

VET in Schools students: characteristics and post-school employment and training experiences – support document

Josie Misko, Patrick Korbel and Davinia Blomberg

National Centre for Vocational Education Research

This document was produced by the author(s) based on their research for the report, *VET in Schools students: characteristics and post-school employment and training experiences*, and is an added resource for further information. The report is available on NCVER’s Portal: <<http://www.ncver.edu.au>>.

### ­

### Publisher’s note

The views and opinions expressed in this document are those of NCVER and do not necessarily reflect the views of the Australian Government and state and territory governments. Any errors and omissions are the responsibility of the author(s).

**© Commonwealth of Australia, 2017**



With the exception of the Commonwealth Coat of Arms, the Department’s logo, any material protected by a trade mark and where otherwise noted all material presented in this document is provided under a Creative Commons Attribution 3.0 Australia <http://creativecommons.org/licenses/by/3.0/au> licence.

The details of the relevant licence conditions are available on the Creative Commons website (accessible using the links provided) as is the full legal code for the CC BY 3.0 AU licence <http://creativecommons.org/licenses/by/3.0/legalcode>.

The Creative Commons licence conditions do not apply to all logos, graphic design, artwork and photographs. Requests and enquiries concerning other reproduction and rights should be directed to the National Centre for Vocational Education Research (NCVER).

This document should be attributed as Misko, J, Korbel, P & Blomberg, D 2017, *VET in Schools students: characteristics and post-school employment and training experiences — support document,* NCVER, Adelaide.

This work has been produced by NCVER on behalf of the Australian Government and state and territory governments. Funding is provided through the Australian Government Department of Education and Training.

The views and opinions expressed in this document are those of the author/project team and do not necessarily reflect the views of the Australian Government, state and territory governments or NCVER.

Published by NCVER, ABN 87 007 967 311

Level 5, 60 Light Square, Adelaide, SA 5000
PO Box 8288 Station Arcade, Adelaide SA 5000, Australia

**Phone** +61 8 8230 8400 **Email** ncver@ncver.edu.au

**Web**  <https://www.ncver.edu.au> <<https://www.lsay.edu.au>>

**Follow us:**  <https://twitter.com/ncver>  <https://www.linkedin.com/company/ncver>

Contents

Tables 4

Appendix C: Supplementary analysis 5

Steps for determining the probabilities used in the regression analysis 6

Appendix D: Results of supplementary analysis 7

Probability of getting a job 7

Probability of getting a good job 9

Probability of getting a trade job 11

Probability of achieving a Year 12 or higher qualifications 15

Probability of obtaining a non-school qualification and continuing engagement in further studies 17

# Tables

D1 Predicted probability of 2006 VETiS students in the labour force being in employment in 2011 by student background characteristics \* 8

D2: The likelihood of 2006 VETiS students being in employment than not in employment in 2011 by characteristics of students 9

D3: Predicted probability of 2006 VETiS students having an income of over $52000 income in 2011 by demographic characteristics of students 10

D4: Probability of earning an income of over $52000 by student

 characteristics 11

D5: Percentage of 2006 VETiS students in a trade occupation in 2011 by student background characteristics \* 12

D6: Predicted probability of 2006 VETiS students being in a trade occupation by student background characteristics \* 14

D7: The likelihood of 2006 VETiS students being in a trade occupation than a non-trade occupation in 2011 by characteristics of students 15

D8: Predicted probability of 2006 VETiS students having attained a Year 12 qualification or higher in 2011 by student background characteristics 16

D9: The likelihood of 2006 VETiS students having attained at least a Year 12 qualification by 2011 by characteristics of students 17

D10: Predicted probability of 2006 VETiS students having attained a non-school qualification or being currently engaged in further studies in 2011 by background characteristics 18

D11: Probability of having completed a non-school qualification or currently studying by student characteristics 19

##

# Appendix C: Supplementary analysis

In this support document we present the variables used and the findings of our supplementary analysis in the linked data set study.

The following are used as points of comparison in our regression analyses which look at differences between groups more closely.

* Demographics
* Sex (male, female)
* Age (15, 16, 17, 18, 19 years)
* Indigenous status (Indigenous, non-Indigenous)[[1]](#footnote-1)
* Language mainly spoken in the home (English, language other than English)[[2]](#footnote-2)
* Remoteness area (location of usual residence) ( Major City, Inner Regional, Outer Regional, Remote and Very Remote)
* Level of qualification undertaken (Certificate I/II, Certificate III/IV, Diploma and above)
* Involvement in school-based apprenticeship or traineeship (Apprenticeship/traineeship, not apprenticeship/traineeship)
* School affiliation (government, catholic, independent, other government providers[[3]](#footnote-3)).

The outcomes we are interested in and the variables we use as dependent variables (in the regression analyses) comprise:

* Employment outcomes (whether employed or not employed)
* Uptake of trade occupation (whether trade or non-trade)
* Income (whether above $52000, below $52000)
* Year 12 attainment (yes, no)
* Further studies completed or being undertaken (Highest non-school qualification completed or undertaken (certificates I/II; III/IV; VET diploma; bachelor degree or higher, or currently engaged in further studies).

The formula used for the regression analysis is presented in Appendix C, tables identifying predicted probabilities for different comparison groups, and discussion of results of the analysis are presented in Appendix D.

## Steps for determining the probabilities used in the regression analysis

The following summarises the definition of each output measure:

β – Estimated beta coefficient for the logistic regression equation for predicting the dependent variable from the independent variables. The prediction equation is:

 log (p / 1-p ) = β0 + β1\*x1 + … + βn\*xn

Where p is the probability of the dependent variable matching the chosen outcome.

Standard error – These are the standard errors associated with the coefficients.

Wald chi-square statistic – Based on the ratio of the estimate to the standard error to test the null hypothesis that the estimate is equal to zero.

P-value – The p-value associated with the coefficient. Values less than α=0.05 indicate that the coefficient is statistically significantly different to zero.

# Appendix D: Results of supplementary analysis

We did some logistic regressions to establish statistical significance and differences between different demographic and educational background groups. Excepting where specified the predictive probabilities in the regressions (in our supplementary analysis) are calculated assuming the following characteristics: female, 16 years old, not Indigenous, English speaking background, born in Australia, certificate I/II study, not in an apprenticeship, government school, and major city.

## Probability of getting a job

The results from our statistical modelling which analyse employment outcomes just for those in work and those looking for work (rather than for all students) indicate that whether or not 2006 VETiS students in the labour force find themselves in employment five years down the track is associated with a range of personal and school background characteristics. In most of these cases differences although statistically significant are minimal, and so do not have much practical explanatory value.

* Females in the labour force do slightly better than males in finding employment.
* Those who undertake a school-based apprenticeship or traineeship in their VETiS programs are also more likely to be employed than those who have not done such a program. However, we would expect this from those who are employed in a company during their VETiS programs.
* More likely to be employed are students from Catholic and Independent schools in comparison with students from government schools who are in turn more likely to be employed than those from other government providers.
* One of the contradictory findings relates to location. Here the results of the statistical modelling techniques we have followed indicate that VETiS students from outer regional and remote and very remote areas are more likely to be employed than those from the major cities, however the statistical and practical differences are minimal.

Table D1 Predicted probability of 2006 VETiS students in the labour force being in employment in 2011 by student background characteristics \*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Predicted probability  |  | Predicated Probability |
| Sex |  | Level of VETiS study |  |
|  *Male* | *0.90* |  *Certificate I/II* | *0.92 not sig* |
|  Female | 0.92  |  Certificate III/IV | 0.92  |
| Age (in 2006) |  |  Diploma and above | 0.96 not sig |
|  15 years old | 0.92 not sig | Apprenticeship & traineeship status |  |
|  *16 years old* | *0.92*  |  Apprenticeship or traineeship | 0.93  |
|  17 years old | 0.93  |  *Not apprenticeship or traineeship* | *0.92*  |
|  18 years old | 0.93 not sig  | School type |  |
|  19 years old | 0.89  |  *Government* | *0.92*  |
| Indigenous status |  |  Catholic | 0.94  |
|  *Non-Indigenous* | *0.92*  |  Independent | 0.94  |
|  Indigenous | 0.83 |  Other government | 0.89  |
| Language spoken at home |  |  |  |
|  *English speaking background* | *0.92* | Remoteness |  |
|  Non-English speaking background | 0.88  |  *Major city* | *0.92* |
|  |  |  Inner regional | 0.92 not sig  |
|  |  |  Outer regional | 0.93 |
|  |  |  Remote and very remote | 0.94  |
|  |  |  |  |
|  |  |  |  |

Note: The regression estimates (apart from 15 years, 18 years, Cert. I or II, inner regional and diploma and above) are statistically significant. Predicted probabilities are calculated assuming the following characteristics (except where specified): female, 16 years old, not Indigenous, English speaking background, born in Australia, certificate I/II study, not in an apprenticeship, government school, and major city.

Table D2: The likelihood of 2006 VETiS students being in employment than not in employment in 2011 by characteristics of students

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | Value | Estimate | Standard error | Wald chi-square | p-value |
| Intercept |   | **2.6402** | 0.0726 | 1321.4986 | <.0001 |
| Age (on 30 June 2006) | 15 years | -0.0559 | 0.0409 | 1.8719 | 0.1713 |
| Age (on 30 June 2006) | 17 years | 0.1506 | 0.0314 | 22.9936 | <.0001\* |
| Age (on 30 June 2006) | 18 years | 0.0748 | 0.0587 | 1.6256 | 0.2023 |
| Age (on 30 June 2006) | 19 years | -0.3836 | 0.149 | 6.6295 | 0.01\* |
| Sex | Male | -0.2174 | 0.0275 | 62.3325 | <.0001 |
| Major course, level of study | Cert I or II | **0.0172** | 0.0406 | 0.1799 | 0.6714 |
| Major course, level of study | Diploma and above | 0.6669 | 0.39 | 2.9232 | 0.0873 |
| Apprentice/trainee status | Not an apprenticeship | **-0.1931** | 0.0641 | 9.0683 | 0.0026\* |
| Language spoken at home | Other than English | -0.4553 | 0.039 | 136.5011 | <.0001\* |
| Indigenous status | Indigenous | -0.8877 | 0.0627 | 200.5262 | <.0001\* |
| School type | Catholic | 0.2724 | 0.0371 | 53.949 | <.0001\* |
| School type | Independent | 0.3192 | 0.0502 | 40.4831 | <.0001\* |
| School type | Other | -0.3638 | 0.1441 | 6.3773 | 0.0116\* |
| Remoteness area | Inner regional | 0.0206 | 0.0349 | 0.3494 | 0.5544 |
| Remoteness area | Outer regional | 0.1322 | 0.0474 | 7.7762 | 0.0053\* |
| Remoteness area | Remote and very remote | 0.2467 | 0.1023 | 5.8148 | 0.0159\* |

Source: 2006 National VET-in-Schools Collection/2011 ABS Census of Population and Housing.

Note: ‘Cert III or IV’ and ‘Apprenticeship’ were selected as the reference groups when computing the regression. However the reference categories were changed when calculating predicted probabilities as they were the more common categories.

## Probability of getting a good job

In our statistical model we denote a good wage as being above $52000. We find that earning incomes of $52 000 and above is rare and variability low, Predicted probabilities hover around the 10%, 11% and 12% mark with few instances above this level. Nevertheless, the likelihood that 2006 VETiS students would find themselves in a job with an income of $52000 and above five years down the track of their VETiS studies is greater for males than females, 18 and 19 year-olds in comparison with 16 year-olds, and apprentices and trainees in comparison with non-apprentices or trainees.

 In comparison with students in the major cities a high income of this sort was earned by those in outer regional and remote or very remote locations (0.10, 0.12% and .22 respectively). This could be explained by the availability of more generous incomes paid for jobs in the mining sector. The likelihood of earning such an income was also greater for those who mainly spoke English in the home compared to those who did not. However differences in probabilities for many groups although statistically significant were slight and would have little explanatory value in a practical sense.

Other factors in the model (school type, level of VETiS study, Indigenous status) seemed to have little effect.

Table D3: Predicted probability of 2006 VETiS students having an income of over $52000 income in 2011 by demographic characteristics of students

|  |  |  |  |
| --- | --- | --- | --- |
|  | Predicted probability  |  | Predicated Probability |
| Sex |  | Level of VETiS study |  |
|  *Male* | *0.19*  |  *Certificate I/II* | *0.10*  |
|  Female | 0.10  |  Certificate III/IV | 0.11  |
| Age (in 2006) |  |  Diploma and above | 0.08 not sig  |
|  15 years old | 0.09  | Apprenticeship & traineeship status |  |
|  *16 years old* | *0.10*  |  Apprenticeship or traineeship | 0.11  |
|  17 years old | 0.14  |  *Not apprenticeship or traineeship* | *0.10*  |
|  18 years old | 0.15  | School type |  |
|  19 years old | 0.19  |  *Government* | *0.10*  |
| Indigenous status |  |  Catholic | 0.11  |
|  *Non-Indigenous* | *0.10 not sig* |  Independent | 0.12  |
|  Indigenous | 0.09  |  Other government | 0.11 not sig  |
| Language spoken at home |  |  |  |
|  *English speaking background* | *0.10*  | Remoteness |  |
|  Non-English speaking background | 0.07  |  *Major city* | *0.10*  |
|  |  |  Inner regional | 0.10  |
|  |  |  Outer regional | 0.12  |
|  |  |  Remote and very remote | 0.22  |

Note: The regression estimates (apart from diploma and above, Indigenous and other government schools) are statistically significant. Predicted probabilities are calculated assuming the following characteristics (except where specified): female, 16 years old, not Indigenous, English speaking background, born in Australia, certificate I/II study, not in an apprenticeship, government school, at least Year 12 attainment and major city.

Table D4: Probability of earning an income of over $52000 by student characteristics

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | Value | Estimate | Standard error | Wald chi-square | p-value |
| Intercept |   | -1.9791 | 0.0626 | 998.2317 | <.0001 |
| Age (on 30 June 2006) | 15 years | -0.1219 | 0.0451 | 7.2896 | 0.0069\* |
| Age (on 30 June 2006) | 17 years | 0.3932 | 0.0291 | 182.0753 | <.0001\* |
| Age (on 30 June 2006) | 18 years | 0.4987 | 0.0525 | 90.0916 | <.0001\* |
| Age (on 30 June 2006) | 19 years | 0.8025 | 0.1674 | 22.9742 | <.0001\* |
| Sex | Male | 0.7455 | 0.028 | 708.3366 | <.0001\* |
| Major course, level of study | Cert I or II | -0.0815 | 0.0381 | 4.5699 | 0.0325\* |
| Major course, level of study | Diploma and above | -0.3662 | 0.3189 | 1.3189 | 0.2508 |
| Apprentice/trainee status | Not an apprenticeship | -0.1637 | 0.0522 | 9.8252 | 0.0017\* |
| Language spoken at home | Other than English | -0.3391 | 0.0505 | 45.0538 | <.0001\* |
| Indigenous status | Indigenous | -0.1221 | 0.0843 | 2.0957 | 0.1477 |
| School type | Catholic | 0.1326 | 0.0331 | 16.0244 | <.0001\* |
| School type | Independent | 0.2324 | 0.0441 | 27.8204 | <.0001\* |
| School type | Other | 0.0905 | 0.1649 | 0.3012 | 0.5832 |
| Remoteness area | Inner regional | 0.0664 | 0.0325 | 4.163 | 0.0413\* |
| Remoteness area | Outer regional | 0.2775 | 0.0404 | 47.1264 | <.0001\* |
| Remoteness area | Remote and very remote | 0.9485 | 0.0742 | 163.1831 | <.0001\* |

Source: 2006 National VET-in-Schools Collection/2011 ABS Census of Population and Housing integrated dataset.

Note: ‘Cert III or IV’ and ‘Apprenticeship’ were selected as the reference groups when computing the regression. However the reference categories were changed when calculating predicted probabilities as they were the more common categories.

## Probability of getting a trade job

In 2011 the great proportion of VETiS students (between 73% and 94%) from all groups, apart from males (where it was 61%) were not employed in a trade in 2011. This was also the case for those who had undertaken an apprenticeship program; here almost three-quarters had not entered a trade occupation.

The four groups that in 2011 recorded the highest proportions of trade workers were students from remote and very remote areas (30%) followed by those from inner regional areas (27%), outer regional areas (26%) and apprenticeship programs (26%). What is surprising, however, is that just slightly higher proportions of those who had not done an apprenticeship in comparison with those who had done so had also entered a trade in 2011 (23% and 21% respectively. Indigenous status did not make a difference and equal proportions of Indigenous and non-Indigenous students had entered a trade in 2011.

Not surprisingly the greatest disparity between the groups, however, was between males and females, where about 40% of males compared to 6% of females had entered a trade. For Indigenous students the percentage split is similar (35.1% for males compared to 7.5% for females). In all other cases the percentage split between groups of students who had entered a trade was far closer. For example, between 15% and 25% of 15 to 19-year old VETiS students from 2006 were in a trade occupation in 2011, with the highest proportion being found among the youngest age group.

The proportions entering a trade occupation were also greatest for those who had undertaken Certificate I and II qualifications followed by those in Certificate III and Certificate IV qualifications. Understandably it was the lowest for those with diploma or higher qualifications. Just under a quarter of students whose primary language in the home was English had entered a trade, while for their non-English speaking counterparts it was considerably lower. Students from independent schools recorded the lowest proportion of trade workers amongst school type. In table D5 we present the percentages of those entering a trade in 2011 by different student characteristics.

Table D5: Percentage of 2006 VETiS students in a trade occupation in 2011 by student background characteristics \*

|  |  |
| --- | --- |
| **2006 student characteristics** |  |
| **Sex** | % |
| Males | 39 |
| Females | 6 |
| **Age** |  |
| 15 years | 25 |
| 16 years | 24 |
| 17 years | 22 |
| 18 years | 21 |
| 19 years | 15 |
| **Level of VETiS study** |
| Cert I/II | 24 |
| Cert III/IV | 20 |
| Diploma & above | 12 |
| **Apprenticeship status** |  |
| Apprenticeship | 26 |
| Not apprenticeship | 23 |
| **Language mainly spoken in the home** |  |
| English | 24 |
| Language other than English | 17 |
| **School type** |  |
| Government  | 24 |
| Catholic | 23 |
| Independent | 18 |
| Other government | 23 |
| **Indigenous Status (a)** |
| Non-Indigenous | 23 |
| Indigenous | 23 |
| **Location** |  |
| Major city | 21 |
| Inner regional | 26 |
| Outer regional | 27 |
| Remote and very remote | 30 |
| Total number | 170011 |

Note: Weighted data

1. 35.1% of males and 7.5% of females from Indigenous backgrounds were in a trade.

Results from our statistical modelling reveal that for all groups (apart from males) the predicted probabilities are low and range between .04 and 1.0; the differences between the groups are often minimal, even if statistically significant. For males the predicted probability for being in a trade (at 0.40) was more than six times greater than it was for females. There are minimal differences according to age groups (ranging from .04 to .07) , with 15 year olds being slightly more likely than 16 year olds to be in a trade. Once again the 19 year-olds and 18 year olds perform less well than the reference group.

There is a greater likelihood that those who have undertaken a school-based apprenticeship or traineeship will be found in a trade occupation than those who have not done so. However, here too the differences between these two groups although statistically significant are slight. For a range of other groups (including, students from indigenous backgrounds, those who mainly speak a language other than English at home, and those from independent schools) the predicted probabilities of being in a trade are lower than those of their corresponding counterparts. Students from the major cities also trail those from remote and very remote and regional areas.

The likelihood of being in a trade was also greater for those who have undertaken Certificate I or II qualifications than higher level Certificate III or IV qualifications. It is also lower for those who have undertaken diploma or higher qualifications in comparison with those who have undertaken Certificate III or IV qualifications but in these cases the differences were not statistically significant. Students from government schools are also more likely to be in a trade than either those from independent schools or catholic schools but the differences in probabilities between catholic and government schools were not statistically significant. Although students from other non-government schools were equally as likely as those from government schools to be in a trade occupation these results were also not statistically significant.

These results tell us that apart from sex there are few other student background characteristics that will explain to any great extent the likelihood of ending up in a trade occupation. This is partly due to the relatively small proportion of students who end up in a trade occupation. This leads us to believe that there are other factors at work, including, student motivation, family and friendship networks and labour market environment.

Table D6: Predicted probability of 2006 VETiS students being in a trade occupation by student background characteristics \*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Predicted probability  |  | Predicated Probability |
| Sex |  | Level of VETiS study |  |
|  *Male* | *0.40* |  Certificate I/II | 0.06 |
|  Female | 0.06  |  Certificate III/IV | 0.05  |
| Age (in 2006) |  |  Diploma and above | 0.04 not sig |
|  15 years old | 0.07  | Apprenticeship & traineeship status |  |
|  *16 years old* | *0.06*  |  Apprenticeship or traineeship | 0.09 |
|  17 years old | 0.06  |  Not apprenticeship or traineeship | 0.06  |
|  18 years old | 0.05 | School type |  |
|  19 years old | 0.04 |  Government | 0.06  |
| Indigenous status |  |  Catholic | 0.07 not sig |
|  *Non-Indigenous* | *0.06* |  Independent | 0.05  |
|  Indigenous | 0.05  |  Other government | 0.06 not sig |
| Language spoken at home |  | Remoteness |  |
|  *English speaking background* | *0.06* |  Major city | 0.06  |
|  Non-English speaking background | 0.04  |  Inner regional | 0.08  |
|  |  |  Outer regional | 0.08  |
|  |  |  Remote and very remote | 0.10  |
|  |  |  |  |

Note: The regression estimates (apart from diploma and above and Catholic and other government schools) are statistically significant. Predicted probabilities are calculated assuming the following characteristics (except where specified): female, 16 years old, not Indigenous, English speaking background, born in Australia, certificate I/II study, not in an apprenticeship, government school, at least Year 12 attainment and major city.

Table D7: The likelihood of 2006 VETiS students being in a trade occupation than a non-trade occupation in 2011 by characteristics of students

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | Value | Estimate | Standard error | Wald chi-square | p-value |
| Intercept |   | **-2.6295** | 0.0534 | 2420.7883 | <.0001 |
| Age (on 30 June 2006) | 15 years | 0.0812 | 0.0312 | 6.7772 | 0.0092\* |
| Age (on 30 June 2006) | 17 years | -0.0887 | 0.0233 | 14.4973 | 0.0001\* |
| Age (on 30 June 2006) | 18 years | -0.257 | 0.0449 | 32.7519 | <.0001\* |
| Age (on 30 June 2006) | 19 years | -0.5626 | 0.1646 | 11.6793 | 0.0006\* |
| Sex | Male | 2.284 | 0.0259 | 7778.7426 | <.0001\* |
| Major course, level of study | Cert I or II | **0.3059** | 0.031 | 97.2796 | <.0001\* |
| Major course, level of study | Diploma and above | -0.2007 | 0.2706 | 0.5502 | 0.4582 |
| Apprentice/trainee status | Not an apprenticeship | **-0.3727** | 0.0435 | 73.5574 | <.0001\* |
| Language spoken at home | Other than English | -0.4175 | 0.0366 | 130.127 | <.0001\* |
| Indigenous status | Indigenous | -0.2507 | 0.0661 | 14.384 | 0.0001\* |
| School type | Catholic | 0.0493 | 0.0262 | 3.5381 | 0.06 |
| School type | Independent | -0.2572 | 0.0362 | 50.571 | <.0001\* |
| School type | Other | 0.0137 | 0.1362 | 0.0102 | 0.9197 |
| Remoteness area | Inner regional | 0.2054 | 0.0254 | 65.2365 | <.0001\* |
| Remoteness area | Outer regional | 0.2743 | 0.0331 | 68.5127 | <.0001\* |
| Remoteness area | Remote and very remote | 0.4477 | 0.0697 | 41.2123 | <.0001\* |

Source: 2006 National VET-in-Schools Collection/2011 ABS Census of Population and Housing integrated dataset.

Note: ‘Cert III or IV’ and ‘Apprenticeship’ were selected as the reference groups when computing the regression. However the reference categories were changed when calculating predicted probabilities as they were the more common categories.

## Probability of achieving a Year 12 or higher qualifications

Results from our statistical modelling indicate that the likelihood of achieving a Year 12 or higher qualification is associated with sex, age, indigenous status, level of VETiS study, apprenticeship status, school type and remoteness. In all cases (excepting for the 16 and 19 year-old age groups, diploma and higher level studies, and whether or not students mainly speak English in the home) observed differences are statistically significant. However in all cases excepting for Indigenous status, remote and very remote location, and attendance at government and other government schools, the differences are generally minimal.

Having obtained Year 12 or equivalent or higher qualifications was more likely for females than males, 17 and 18 year-olds than 16 year-olds, and students in Certificate III/IV level programs in comparison with those in both lower Certificate and diploma level programs. In addition, students from non-Indigenous background, apprenticeship programs, and private schools (Catholic and Independent schools) are more likely than their relative Indigenous, non-apprentice, and government school counterparts to have attained Year 12 qualification or equivalent or higher. The exception relates to students from ‘other government’ VETiS providers[[4]](#footnote-4) who are substantially less likely to have achieved these qualifications than students from government schools. Where students live when they undertake their VETiS programs also makes a difference as to whether or not they achieve at these qualification levels. Students from rural and very remote locations are less likely than their counterparts in major cities and outer and inner regional areas to achieve at these levels.

Table D8: Predicted probability of 2006 VETiS students having attained a Year 12 qualification or higher in 2011 by student background characteristics\*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Predicted probability  |  | Predicated Probability |
| Sex |  | Apprenticeship status |  |
|  *Male* | *0.82*  |  Apprenticeship | 0.88  |
|  Female | 0.86  |  *Not an apprenticeship* | *0.86*  |
| Age (in 2006) |  | School type |  |
|  15 years old | 0.85  |  *Government* | *0.86*  |
|  *16 years old* | *0.86*  |  Catholic | 0.91  |
|  17 years old | 0.90  |  Independent | 0.93  |
|  18 years old | 0.89  |  Other | 0.74  |
|  19 years old | 0.83 not sig |  |  |
| Indigenous status |  | Remoteness |  |
|  *Non-Indigenous* | *0.86*  |  *Major city* | *0.86*  |
|  Indigenous | 0.72  |  Inner regional | 0.85  |
| Language spoken at home |  |  Outer regional | 0.87  |
|  *English* | *0.86*  |  Remote and very remote | 0.81  |
|  Other than English | 0.86 not sig |  |  |
| Level of VETiS study |  |  |  |
|  *Certificate I/II* | *0.86*  |  |  |
|  Certificate III/IV | 0.89  |  |  |
|  Diploma and above | 0.87 not sig  |  |  |

Note: The regression estimates (apart from 19 years, diploma and above and other than English) are statistically significant. Predicted probabilities are calculated assuming the following characteristics (except where specified): female, 16 years old, not Indigenous, English speaking background, born in Australia, certificate I/II study, not in an apprenticeship, government school, at least Year 12 attainment and major city.

Table D9: The likelihood of 2006 VETiS students having attained at least a Year 12 qualification by 2011 by characteristics of students

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | Value | Estimate | Standard error | Wald chi-square | p-value |
| Intercept |   | **2.3068** | 0.0579 | 1585.4965 | <.0001 |
| Age (on 30 June 2006) | 15 years | -0.1247 | 0.0302 | 17.0717 | <.0001\* |
| Age (on 30 June 2006) | 17 years | 0.3731 | 0.0248 | 225.3637 | <.0001\* |
| Age (on 30 June 2006) | 18 years | 0.2474 | 0.0461 | 28.8226 | <.0001\* |
| Age (on 30 June 2006) | 19 years | -0.2179 | 0.1158 | 3.5398 | 0.0599 |
| Sex | Male | -0.2851 | 0.0212 | 181.2641 | <.0001\* |
| Major course, level of study | Cert I or II | **-0.304** | 0.0347 | 76.675 | <.0001\* |
| Major course, level of study | Diploma and above | -0.2544 | 0.2371 | 1.1507 | 0.2834 |
| Apprentice/trainee status | Not an apprenticeship | **-0.1792** | 0.0498 | 12.9392 | 0.0003\* |
| Language spoken at home | Other than English | 0.0334 | 0.0332 | 1.0136 | 0.314 |
| Indigenous status | Indigenous | -0.8705 | 0.046 | 358.3251 | <.0001\* |
| School type | Catholic | 0.5493 | 0.0307 | 319.727 | <.0001\* |
| School type | Independent | 0.7099 | 0.0433 | 269.0626 | <.0001\* |
| School type | Other | -0.7735 | 0.0988 | 61.2654 | <.0001\* |
| Remoteness area | Inner regional | -0.0833 | 0.0261 | 10.194 | 0.0014\* |
| Remoteness area | Outer regional | 0.0882 | 0.0355 | 6.1651 | 0.013\* |
| Remoteness area | Remote and very remote | -0.3501 | 0.0635 | 30.4184 | <.0001\* |

Source: 2006 National VET-in-Schools Collection/2011 ABS Census of Population and Housing integrated dataset.

Note: ‘Cert III or IV’ and ‘Apprenticeship’ were selected as the reference groups when computing the regression. However the reference categories were changed when calculating predicted probabilities as they were the more common categories.

## Probability of obtaining a non-school qualification and continuing engagement in further studies

The predicted probabilities of 2006 VETiS students having completed a non-school qualification or continuing on in education five years down the track indicate that female 2006 VETiS students were more likely than their male counterparts to have either completed a non-school qualification or be engaged in further studies.

The likelihood of doing so was also greater for non-indigenous students in comparison with Indigenous students and students from non-English-speaking backgrounds in comparison with students from English speaking backgrounds. However, in comparison with students from the major cities students living in remote or very remote areas were the least likely to have completed a non-school qualification or be engaged in further studies.

We also find that VETiS students who had undertaken a certificate III or IV qualification in comparison with those who had undertaken a certificate I or II qualification or a diploma and above qualification in 2006 were much more likely by 2011 to have attained a non-school qualification or be engaged in further studies.

Not surprisingly those who had undertaken an apprenticeship or traineeship as part of their VETiS programs compared to those who had not done so were also more likely to have completed a non-school qualification or to be engaged in further studies five years down the track.

Students who had attended a government school were considerably less likely to have completed a non-school qualification or be engaged in further studies than were students who had attended a catholic or independent school.[[5]](#footnote-5)

Table D10: Predicted probability of 2006 VETiS students having attained a non-school qualification or being currently engaged in further studies in 2011 by background characteristics\*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Predicted probability  |  | Predicated Probability |
| Sex |  | Level of VETiS study |  |
|  *Male* | *0.54*  |  *Certificate I/II* | *0.59*  |
|  Female | 0.59  |  Certificate III/IV | 0.65  |
|  |  |  Diploma and above | 0.55  |
| Age (in 2006) |  |  |  |
|  15 years old | 0.58 not sig | Apprenticeship & traineeship status |  |
|  *16 years old* | *0.59*  |  Apprenticeship or traineeship | 0.62  |
|  17 years old | 0.61  |  *Not apprenticeship or traineeship* | *0.59*  |
|  18 years old | 0.58 not sig | School type |  |
|  19 years old | 0.56 not sig |  *Government* | *0.59* |
| Indigenous status |  |  Catholic | 0.69  |
|  *Non-Indigenous* | *0.59*  |  Independent | 0.74 |
|  Indigenous | 0.40  |  Other | 0.60 not sig |
| Language spoken at home |  | Remoteness |  |
|  *English speaking background* | *0.59* |  *Major city* | *0.59* |
|  Non-English speaking background | 0.66  |  Inner regional | 0.58 |
|  |  |  Outer regional | 0.56 |
|  |  |  Remote and very remote | 0.48 |
|  |  |  |  |

Note: The regression estimates (apart from 15, 18 and 19 years and other government schools) are statistically significant. Predicted probabilities are calculated assuming the following characteristics (except where specified): female, 16 years old, not Indigenous, English speaking background, born in Australia, certificate I/II study, not in an apprenticeship, government school, at least Year 12 attainment and major city.

Table D11: Probability of having completed a non-school qualification or currently studying by student characteristics

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | Value | Estimate | Standard error | Wald chi-square | p-value |
| Intercept |   | **0.7379** | 0.0373 | 390.5754 | <.0001 |
| Age (on 30 June 2006) | 15 years | -0.0297 | 0.0221 | 1.8065 | 0.1789 |
| Age (on 30 June 2006) | 17 years | 0.1 | 0.0164 | 37.0627 | <.0001\* |
| Age (on 30 June 2006) | 18 years | -0.0357 | 0.0306 | 1.3557 | 0.2443 |
| Age (on 30 June 2006) | 19 years | -0.092 | 0.0908 | 1.0259 | 0.3111 |
| Sex | Male | -0.2062 | 0.0145 | 202.8923 | <.0001\* |
| Major course, level of study | Cert I or II | **-0.2556** | 0.0221 | 134.0875 | <.0001\* |
| Major course, level of study | Diploma and above | -0.3882 | 0.1562 | 6.1742 | 0.013\* |
| Apprentice/trainee status | Not an apprenticeship | **-0.1356** | 0.0324 | 17.486 | <.0001\* |
| Language spoken at home | Other than English | 0.3283 | 0.0231 | 202.4086 | <.0001\* |
| Indigenous status | Indigenous | -0.7466 | 0.0408 | 335.2701 | <.0001\* |
| School type | Catholic | 0.4535 | 0.0192 | 559.6546 | <.0001\* |
| School type | Independent | 0.6837 | 0.0262 | 682.8119 | <.0001\* |
| School type | Other | 0.0645 | 0.0868 | 0.5514 | 0.4577 |
| Remoteness area | Inner regional | -0.0363 | 0.0182 | 3.9786 | 0.0461\* |
| Remoteness area | Outer regional | -0.0899 | 0.0239 | 14.1479 | 0.0002\* |
| Remoteness area | Remote and very remote | -0.4259 | 0.0502 | 71.8944 | <.0001\* |

Source: 2006 National VET-in-Schools Collection/2011 ABS Census of Population and Housing integrated dataset.

Note: ‘Cert III or IV’ and ‘Apprenticeship’ were selected as the reference groups when computing the regression. However the reference categories were changed when calculating predicted probabilities as they were the more common.

1. Indigenous status characteristics are derived fr4om the 2011 Census because these are more complete. This indicates that 96.1% and 3.9% of our sample are Indigenous. [↑](#footnote-ref-1)
2. Language mainly spoken at home has also been derived from the 2011 Census. [↑](#footnote-ref-2)
3. The category ‘other government’ in the 'school type' data element includes TAFE institutes, community education providers, private training providers and students enrolled in mixed school types. [↑](#footnote-ref-3)
4. Other school types comprise TAFEs, community education providers, Australian Technical Colleges and mixed providers ( mixed providers refer to students attending a number of different providers). [↑](#footnote-ref-4)
5. Findings were not statistically significant for students from ‘other’ school types’ when compared to government school students, or for those from outer-regional areas when compared to those from major cities. [↑](#footnote-ref-5)