

# **The Occupations and Earnings of Young Australians: The Role of Education and Training**

**LSAY Research Report 55**

**Gary N Marks**

## **EXECUTIVE SUMMARY**

This report investigates the effect of post-secondary education and training on the occupation and earnings of young people.

The majority of young Australians undertake further education and training after leaving school, and it is important to better understand the pathways that they follow, and the impact of different types of experience on the early career. Such analyses can help young people in choosing appropriate programs as well as assist policy makers in identifying resource priorities. They can also contribute to debates about the role of education in promoting social mobility and economic development.

The data analysed are from a sample of young people who were first interviewed when they were in Year 9 in 1995 and subsequently interviewed annually. This report analyses annual data collected up until 2005 when they were, on average, 24 years of age. Longitudinal data can provide important insights into the pathways that young people follow and the influences they experience.

The report examined the occupational status of jobs and weekly earnings by type of post-school education and training. Occupational status provides a convenient summary measure of occupations based on job status or prestige, while earnings measure the financial reward from work.

For the two outcomes examined—occupational status and weekly earnings—there were two sets of analyses. The first focused on the effects of participation in, and completion of, post-secondary education and training on occupational status and earnings. It is important to be able to identify whether different types of courses led to different outcomes, and the benefits of completing a course, particularly in areas where completion rates are not high. The second set of analyses focused on ‘trajectories’, namely whether post-secondary education and training influences the pattern of occupational status and earnings in the years after participation or completion.

The types of post-school education and training analysed were apprenticeships, traineeships, technical and further education (TAFE) certificates, TAFE diplomas, university diplomas, university degrees, post-graduate degrees and other qualifications comprising mainly courses run by private providers.

The multi-level regression analyses reported here provide estimates of the effects of participation in and qualifications from these types of post-secondary education and training on occupational status and earnings *net* of the effects of other influences, such as prior labour market experiences of work and unemployment, literacy and numeracy, school type, socioeconomic background and ethnicity. These estimates are based on person-year data from all waves on the longitudinal study, thereby minimising any biases that may result from sample attrition.

In addition, the report examined the role of gender as it is well established that there can be marked differences in the educational and labour market experiences of young men and women.

## **Main Education and Labour Market Activities**

The longitudinal data underscore the dynamics of the school-to-work transition process. In 1995 when the sample started, 100 per cent were in school (Year 9). The proportion in full-time study declined during the period. In 1997 and 1998, over 80 per cent were in full-time study, mostly at school. Full-time study declined precipitously in 1999 as most of the cohort had completed Year 12. In subsequent years, the proportion in full-time study declined as students completed or discontinued university and TAFE courses. By 2005 (at age 24) just over 5 per cent were in full-time study. Throughout the period the incidence of full-time study was much higher among young women.

In contrast to full-time education, the proportion of the cohort in full-time work increased throughout the period investigated. The percentage in full-time work increased abruptly to about 35 per cent in 1999, the first year most of the cohort left school, and then steadily increased each year. By 2005, 77 per cent of the cohort was in full-time work. In all years, the incidence of full-time work was substantially higher among young men than among young women.

The incidence of part-time work increased to 6 per cent in 1999, further increased to about 10 per cent by 2001 and 2002, and marginally declined to 8 per cent in 2005. Part-time work was much more common among women, peaking at over 13 per cent in 2002, compared to 7 per cent of young men that year.

The proportion of the cohort looking for work but not working or studying was around 5 per cent between 1999 and 2002, but had declined to 2 per cent by 2005. Unemployment was higher among males than among females between 1999 and 2002, but there was little difference in the later years.

## **Types of Education and Training Experience**

Almost 90 per cent of the cohort had participated in some form of post-school education and training by age 24 (in 2005). The most common form was enrolment in a university bachelor degree (46%), followed by TAFE certificate (21%), TAFE diploma (15%), traineeship (15%) and apprenticeship (13%). In common with other research, the data indicated marked gender differences: young women much more likely than young men to participate in bachelor degrees and to a lesser extent, TAFE programs, slightly more likely to take up traineeships, but much less likely to commence an apprenticeship (4% of young women by age 24 compared to 22% of young men).

The data indicated that around 75% of those who commenced a course of education or training gained a qualification, although not always in the field (or with the institution or employer) where they first started.

## **Occupational Group and Status**

There are striking but not unexpected changes in the distribution of occupations as the cohort progresses from school, via post-secondary education and training, to the labour market. The proportion working in managerial or professional occupations increased dramatically from 3 per cent in 1997 to 45 per cent in 2005. Concomitantly, the proportion in semi-skilled and unskilled manual work declined from nearly 28 per cent in 1997 and 1998 to 10 per cent in 2005. For men the decline was steeper, from 44 per cent to 16 per cent. The proportion of the cohort in sales, clerical and personal service work declined from 56 per cent in 1997 to 31 per cent in 2005. This decline was greater among young women: in 1999 75 per cent were working in sales, clerical and personal service jobs compared to 43 per cent in 2005.

In contrast to substantial changes in the proportions in other occupational groups, the proportion in trade or skilled manual work remained at around 16 per cent throughout the period investigated.

The occupational status of the jobs held by cohort members increased substantially throughout the time period studied. In 1997 and 1998 the mean occupational status was low, at about 20 score points (on the ANU3 scale). By 2005 the mean occupational status had increased to 37. This can be compared to the average for adult populations, which is around 45. The increase in occupational status was much greater for those in full-time work than for those in part-time work.

### **Influences on Occupational Status**

The main results of the multivariate analyses are as follows.

- University courses led to the largest increases in occupational status. In general, TAFE courses and apprenticeships/traineeships were associated with little increase in occupational status in the early career, which probably reflects the fact that young people in such programs are often already working in a similar occupation.
- Participation in a bachelor degree course was associated with an increase in occupational status of about 5 score points on a 1 to 100 point scale. The impact of a bachelor degree qualification was larger, around 14 score points. On this measure it clearly pays to complete the course.
- There was little difference between young men and women in the overall level of occupational status, and the effects of a bachelor degree on occupational status did not differ appreciably between the sexes. The effects of a university diploma qualification tended to be higher among women.
- Age had strong effects on occupational status indicating that as young people mature they secure higher status jobs.
- Prior experience of unemployment had detrimental effects on the occupational career. Prior experience of work had positive, but small, effects.
- The occupational trajectories associated with bachelor degrees rose in these early years of the career.
- In contrast, the occupational trajectories associated with other forms of post-secondary education and training were generally relatively flat.

### **Earnings**

Among full-time workers, mean weekly earnings increased substantially over the period: from \$352 in 1998 to \$1026 in 2005 (expressed in 2005 dollars). Median weekly full-time earnings also increased just as steeply, indicating that the increase in mean weekly earnings was because of general increases rather than a small minority of very high earners. These increases are due to a number of factors, such as age-based awards, apprentices moving off the apprenticeship training wage, the entry of school completers and university and other graduates, to the workforce, and the higher wages accruing to experience and on-the-job training.

The mean weekly earnings of part-time workers also increased sharply over the period, and rose from about 30 per cent of mean full-time earnings in 1998 (at about age 17) to about 47 per cent by 2005 (age 24). In large part this would reflect the changing composition of part-time work away from “student-type” employment in the early years to part-time work in higher status occupations by the mid-20s.

### **Influences on Earnings**

The main results of the multivariate analyses are as follows.

- A bachelor degree qualification had the largest impact, increasing earnings by about 30 per cent. The effects of bachelor degrees were slightly stronger among women than among men.

- Apprenticeships also had a major impact on earnings, and on average increased weekly earnings by about 20 per cent. This effect was stronger among young men than among young women.
- A TAFE diploma qualification increased earnings by about 14 per cent; and a university diploma by nearly 20 per cent.
- Completing a traineeship increased earnings by about 8 per cent, and a TAFE certificate by about 5 per cent.
- In general, gaining a qualification was associated with higher earnings, other factors equal, than participating without completion. However, there were some exceptions, such as in traineeships and some TAFE courses, which may be related to the modular structure of such programs.
- Experience of working since leaving school, either full-time or part-time, had a small positive effect on earnings.
- Prior experience of unemployment did not have detrimental effects on earnings, which suggests that, during the period of strong jobs growth covered by this report, a substantial proportion of unemployed young people may have been ‘shopping around’ for jobs with higher earnings.
- The average weekly earnings of young men are about 20 per cent higher than those of young women, after controlling for educational qualifications and labour market experience (but not hours worked).

### **Conclusions and Implications**

Overall, the results provide a positive message for education and training. In general, post-school education and training leads to higher status occupations and, in particular, higher earnings compared to not doing any further study or training. If anything, these benefits of education and training are stronger for young women than young men, especially for those who enrol in bachelor degrees (but the gender effect works in the other direction for apprenticeships). The fact that the results indicate that social background plays only a small role in accounting for differences in occupational status and earnings indicates that education is enhancing social mobility.

Within this broadly positive, it is clear that not all forms of post-secondary education and training are equally beneficial, at least in terms of the measures of occupation and earnings used here. Apprenticeships and especially university degrees tend to have stronger effects on earnings and occupations than other forms of post-secondary education and training at this early stage of young people’s careers. This variability suggests that there needs to be continuing attention to the relationship between the knowledge and skills produced through different forms of education and training and those required by the labour market. It also suggests the need for continuing emphasis on career guidance and counselling to help young people choose the programs most appropriate to their interests and needs.