0	8.6	13.5	0.1	-0.6	960.5	0.2	1018.8	2.0
274	Kimberley	WA	0	3.5	9.2	0.1	-0.6	966.9	0.3	889.9	-2.5
277	Southern (TAS)	TAS	0	12.1	9.8	5.3	-0.5	914.3	-1.1	944.3	-0.6
278	Greater Launceston	TAS	3,818	20.7	14.7	109.9	2.1	967.0	0.3	970.0	0.3
279	Central North & North Eastern	TAS	0	16.6	9.7	3.7	-0.5	916.2	-1.1	941.5	-0.7

(continued)

**Table B2** Non-metropolitan regions—Access measure, index of education and occupation and index of economic resources values and calculated scores showing the effect on participation estimates of these scores, relative to their mean score (continued)

Region number	Region name	State	EFTSU	University participation rate	University participation rate — predicted value	Access measure	Effect on participation estimates relative to mean access measure	Index of Education and Occupation value	Effect on estimates relative to mean index of education and occupation value	Index of economic resources value	Effect on participation estimates relative to mean index of economic resources value
280	Burnie-Devonport	TAS	150	16.3	10.3	3.8	-0.5	929.8	-0.7	947.9	-0.5
281	North Western Rural & Lyell	TAS	0	11.1	10.4	1.7	-0.6	916.7	-1.1	962.5	0.0
283	Northern Territory - Bal SD	NT	574	7.2	6.9	1.3	-0.6	952.1	-0.1	875.0	-3.0
284	Central NT	NT	0	9.3	9.6	0.1	-0.6	999.5	1.2	916.5	-1.5

Sources EFTSU was obtained from DETYA 1996 Higher Education Student Statistics. To enable EFTSU to be disaggregated to regional level, breakdowns to campus level were provided by individual institutions.  
 University participation rates are for 19 to 21 year olds and were derived from ABS 1996 Census data.  
 University participation rates – predicted values were obtained from running the model (4) using the coefficients in Table 1.  
 Access measures were calculated using equation (2).  
 Index of Education and Occupation and Index of Economic Resources values for regions are from ABS 1996 Socio-economic Indexes for Areas.  
 Effect on participation estimates of access was calculated using formula (5). Analogous formulae were used to calculate the effect on participation estimates of the two socio-economic indexes.



# Appendix C

## Average values of regression variables

**Table C1** Average values of regression variables

Variable	Metropolitan regions (n=185)				Non-metropolitan regions (n=105)			
	Mean	Standard Deviation	Min	Max	Mean	Standard Deviation	Min	Max
Regional university participation rate	28.44	12.02	7.59	64.18	18.31	5.08	3.54	30.02
Access	385.37	249.23	14.04	650.00	24.78	54.64	0.07	382.36
Index of Education and Occupation	1032.05	85.35	825.45	1207.74	955.03	29.70	895.07	1039.74
Index of Economic Resources	1033.28	61.00	865.39	1241.31	961.06	28.98	874.96	1053.52



## Appendix D

# Maps of the regional distribution of the regression variables

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Map 1A University access

Map 1B University access (capital cities)

Map 1C      University access (insets)

Map 2A Index of education and occupation

Map 2B      Index of education and occupation (capital cities)

Map 2C      Index of education and occupation (insets)

Map 3A      Index of economics resources

Map 3B      Index of economics resources (capital cities)

Map 3C      Index of economics resources (insets)



**Table D1 Key to maps—University campus locations at 1996  
(ordered alphabetically by campus)**

Campus Name	University	Campus Location	State
Abbotsford	La Trobe University	Abbotsford (Melbourne)	VIC
ADFA	The University of New South Wales	Duntroon (Canberra)	ACT
ANU	The Australian National University	Acton (Canberra)	ACT
Aquinas	Australian Catholic University	Ballarat	VIC
Bairnsdale	Royal Melbourne Institute of Technology	Bairnsdale	VIC
Ballarat	University of Ballarat	Mount Helen (Ballarat)	VIC
Batchelor	Batchelor College	Batchelor	NT
Bendigo	La Trobe University	Bendigo	VIC
Bentley	Curtin University of Technology	Bentley (Perth)	WA
Berwick	Monash University	Berwick (Melbourne)	VIC
Broome	University of Notre Dame Australia	Broome	WA
Bunbury	Edith Cowan University	Bunbury	WA
Bundaberg	Central Queensland University	Bundaberg West	QLD
Bundoora	La Trobe University	Bundoora (Melbourne)	VIC
Bundoora	Royal Melbourne Institute of Technology	Bundoora (Melbourne)	VIC
Burnley	The University of Melbourne	Richmond (Melbourne)	VIC
Burren Street	The University of Sydney	Newtown (Sydney)	NSW
Burwood	Deakin University	Burwood (Melbourne)	VIC
Camden	The University of Sydney	Camden (Sydney)	NSW
Camperdown/Darlington	The University of Sydney	Camperdown/Darlington (Sydney)	NSW
Canberra	Charles Sturt University	Barton (Canberra)	ACT
Canberra	University of Canberra	Bruce (Canberra)	ACT
Carlton	La Trobe University	Carlton (Melbourne)	VIC
Carseldine	Queensland University of Technology	Carseldine (Brisbane)	QLD
Castle Hill	Australian Catholic University	Castle Hill (Sydney)	NSW
Casuarina	Northern Territory University	Casuarina (Darwin)	NT
Caulfield	Monash University	Caulfield (Melbourne)	VIC
Central Coast	The University of Newcastle	Ourimbah (Central Coast)	NSW
Christ	Australian Catholic University	Oakleigh (Melbourne)	VIC
Churchlands	Edith Cowan University	Churchlands (Perth)	WA
City	Royal Melbourne Institute of Technology	Melbourne	VIC
City	University of Technology, Sydney	Ultimo (Sydney)	NSW
City	Victoria University of Technology	Melbourne	VIC
City East	University of South Australia	Adelaide	SA

(continued)

**Table D1 Key to maps—University campus locations at 1996 (ordered alphabetically by campus)  
(continued)**

<b>Campus Name</b>	<b>University</b>	<b>Campus Location</b>	<b>State</b>
Clayton	Monash University	Clayton (Melbourne)	VIC
Coburg	Royal Melbourne Institute of Technology	Coburg (Melbourne)	VIC
Coffs Harbour	Southern Cross University	Coffs Harbour	NSW
College of Fine Arts	The University of New South Wales	Paddington (Sydney)	NSW
Conservatorium	Central Queensland University	Mackay	QLD
Conservatorium	The University of Sydney	Sydney	NSW
Cooranbong	Avondale College	Cooranbong (Lake Macquarie)	NSW
Cumberland	The University of Sydney	Lidcombe (Sydney)	NSW
Curtin Kalgoorlie	Curtin University of Technology	Kalgoorlie	WA
Dookie	The University of Melbourne	Dookie	VIC
Douglas	James Cook University	Townsville	QLD
Dubbo	Charles Sturt University	Dubbo	NSW
Emerald	Central Queensland University	Emerald	QLD
Flinders	The Flinders University of South Australia	Bedford Park (Adelaide)	SA
Footscray	Victoria University of Technology	Footscray (Melbourne)	VIC
Fremantle	University of Notre Dame Australia	Fremantle (Perth)	WA
Gardens Point	Queensland University of Technology	Brisbane	QLD
Gatton College	The University of Queensland	Gatton	QLD
Geelong	Deakin University	Waurin Ponds (Geelong)	VIC
Geelong	Marcus Oldham College	Highton (Geelong)	VIC
Gilbert Chandler	The University of Melbourne	Werribee (Melbourne)	VIC
Gippsland	Monash University	Churchill	VIC
Gladstone	Central Queensland University	Gladstone	QLD
Glenormiston	The University of Melbourne	Terang	VIC
Gold Coast	Griffith University	Southport (Gold Coast)	QLD
Goulburn	Charles Sturt University	Goulburn	NSW
Graham Park	The University of Wollongong	Berry (Illawarra)	NSW
Hawkesbury (Blacktown)	The University of Western Sydney	Blacktown (Sydney)	NSW
Hawkesbury (Richmond)	The University of Western Sydney	Richmond (Sydney)	NSW
Hawthorn	Swinburne University of Technology	Hawthorn (Melbourne)	VIC
Hawthorn	The University of Melbourne	Hawthorn (Melbourne)	VIC
Hobart	University of Tasmania	Sandy Bay (Hobart)	TAS
Joondalup	Curtin University of Technology	Joondalup (Perth)	WA
Joondalup	Edith Cowan University	Joondalup (Perth)	WA
Kelvin Grove	Queensland University of Technology	Kelvin Grove (Brisbane)	QLD
Kensington	The University of New South Wales	Kensington (Sydney)	NSW

(continued)

**Table D1 Key to maps—University campus locations at 1996 (ordered alphabetically by campus)  
(continued)**

Campus Name	University	Campus Location	State
Kew	The University of Melbourne	Kew (Melbourne)	VIC
Kirkbride	The University of Sydney	Rozelle (Sydney)	NSW
Kuring-gai	University of Technology, Sydney	Lindfield (Sydney)	NSW
Launceston	University of Tasmania	Newnham (Launceston)	TAS
Lismore	Southern Cross University	Lismore	NSW
Longerenong	The University of Melbourne	Horsham	VIC
Macarthur (Bankstown)	The University of Western Sydney	Bankstown (Sydney)	NSW
Macarthur (Campbelltown)	The University of Western Sydney	Campbelltown (Sydney)	NSW
Mackay	Central Queensland University	Mackay	QLD
Mackillop	Australian Catholic University	North Sydney	NSW
Macquarie	Macquarie University	North Ryde (Sydney)	NSW
Magill	University of South Australia	Magill (Adelaide)	SA
Mallett Street	The University of Sydney	Camperdown (Sydney)	NSW
Manly	Charles Sturt University	Manly (Sydney)	NSW
McAuley	Australian Catholic University	Mitchelton (Brisbane)	QLD
Melba Conservatorium	Victoria University of Technology	Richmond (Melbourne)	VIC
Melton	Victoria University of Technology	Melton (Melbourne)	VIC
Mercy	Australian Catholic University	Ascot Vale (Melbourne)	VIC
Mildura	La Trobe University	Mildura	VIC
Mitchell	Charles Sturt University	Bathurst	NSW
Morningside	Griffith University	Morningside (Brisbane)	QLD
Mount Saint Mary	Australian Catholic University	Strathfield (Sydney)	NSW
Mt Gravatt	Griffith University	Mt Gravatt (Brisbane)	QLD
Mt Lawley	Edith Cowan University	Mt Lawley (Perth)	WA
Murdoch	Murdoch University	Murdoch (Perth)	WA
Muresk Institute of Agriculture	Curtin University of Technology	Northam	WA
Murray	Charles Sturt University	Albury	NSW
Nathan	Griffith University	Nathan (Brisbane)	QLD
Nepean (Parramatta - North)	The University of Western Sydney	Westmead (Sydney)	NSW
Nepean (Parramatta - South)	The University of Western Sydney	Westmead (Sydney)	NSW
Nepean (Penrith - North)	The University of Western Sydney	Werrington (Sydney)	NSW
Nepean (Penrith - South)	The University of Western Sydney	Werrington (Sydney)	NSW
Newcastle	The University of Newcastle	Callaghan (Newcastle)	NSW
Newnham	Australian Maritime College	Newnham (Launceston)	TAS
North Terrace	The University of Adelaide	Adelaide	SA
North West	University of Tasmania	Burnie	TAS
Orange	The University of Sydney	Orange	NSW

(continued)

**Table D1 Key to maps—University campus locations at 1996 (ordered alphabetically by campus)  
(continued)**

<b>Campus Name</b>	<b>University</b>	<b>Campus Location</b>	<b>State</b>
Parkville	Monash University	Parkville (Melbourne)	VIC
Parkville	The University of Melbourne	Parkville (Melbourne)	VIC
Peninsula	Monash University	Frankston (Melbourne)	VIC
Penrith (Kingswood)	The University of Western Sydney	Kingswood (Sydney)	NSW
Port Macquarie	Southern Cross University	Port Macquarie	NSW
Prahran	Swinburne University of Technology	Prahran (Melbourne)	VIC
QV1	Curtin University of Technology	Perth	WA
Riverina	Charles Sturt University	North Wagga	NSW
Robina	Bond University	Robina (Gold Coast)	QLD
Rockhampton	Central Queensland University	North Rockhampton	QLD
Rockingham	Murdoch University	Rockingham (Perth)	WA
Roseworthy	The University of Adelaide	Roseworthy	SA
Rozelle	Charles Sturt University	Rozelle (Sydney)	NSW
Rusden	Deakin University	Clayton (Melbourne)	VIC
Salisbury	University of South Australia	Salisbury East (Adelaide)	SA
Shenton Park	Curtin University of Technology	Shenton Park (Perth)	WA
Shepparton	La Trobe University	Shepparton	VIC
Signadou	Australian Catholic University	Watson (Canberra)	ACT
Sippy Downs	Sunshine Coast University College	Sippy Downs (Sunshine Coast)	QLD
Smithfield	James Cook University	Cairns	QLD
Southbank	Griffith University	South Bank (Brisbane)	QLD
St Albans	Victoria University of Technology	St Albans (Melbourne)	VIC
St George	The University of New South Wales	Oatley (Sydney)	NSW
St James	The University of Sydney	Sydney	NSW
St Leonards	University of Technology, Sydney	St Leonards (Sydney)	NSW
St Lucia	The University of Queensland	St Lucia (Brisbane)	QLD
Sunbury	Victoria University of Technology	Sunbury (Melbourne)	VIC
Surry Hills	The University of Sydney	Surry Hills (Sydney)	NSW
Swinburne at Lilydale	Swinburne University of Technology	Lilydale (Melbourne)	VIC
Sydney International	Central Queensland University	Sydney	NSW
The Levels	University of South Australia	Pooraka (Adelaide)	SA
Thebarton Commerce & Research Precinct	The University of Adelaide	Thebarton (Adelaide)	SA
Thurgoona	Charles Sturt University	Thurgoona (Albury)	NSW
Toorak	Deakin University	Malvern (Melbourne)	VIC
Toowoomba	University of Southern Queensland	Toowoomba	QLD
Underdale	University of South Australia	Underdale (Adelaide)	SA

(continued)

**Table D1** Key to maps—University campus locations at 1996 (ordered alphabetically by campus)  
(continued)

<b>Campus Name</b>	<b>University</b>	<b>Campus Location</b>	<b>State</b>
UNE	The University of New England	Armidale	NSW
UWA	The University of Western Australia	Nedlands (Perth)	WA
Victorian College of the Arts	The University of Melbourne	South Melbourne	VIC
Waite	The University of Adelaide	Urrbrae (Adelaide)	SA
Wangaratta	La Trobe University	Wangaratta	VIC
Warrnambool	Deakin University	Warrnambool	VIC
Werribee	Victoria University of Technology	Werribee (Melbourne)	VIC
Westmead	The University of Sydney	Westmead (Sydney)	NSW
Whyalla	University of South Australia	Whyalla Norrie	SA
Wide Bay	University of Southern Queensland	Pialba (Hervey Bay)	QLD
Wodonga	La Trobe University	Wodonga	VIC
Wollongong	The University of Wollongong	Wollongong	NSW
Woolstores	Deakin University	Geelong	VIC

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