

Rethinking the link between study and the world of work



Education
Services
Australia

The rapid advancement of digital technology is transforming the Australian labour market. Jobs for life are no longer the norm and for the first time, young people starting out can expect to change roles multiple times across the course of their working lives.

Due to growing complexity of the labour market, providing effective careers information to young people has never been more important. With fewer direct links between specific courses and occupations, it's becoming essential for students to understand the changing world of work, and their role in it.

In the past, there has been a tendency to think about a definite career outcome when selecting a field of study. However, with the nature of jobs changing, students should now consider that the course they choose may be a pathway to a group of jobs which share similar skills, rather than a single occupation.

Myfuture recently examined potential new approaches to link study and job pathways, taking into consideration the current and emerging labour market patterns. Using data from the Australian Census, we researched patterns between vocational and higher education qualifications and current job roles. The findings provide valuable information for anyone thinking about their future career and have informed the development of *myfuture*.

What the data tells us

We looked at 4.4 million Australian Census records and derived over 4000 matches between qualifications and occupational groups across the broad spectrum of jobs and education. Through analysis of Australian data, we found that the strength of match between education and jobs varied considerably. In some areas, matches were strong no matter how long ago the qualification, whereas other educational areas led to more diverse career outcomes. Image 1 shows the range in matches.

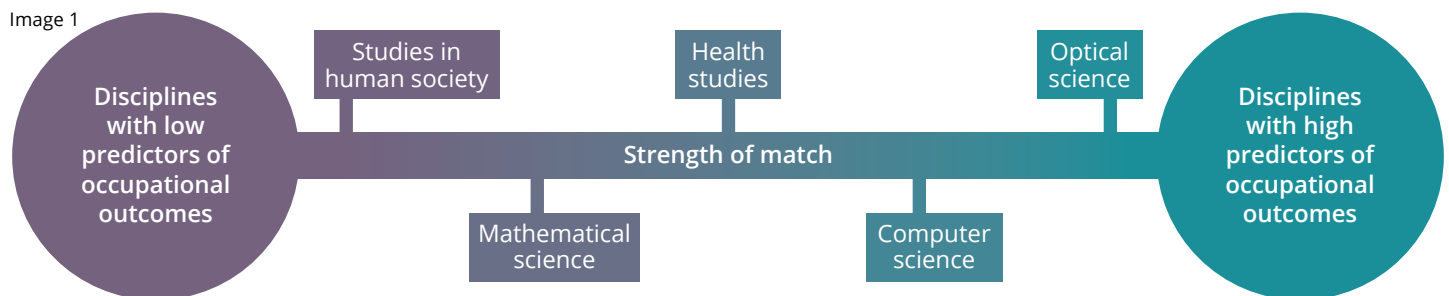
Our research shows that a Bachelor's degree in optical sciences is the qualification and discipline area for which occupational outcome can be most accurately predicted. Unsurprisingly, the top ranked occupation group (2514 Optometrists and Orthoptists) accounted for 91% of graduates of this degree. At the other end of the scale, a Bachelor's

degree in studies in human society (which includes history, sociology and gender studies majors) was the most unpredictable for graduate outcomes and led to the greatest range of occupations; the top ranked occupation (2414 Secondary School Teachers) only makes up 4% of respondents, and the top five most popular occupations only 16% combined.

Although some courses, such as optical sciences and some trade-based vocational qualifications, are strong predictors of career outcomes, our research shows that the majority of occupations are much harder to predict and the majority of discipline areas have no clear occupational outcome. Because the research project provided data informed by Australian Census data as opposed to intended occupations, it allows us to guide our users in a much more accurate and sophisticated way, drawing on big data.

Our data for occupation and courses is drawn on nationally generated standard classifications:

- vocational education and training (VET) courses and higher education courses are grouped into fields of education using the Australian Standard Classification of Education (ASCED). E.g. Earth Sciences: 0107
- occupations are categorised using ANZSCO (Australian and New Zealand Standard Classification of Occupations) at the four-digit (occupation) level. E.g. Geologists and Geophysicists: 2344



Exploring career pathways with *myfuture*

The big data approach has been combined with our existing knowledge of how Australians seek and use career information to enhance the *myfuture* platform. We've adapted our presentation of job matching based on the research findings. With the updated *myfuture* website, students can explore pathways between post-school study options and careers in a number of ways:

- exploring courses by discipline area, and seeing which occupations are matched to a particular course
- exploring occupations, and seeing which courses and discipline areas are matched to a particular occupation and others in that occupational group
- matching one of 33 learning areas to occupation groups
- exploring a particular industry and exploring which occupations feature prominently in that industry
- completing a My Career profile to match occupations to interests, level of intended education, skills, and work condition preferences.

There is also additional labour market information on each occupation, such as average income, employment growth, unemployment rate, and projected growth in employment, based on data collated by other agencies (e.g. Department of Jobs and Small Business).

A richer way to explore career pathways

The world of work has never been so expansive. Big data provides *myfuture* users with information about career pathways that is authentic and will be useful for a future which may include several roles. Our updated method has enhanced our existing provision of career information, combining with Australian Labour Market data to provide a rich index of outcomes to our users. Most importantly, the approach gives our users a richer way of exploring their careers and enables them to be ready for the potential challenges they may face.



Explore and download all myfuture *Insights* papers via the teacher and career practitioners and/or parents and carers pages at www.myfuture.edu.au

Got a question?

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Further reading

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