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# Identifying the key factors affecting the chance of passing vocational education and training subjects

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# Executive summary

This report summarises research which has attempted to identify the key demographic and life-stage factors which impact on successful completion of vocational education and training (VET) subjects.

While a number of different indicators are required to gauge the performance of the VET system, this study was concerned only with the issue of passing and the identification of student characteristics which influence the chances of passing.

The aims of this research were:

- ✧ to identify the key demographic and life-stage factors influencing the likelihood of students passing a VET subject
- ✧ to determine the underlying profile of those students most likely to pass and those least likely to pass
- ✧ to suggest potential student segments for future performance reporting.

The scope of the analysis was all enrolled and assessed VET subjects during 2000 which resulted in a pass or fail outcome. Analysis was carried out at the subject level rather than the course level, because not all subject enrolments coincide with a course enrolment and a large number of students enrol in a single, or small number of VET subjects with no intention of ever completing a full qualification.

Initial 'decision tree' analysis identified several key demographic and life-stage characteristics influencing a student's chance of passing. These are:

- ✧ residential location
- ✧ educational achievement
- ✧ employment status at the time of enrolment
- ✧ age at the time of enrolment
- ✧ sex
- ✧ whether the student comes from a non-English speaking background [1]
- ✧ whether the student is Indigenous
- ✧ whether the student has a reported disability.

Statistical analysis, using logistic regression, was undertaken to model the influence of these characteristics on the likelihood of an individual student passing an assessed subject.

The results indicate that passing vocational education and training subjects is influenced by these demographic factors. In particular, the likelihood of passing is significantly reduced for people who are Indigenous, have a disability, are of non-English speaking background, are unemployed, or are aged 19 years and less. There is also strong evidence that the unemployed and the young are important student groups in relation to having a lower likelihood of success.

[1] A student was considered to be of non-English speaking background when both their country of birth was a non-English speaking country *and* the main language spoken at home was not English.

Overlap within major equity groups is also important. The likelihood of passing is significantly reduced for students who are a combination of Indigenous, disabled, of non-English speaking background, unemployed, or young—particularly if aged 19 years or less. Of interest is that, regardless of which group they belong to, female students consistently show equal or higher likelihood of passing than their male counterparts.

Finally, the results suggest future performance reports should consider segmenting the student population according to a mix of a student age, employment status, and their previous educational achievement.

# Project background

Access to vocational education and training (VET) and the under-representation of particular groups in further education have been the subject of ongoing debate for several years. In 1996, the Australian National Training Authority (ANTA) developed strategies to improve access and equity in vocational education and training. In the subsequent report, *Equity 2001* (ANTA 1996), ANTA stressed that access and equity encompassed more than providing *equal access* to VET; rather, the emphasis was on strategies needed to deliver training and employment outcomes for members of identified disadvantaged groups at least on a par with the community average.

Historically, studies have concentrated on providing information about the participation of individual client groups in VET; however, more information is now available concerning the outcomes of individual client groups.

There is a growing recognition that a variety of student groups exist within the VET sector, in addition to the main identified disadvantaged groups. Thus, greater segmentation of the VET student population is required. Determining the key student populations served by VET and monitoring their performance through skill output measures will enable the sector to monitor its effectiveness in meeting student demands. In addition, the sector will gain a better understanding of where resources and funding should be targeted.

Currently, the main source of information pertaining to VET performance is ANTA's annual performance reports.[2]

These reports focus primarily on the national, state and territory levels and little information is available for specific student groups within the sector. The notable exceptions are the main identified disadvantaged groups: women, those living in rural and remote areas, Indigenous people, people from non-English speaking backgrounds, and people with a disability.

While aggregate-level indicators are important in gauging the overall productivity of the sector, they do not allow policy-makers to determine whether the sector is successfully meeting the needs of all of its student groups. As a result, there is a growing need to determine the major student groups undertaking VET and derive appropriate performance measures to monitor their performance.

People participate in vocational education and training for a variety of reasons and at different stages of their life. Some undertake vocational education and training to gain necessary vocational skills to enter the labour market for the first time, while others enter in order to upgrade existing skills, learn new ones, or simply for personal interest.

In addition, the issue of passing and successfully completing a qualification may not be the prime objective for all students. This issue, together with the fact that not all people have the same ability to cope with the curriculum offered, suggests performance measures associated with pass rates is not enough to determine the full effectiveness of the sector. A number of different performance measures exist; however, little information is available concerning the likelihood of success for individual students and which students are more or less likely to succeed. Consequently, there is a need to identify the various students groups undertaking vocational education and training and their chances of being successful.

[2] Specifically ANTA's *Annual national report*, volume 3.

In order to identify these student groups, it is first necessary to determine, using robust statistical techniques, the key factors which influence success. Once this is achieved, an appropriate framework for performance reporting of the various student groups can be developed. This framework will enable the sector's stakeholders and policy-makers to access valuable information to gauge whether vocational education and training in Australia is meeting the needs of its students. The framework will also provide some indication of where resources are most needed.

Ball (1998) found the probability of success or completion of VET subjects was significantly reduced for certain student groups, and included the well-recognised equity groups, such as Indigenous people, people with disabilities, and people from a non-English speaking background, along with young people and the unemployed. However, no evidence was found that students living in rural and remote areas were less likely to succeed and the analysis indicated that females were more likely to pass or complete than males.

The aims of this study were therefore:

- ✧ to revisit the analysis of Ball and identify the key demographic and life-stage factors influencing the likelihood of students passing a VET subject
- ✧ to determine the underlying profile of students most likely to pass and least likely to pass
- ✧ to suggest potential student segments for future performance reporting.

For the purpose of this study, analysis was restricted to only one of the many performance measures available—that of passing. While it is recognised that the likelihood of passing will differ across the various fields of training and qualifications being offered, the focus here is on the identification of the main student groups, regardless of the training undertaken. As a result, the models used are in reduced form. Once achieved, there is always scope to extend the analysis to determining the effect the various types and modes of training have on passing within the student groups.

This report concentrates on assessed subjects in the first instance to determine the key VET student groups by identifying the main characteristics influencing the likelihood of passing assessed subjects.

# Overview of subject outcomes

During the calendar year 2000, almost 12.1 million subjects were undertaken by students aged between 12 and 99 years of age. Of these, almost 8.7 million were assessed, of which 86% resulted in a pass result (table 1).

While slight variations exist for the male and female student populations, the overall pass rate for both males and females is high.

**Table 1: Summary of VET subject outcomes, 2000**

| Outcome | Males | % | Females | % | Persons | % |
|---|---|---|---|---|---|---|
| Assessed—pass | 3 847 893 | 61.6 | 3 597 975 | 61.9 | 7 458 608 | 61.7 |
| Assessed—fail | 701 744 | 11.2 | 506 899 | 8.7 | 1 211 088 | 10.0 |
| *Sub-total: Assessed* | *4 549 637* | *72.8* | *4 104 874* | *70.6* | *8 669 696* | *71.7* |
| Not assessed | 350 889 | 5.6 | 405 649 | 7.0 | 757 896 | 6.3 |
| Withdrawn | 458 854 | 7.3 | 517 135 | 8.9 | 977 334 | 8.1 |
| Credit transfer | 239 912 | 3.8 | 225 957 | 3.9 | 465 922 | 3.9 |
| RPL | 161 866 | 2.6 | 133 382 | 2.3 | 295 901 | 2.4 |
| Continuing studies | 393 411 | 6.3 | 334 633 | 5.8 | 730 268 | 6.0 |
| Not stated | 92 530 | 1.5 | 89 430 | 1.5 | 183 239 | 1.5 |
| **Total** | **6 247 099** | **100.0** | **5 811 060** | **100.0** | **12 080 256** | **100.0** |

Note: RPL = Recognition of prior learning

Of course, individual students do not enrol in the same number of subjects nor do they pass all subjects in which they enrol. The proportion of students who pass all of the assessed subjects in which they enrol decreases as the number of subjects they undertake increases. A similar trend is seen for the proportion of students who fail to pass even a single subject (table 2).

**Table 2: Student outcomes from assessed subjects, 2000**

| Number of enrolled subjects assessed during 2000 | Number of students | % of total students | % of students passing *all* subjects | % of students passing *at least* 50% of subjects | % of students passing *no* subjects |
|---|---|---|---|---|---|
| One only | 287 350 | 22.5 | 86.0 | 86.0 | 14.0 |
| 2 or 3 | 233 891 | 18.3 | 77.7 | 87.1 | 10.4 |
| 4 to 7 | 270 231 | 21.1 | 73.9 | 88.4 | 5.7 |
| 8 to 10 | 156 941 | 12.3 | 71.9 | 90.5 | 3.0 |
| 11 to 15 | 158 806 | 12.4 | 68.0 | 89.6 | 1.9 |
| 16 or more | 171 850 | 13.4 | 56.1 | 89.2 | 0.9 |
| **Total** | **1 279 069** | **100.0** | **74.0** | **88.1** | **7.0** |

# Methodology

## Data and variables

The analysis was undertaken using the 2000 VET providers data collection. These data are collected by the National Centre for Vocational Education Research (NCVER) under the Australian Vocational Education and Training Management Information System Standard (AVETMISS).

As noted, the analysis was restricted to assessed subjects only, which made up over 70% of all subject enrolments in 2000, and comprised more than a million students.

Unit record data were used to analyse subject success. With most of the student record data being qualitative in nature, most explanatory variables were constructed as dummy variables. The exceptions were the student's age and total subject load, which were initially set as continuous, but later defined as dummy variables for later analysis. The variable definitions for the logistic regression are described in appendix A.

In situations where the student's age and sex were not known, the observation was deleted from the analysis. In addition, only records indicating a student's age to be between 12 and 89 inclusive were analysed.

## Statistical analysis

In the first instance, exploratory analysis using 'decision tree' techniques was undertaken to identify the main demographic and life-stage variables for predicting whether a student passes or not. The results were then used to determine subsequent input into a logistic regression. The definitions of all variables used in the logistic regression are given in appendix A.[3]

Statistical analysis using logistic regression was undertaken to model the influence of the key student characteristics on the likelihood of passing an assessed subject. This technique determines which student characteristics have the greatest impact on a student's chances of passing. Those characteristics identified through the decision tree analysis were modelled to quantify their influence. The output and diagnostics resulting from the logistic regression analysis are given in appendix B.

A 95% level of significance was used to evaluate the results from the logistic regression, and the expected likelihood passing an assessed subject was derived for all students.

[3] It should be noted that this analysis evolved from work associated with identifying important student segments. As a result, the model employed here did not encompass all characteristics associated with the type and level of training.

# Identifying the key student characteristics

The decision tree analysis highlighted several characteristics which appear to influence a student's chance of passing an assessed subject. These were:

- the student's residential location
- the student's highest educational level
- the student's employment status at the time of enrolment
- the student's age at the time of enrolment
- the student's sex
- whether the student comes from a non-English speaking background[4]
- whether the student is Indigenous
- whether the student has a reported disability.

While the majority of these factors are demographic in nature, a student's employment status at the time of enrolment and their prior education also appear to be important predictors of passing an assessed subject.

This result is expected. Students not employed at enrolment are more likely to undertake vocational education and training to get a job, while those already in employment are more likely to undertake vocational education and training for reasons connected with their current job.

Students with post-school qualifications are more likely to undertake vocational education and training for reasons associated with their current job, to get a better job or promotion, or to try for a different career. On the other hand, those with high school qualifications alone appear more likely to undertake vocational education and training to get a job and less likely for reasons associated with promotion or getting a better job.

A student's age at enrolment was also found to be a major predictor of success in terms of passing. However, it is important to note that this result was not uniform for all ages. Closer examination of the output revealed that several age groupings exert an influence on a person's chance of passing an assessed subject. Although some variation was evident, the major age groupings found were:

- 12 to 14
- 15 and 16
- 17
- 18 and 19
- 20 to 24
- 25 to 39

[4] Non-English background was defined as both the country of birth being a non-English speaking country *and* the main language spoken at home not being English.

- 40 to 64
- 65 and older

Subsequent analysis also showed a strong link between a student's age and the reasons for undertaking vocational education and training. In particular, people of ages 25 up to 65 appear more likely to undertake vocational education and training for reasons associated with current employment or in connection with seeking a promotion or a better job. On the other hand, young people under 20 years of age appear more likely to undertake vocational education and training simply to gain employment. This essentially reflects the strong correlation between a person's age and their employment status.

These results suggest a person's age, prior education, and employment status at the time of entering vocational education and training are good indicators of whether they'll pass. In addition, they are fundamental in gaining a better understanding of why a student undertakes vocational education and training in the first place. As such, it is suggested that greater emphasis on these variables be given in future reporting.

Of course, other pertinent characteristics, such as where they live and whether they are from an equity group also influence their chances of passing.

# Factors affecting the probability of passing assessed VET subjects

By using logistic regression to model the probability of passing for an individual student, it is possible, while controlling for a range of different characteristics, to isolate the effect of a particular characteristic on the likelihood of passing.

The standard way of doing this is by comparing each characteristic against a reference group. For this study, the reference group was set up to comprise female students aged 24 to 64 living in Sydney[5], with Year 12 as their highest education level, not in the labour force at the time of enrolment, and not from an identified equity group—that is, they were not Indigenous, not of non-English speaking background, and did not have a reported disability.

By holding each of the characteristics constant and varying one at a time, it is possible to measure the impact of each characteristic on the probability of passing. This is normally achieved by analysing estimated odds ratios and their associated confidence interval. Unfortunately, odds ratios are difficult to interpret and an alternative way of summarising results from a logistic regression is through the derivation of predicted probabilities for individual characteristics holding all other characteristics constant at their average values. The means for all characteristics are found in appendix C, and appendix D summarises the resultant predicted probabilities.

Both the predicted probability of passing for each characteristic derived by holding all other characteristics constant and the odds ratio estimates are provided in table 3. As expected, the probability of passing is generally high.

The following is a summary of the results for each of the main characteristics in terms of their impact on passing VET subjects.

## Residential location[6]

The residential location of students has a significant impact on the probability of passing VET subjects. In addition to the student's state of residence, there are noticeable differences across major geographic regions.

The results indicate that students in capital cities are the least likely to pass. The probability of students from major urban centres and rural areas passing is more than two percentage points higher than for students residing in capital cities. Those students residing in remote areas are only slightly more likely to pass than those living in capital cities.

It is important to note that capital cities usually comprise a broad range of urban development which, when analysed as a single group, often masks differences in the underlying profile of students who live there. However, the results suggest the chance of passing is enhanced if a student lives in a rural area or a major urban centre, but diminishes if the student lives in a remote area.

[5] State was set to New South Wales and geographic region was set to capital city.

[6] Definitions for the geographic regions analysed are provided in NCVER's annual *VET statistics in detail*.

**Table 3: Predicted probabilities of passing and estimated odds ratios for key variables analysed**

| Characteristic of interest | Predicted probability of passing* | Odds ratio estimate |
|---|---|---|
| **Region of residence (reference group: capital city)** | 87.8 | |
| Other metropolitan | 90.0 | 1.258 |
| Rural | 89.9 | 1.241 |
| Remote | 88.2 | 1.038 |
| Outside Australia | 90.7 | 1.358 |
| **Prior education level (reference group: Year 12)** | 89.9 | |
| Degree | 90.0 | 0.982 |
| Diploma | 89.7 | 1.011 |
| Certificate | 89.7 | 0.980 |
| Year 10 or 11 | 87.1 | 0.759 |
| Year 9 or less | 84.7 | 0.624 |
| **Employment status (reference group: not in the labour force)** | 86.3 | |
| Employed full time | 91.9 | 1.808 |
| Employed part time | 87.8 | 1.142 |
| Self-employed | 87.8 | 1.137 |
| Employer | 87.2 | 1.082 |
| Unpaid family worker | 86.8 | 1.044 |
| Unemployed | 84.8 | 0.883 |
| **Age groups (reference group: age 25 to 64)** | 90.8 | |
| Ages 12 to 17 | 86.2 | 0.633 |
| Ages 18 to 19 | 86.5 | 0.653 |
| Ages 20 to 24 | 87.6 | 0.721 |
| Ages 65 to 99 | 90.8 | 0.742 |
| **Sex (reference group: females)** | 90.0 | |
| Males | 87.3 | 0.768 |
| **Background (reference group: English speaking background)** | 89.5 | |
| Full non-English speaking background | 85.6 | 0.694 |
| **Indigenous (reference group: non-Indigenous)** | 88.9 | |
| Indigenous | 81.6 | 0.554 |
| **Reported disability (reference group: no reported disability)** | 88.8 | |
| Disability | 85.8 | 0.763 |

Note: * Probabilities have been derived by holding other characteristics constant at their average values.

# Sex

In general, male students are less likely to pass than female students, their probability of passing being almost three percentage points lower than for females.

# Prior education level

The results confirm a strong link between prior educational attainment and the probability of passing VET subjects.

Students with Year 12 or higher qualifications have a greater probability of passing than students having qualifications no higher than Year 11. There is only marginal difference in the probabilities of passing between students with Year 12, general certificates, or post-school qualifications. The probability of passing decreases by at least two percentage points for students with Year 10 and 11 qualifications, and even further for students with qualifications no higher than Year 9.

## Employment status

The results confirm a strong link between a student's employment status at the time of enrolment and the probability of passing VET subjects.

The chance of passing is enhanced if a student is employed at the time of enrolment, and more so if they are employed on a full-time basis. However, the chance of passing diminishes if the student is unemployed or not in the labour force at the time of enrolment.

The probability of passing for students in full-time employment is at least four percentage points higher than any other student in employment. Their probability of passing is also more than seven percentage points higher than the unemployed, who have the lowest probability of passing.

## Age

The predicted probabilities indicate the probability of passing increases with age, at least across the age groupings specified. Students of school age up to 17 are the least likely to pass, followed by those aged 18 and 19 whose probability is only marginally higher. The probability of passing for students aged 25 years or more is at least four percentage points higher than for students aged 19 years or less.

## Equity groups

The results indicate students from non-English speaking backgrounds have a lower probability of passing than those from English speaking backgrounds. The probability of passing for students whose country of birth is of non-English origin *and* whose main language spoken at home is not English is around four percentage points lower than those whose country of birth is English speaking *and* whose main language spoken at home is English.

The results also indicate the probability of passing for Indigenous students to be almost eight percentage points lower than for non-Indigenous students.

The probability of passing for students with a reported disability is three percentage points lower than for students not reporting a disability, other things being equal.

## The impact of equity overlap and diversity

The real story behind inequity can be masked if analysis of student equity groups is undertaken at aggregate levels alone. It is therefore important to consider the diversity which exists within individual student groups, and acknowledge that an individual may in fact be a member of multiple, overlapping groups.

To date, little in the way of empirical analysis has been carried out on quantifying the effects of overlap of student equity groups and the diversity within specific student groups on the likelihood of success. These are important issues and, as pointed out by Golding and Volkoff (1998), failure to fully acknowledge them has direct implications for the success of strategies aimed at overcoming inequity.

The regressions also allow for analysis on the impact which overlap and diversity has on each of the three outcome types: passing assessed subjects, a satisfactory completion of non-assessed subjects, and withdrawing.

The model parameters were generally found to be additive, meaning that the influence of a characteristic on a particular outcome is added to any combination of other characteristics. In other words, if a characteristic reduces or increases the probability of an outcome, it will do so in combination with other characteristics. Being Indigenous or unemployed reduces the likelihood of passing a VET module. Therefore, those students who are both unemployed and Indigenous are even less likely to pass than students who are either Indigenous and employed, or unemployed and not Indigenous.

In addition to the usual designated equity groups, two additional student groups previously identified as 'at risk' groups[7] were considered. These are unemployed students and students aged 19 years.

Predicted probabilities were derived for each group analysed and are provided in appendix D.

Closer inspection of the resulting probabilities suggests that, in general, the likelihood of a student achieving a successful subject outcome is enhanced if the student is either female, employed, aged 25 years or more, and not a member of another target equity group. The nature of the models used means that the more of these characteristics a student has, the greater their likelihood of achieving a successful subject outcome.

On the other hand, the likelihood of a student achieving a successful subject outcome is significantly reduced if they are male, not employed, young, or a member of a target equity group. Again, the nature of the model means that the more of these characteristics a student possesses the less the likelihood of a successful subject result. This means that not only is a student's likelihood of success in VET reduced if they are a member of a designated equity group, but the likelihood is reduced further if they are a member of more than one group.

To illustrate this effect, consider the selected predicted probabilities in table 4. The probability of passing an assessed subject is 85.8% for disabled students and 81.6% for Indigenous students. If the Indigenous student is not disabled, his or her probability increases slightly to 81.7%, while the probability for a disabled student who is not Indigenous marginally increases to 89.0%. However, if the student is both Indigenous and disabled, their probability of passing an assessed subject reduces, to 77.4%. This compares with 89.0% for students who are neither Indigenous nor disabled.

**Table 4: Predicted probabilities for subject outcomes for Indigenous and disabled students**

| | **Passing assessed subjects** | | | | | |
|---|---|---|---|---|---|---|
| Characteristic | Indigenous | | Non-Indigenous | | Assessed subjects | |
| | *Number of subjects* | *Predicted probability* | *Number of subjects* | *Predicted probability* | *Number of subjects* | *Predicted probability* |
| Disability | 18 087 | 77.4 | 291 824 | 86.1 | 309 911 | 85.8 |
| No disability | 271 189 | 81.7 | 8 080 450 | 89.0 | 8 351 639 | 88.8 |
| **Assessed subjects** | **289 276** | **81.6** | **8 372 274** | **88.9** | **8 661 550** | **88.7** |

[7] See, for example, Golding and Volkoff (1999); Dusseldorp Skills Forum (1999).

# Conclusions

Passing VET subjects is highly influenced by several key demographic characteristics. Consistent with the findings of Ball (1998), some student groups continue to struggle to achieve the same outcomes from their studies as other Australians. In particular, the chance of passing is significantly reduced for people who are Indigenous, have a disability, are of non-English speaking background, are unemployed, or are aged 19 years and less. There is also strong evidence that the unemployed and the young are important student groups in relation to having a lower likelihood of success.

The results support statements by Golding and Volkoff (1998, 1999) that issues associated with overlap and diversity within equity groups are important. Not only is a student's likelihood of passing reduced by being a member of a target equity group, but it is *further* reduced if they are a member of more than one group.

Several student and socioeconomic characteristics influence an individual's chances of passing a VET subject. In addition to residential location and whether from a target equity group, a student's chances of passing appear greatly dependent on their age, employment status, and education achievement at the time of entering vocational education and training.

While analysis highlighted eight key age groupings, it is suggested, in order to keep reporting manageable, that as many as five age groupings be considered in future reporting. These comprise: school-age students up to 17; students aged 18 and 19; students aged 20 to 24; older students aged 25 to 64; and those students aged 65 years and above.

In relation to employment status, three main groupings are evident: those students not in the labour force; those students who are unemployed; and those in employment. Naturally, those in employment could be further broken down to allow for different employment types, for example, full-time or part-time.

Three main prior education student groups emerge: students with qualifications no higher than Year 11; those with Year 12; and those with post-school qualifications.

It is well recognised that pass rates alone do not provide a complete picture of the VET sector's performance. However, it is also important to realise that monitoring pass rates at aggregate national and state levels masks some important performance issues. To improve aggregate pass rates, all the sector has to do is discourage those students groups who are less likely to pass. Based on this analysis, this would include the unemployed, the lower educated, and people from identified disadvantaged groups. Of course such a course of action would not make much sense as these groups are a major reason behind the sector's very existence—to help people gain important vocational skills for employment purposes.

Finally, it is recommended that consideration be given to segmenting the VET student population into student groups based on the major variables identified in this analysis. Thus, in addition to client groups already reported in ANTA's annual performance reports, it is recommended that additional segments, based on a mix of a student's age, employment status, and prior educational achievement be included.

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# Appendix A

## Construction of analysis variables

**Table 5: Construction of dependent variables input into the logistic regression model**

| Explanatory variable | Number of subjects | Per cent* (n=8,661,550) | Variable definition |
|---|---|---|---|
| **Subject outcome (dependent variable)** | | | |
| Pass | 7 452 596 | 86.0 | module_outcome='01' |
| Fail | 1 208 954 | 14.0 | module_outcome='02' |
| **State of residence (reference group: New South Wales)** | | | |
| New South Wales | 2 743 299 | 31.7 | State_id=1 |
| Victoria | 2 372 719 | 27.4 | State_id=2 |
| Queensland | 1 701 376 | 19.6 | State_id=3 |
| South Australia | 696 319 | 8.0 | State_id=4 |
| Western Australia | 691 029 | 8.0 | State_id=5 |
| Tasmania | 199 375 | 2.3 | State_id=6 |
| Northern Territory | 113 708 | 1.3 | State_id=7 |
| Australian Capital Territory | 143 725 | 1.7 | State_id=8 |
| **Region of residence (reference group: capital city)** | | | |
| Capital city | 5 069 022 | 58.5 | Postcode_region in (‘01’,’05’) |
| Other metropolitan | 688 507 | 8.0 | Postcode_region in (‘02’,’06’) |
| Rural | 2 396 737 | 27.7 | Postcode_region in (‘03’,’07’) |
| Remote | 254 956 | 2.9 | Postcode_region in (‘04’,’08’) |
| Outside Australia | 148 618 | 1.7 | Postcode_region in (‘09’) |
| **Prior education level (reference group: Year 12)** | | | |
| Year 9 or lower | 497 041 | 5.7 | Highest_education_level in (‘09’) |
| Year 10 or 11 | 2 433 211 | 28.1 | Highest_education_level in (‘10’,’11’) |
| Year 12 | 2 281 406 | 26.3 | Highest_education_level in (‘12’) |
| Certificate | 1 495 885 | 17.3 | Highest_education_level in (‘01’,’02’,’03’) |
| Diploma | 256 349 | 3.0 | Highest_education_level in (‘04’,’05’) |
| Degree | 342 075 | | Highest_education_level in (‘06’) |
| **Employment status (reference group: not in the labour force)** | | | |
| Employed full-time | 2 463 554 | 28.4 | Emp_category_id = ’01’ |
| Employed part-time | 1 516 964 | 17.5 | Emp_category_id = ’02’ |
| Self-employed | 171 654 | 2.0 | Emp_category_id = ’03’ |
| Employer | 48 545 | 0.6 | Emp_category_id = ’04’ |
| Unpaid family worker | 84 162 | 1.0 | Emp_category_id = ’05’ |
| Unemployed | 1 687 777 | 19.5 | Emp_category_id in (’06’,’07’) |
| Not in the labour force | 913 390 | 10.6 | Emp_category_id = ’08’ |

| Explanatory variable | Number of subjects | Per cent* (n=8,661,550) | Variable definition |
|---|---|---|---|
| **Age groups (reference group: age 25 to 64)** | | | |
| Ages 12 to 17 | 1 523 681 | 17.6 | 12 <= age <= 17 |
| Ages 18 and 19 | 1 752 691 | 20.2 | 18 <= age <= 19 |
| Ages 20 to 24 | 1 652 648 | 19.1 | 20 <= age <= 24 |
| Ages 25 to 64 | 3 699 617 | 42.7 | 25 <= age <= 64 |
| Ages 65 to 99 | 32 913 | 0.4 | 65 <= age <= 99 |
| **Background (reference group: full English-speaking background)** | | | |
| Full non-English background | 2 131 057 | 24.6 | country_of_birth NOT in ('1100','1101','1201','2100','2101', '2102','2103','2104','2105','2106', '2201','8102','8104','9225') AND language_id NE '1201' |
| English speaking background | 5 759 109 | 66.5 | country_of_birth IN ('1100','1101','1201','2100','2101', '2102','2103','2104','2105','2106', '2201','8102','8104','9225') AND language_id = '1201' |
| **Sex (reference group: males)** | | | |
| Males | 4 553 978 | 52.6 | Sex='M' |
| Females | 4 107 572 | 47.4 | Sex='F' |
| **Indigenous (reference group: non-ATSI)** | | | |
| Indigenous | 289 276 | 3.3 | ATSI_flag='Y' |
| **Reported disability (reference group: no reported disability)** | | | |
| Disability | 309 911 | 3.6 | disability_id in ('1','2','3','4','5','6','7','8') |

Note: * The percentages for a set of characteristics may not sum to 100 due to missing information.

# Appendix B

## Logistic regression output and diagnostics

**Table 6: Output from logistic regression model**

| Variable | DF | Parameter estimate | Standard error | Wald Chi-square | Pr > Chi-square |
|---|---|---|---|---|---|
| Intercept | 1 | 2.967 | 0.00408 | 529959.06 | <.0001 |
| Capital city | | 0.0 | | | |
| Other metropolitan | 1 | 0.2299 | 0.00417 | 3038.39 | <.0001 |
| Rural | 1 | 0.2162 | 0.0025 | 7483.99 | <.0001 |
| Remote | 1 | 0.0372 | 0.00574 | 42.03 | <.0001 |
| Outside Australia | 1 | 0.3058 | 0.00779 | 1541.39 | <.0001 |
| Diploma | 1 | -0.0179 | 0.00703 | 6.49 | 0.0109 |
| Degree | 1 | 0.0113 | 0.00658 | 2.94 | 0.0864 |
| Certificate | 1 | -0.0198 | 0.00337 | 34.67 | <.0001 |
| Year 12 | | 0.0 | | | |
| Year 10 and 11 | 1 | -0.2761 | 0.00273 | 10237.26 | <.0001 |
| Year 9 or less | 1 | -0.4718 | 0.00444 | 11300.51 | <.0001 |
| Female | | 0.0 | | | |
| Male | 1 | -0.2644 | 0.00211 | 15744.91 | <.0001 |
| English speaking background | | 0.0 | | | |
| Non-English speaking background | 1 | -0.3646 | 0.00263 | 19292.22 | <.0001 |
| Non-Indigenous | 1 | 0.0 | | | |
| Indigenous | 1 | -0.5914 | 0.00508 | 13529.54 | <.0001 |
| No disability | | 0.0 | | | |
| Disability | 1 | -0.27 | 0.00523 | 2670.60 | <.0001 |
| Employed full time | 1 | 0.5922 | 0.00327 | 32859.26 | <.0001 |
| Employed part time | 1 | 0.1328 | 0.00331 | 1606.45 | <.0001 |
| Self-employed | 1 | 0.1287 | 0.00857 | 225.34 | <.0001 |
| Employer | 1 | 0.0791 | 0.0153 | 26.89 | <.0001 |
| Unpaid family worker | 1 | 0.0435 | 0.0108 | 16.31 | <.0001 |
| Not in labour force | | 0.0 | | | |
| Unemployed | 1 | -0.124 | 0.00302 | 1690.04 | <.0001 |
| Aged 12 to 17 | 1 | -0.4575 | 0.00316 | 21022.05 | <.0001 |
| Age 18 to 19 | 1 | -0.4269 | 0.00299 | 20429.21 | <.0001 |
| Age 20 to 24 | 1 | -0.3276 | 0.00305 | 11521.38 | <.0001 |
| Aged 25 to 64 | | 0.0 | | | |
| Aged 65 to 99 | 1 | -0.2981 | 0.0165 | 324.60 | <.0001 |
| New South Wales | | 0.0 | | | |
| Victoria | 1 | -0.858 | 0.00308 | 77758.47 | <.0001 |
| Queensland | 1 | -1.3123 | 0.00315 | 173014.40 | <.0001 |
| South Australia | 1 | 0.3418 | 0.00603 | 3212.79 | <.0001 |
| Western Australia | 1 | -0.9842 | 0.00404 | 59259.99 | <.0001 |
| Tasmania | 1 | -0.646 | 0.00759 | 7240.46 | <.0001 |
| Northern Territory | 1 | -1.1479 | 0.0083 | 19111.88 | <.0001 |
| Australian Capital Territory | 1 | -0.9814 | 0.00787 | 15552.15 | <.0001 |

# Appendix C

## Variable means of the student cohort

**Table 7: Means of dependent variables used in the logistic regression**

| Variable | Mean | Variable | Mean |
|---|---|---|---|
| **State of residence (reference group: New South Wales)** | | **Employment status (reference group: not in the labour force)** | |
| New South Wales | 0.3167 | Employed full-time | 0.3578 |
| Victoria | 0.2739 | Employed part-time | 0.2203 |
| Queensland | 0.1964 | Self-employed | 0.0249 |
| South Australia | 0.0804 | Employer | 0.0070 |
| Western Australia | 0.0798 | Unpaid family worker | 0.0122 |
| Tasmania | 0.0230 | Unemployed | 0.2451 |
| Northern Territory | 0.0131 | Not in the labour force | 0.1326 |
| Australian Capital Territory | 0.0166 | | |
| **Region of residence (reference group: capital city)** | | **Background (reference group: English speaking background)** | |
| Capital city | 0.5923 | English speaking background | 0.7540 |
| Other metropolitan | 0.0805 | Non-English speaking background | 0.2460 |
| Rural | 0.2801 | | |
| Remote | 0.0298 | | |
| Outside Australia | 0.0174 | | |
| **Age groups (reference group: age 25 to 64)** | | **Prior education level (reference group: Year 12)** | |
| Ages 12 to 17 | 0.1759 | Year 9 or lower | 0.0680 |
| Ages 18 and 19 | 0.2024 | Year 10 or 11 | 0.3330 |
| Ages 20 to 24 | 0.1908 | Year 12 | 0.3123 |
| Ages 25 to 64 | 0.4271 | Certificate | 0.2047 |
| Ages 65 to 99 | 0.0038 | Diploma | 0.0351 |
| | | Degree | 0.0468 |
| **Sex (reference group: males)** | | **Reported disability (reference group: no reported disability)** | |
| Male | 0.5258 | Disability | 0.0419 |
| Female | 0.4742 | No disability | 0.9581 |
| **Indigenous (reference group: non-Indigenous)** | | | |
| Indigenous | 0.0375 | | |
| Non-Indigenous | 0.9625 | | |

# Appendix D

## Predicted probabilities of passing

**Table 8: Predicted probability of passing in selected characteristics**

| | TOTAL | Males | Females | Capital city | Other metro | Rural | Remote | Outside Australia | Year 12 | Diploma | Degree | Certificate | Yr 10 & 12 | Yr 9 or less |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Males | 87.3 | 87.3 | | 86.4 | 88.9 | 88.7 | 86.8 | 89.6 | 88.7 | 88.5 | 88.8 | 88.5 | 85.6 | 83.0 |
| Females | 90.0 | | 90.0 | 89.2 | 91.2 | 91.1 | 89.5 | 91.8 | 91.1 | 90.9 | 91.2 | 90.9 | 88.6 | 86.4 |
| | | | | | | | | | | | | | | |
| Capital city | 87.8 | 86.4 | 89.2 | 87.8 | | | | | 89.1 | 88.9 | 89.2 | 88.9 | 86.1 | 83.6 |
| Other metro | 90.0 | 88.9 | 91.2 | | 90.0 | | | | 91.1 | 91.0 | 91.2 | 91.0 | 88.6 | 86.5 |
| Rural | 89.9 | 88.7 | 91.1 | | | 89.9 | | | 91.0 | 90.9 | 91.1 | 90.9 | 88.5 | 86.3 |
| Remote | 88.2 | 86.8 | 89.5 | | | | 88.2 | | 89.4 | 89.3 | 89.5 | 89.3 | 86.5 | 84.1 |
| Outside Australia | 90.7 | 89.6 | 91.8 | | | | | 90.7 | 91.7 | 91.6 | 91.8 | 91.6 | 89.4 | 87.4 |
| | | | | | | | | | | | | | | |
| Year 12 | 89.9 | 88.7 | 91.1 | 89.1 | 91.1 | 91.0 | 89.4 | 91.7 | 89.9 | | | | | |
| Diploma | 89.7 | 88.5 | 90.9 | 88.9 | 91.0 | 90.9 | 89.3 | 91.6 | | 89.7 | | | | |
| Degree | 90.0 | 88.8 | 91.2 | 89.2 | 91.2 | 91.1 | 89.5 | 91.8 | | | 90.0 | | | |
| Certificate | 89.7 | 88.5 | 90.9 | 88.9 | 91.0 | 90.9 | 89.3 | 91.6 | | | | 89.7 | | |
| Year 10 & 11 | 87.1 | 85.6 | 88.6 | 86.1 | 88.6 | 88.5 | 86.5 | 89.4 | | | | | 87.1 | |
| Year 9 & less | 84.7 | 83.0 | 86.4 | 83.6 | 86.5 | 86.3 | 84.1 | 87.4 | | | | | | 84.7 |

**Table 8: Predicted probability of passing in selected characteristics *(continued)***

| | TOTAL | English | NESB | Non-Indigenous | Indigenous | No disability | Disability |
|---|---|---|---|---|---|---|---|
| Males | 87.3 | 88.3 | 84.0 | 87.6 | 79.6 | 87.5 | 84.2 |
| Females | 90.0 | 90.8 | 87.2 | 90.2 | 83.6 | 90.1 | 87.4 |
| | | | | | | | |
| Capital city | 87.8 | 88.7 | 84.5 | 88.0 | 80.2 | 87.9 | 84.7 |
| Other metro | 90.0 | 90.8 | 87.3 | 90.2 | 83.6 | 90.1 | 87.5 |
| Rural | 89.9 | 90.7 | 87.1 | 90.1 | 83.5 | 90.0 | 87.3 |
| Remote | 88.2 | 89.1 | 85.0 | 88.4 | 80.8 | 88.3 | 85.2 |
| Outside Australia | 90.7 | 91.4 | 88.1 | 90.9 | 84.7 | 90.8 | 88.3 |
| | | | | | | | |
| Year 12 | 89.9 | 90.7 | 87.1 | 90.1 | 83.4 | 90.0 | 87.3 |
| Diploma | 89.7 | 90.5 | 86.9 | 89.9 | 83.2 | 89.8 | 87.1 |
| Degree | 90.0 | 90.8 | 87.2 | 90.2 | 83.6 | 90.1 | 87.4 |
| Certificate | 89.7 | 90.5 | 86.9 | 89.9 | 83.1 | 89.8 | 87.1 |
| Year 10 & 11 | 87.1 | 88.1 | 83.7 | 87.3 | 79.2 | 87.2 | 83.9 |
| Year 9 & less | 84.7 | 85.8 | 80.8 | 85.0 | 75.8 | 84.9 | 81.1 |

**Table 8: Predicted probability of passing in selected characteristics *(continued)***

| | TOTAL | Employed full time | Employed part time | Self-employed | Employer | Family worker | Unemployed | NILF | Age 12–17 | Age 18–19 | Age 20–24 | Age 25–29 | Age 65–99 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Males | 87.3 | 91.0 | 86.4 | 86.4 | 85.8 | 85.3 | 83.1 | 84.8 | 84.6 | 85.0 | 86.2 | 89.7 | 86.6 |
| Females | 90.0 | 92.9 | 89.2 | 89.2 | 88.7 | 88.3 | 86.5 | 87.9 | 87.7 | 88.1 | 89.1 | 91.9 | 89.4 |
| | | | | | | | | | | | | | |
| Capital city | 87.8 | 91.3 | 86.9 | 86.8 | 86.2 | 85.8 | 83.6 | 85.3 | 85.1 | 85.5 | 86.7 | 90.0 | 87.0 |
| Other metro | 90.0 | 92.9 | 89.3 | 89.2 | 88.7 | 88.4 | 86.6 | 87.9 | 87.8 | 88.1 | 89.1 | 91.9 | 89.4 |
| Rural | 89.9 | 92.9 | 89.1 | 89.1 | 88.6 | 88.2 | 86.4 | 87.8 | 87.7 | 88.0 | 89.0 | 91.8 | 89.3 |
| Remote | 88.2 | 91.6 | 87.3 | 87.2 | 86.7 | 86.3 | 84.1 | 85.7 | 85.6 | 86.0 | 87.1 | 90.4 | 87.4 |
| Outside Australia | 90.7 | 93.4 | 90.0 | 89.9 | 89.5 | 89.1 | 87.4 | 88.7 | 88.6 | 88.9 | 89.8 | 92.5 | 90.1 |
| | | | | | | | | | | | | | |
| Year 12 | 89.9 | 92.8 | 89.1 | 89.1 | 88.6 | 88.2 | 86.4 | 87.8 | 87.6 | 88.0 | 89.0 | 91.8 | 89.3 |
| Diploma | 89.7 | 92.7 | 88.9 | 88.9 | 88.4 | 88.0 | 86.1 | 87.6 | 87.4 | 87.8 | 88.8 | 91.7 | 89.1 |
| Degree | 90.0 | 92.9 | 89.2 | 89.2 | 88.7 | 88.3 | 86.5 | 87.9 | 87.8 | 88.1 | 89.1 | 91.9 | 89.4 |
| Certificate | 89.7 | 92.7 | 88.9 | 88.9 | 88.4 | 88.0 | 86.1 | 87.5 | 87.4 | 87.7 | 88.8 | 91.6 | 89.1 |
| Year 10 & 11 | 87.1 | 90.8 | 86.1 | 86.1 | 85.5 | 85.0 | 82.8 | 84.5 | 84.3 | 84.7 | 86.0 | 89.5 | 86.3 |
| Year 9 & less | 84.7 | 89.0 | 83.6 | 83.6 | 82.9 | 82.4 | 79.8 | 81.7 | 81.5 | 82.0 | 83.4 | 87.5 | 83.8 |

**Table 8: Predicted probability of passing in selected characteristics *(continued)***

| | TOTAL | Males | Females | Capital city | Other metro | Rural | Remote | Outside Australia | Year 12 | Diploma | Degree | Certificate | Yr 10 & 12 | Yr 9 or less |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| English | 89.5 | 88.3 | 90.8 | 88.7 | 90.8 | 90.7 | 89.1 | 91.4 | 90.7 | 90.5 | 90.8 | 90.5 | 88.1 | 85.8 |
| **NESB** | 85.6 | 84.0 | 87.2 | 84.5 | 87.3 | 87.1 | 85.0 | 88.1 | 87.1 | 86.9 | 87.2 | 86.9 | 83.7 | 80.8 |
| **Non-Indigenous** | 88.9 | 87.6 | 90.2 | 88.0 | 90.2 | 90.1 | 88.4 | 90.9 | 90.1 | 89.9 | 90.2 | 89.9 | 87.3 | 85.0 |
| **Indigenous** | 81.6 | 79.6 | 83.6 | 80.2 | 83.6 | 83.5 | 80.8 | 84.7 | 83.4 | 83.2 | 83.6 | 83.1 | 79.2 | 75.8 |
| **No disability** | 88.8 | 87.5 | 90.1 | 87.9 | 90.1 | 90.0 | 88.3 | 90.8 | 90.0 | 89.8 | 90.1 | 89.8 | 87.2 | 84.9 |
| **Disability** | 85.8 | 84.2 | 87.4 | 84.7 | 87.5 | 87.3 | 85.2 | 88.3 | 87.3 | 87.1 | 87.4 | 87.1 | 83.9 | 81.1 |
| **Employed full-time** | 91.9 | 91.0 | 92.9 | 91.3 | 92.9 | 92.9 | 91.6 | 93.4 | 92.8 | 92.7 | 92.9 | 92.7 | 90.8 | 89.0 |
| **Employed part-time** | 87.8 | 86.4 | 89.2 | 86.9 | 89.3 | 89.1 | 87.3 | 90.0 | 89.1 | 88.9 | 89.2 | 88.9 | 86.1 | 83.6 |
| **Self-employed** | 87.8 | 86.4 | 89.2 | 86.8 | 89.2 | 89.1 | 87.2 | 89.9 | 89.1 | 88.9 | 89.2 | 88.9 | 86.1 | 83.6 |
| **Employer** | 87.2 | 85.8 | 88.7 | 86.2 | 88.7 | 88.6 | 86.7 | 89.5 | 88.6 | 88.4 | 88.7 | 88.4 | 85.5 | 82.9 |
| **Family worker** | 86.8 | 85.3 | 88.3 | 85.8 | 88.4 | 88.2 | 86.3 | 89.1 | 88.2 | 88.0 | 88.3 | 88.0 | 85.0 | 82.4 |
| **Unemployed** | 84.8 | 83.1 | 86.5 | 83.6 | 86.6 | 86.4 | 84.1 | 87.4 | 86.4 | 86.1 | 86.5 | 86.1 | 82.8 | 79.8 |
| **NILF** | 86.3 | 84.8 | 87.9 | 85.3 | 87.9 | 87.8 | 85.7 | 88.7 | 87.8 | 87.6 | 87.9 | 87.5 | 84.5 | 81.7 |
| **Age 12–17** | 86.2 | 84.6 | 87.7 | 85.1 | 87.8 | 87.7 | 85.6 | 88.6 | 87.6 | 87.4 | 87.8 | 87.4 | 84.3 | 81.5 |
| **Age 18–19** | 86.5 | 85.0 | 88.1 | 85.5 | 88.1 | 88.0 | 86.0 | 88.9 | 88.0 | 87.8 | 88.1 | 87.7 | 84.7 | 82.0 |
| **Age 20–24** | 87.6 | 86.2 | 89.1 | 86.7 | 89.1 | 89.0 | 87.1 | 89.8 | 89.0 | 88.8 | 89.1 | 88.8 | 86.0 | 83.4 |
| **Age 25–29** | 90.8 | 89.7 | 91.9 | 90.0 | 91.9 | 91.8 | 90.4 | 92.5 | 91.8 | 91.7 | 91.9 | 91.6 | 89.5 | 87.5 |
| **Age 65–99** | 90.8 | 89.7 | 91.9 | 90.0 | 91.9 | 91.8 | 90.4 | 92.5 | 91.8 | 91.7 | 91.9 | 91.6 | 89.5 | 87.5 |

**Table 8: Predicted probability of passing in selected characteristics *(continued)***

| | TOTAL | English | NESB | Non-Indigenous | Indigenous | No disability | Disability |
|---|---|---|---|---|---|---|---|
| English | 89.5 | 89.5 | | 89.7 | 82.9 | 89.6 | 86.8 |
| **NESB** | 85.6 | | 85.6 | 85.9 | 77.1 | 85.7 | 82.1 |
| | | | | | | | |
| **Non-Indigenous** | 88.9 | 89.7 | 85.9 | 88.9 | | 89.0 | 86.1 |
| **Indigenous** | 81.6 | 82.9 | 77.1 | | 81.6 | 81.7 | 77.4 |
| | | | | | | | |
| **No Disability** | 88.8 | 89.6 | 85.7 | 89.0 | 81.7 | 88.8 | |
| **Disability** | 85.8 | 86.8 | 82.1 | 86.1 | 77.4 | | 85.8 |
| | | | | | | | |
| **Employed full-time** | 91.9 | 92.6 | 89.6 | 92.1 | 86.6 | 91.9 | 89.8 |
| **Employed part-time** | 87.8 | 88.7 | 84.5 | 88.0 | 80.3 | 87.8 | 84.8 |
| **Self-employed** | 87.8 | 88.7 | 84.5 | 88.0 | 80.2 | 87.8 | 84.7 |
| **Employer** | 87.2 | 88.2 | 83.8 | 87.5 | 79.4 | 87.2 | 84.0 |
| **Family worker** | 86.8 | 87.8 | 83.3 | 87.1 | 78.8 | 86.8 | 83.6 |
| **Unemployed** | 84.8 | 85.9 | 80.9 | 85.1 | 75.9 | 84.8 | 81.1 |
| **NILF** | 86.3 | 87.3 | 82.7 | 86.6 | 78.1 | 86.3 | 83.0 |
| | | | | | | | |
| **Age 12–17** | 86.2 | 87.2 | 82.6 | 86.4 | 77.9 | 86.2 | 82.8 |
| **Age 18–19** | 86.5 | 87.5 | 83.0 | 86.8 | 78.4 | 86.5 | 83.2 |
| **Age 20–24** | 87.6 | 88.6 | 84.4 | 87.9 | 80.1 | 87.6 | 84.6 |
| **Age 25–29** | 90.8 | 91.5 | 88.2 | 91.0 | 84.8 | 90.8 | 88.4 |
| **Age 65–99** | 90.8 | 91.5 | 88.2 | 91.0 | 84.8 | 90.8 | 88.4 |

**Table 8: Predicted probability of passing in selected characteristics *(continued)***

| | TOTAL | Employed full time | Employed part time | Self-employed | Employer | Family worker | Unemployed | NILF | Age 12–17 | Age 18–19 | Age 20–24 | Age 25–29 | Age 65–99 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| English | 89.5 | 92.6 | 88.7 | 88.7 | 88.2 | 87.8 | 85.9 | 87.3 | 87.2 | 87.5 | 88.6 | 91.5 | 88.9 |
| **NESB** | 85.6 | 89.6 | 84.5 | 84.5 | 83.8 | 83.3 | 80.9 | 82.7 | 82.6 | 83.0 | 84.4 | 88.2 | 84.7 |
| **Non-Indigenous** | 88.9 | 92.1 | 88.0 | 88.0 | 87.5 | 87.1 | 85.1 | 86.6 | 86.4 | 86.8 | 87.9 | 91.0 | 88.2 |
| **Indigenous** | 81.6 | 86.6 | 80.3 | 80.2 | 79.4 | 78.8 | 75.9 | 78.1 | 77.9 | 78.4 | 80.1 | 84.8 | 80.5 |
| **No disability** | 88.8 | 92.0 | 87.9 | 87.9 | 87.3 | 86.9 | 84.9 | 86.4 | 86.3 | 86.7 | 87.8 | 90.9 | 88.1 |
| **Disability** | 85.8 | 89.8 | 84.8 | 84.7 | 84.0 | 83.6 | 81.1 | 83.0 | 82.8 | 83.2 | 84.6 | 88.4 | 84.9 |
| **Employed full-time** | 91.9 | 91.9 | | | | | | | 90.1 | 90.4 | 91.2 | 93.5 | 91.4 |
| **Employed part-time** | 87.8 | | 87.8 | | | | | | 85.2 | 85.5 | 86.7 | 90.1 | 87.1 |
| **Self-employed** | 87.8 | | | 87.8 | | | | | 85.1 | 85.5 | 86.7 | 90.0 | 87.0 |
| **Employer** | 87.2 | | | | 87.2 | | | | 84.5 | 84.9 | 86.1 | 89.6 | 86.4 |
| **Family worker** | 86.8 | | | | | 86.8 | | | 84.0 | 84.4 | 85.7 | 89.2 | 86.0 |
| **Unemployed** | 84.8 | | | | | | 84.8 | | 81.6 | 82.1 | 83.5 | 87.5 | 83.9 |
| **NILF** | 86.3 | | | | | | | 86.3 | 83.4 | 83.8 | 85.1 | 88.8 | 85.5 |
| **Age 12–17** | 86.2 | 90.1 | 85.2 | 85.1 | 84.5 | 84.0 | 81.6 | 83.4 | 86.2 | | | | |
| **Age 18–19** | 86.5 | 90.4 | 85.5 | 85.5 | 84.9 | 84.4 | 82.1 | 83.8 | | 86.5 | | | |
| **Age 20–24** | 87.6 | 91.2 | 86.7 | 86.7 | 86.1 | 85.7 | 83.5 | 85.1 | | | 87.6 | | |
| **Age 25–29** | 90.8 | 93.5 | 90.1 | 90.0 | 89.6 | 89.2 | 87.5 | 88.8 | | | | 90.8 | |
| **Age 65–99** | 90.8 | 93.5 | 90.1 | 90.0 | 89.6 | 89.2 | 87.5 | 88.8 | | | | | 88.0 |




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