



Young people and vocational education and training in South Australia

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Vocational education and training (VET) is very important for young people in South Australia. This paper seeks to establish how important. We are interested in two broad groups: first, those who complete 12 years of schooling and then continue their education in VET; and second, those who choose an alternative pathway and leave school before year 12 but continue their education in VET. Within each of those groups we are interested in how many there are, and their characteristics.

As well as describing the vocational education and training activities of these students, we scrutinise the year 12 retention rate education indicator. This indicator has been commonly used to measure the success of a school system in providing young people with a sound educational foundation. Apart from the statistical issues surrounding this measure, it fails to recognise that VET provides an alternative pathway. We would not argue that mere attendance at VET provides an equivalent education to the completion of year 12. However, we would argue that completion of a certificate III or better is certainly equivalent to completing year 12. We estimate the proportion of a cohort that leaves school and subsequently studies for such a qualification. This could be added to the year 12 retention to provide an arguably better based indicator of educational achievement. We also estimate the proportion completing a certificate III or higher qualification, having not completed year 12.

A further dimension that we explore is the importance of VET for young people across regions. Considerable comment has been made about poor educational outcomes in some regions of South Australia and we hope the data presented here will assist in an understanding of the issue.

The paper is in three sections. First, we describe young people in VET, what they are doing, what their educational backgrounds are and what they achieve after leaving VET. We then focus on indicators, particularly a proposed 'equivalent' year 12 retention rate. Finally, we consider the regional dimension.

It should be noted that the analysis will only take account of those students enrolled in the publicly funded sector. Students who pay fees at private providers are not included in our data.

1. Young people in VET

In 2003 there were almost 20,000 persons between the ages of 15 and 20 attending VET in South Australia (Table 1).¹ This represents a sizeable proportion of the population (Table 2). Of note is that the participation rates in South Australia are noticeably lower than for all of Australia. The participation rates are higher for males than females, no doubt reflecting the importance of trade training for young men. It should be noted that VET is the only sector where young men outnumber young women – school retention is higher for girls and women outnumber men at university.

¹ These numbers cover those in publicly funded vocational education and training. They do not include those attending private providers in places that are not funded by the State training authority.

Table 1 Persons aged 15-20 in South Australia, not at school, attending vocational education and training, 2003

	Age 15	Age 16	Age 17	Age 18	Age 19	Age 20	Age 15-20
Males	323	989	1,669	2,818	2,960	2,658	11,417
Females	271	663	1,041	2,156	2,187	1,832	8,150

Source: 2003 VET collection, ABS Cat. 3201.0, Population by Age and Sex, June 2003, Table 7 (Preliminary Figures)

Table 2. Participation rates of persons aged 15-20 attending vocational education and training, not at school, 2003

	Age 15	Age 16	Age 17	Age 18	Age 19	Age 20
<i>South Australia</i>						
Males	3.1	9.5	15.6	26.0	27.2	24.6
Females	2.8	6.7	10.1	20.9	21.0	18.0
<i>Australia</i>						
Males	3.5	10.1	17.8	31.4	31.7	26.2
Females	2.8	7.2	12.8	26.7	25.7	20.0

Source: 2003 VET Collection, ABS Cat. 3201.0, Population by Age and Sex, June 2003, Table 7 (Preliminary Figures)

Table 2 provides participation rates at a point in time. Of more interest is the number of school leavers proceeding to VET. A lower bound can be obtained by focusing on 19 year olds, the age group where participation is at a maximum. This lower bound says that in South Australia at least 27 per cent of men and 21 per cent of women go on to VET after leaving school. A better estimate is obtained by focussing on persons, irrespective of age who left school in 2002. As can be seen from Table 3, some 6,200 persons who left school in 2002 attended VET in 2003 (3,500 males and 2,700 females). In the table we also adjust for the number of unknowns in our data and provide an estimate for what proportion this represents of the school leaver cohort – 34 per cent for males and 28 per cent for females. This estimate needs to be treated with some caution because we do not have a reliable estimate of the number of school leavers- we have used the number of 18 year olds in 2003 as a proxy.² We can improve on this estimate by adjusting for the number of persons who attended VET in 2003 and left school in 2001, but were not attending VET in 2002.³ As can be seen our final estimate indicates that a very large proportion of the school leaver cohort does go to VET, some 47 per cent of males and 40 per cent of females. While one would be careful about the actual estimates they clearly indicate that a very large proportion of school leavers go on to VET, and that the proportion is around seven percentage points higher for males than females.⁴

² If age cohorts were of the same size and school retention were in a steady state then the number of school leavers would be the same as the number in an age cohort. In fact the demographics are reasonably flat for the 16-19 year old age group. An alternative estimate based on looking at net flows in the ABS schools statistics gave a number that is too low compared to the age data. We feel that our approach gives a reasonably reliable indication of the proportion of school leavers going on to VET.

³ Unfortunately, the VET data collection does not give us information of when students enrol for the first time. We have used a matched data set of 2001 and 2002 data to give us an estimate of how many students continue to VET from school with an intervening break of a year, having left school in 2000 and attending VET in 2003. We assume this number is unchanged for students leaving in 2001 and attending VET in 2003.

⁴ There are a couple of other reasons why one has to be careful about the precise estimates. First, it is likely that there are some duplicate records in our database. Second, overseas students have not been excluded from the data. However, the likely effect of both of these is not large, and would not change the gist of the argument.

Table 3. Proportion of school leavers proceeding to VET, within two years of leaving school, South Australia, 2003

	Males	Females
18 year old population	10,837	10,318
<i>School leavers at VET in 2003</i>		
Left school 2002	3,487	2,728
Left school 2002, adjusted for unknowns	3,713	2,886
Left school 2002, adjusted for unknowns, as a percentage of school leavers	34.3	28.0
Estimate of those who left school in 2001, not at VET in 2002	885	787
Estimate of those who left school in 2001, adjusted for unknowns, not at VET in 2002	1,385	1,194
Estimate of those who left school in 2001, adjusted for unknowns, not at VET in 2002, as a percentage of school leavers	12.8	11.6
Estimate of percentage of school leavers going to VET within two years	47.0	39.5

Source: NCVET VET Collection 2003; Estimates of 2001 School Leavers derived from matching VET students at school level; ABS Cat. 3201.0, Population by Age and Sex, June 2003, Table 7 (Preliminary Figures).

We now look at the school leavers of 2002 in more detail. To simplify matters we focus on the school leavers who proceed to VET the next year. Table 4 shows highest level of schooling. For males around 60 per cent of the VET students had not completed year 12 and over 30 per cent had not got past year 11. School retention rates are higher for females and this is reflected in those continuing to VET, with around 55 per cent of the female school leavers reporting that they had completed year 12.

Table 4. Characteristics of 2002 school leavers aged 15-24, in VET 2003, highest level of schooling, South Australia and Australia

	South Australia				Australia			
	Males		Females		Males		Females	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Year 9 or lower	356	10.1	244	8.9	3085	6.5	2243	5.5
Year 10	770	21.9	513	18.6	9986	21.0	6157	15.1
Year 11	956	27.2	490	17.8	6435	13.5	3852	9.4
Year 12	1434	40.8	1508	54.7	28031	59.0	28603	70.0
Total	3516	100	2755	100	47538	100	40855	100

Source: NCVET VET Collection 2003, Adjusted for unknown responses to 'Highest School Level'.

As would be expected, these students are doing a range of courses over a variety of fields. Not surprisingly, both fields of study and level vary by sex and by educational background, as can be seen from Tables 4 and 5. Table 6 breaks down the data by whether students are full-time or part-time.

Table 5. Fields of education in 2003 by highest school level completed for persons aged 15-24, who left school in 2002

	Males				Females			
	Year 9 or lower	Year 10	Year 11	Year 12	Year 9 or lower	Year 10	Year 11	Year 12
01 - Natural and Physical Sciences	0.0	0.0	0.1	0.7	0.0	0.0	0.0	0.3
02 - Information Technology	0.6	3.2	3.0	9.1	0.0	0.0	0.6	1.2
03 - Engineering & Related Technologies	43.6	43.3	48.3	32.8	6.2	3.6	4.4	4.2
04 - Architecture & Building	7.9	14.3	12.6	6.8	0.0	0.2	0.6	1.6
05 - Agriculture, Environmental & Related Studies	8.7	8.8	6.5	4.7	3.3	5.5	1.4	1.0
06 - Health	0.3	0.1	0.3	0.2	0.8	1.8	2.0	3.7
07 - Education	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
08 - Management & Commerce	3.1	5.0	8.2	21.2	15.1	22.5	32.8	46.0
09 - Society and Culture	0.6	1.2	1.8	5.1	10.3	17.4	15.3	18.7
10 - Creative Arts	1.1	2.7	2.4	5.2	0.4	1.4	2.4	5.9
11 - Food, Hospitality & Personal Services	3.4	6.5	6.4	6.6	34.1	30.8	26.0	11.5
12 - Mixed Field Programmes	28.5	12.6	8.5	5.9	29.6	15.8	12.9	5.2
Subject only - no field of education	2.5	2.3	2.4	1.3	0.0	0.8	1.4	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: NCVET VET Collection 2003, adjusted for unknown responses to 'Highest School Level'.

Table 6. Major⁵ qualification level in 2003 by highest school level completed for persons aged 15-24, who left school in 2002

	Males				Females			
	Year 9 or lower	Year 10	Year 11	Year 12	Year 9 or lower	Year 10	Year 11	Year 12
Diploma or higher	3.9	2.9	1.8	11.1	0.8	1.0	1.8	16.4
Certificate IV	0.6	1.4	2.3	14.3	0.0	1.8	4.3	12.1
Certificate III	8.7	21.1	34.8	32.9	11.4	18.2	29.8	32.3
Certificate II	26.6	30.3	26.8	22.3	31.5	43.6	43.2	29.0
Certificate I	39.4	28.0	19.5	6.7	20.1	9.2	3.1	1.2
Secondary education	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non award courses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other education	18.3	14.4	12.6	11.1	35.7	25.3	16.5	8.4
Subject only - no qualification	2.5	2.3	2.4	1.3	0.0	0.8	1.4	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: NCVET VET Collection 2003, adjusted for unknown responses to 'Highest School Level'.

The data in Table 6 are worth noting because they show that early school leavers tend to be studying relatively low level qualifications. The numbers at the certificate I and II level suggest that VET post-school is offering a pathway, not necessarily an alternative to year 12. In educational terms it could be argued that certificates I and II are more important in providing an entry into qualifications of some substance (certificate III and above) rather than an end-point qualification.

⁵ The *highest* qualification attempted by the student.

Table 7. Mode of study in 2003 by highest school level completed for persons aged 15–24, who left school in 2002

	Year 9 or lower	Year 10	Year 11	Year 12	Year 9 or lower	Year 10	Year 11	Year 12
Full time	3.7	14.2	18.7	32.7	3.7	7.6	14.7	33.4
Part time	97.0	86.1	81.4	66.9	96.6	92.6	85.4	66.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: NCVET VET Collection 2003, adjusted for unknown responses to 'Highest School Level'.

The clear impression from these tables is that for many school leavers VET is an alternative to university, having completed year 12. For many others, however, it would seem that VET is an alternative to school. For these students part-time study is the norm with most of the full-time VET students continuing after completing year 12. Thus, if we are considering VET as an alternative to school, it is within a broader framework of education and training being mixed with other activities, rather than VET just providing a different institutional setting to another year of education.

From the above it is clear that there are large numbers of early school leavers who go on to VET. It is worth pointing out that these students are doing more than participating in VET; most of them are performing satisfactorily in their studies. Table 8 shows that subject pass rates are over 80 per cent, even for those students who left school after year 9 or 10. Not surprisingly, the pass rates are higher for those who left after year 12, but the differences are not that large.

Table 8: Subject completion rate for SA school leavers by highest school level completed, 2003 (per cent)

Highest school level	Male	Female	Total
Year 12	87.0	89.9	88.4
Year 11	86.0	85.3	85.8
Year 10	83.7	84.5	84.0
Year 9 or lower	83.0	91.4	85.9
Total	85.9	88.4	87.0

In the above tables we have focused on students in VET. For many young people, the defining characteristic of their further education is an apprenticeship or traineeship, rather than studying in VET as such. There is a very large overlap between apprentices and trainees and VET students because most of the former do attend publicly funded VET (and hence have been included in the statistics described in preceding tables). However, there are some who receive all their training on the job or whose off the job component is outside the public sector. We provide some details of young apprentices and trainees below but it needs to be kept in mind that these are pretty much a subset of the data presented earlier.⁶

⁶ A matching exercise we have done suggests that at least 70 per cent of apprentices and trainees attend publicly funded VET and therefore are in the student collection.

Table 9. 15-20 year old apprentices and trainees who are not attending school by sex and highest school level completed, SA

Commencements, 12 months ending December 2003

	Males	Females	All
Year 12	1,850	1,692	3,541
Year 11	1,872	833	2,705
Year 10	1,316	673	1,989
Year 9 or lower	371	174	545
Did not go to school	0	0	0
Unknown	14	4	19
Total	5,423	3,376	8,799

Note: Unknowns are included in 'Not at school' category

Source: NCVET Apprentice and Trainee Collection, March 2004 Estimates.

Less than half of apprentices and trainees have completed Year 12, with substantial numbers having left after year 10 as well as some after Year 9. It is worth noting, as can be seen from Table 10, that less than half commence immediately after leaving school. Indeed for around 10 per cent there is an interval of three or more years.

Table 10. Commencements of apprentices and trainees (up to age 20) by year left school, South Australia, 2003

Per cent	
1999 and earlier	10.9
2000	16.1
2001	24.8
2002 on	48.2
Total	100.0

Source: NCVET Apprentice and Trainee Collection, March 2004 Estimates.

2. Proposed indicators of year 12 or equivalent.

As noted earlier, there has been considerable focus on year 12 retention as an indicator of educational participation. One drawback of this indicator is that it does not acknowledge the existence of alternative pathways. In particular, it excludes students who leave school before year 12 but continue their studies at a TAFE or other VET institution. If we are interested in participation we could simply focus on age and combine participation in either school or VET at ages 16, 17 and 18. The problem with this approach is that age participation is not the same as having studied at a specific level and it is really getting away from the idea of a 'year 12 or equivalent measure'. However, to give some idea of what such indicators would look like we calculate them for SA and Australia, as in Table 11.

Table 11. Educational participation rates covering full-time school and VET by age and sex, South Australia and Australia, 2003

Age participation rates, 2003						
	Males			Females		
	School (full-time)	VET(not at school)	VET plus school	School (full-time)	VET(not at school)	VET plus school
South Australia						
15	95.7	4.4	100.1	95.7	4.1	99.8
16	80.9	11.6	92.5	87.1	8.5	95.6
17	55.9	18.4	74.3	64.4	12.3	76.7
18	10.2	29.5	39.7	8.9	24.1	33.0
19	2.4	31.1	33.5	2.1	25.5	27.6
Australia						
15	93.0	5.3	98.3	94.0	4.5	98.5
16	80.5	12.8	93.3	85.1	9.7	94.8
17	59.6	21.7	81.3	66.0	16.3	82.3
18	14.0	37.1	51.1	12.3	32.1	44.4
19	2.0	37.5	39.5	1.8	31.4	33.2

Source: NCVET VET Collection 2003; ABS Cat 4221.0 Schools Australia, Feb 2004, Table 10.

Two points emerge from this table. First, as expected from the earlier data, adding VET and school participation together reduces the differences between the sexes in terms of age participation. Second, participation at the older age groups (17 and over) is lower in South Australia than in Australia as a whole. However, the age related data are difficult to interpret because of the impact of age starting school and also because of the possibility of repeating a year. Thus in South Australia, it appears that the participation of 18 year old males is higher than 18 year old females, despite the fact the year 12 retention is much higher for females. Perhaps more males repeat a year or do the SACE over three years?

We now turn to the more commonly used retention rates. To get closer to the idea of year 12 we focus on qualifications that are generally accepted as being equivalent or higher than year 12: Certificates III or higher. We do two sets of calculations. First, we estimate the number of school leavers whose highest qualification level is less than year 12 and are studying at VET at a certificate III or higher. The second calculation focuses on the same group who complete a certificate III or higher. With respect to the first of these we build up our alternative indicator from various sources. We start with the year 12 full-time retention rate (based on the year 7/8 cohort) from the ABS schools publication. We then add to it an allowance for number of part-time year 12 school students (we use the full-time equivalent figure obtained from the ABS⁷). We then add estimates of the number of VET students in 2003 who left school in 2002 and are studying at certificate III or higher. However, we need to adjust this estimate to allow for those who left in 2001 and had a gap year. We do this by making use of the data in Table 2. Finally, we use the 17 year old population estimates as the base for converting the part-time and early school leaver estimates to rates. The estimates are given in Table 12.

⁷ ABS provides the numbers by year of schooling, not by age, so they may well include a number of adult students. One could argue that this is not an issue given that the largest component of estimate is an apparent year 12 retention rate rather than an actual rate, and there will be swings and roundabouts in the estimates.

Table 12. Estimation of a year 12 retention rate alternative, South Australia, 2003

	Males	Females
Apparent year 12 retention (full-time)	60.8	73.7
Part-time year 12 students	6.9	9.7
Early school leavers at VET, certificate III or better	7.9	4.2
Alternative year 12 retention rate	75.6	87.7

Source: NCVET VET Collection 2003; Estimates of 2001 School Leavers derived from matching VET students at school level; ABS Cat 4221.0, Schools Australia, Feb 2004, Table 10; ABS Cat. 3201.0, Population by Age and Sex, June 2003, Table 7 (Preliminary Figures)

While this calculation is somewhat speculative, the addition of early school leavers who continue at VET makes a fair difference, especially for males. The other point to emerge is that any comparison of year 12 retention rates needs to take into account part-time students and those continuing to VET. We have not here calculated the corresponding rates for other States or Australia as a whole. While this could be done (although at some effort), the point remains that even with this broader indicator educational participation in South Australia at year 12 or equivalent is poor for males and not yet quite at 90 per cent for females.⁸

One could argue that our broader definition of year 12 is still too narrow because it does not take into account the school leavers who have continued education and training at lower than certificate III level. Certainly, this is true and some of these students will finish their lower level certificates and then progress to a higher level certificate. However, we have not included these because they are potential year 12 or equivalent students, not actual. Referring back to Table 5, it can be seen that only a minority of the early school leavers (those who have not done year 12) are studying at certificate III level or higher. This means that there are large numbers of students who have left school, but in some sense can be thought of as being still in the system. If you make the heroic assumption that all would continue to certificate III then the arithmetic gives a figure of around 94 per cent year 12 or equivalent for males and virtually the whole population for females. It would appear that retention in the system is not really the issue; what counts is the level of the qualification and the degree of success in completing qualifications of some substance.

It is to completions that we now turn. Again we focus on the completion of a certificate III or higher qualification. We move away from the idea of a retention rate focusing on a particular age group or year level because early school leavers could complete a certificate III (or higher) at any age. To keep the focus on young people, we suggest a cut-off of 24 years, although our data show that substantial numbers complete such a qualification over this age. The methodology we use is a life table approach, where we look at the proportion of each individual age to complete the qualification in 2002 (latest data available). By accumulating over age groups we obtain an estimate of the proportion of the population obtaining the qualification by a certain age.

Table 13. Proportion of an age cohort achieving certificate III or better having not completed year 12, South Australia, based on 2002 completions

By age (years)	Females	Males
19	3.0	2.8
24	7.3	11.8
29	10.3	14.9
39	20.3	23.0

Source: NCVET VET Collections 2002 and 2003, adjusted for unknown response to 'Highest School Level'; ABS Cat. 3201.0, Population by Age and Sex, 2002 (Revised Figures), Table 6

⁸ As noted earlier, not too much notice should be taken of the actual estimate. The estimates will be overestimates to the extent that there is duplication in our database and overseas students have not been excluded. On the other hand, students in fee paying places with private providers have not been included.

So under this approach we estimate that 3.0 per cent of an age cohort of females will leave school before year 12 and subsequently obtain a certificate III by age 19 and 7.3 per cent of the cohort will have obtained the qualification by age 24. For young males, there is more action, with 11.8 per cent of the cohort having obtained a certificate III by the age of 24 years, although only 2.8 per cent of the cohort has achieved the qualification by age 19. The 11.8 per cent is a sizeable proportion considering that the year 12 retention rate for males is around 60 per cent. It is worth noting that this percentage is greater than the estimate of the proportion of a cohort going to VET within two years, suggesting that a significant number of males are returning to education after an absence of some years. No doubt many of these males have done an apprenticeship or traineeship.

The main points to emerge from the above analysis are that:

- ♣ in considering the educational foundation of young people the focus needs to be broadened to include both school and vocational education and training
- ♣ many young people find part-time education attractive. Presumably, many are combining it with employment.
- ♣ in taking a broader perspective, the level of what is studied at VET is an important consideration – VET provides a pathway but not necessarily an end point qualification. It is argued that that VET has not provided a satisfactory alternative to (successful) year 12 completion until students have proceeded to a higher level qualification (certificate III or higher).
- ♣ in considering alternative pathways, it needs to be recognised that many young people will have gaps of a year or more before achieving what might be considered to be a ‘year 12 equivalent’; any policies designed to provide a good educational foundation need to consider young people to, say, the age of 25, rather than focus solely on 15-19 year olds.

3. Regional variations

To date we have been discussing aggregate statistics. These aggregates hide considerable variation across regions. It is beyond the scope of this paper to analyse this variation in detail. However, we provide some data by region which, hopefully, will assist the review. The data we provide cover:

- ♣ 15-20 VET participation rates
- ♣ school leavers in 2002, proceeding to VET in 2003, split by whether they have completed year 12 or not. We express this as a proportion of the school leaver cohort (estimated by the average of 16-18 population, as at 2001)⁹
- ♣ the ABS socio-economic index (index of economic resources).

The data are provided for the 68 local government areas and unincorporated areas. The table has been separated into Adelaide and the rest of the state. Within the ‘rest of the state’ we have grouped together those local government areas that have, according to the census, less than 100 persons between 15 and 19 years. Within each of the groups we have ordered the areas by the ABS socio-economic index.

While we hope the data are useful a number of caveats are in order. First, the participation rates and proportion of the school leaver cohort going to VET for areas with small populations need to be treated very carefully, because the small numbers make them very unreliable. Second, the coding of our VET data to area is not perfect. The coding methodology maps suburb or town and post-code to local government area. There is a proportion of records for which this coding could not be done (less than ten per cent) and no doubt not all the addresses are accurate. Second, as our population benchmarks we are using 2001

⁹ We have used the census data as the population benchmark. The assumption is that age-groups will not change significantly in size over two years.

census data. We do not have up to date estimates of population numbers for local government areas and we know that there is variation in the size of single year age groups, so that the denominator of the school leaver ratios does not necessarily represent accurately the true number of school leavers. Possibly of more importance is that young people do move around so that school leavers will not necessarily be residing in the areas in which they did their schooling. Indeed, some young persons will move because the education offerings are better in another area, and this movement will always tend to distort participation rates, even if we had up to date population data.¹⁰

As well as providing the data, we have conducted some rather cursory analysis. Figures 1 (Adelaide) and 2 (rest of South Australia) contain scatterplots of the proportion of the school leaver cohort not completing year 12 and continuing their education the next year at VET. A number of features are apparent. First, on the whole the proportions are much higher in the non-metropolitan areas, but also the range is greater. So in Adelaide we see the proportion varying between around 10 and 20 per cent, while in non-metropolitan areas the range is from 10 per cent to over 60 per cent. Clearly, the VET as a substitute for continuing school is more important in non-metropolitan areas. The second feature is that there is a strong (negative) relationship between socio-economic status and the proportion of school leavers leaving school before year 12 and continuing to VET within Adelaide, and a weaker relationship in non-metropolitan areas. The size of this relationship is of the order of ten percentage points across Adelaide (from the highest status area to the lowest). Although the simple linear model has less explanatory power in non-metropolitan areas (because there is more variation in the data) it has a greater 'kick'. Over a range of 150 SES points (this range more or less corresponds to the difference between the lowest status area and the highest), the proportion of school leavers who do not complete year 12 but go to VET is 24 percentage points. On the assumption that school retention is related to socio-economic status, we conclude that VET is an important substitute to completing school in both Adelaide and non-metropolitan Adelaide and that lower status areas have considerable number of students leaving school before year 12 but continuing their education in VET.

¹⁰ In this context, Stevenson, Maclachlan and Karmel (1999), *Regional Participation in Higher Education and the Distribution of Higher Education Resources across regions, Occasional Paper Series 99-B, Department of education, Training and Youth Affairs* is of interest. They looked at both university and VET participation of persons aged 19-21 by region from the 1996 Census, with the regional location determined by the region the person lived in five years earlier, which for most would have been where they had completed their schooling.

Figure 1

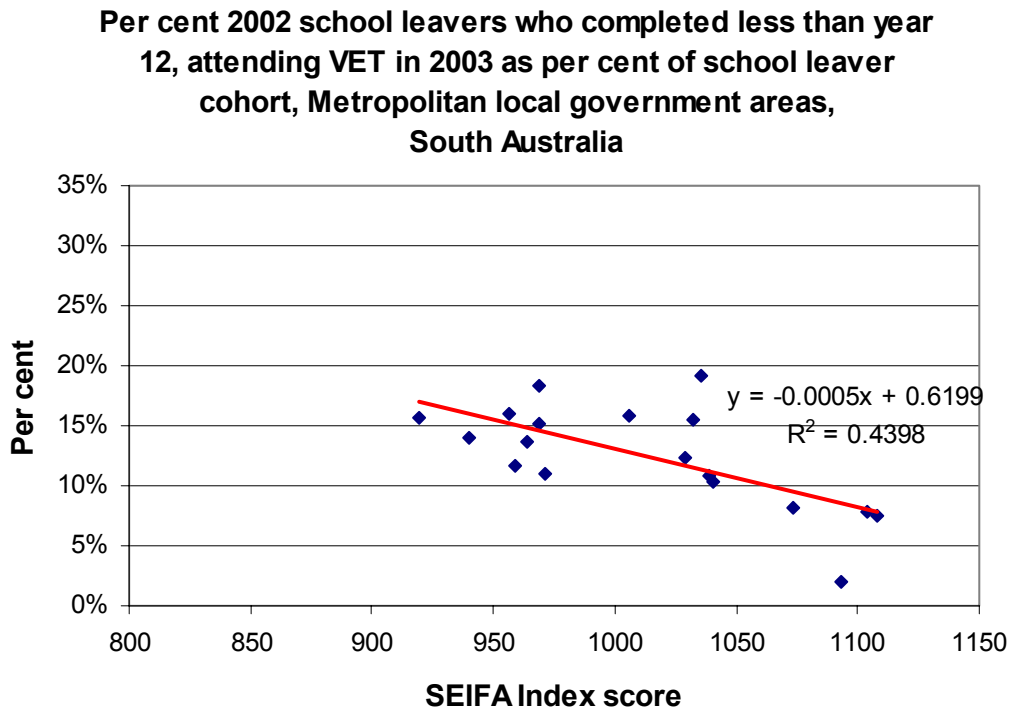
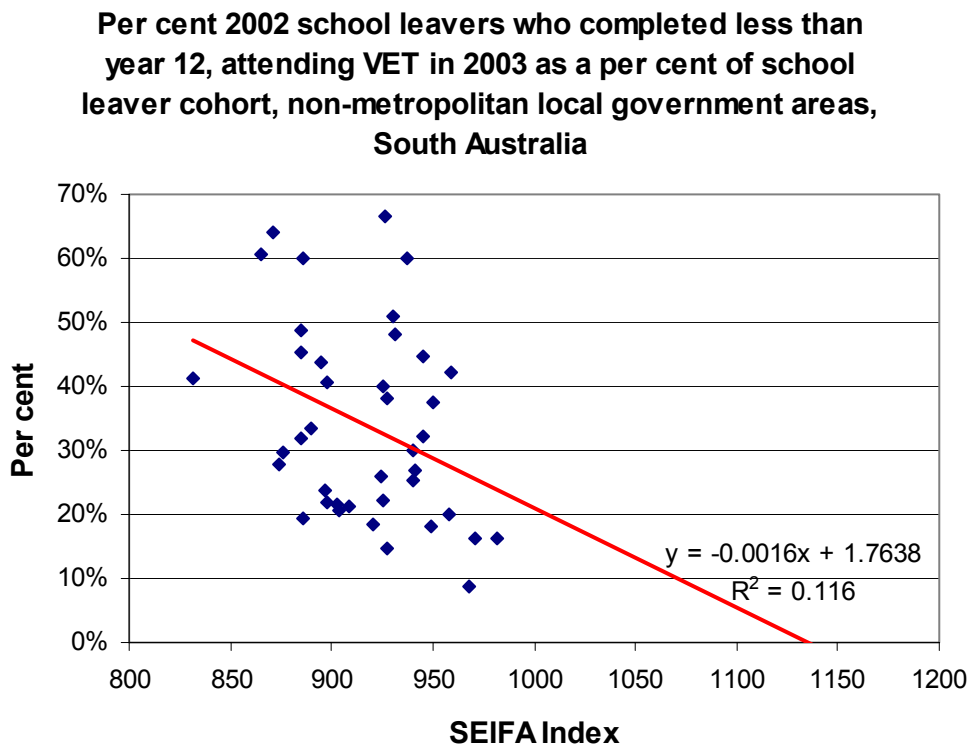


Figure 2



Figures 3 and 4 contain similar scatterplots focussing on the relationship between the proportion of school leavers completing year 12 and continuing to VET, and socio-economic status. For Adelaide we find again a negative correlation. The implication is that high socio-economic status areas tend to have high school retention but a low proportion of school leavers with year 12 going to VET. It seems that in Adelaide VET and higher education are substitutes for year 12 school leavers, such that in low socio-economic status areas year 12 school leavers tend to go to VET and in high socio-economic areas they tend to go university. This is despite the fact that the high socio-economic areas have more school leavers who have completed year 12. In non-metropolitan areas there is no similar relationship. There are some areas that have high proportions of a cohort completing year 12 and going on to VET, and some areas with low proportions, but this is not related to socio-economic status. Whether it is related to year 12 retention is a matter of conjecture.

Figure 3

Per cent 2002 school leavers who completed year 12 attending VET in 2003 as a per cent of school leaver cohort, metropolitan local government areas, South Australia

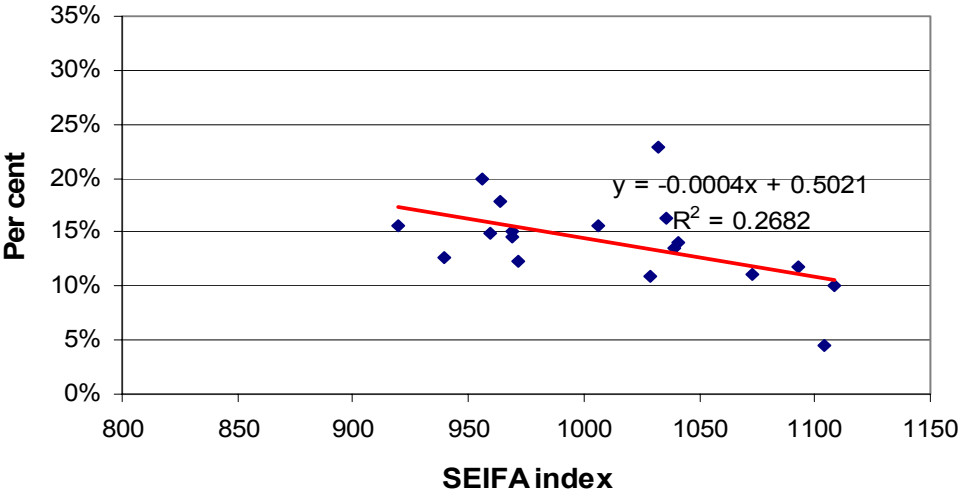


Figure 4

Per cent 2002 school leavers who completed year 12 attending VET in 2003 as a per cent of school leaver cohort, non metropolitan local government areas, South Australia*

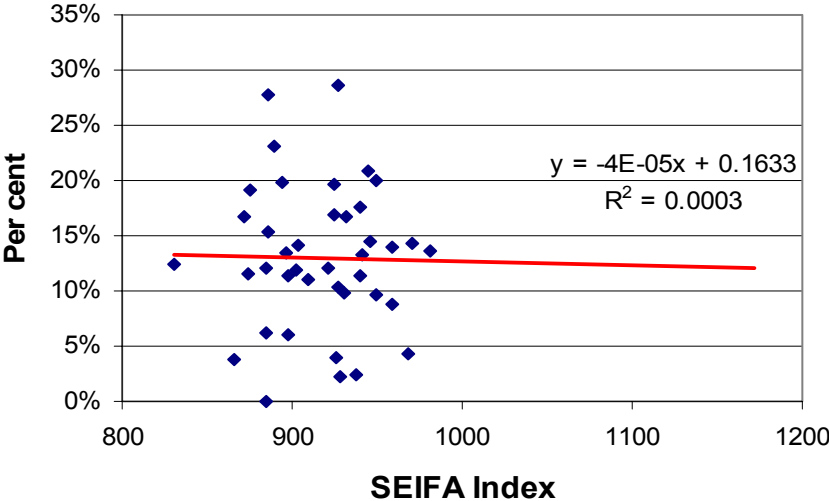


Table 14. Socio-economic status and VET participation for young people, South Australia, 2003

Metropolitan area LGAs

	LOCAL GOVERNMENT AREA	SEIFA Index of Economic Resources	ABS (2001) Total 15-20 Population	VET 15-20 year old participation rate in 2003		Percentage of School Leaver Cohort (by HSL completed) attending VET ^(b)		Total persons		
				Males	Females	Total	Males	Females	< Year 12	Year 12
M	Adelaide (C)	1093.0	1649	10%	11%	10%	2%	11%	2%	12%
M	Adelaide Hills (DC)	1035.3	3276	25%	15%	20%	26%	17%	19%	16%
M	Burnside (C)	1108.3	3541	11%	9%	10%	10%	9%	8%	10%
M	Campbelltown (C)	971.3	3678	15%	11%	13%	12%	12%	11%	12%
M	Charles Sturt (C)	959.3	7439	17%	13%	15%	16%	16%	12%	15%
M	Gawler (M)	956.1	1534	26%	18%	22%	20%	25%	16%	20%
M	Holdfast Bay (C)	1039.0	2377	15%	12%	13%	13%	11%	11%	13%
M	Marion (C)	969.0	6306	18%	14%	16%	18%	12%	13%	15%
M	Mitcham (C)	1040.4	5396	15%	10%	13%	14%	14%	10%	14%
M	Norwood Payneham St Peters (C)	1028.6	2372	14%	11%	12%	18%	11%	12%	11%
M	Onkaparinga (C)	968.5	13532	20%	15%	17%	20%	15%	18%	15%
M	Port Adelaide Enfield (C)	919.4	7400	21%	17%	19%	19%	14%	16%	16%
M	Prospect (C)	1032.4	1442	23%	19%	21%	22%	23%	15%	23%
M	Salisbury (C)	939.6	10373	17%	14%	16%	17%	12%	14%	13%
M	Tea Tree Gully (C)	1006.1	8981	21%	16%	19%	20%	15%	16%	16%
M	Unley (C)	1073.3	2718	14%	10%	11%	8%	13%	8%	11%
M	Walkerville (M)	1103.8	546	11%	8%	10%	5%	5%	8%	4%
M	West Torrens (C)	963.7	3694	20%	16%	18%	16%	19%	14%	18%

Non-metropolitan areas

	LOCAL GOVERNMENT AREA	SEIFA Index of Economic - Resources	ABS (2001) Total 15-20 Population	VET 15-20 year old participation rate			Percentage of School Leaver Cohort (by HSL completed)						
				Males	Females	Total	Males		Females		Total persons < Year 12		
							< Year 12	Year 12	< Year 12	Year 12			
	Total 15-20 year old population in LGA less than 100 persons												
R	Elliston (DC)	884.0	38	57%	40%	53%	281%	38%	43%	43%	209%	39%	
R	Orroroo/Carrieton (DC)	877.1	38	76%	19%	45%	107%	43%	25%	25%	58%	35%	
R	Kimba (DC)	917.5	67	65%	15%	40%	200%	60%	35%	35%	94%	47%	
R	Karoonda East Murray (DC)	888.1	74	39%	13%	30%	144%	11%	0%	0%	107%	7%	
R	Robe (DC)	956.6	79	25%	18%	22%	27%	14%	12%	12%	25%	13%	
R	Franklin Harbor (DC)	879.2	81	27%	28%	27%	19%	29%	0%	0%	28%	21%	
R	Cleve (DC)	915.4	94	34%	22%	30%	84%	9%	0%	0%	92%	6%	
R	Flinders Ranges (DC)	905.3	98	47%	24%	37%	115%	12%	0%	0%	81%	6%	
R	Le Hunte (DC)	895.3	99	27%	15%	21%	32%	32%	33%	33%	27%	33%	
	15-20 year old population in LGA greater than or equal to 100 persons												
R	Streaky Bay (DC)	886.2	115	29%	28%	29%	79%	21%	39%	39%	60%	28%	
R	Barunga West (DC)	885.0	133	27%	9%	19%	55%	0%	0%	0%	49%	0%	
R	Peterborough (DC)	831.1	133	12%	19%	15%	21%	14%	10%	10%	41%	12%	
R	Southern Mallee (DC)	926.5	139	35%	25%	30%	62%	31%	25%	25%	67%	29%	
R	Tumby Bay (DC)	885.3	149	24%	25%	24%	23%	15%	8%	8%	32%	12%	
R	Lacepede (DC)	925.4	153	23%	18%	21%	47%	0%	8%	8%	40%	4%	
R	Cooper Pedy (DC)	865.7	167	19%	39%	28%	37%	0%	8%	8%	61%	4%	
R	Mount Remarkable (DC)	889.5	175	30%	27%	29%	36%	4%	48%	48%	33%	23%	
R	Roxby Downs (M)	1171.3	219	25%	7%	17%	27%	11%	0%	0%	17%	6%	
R	Kangaroo Island (DC)	908.4	243	37%	54%	44%	90%	22%	56%	56%	133%	39%	
R	Ceduna (DC)	937.1	249	34%	19%	26%	70%	5%	0%	0%	60%	3%	
R	Yankalilla (DC)	902.4	253	10%	17%	13%	20%	10%	14%	14%	21%	12%	
R	Lower Eyre Peninsula (DC)	931.7	255	32%	24%	29%	51%	15%	20%	20%	48%	17%	
R	Northern Areas (DC)	885.7	267	32%	20%	27%	35%	8%	23%	23%	19%	15%	

R	Goyder (DC)	885.2	279	27%	11%	20%	68%	8%	21%	4%	45%	6%
R	The Coorong (DC)	894.4	398	33%	26%	30%	55%	8%	32%	32%	44%	20%
R	Wakefield (DC)	898.0	484	18%	10%	14%	20%	9%	24%	3%	22%	6%
R	Tatiara (DC)	940.4	500	25%	18%	22%	32%	14%	28%	8%	30%	11%
R	Clare and Gilbert Valleys (DC)	948.9	555	20%	14%	18%	20%	15%	16%	2%	18%	10%
R	Mallala (DC)	940.3	594	21%	18%	20%	22%	14%	30%	22%	25%	18%
R	Yorke Peninsula (DC)	871.4	594	30%	23%	27%	88%	18%	39%	15%	64%	17%
R	Mid Murray (DC)	875.9	609	21%	15%	19%	34%	22%	25%	16%	30%	19%
R	Victor Harbor (DC)	903.2	613	19%	20%	20%	24%	14%	18%	14%	21%	14%
R	Grant (DC)	967.8	641	11%	8%	10%	10%	7%	8%	2%	9%	4%
R	Copper Coast (DC)	874.5	645	26%	16%	21%	32%	8%	23%	16%	28%	12%
R	Naracoorte and Lucindale (DC)	959.1	659	22%	22%	22%	36%	11%	51%	6%	42%	9%
R	Renmark Paringa (DC)	924.8	699	24%	23%	24%	30%	14%	22%	20%	26%	17%
R	Loxton Waikerie (DC)	927.0	828	25%	18%	22%	43%	8%	33%	13%	38%	10%
R	Unincorporated SA	927.8	862	9%	9%	9%	18%	1%	10%	4%	15%	2%
R	Wattle Range (DC)	945.3	882	26%	18%	22%	44%	8%	21%	21%	32%	14%
R	Berri and Barmera (DC)	940.9	890	26%	19%	23%	28%	17%	26%	9%	27%	13%
R	Light (DC)	958.5	915	24%	13%	19%	22%	16%	17%	12%	20%	14%
R	Port Augusta (C)	930.7	1129	32%	27%	30%	54%	11%	47%	9%	51%	10%
R	Alexandrina (DC)	920.7	1180	19%	15%	17%	16%	13%	21%	11%	19%	12%
R	Port Lincoln (C)	945.2	1194	35%	23%	29%	48%	26%	41%	16%	45%	21%
R	Port Pirie City and Dists (M)	896.7	1283	25%	18%	22%	20%	16%	28%	10%	24%	13%
R	Murray Bridge (RC)	897.6	1303	29%	24%	27%	46%	6%	34%	17%	40%	11%
R	Barossa (DC)	981.2	1450	18%	16%	17%	16%	9%	16%	19%	16%	14%
R	Whyalla (C)	925.1	1746	23%	13%	18%	33%	21%	11%	19%	22%	20%
R	Mount Gambier (C)	950.0	1902	35%	26%	30%	34%	17%	41%	23%	37%	20%
R	Mount Barker (DC)	971.2	1910	20%	14%	17%	20%	13%	13%	16%	16%	14%
R	Playford (C)	909.1	6006	21%	15%	18%	24%	11%	18%	12%	21%	11%

(a) **2003 VET 15-20 year old participation rate** = Number of students (males, females, total students) aged 15-20 years undertaking VET in 2003 in the local government area as a proportion of the number of persons (males, females, total persons) in that local government area in 2001.

(b) **Percentage of School Leaver Cohort (by HSL completed)** = the number of school leavers from 2002 attending VET in 2003, by the highest school level completed (less than year 12 or year 12), as a proportion of the school leaver cohort (which is estimated by the average number of persons aged 16-18 years in 2001)

Source: 2003 VET collection, ABS Census 2001