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# Outcomes for people with a disability in vocational education and training

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This paper will provide an overview of the characteristics of students in the vocational education and training (VET) sector who identified themselves as having a disability or disabilities. All students who enrol in publicly funded VET programs are asked when they enrol to indicate whether they have a disability. They are also asked to identify the type of disability they have.

In the first section of the paper details are provided about participation in the sector and the types of courses disabled students are undertaking and the occupations that the courses are designed to prepare students for. In the next section, the outcomes of disabled students are discussed in relation to the courses they predominantly study and in their subsequent search for employment. The paper will draw on research that has been conducted at the National Centre for Education Research on the outcomes for disadvantaged groups in the vocational education and training sector.

## Participation in VET

There were about 63,000 students who identified themselves as having a disability or disabilities enrolled in the VET sector during 1999[1]. In the three years since 1996, the number of students with disabilities has increased by almost a third, and the proportional representation of students with disabilities has increased by a percentage point from 3.5 per cent in 1996 to 4.6 per cent in 1999.

The age distribution of students with disabilities in vocational programs during 1999 is shown in table 1. There is an older age profile for students with disabilities compared to students without disabilities. Only 34 per cent of students with a disability were under 24 years of age compared with 40 per cent of students without a disability. The different age profile for disabled people characterises both men and women who are studying in the sector. There is a relatively high proportion of both men and women with disabilities

[1] In 1999, 17% of students did not report whether or not they had a disability

who are over 50 years of age undertaking vocational programs compared with students without disabilities.

Table 1: Age distribution of students in VET by disability status*

| | Students with disabilities | | | Students without disabilities | | |
|---|---|---|---|---|---|---|
| Age | Males | Females | Persons | Males | Females | Persons |
| 15-19 | 21.7 | 18.4 | 20.2 | 24.6 | 19.6 | 22.2 |
| 20-24 | 14.5 | 13.7 | 14.1 | 19.0 | 15.4 | 17.3 |
| 25-29 | 10.2 | 10.2 | 10.2 | 12.8 | 12.2 | 12.5 |
| 30-39 | 20.3 | 20.4 | 20.3 | 20.1 | 22.0 | 21.1 |
| 40-49 | 18.1 | 20.8 | 19.3 | 14.2 | 19.1 | 16.6 |
| 50-59 | 10.5 | 12.1 | 11.3 | 6.8 | 8.6 | 7.7 |
| 60-64 | 2.3 | 1.9 | 2.1 | 1.2 | 1.5 | 1.3 |
| 65 and over | 2.4 | 2.6 | 2.5 | 1.2 | 1.5 | 1.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number** ('000s) | 33.2 | 29.6 | 62.9 | 657.1 | 636.6 | 1,296.4 |

* includes students aged 15 years and over **includes students who did not disclose their age
Source: Unpublished data from the national VET data collection managed by NCVER

Details about the type of disability of disabled students undertaking vocational programs during 1996 and 1999 are shown in table 2. Since 1996, there has been an increase in the proportion of students who are physically disabled or who suffer chronic illness or have other disabilities studying in the VET sector relative to people who are visually impaired, are intellectually disabled or suffer an unspecified disability.

Table 2: Students in VET with disabilities, by type of disability

| | Males | | Females | | Persons | |
|---|---|---|---|---|---|---|
| | 1996 | 1999 | 1996 | 1999 | 1996 | 1999 |
| Visual disability | 18.6 | 17.4 | 16.2 | 15.6 | 17.5 | 16.5 |
| Hearing disability | 11.9 | 10.8 | 9.7 | 10.3 | 10.9 | 10.6 |
| Physical disability | 20.7 | 21.2 | 16.6 | 17.7 | 18.8 | 19.5 |
| Intellect disability | 14.6 | 13.6 | 16.9 | 11.9 | 15.7 | 12.8 |
| Chronic illness | 4.8 | 5.7 | 7.9 | 8.7 | 6.2 | 7.1 |
| Other disability | 15 | 22.1 | 13.6 | 20.3 | 14.3 | 21.3 |
| Unspec disability | 14.3 | 9.2 | 19.1 | 15.4 | 16.6 | 12.3 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number * ('000s) | 26.3 | 36.9 | 23. 7 | 32.8 | 50. 0 | 69.8 |

*The total is greater than the actual number of students with disabilities because some students have more than one type of disability
Source: Unpublished data from the national VET data collection managed by NCVER; NCVER, 1998

Participation in VET by people with a disability, typically, tends to be in lower skill level and shorter courses, and similar to other TAFE graduates identifying themselves with an equity group tend to have lower success in terms of employment and income after study compared to other TAFE graduates.

The VET sector uses a number of classification systems to describe the content and level of VET courses. This paper reports on students with a disability by the field of study classification and by occupational grouping.

Field of study is a classification that describes the primary subject matter of a course and is based on the major intended vocational outcomes and content. The occupational grouping classification identifies the most common occupational outcome that a course is designed to provide. Details on the field of study and occupational grouping of students in VET with a disability in 1999 are provided in tables 3 and 4, respectively.

TAFE Multi field education where about a third of students with disabilities are undertaking studies, comprises subject areas such as general secondary education, English as a second language, functional literacy and numeracy, general skills development and pre-employment programs. Whereas only about one in six students without a disability did courses in this field of study, about one in three students with a disability undertook these courses. However, there were proportionately fewer students with a disability undertaking these courses during 1999, compared to 1996 when almost half of all students with a disability were enrolled in courses in this field of study. This trend is consistent with the situation for all course enrolments. In 1999 course enrolments in TAFE multi field education accounted for 16 per cent of all course enrolments compared with almost 20 per cent during 1996 (NCVER, 1996 and 1999).

Table 3: Field of study of students in VET by disability status

| | Students with disabilities | | | | | | Students without disabilities | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1996 | | | 1999 | | | 1999 | | |
| Field of Study | Males | Females | Persons | Males | Females | Persons | Males | Females | Persons |
| Land & marine resources, animal husbandry | 8.5 | 3.3 | 6.0 | 7.4 | 2.7 | 5.2 | 8.0 | 3.1 | 5.6 |
| Architecture, building | 6.9 | 1.2 | 4.2 | 5.7 | 1.1 | 3.5 | 10.1 | 1.2 | 5.7 |
| Art, humanities & social science | 5.5 | 9.7 | 7.5 | 6.8 | 12.3 | 9.5 | 4.8 | 9.3 | 7.0 |
| Business, administration, economics | 17.9 | 23.9 | 20.8 | 15.3 | 21.9 | 18.4 | 16.3 | 29.5 | 22.8 |
| Education | 1.7 | 2.5 | 2.1 | 1.9 | 2.4 | 2.1 | 2.1 | 3.0 | 2.5 |
| Engineering, surveying | 18 | 2.3 | 10.5 | 15.3 | 2.6 | 9.3 | 26.3 | 3.6 | 15.1 |
| Health, community services | 4.6 | 11.8 | 8.1 | 5.2 | 12.2 | 8.5 | 5.4 | 13.7 | 9.5 |
| Law, legal studies | 0.7 | 0.5 | 0.6 | 0.4 | 0.4 | 0.4 | 0.7 | 0.7 | 0.7 |
| Science | 8.1 | 8.9 | 8.5 | 8.0 | 4.9 | 6.5 | 6.3 | 6.2 | 6.2 |
| Veterinary science, animal care | 0.1 | 0.2 | 0.1 | 0.1 | 0.3 | 0.2 | 0.0 | 0.4 | 0.2 |
| Services, hospitality, transportation | 7.4 | 9.5 | 8.4 | 9.8 | 10.3 | 10.0 | 14.3 | 15.2 | 14.7 |
| TAFE multi-field education | 43.9 | 50.2 | 46.9 | 33.3 | 34.6 | 33.9 | 13.3 | 17.3 | 15.3 |
| NET total number *('000s) | 24.7 | 22.6 | 47.3 | 33.4 | 29.7 | 63.2 | 659.8 | 638.8 | 1,301.3 |

Source: Unpublished data from the national VET data collection managed by NCVER; NCVER, 1998

In addition to TAFE multi field education, men with disabilities tended to enrol in business, administration and economics courses and engineering and surveying courses while women with disabilities tended to enrol in business, administration and economics courses and health and community services courses.

Almost half of all students with a disability are undertaking courses that do not lead to a specific occupation compared with a third of students without a disability. Other common occupational groupings for courses studied by students with a disability are intermediate clerical, sales and service workers and professionals. Notably, only 13 per cent of men with disabilities are undertaking courses that lead to a trade compared with 21 per cent of men without a disability.

Table 4: Occupation of students in VET, by disability status

| | Students with disabilities | | | Students without disabilities | | |
|---|---|---|---|---|---|---|
| Occupation | Males | Females | Persons | Males | Females | Persons |
| 1 Managers & Administrators | 2.5 | 2.5 | 2.5 | 3.9 | 4.5 | 4.2 |
| 2 Professionals | 10.9 | 11.2 | 11.0 | 9.9 | 11.9 | 10.8 |
| 3 Associate Professionals | 7.7 | 6.3 | 7.1 | 9.9 | 8.4 | 9.2 |
| 4 Tradespersons & Related Workers | 13.8 | 4.0 | 9.3 | 21.4 | 5.2 | 13.6 |
| 5 Advanced Clerical & Service Workers | 1.1 | 2.0 | 1.5 | 0.9 | 2.5 | 1.7 |
| 6 Intermediate Clerical, Sales & Service Workers | 7.6 | 16.7 | 11.8 | 7.9 | 21.2 | 14.3 |
| 7 Intermediate Production & Transport Workers | 3.4 | 0.9 | 2.3 | 6.3 | 1.0 | 3.7 |
| 8 Elementary Clerical, Sales & Service Workers | 1.3 | 1.3 | 1.3 | 1.9 | 2.3 | 2.1 |
| 9 Labourers & Related Workers | 7.8 | 3.6 | 5.9 | 9.6 | 4.7 | 7.3 |
| General | 43.9 | 51.4 | 47.4 | 28.3 | 38.3 | 33.2 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Total number ('000s) | 36.4 | 31.2 | 67.7 | 719.6 | 665.4 | 1,387.30 |

Source: Unpublished data from the national VET data collection managed by NCVER

## Outcomes in VET

Typically, students in VET take programs of study in smaller, flexible units or modules rather than complete courses of study. For this reason outcomes are reported against modules rather than courses. The module outcomes achieved for all module enrolments by VET students by disability status are shown in table 5.

Overall, there was little difference in the module outcomes achieved by men and women with a disability in vocational courses in 1999. About 57 per cent of women with disabilities recorded a pass grade in 1999, compared to 62 per cent of women without disabilities. About 55 per cent of men with disabilities recorded a pass grade in 1999 compared with 62 per cent of men without disabilities.

There was a notable decline in the propensity of both men and women with disabilities to withdraw from modules in 1999 (5 per cent), compared with the situation in 1996 (about 13 per cent). In 1999, about 4 per cent of disabled

students received recognition of prior learning as part of their VET studies, compared to only one per cent in 1996.

Table 5: Module outcomes as percentage of total module enrolments, by disability status

| Module outcomes | Passed | Completed hrs | Failed | Results Withheld | Withdrew | Continue | RPL | Credit transfer | Not known | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 1996 | | | | | | | | | | |
| Females with disabilities | 55.8 | 8.4 | 4.5 | 2.2 | 13.6 | 5.5 | 1.3 | 2.4 | 6.3 | 100.0 |
| Males with disabilities | 55.5 | 8 | 6.4 | 2.5 | 12.4 | 6.5 | 1.3 | 2.7 | 4.6 | 100.0 |
| Females without disabilities | 63.8 | 6.4 | 4.2 | 2.1 | 11.4 | 4.3 | 1.8 | 2.9 | 3 | 100.0 |
| Males without disabilities | 62.3 | 6.2 | 6 | 2.3 | 9.8 | 5.5 | 2 | 2.8 | 3.1 | 100.0 |
| 1999 | | | | | | | | | | |
| Females with disabilities | 56.9 | 9.4 | 0.7 | 8.5 | 4.8 | 1.8 | 4.0 | 12.5 | 1.5 | 100.0 |
| Males with disabilities | 55.3 | 12.3 | 0.6 | 7.7 | 5.4 | 1.9 | 3.6 | 11.7 | 1.4 | 100.0 |
| Females without disabilities | 62.0 | 7.5 | 0.3 | 5.6 | 7.2 | 2.4 | 3.7 | 9.4 | 1.8 | 100.0 |
| Males without disabilities | 61.7 | 10.5 | 0.3 | 4.2 | 7.8 | 2.4 | 3.5 | 7.9 | 1.8 | 100.0 |

Source: Unpublished data from the national VET data collection managed by NCVER

Research undertaken by NCVER, (Ball, 1998) using data from the national VET provider data collection managed by NCVER, modelled the demographic factors that influence the probability of success and the probability of completing vocational education and training modules in each field of study.

People who identified themselves as being disabled (comprising a wide range of disabilities such as vision or hearing impaired, physically or intellectually disabled) were less likely to successfully pass or complete a module of vocational education and training than people without a disability. For 'education', 'veterinary science, animal care' and 'TAFE multi-field education' field of study classifications a disability did not affect the probability of success or completion of a module. For all other field of study classifications, the presence of a disability significantly reduced the probability of success or module completion in 1996. The model was re-run using 1998 data and these results still held at this time.

## Outcomes in preparatory or enabling courses

As a high proportion of students with disabilities were enrolled in enabling courses in 1999 it is important to analyse the outcomes for students with disabilities who study these courses. This section summarises the results of NCVER research into the outcomes of students in enabling courses reported in Phan and Ball (forthcoming).

The term 'enabling course' is used to describe lower–level preparatory and pre–vocational courses in the VET sector. Enabling courses cover a wide range of learning areas, including remedial education (for example, literacy and numeracy), bridging courses, pre–certificate courses and general

employment preparation courses. Generally, they comprise courses such as ‘Job seeker preparation and support program’, ‘Employment skills development program’, ‘English as a second language’ or ‘Adult literacy and numeracy’ courses.

The main objectives of enabling courses offered in the VET sector are to provide remedial education and preparatory activities. Generally, enabling courses can play an important role for those unsure of career choice on entry or re–entry to the labour market or for those who are preparing for a career change. Individuals undertaking these courses can also acquire important basic skills which allow them to lead more independent lives and participate in social and community activities.

The aim of the research reported in Phan and Ball (forthcoming) was to determine the effectiveness of enabling courses in assisting members from the various target equity groups to progress onto higher level of education or training or to gain employment following the completion of an enabling course.

Enabling course students who reported that they have a disability were most likely to be in the 15–to–19–age group and 30–to–49–age group. Students who indicated that they have a visual impairment, hearing disability or chronic illness were predominantly in this age group. Students who reported that they have an intellectual disability, however, were most likely to be in the 15–to–24–age group and 30–to–39–age group. There were very few students with an intellectual disability in the 50–to–64–age group when compared to enabling course students who indicated that they have other types of disabilities.

On the whole, there was not very much variation in the module load completion rate or module load pass rate achieved by students with a disability and students who reported that they do not have a disability. Nevertheless, students who reported that they have an intellectual disability performed better than students with other types of disabilities. These students also performed better than students who reported that they do not have a disability.

Students who reported that they have a disability were less likely to undertake further studies at a higher level than students without a disability after completing an enabling course. About 57 percent of these students enrolled in the same level of qualification compared to only 48 percent of students who reported that they do not have a disability.

Enabling course students with intellectual disability were generally most likely to enrol in the same level of qualification in the following year, while enabling course students with a visual, sight or hearing disability were more likely to enrol in a course at a higher level of qualification compared to students with other types of disabilities.

On the whole, students who reported that they have a disability were more likely to re-enrol in the same course than students who reported not having a disability. Students who reported that they have a disability were significantly less likely to enrol in a course at a higher level of qualification following the completion of their enabling course than other students. Other things being equal, the probability of an enabling course student enrolling in a course at a higher level of qualification was 37 percent lower for students who reported that they have a disability than for other students.

Graduates who reported that they have a disability primarily chose their enabling course so that they could 'get a job' and many also indicated that they choose their course for 'interest'. While graduates who reported that they do not have a disability were more inclined to enrol in their enabling course than graduates with a disability so that they could 'get into another course'.

The proportion of graduates with a disability in employment remained relatively the same six months prior to the commencement of their enabling course and six months after course completion. There was no substantial variation in the proportion of graduates who reported that they do not have a disability employed prior to course commencement or after course completion.

**Employment and income outcomes**

Given the different distribution of courses undertaken by vocational students from most disadvantaged groups compared with other students, it could be construed that variations in employment and income outcomes for TAFE graduates are solely related to differences in the chosen field-of-study of the course taken at TAFE, the occupation after graduation and the level of qualification attained by members of disadvantaged groups compared with other Australians.

Research undertaken at NCVER reported in Ball and Phan, (1999) investigated:

- if there is any significant difference in the likelihood of members of disadvantaged groups securing employment following graduation from TAFE, after controlling for factors such as field of study and level of qualification attained, compared with other Australians;

- if there is any significant difference in the likelihood of members of disadvantaged groups achieving a 'positive outcome' after graduation from TAFE, after controlling for factors such as field of study and level of qualification attained, compared with other Australians;

- if members of disadvantaged groups who are successful in securing employment manage to achieve the same level of income as Australians as a whole, after controlling for factors such as field of study, occupation and level of qualification attained;

The interpretation of a 'positive outcome' used in this analysis is that either a TAFE graduate has secured employment by 30 May in the following year after the completion of a TAFE course or the graduate has enrolled in further studies.

The results indicated that there is a significant difference in the likelihood of members of disadvantaged groups securing employment or achieving a 'positive outcome' following graduation from TAFE, after controlling for factors such as field of study and level of qualification attained, compared with other Australians. While field of study and level of qualification are important factors influencing the likelihood of new TAFE graduates securing employment or achieving a 'positive outcome', demographic factors are also important influences.

The key findings from the research that are relevant for students in VET with a disability are summarised as follows:

- New TAFE graduates who reported in the survey that they have a disability are significantly less likely to obtain employment compared to other new TAFE graduates;

- There is less likelihood of new TAFE graduates who reported in the survey that they have a disability achieving a 'positive outcome' compared to other new TAFE graduates;

- Students with a disability who were successful in securing employment after graduation from TAFE did not achieve the same level of income as Australians as a whole, after controlling for factors such as field of study, occupation and level of qualification attained.

- New TAFE graduates who reported in the survey that they have a disability obtain significantly lower income at 30 May in the year following completion of a TAFE course compared to other new TAFE graduates;

- There are significant differences in the likelihood of securing employment and in the remuneration received by new TAFE graduates depending on the field of study of the course studied at TAFE. With the exception of 'art, humanities and social sciences', 'science', and 'TAFE multi-field education' field of study classifications there was a significantly greater likelihood of recent TAFE graduates being employed if they had taken courses from all other field of study courses compared to the reference group. For graduates who had studied courses from the 'art, humanities and social sciences', 'science', and 'TAFE multi-field education' field of study classifications there was a significantly reduced likelihood of being employed by 30 May in the year following the completion of TAFE studies.

## Outcomes for apprentices and trainees

In general, students with a disability who were in an apprenticeship or traineeship during their VET course achieved more positive post-course employment outcomes than students with a disability who were not engaged in a contract of training.

Regression modelling was conducted by NCVER to assess if demographic factors affect the likelihood of continued employment with the same employer, or with a different employer, after the completion of an apprenticeship. The modelling methodology took account of differences in field of study, level of qualification, length of training course, type of training (apprenticeship or traineeship), age of apprentice or trainee, industry of employment, highest previous qualification, occupation, and type and size of employer (government or private sector).

Although apprentices with a disability were 20 per cent less likely to be with the same employer after the completion of an apprenticeship or traineeship than other apprentices and trainees, there was no significant difference in the likelihood of an apprentice or trainee who reported having a disability continuing in employment with a different employer after the completion of an apprenticeship or traineeship than other apprentices or trainees.

## Conclusions

Students who identified themselves as having a disability in the VET sector in 1999 were studying a wider range of courses than was the case in 1996. Nonetheless, there is still a predominance of students with a disability in lower level courses.

On average, students with disabilities were less likely to obtain a pass grade in a VET module than other students during 1999. However, students with disabilities in lower level or enabling courses tended to achieve comparable results to other students in terms of module load pass and completion rates.

Students with disabilities who undertake lower level or enabling courses are less likely to undertake further studies when they complete their course compared with other students.

Employment outcomes after course completion for students with a disability are not as favourable as those of other Australians. New TAFE graduates who have a disability are significantly less likely to obtain employment at the completion of their course than other graduates. Graduates in employment will most likely receive lower incomes than their counterparts.

On the other hand, apprenticeships and traineeships are providing secure employment opportunities for people with disabilities after they finish their training course.

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