

Chris Whelan

# The Role Universities Can Play in Supporting the State Sector

## Introduction

Over recent decades most of the developed world has invested significantly in lifting the proportion of the population that has a tertiary education, with a view to increasing what is commonly referred to as human capital. The OECD defines human capital as ‘the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being’ (OECD, 2001).

New Zealand spends around 1% of its GDP on tertiary education (OECD, 2014) and has seen a significant rise in the proportion of the population with a tertiary qualification over the past couple of decades. In 1991, 8.2% of the working-

age population had a degree at bachelor’s level or higher (Statistics New Zealand, 1991). By 2013 this had risen to 26.1%. In 1991, having a degree was a way of differentiating oneself to an employer; now it is an expectation for many jobs, including an increasing number in the state sector. This article considers the educational profile of the state sector’s employees at the time of the 2013 census, and examines the ways universities are contributing to this profile and to lifting the human capital available to the state sector.

## Educational profile of the New Zealand state sector

The 2013 census provides the best single source of information on who is employed across the wider state sector. It counts everyone whose salary is primarily paid for by taxpayers or who is in the employ of a Crown entity of some sort. At the time of the 2013 census there were 287,577 people recorded as being employed in the state sector. This represented 14.4% of all New Zealanders in employment. Those 287,577 people were categorised as being employed under 690 distinct job titles, with at least

---

Chris Whelan is the Executive Director of Universities New Zealand – Te Pūkai Tara.

six people in each category. The 690 job titles do not necessarily match the job title people entered in the free text field when they filled out their census form. The census process tries to match responses to a set of standard job titles, first through an automated character recognition process and then through the best judgement of analysts at Statistics New Zealand.

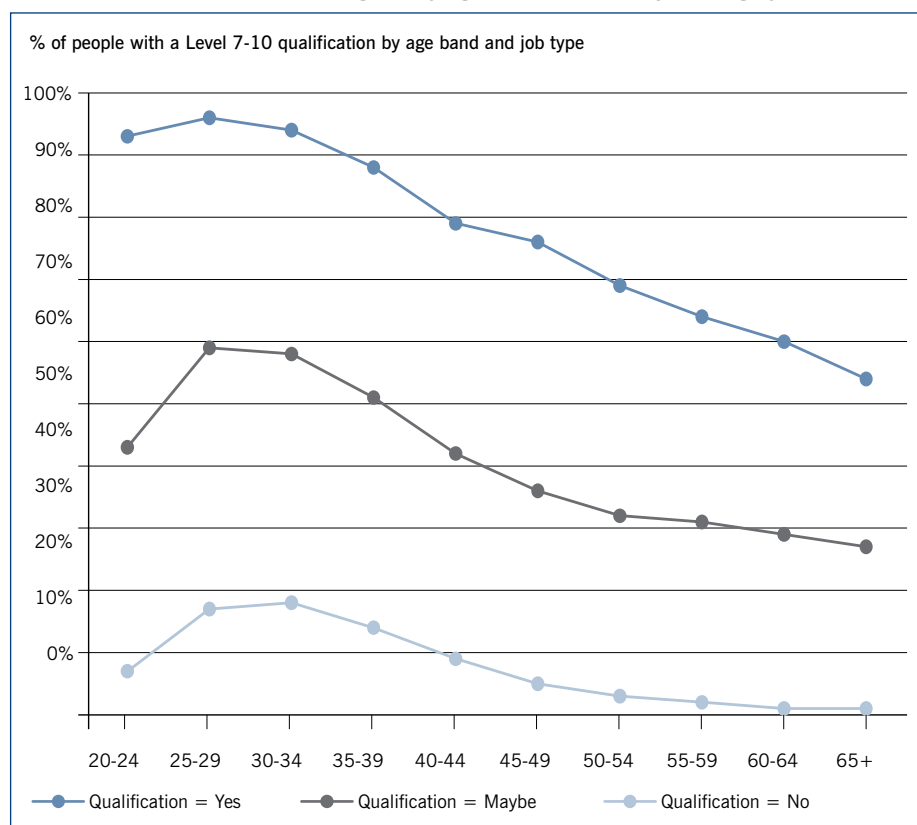
Given the size of the task, a few odd things creep in. For example, according to the census the public service in 2013 was employing six bed-and-breakfast operators, six butchers and small goods makers, nine taxi drivers, nine jewellers and 51 baristas. Notwithstanding this, four job titles account for 25% of all people employed in the wider state sector. They are: (1) primary school teacher; (2) secondary school teacher; (3) registered nurse; and (4) teachers' aide. Another 20 job titles then make up the next 25% of the state sector. These include: (5) general clerk (administrator); (6) university lecturer; (7) police officer; (8) office manager; (9) school principal; (10) policy and planning manager; and (18) policy analyst. The third 25% of all jobs include 68 job titles, and the last 25% 570 job titles.

All 690 job titles were then divided into three categories:

1. jobs where a tertiary qualification is generally a professional requirement: for example, teacher, nurse and university lecturer. In the wider state sector 49% of all people are in these roles, under 195 job titles;
2. jobs where a tertiary qualification is common but many people are doing them without a qualification: for example, computer programmer, project manager, policy analyst, policy and planning manager, and chief executive. In the wider state sector 27% are in these roles, under 160 job titles;
3. jobs where a tertiary qualification is not a requirement: for example, police officer, non-commissioned defence personnel, fire service officer, gardener, administrator. In the state sector 24% are in these roles, under 335 job titles.

Figure 1 shows what percentage of people in each of the three categories had a degree-level qualification in 2015

**Figure 1 Percentage of the state sector with a degree level qualification (Level 7 bachelor's or higher) by age band and broad job category.**



by five-year age brackets. A degree-level qualification is a qualification at level 7 (bachelor's level) or higher. A level 8 qualification is at honours level, a level 9 qualification is at master's level, and a level 10 qualification is at PhD or doctorate level.

As can be seen, most of those aged 25–29 in jobs where a tertiary qualification would be expected do in fact have a qualification, but this falls away to 70% or lower for those aged 60 and over. This supports the view that more and more professions have adopted tertiary qualifications as an entry requirement over time. For example, 24% of the 1,119 chief executives working in the wider state sector in 2013 did not have a tertiary qualification, but a large majority of those were over 50 years of age.

Why is the top line not at 100% if it represents jobs that theoretically require a tertiary qualification? Looking at the actual census information, the answer appears to be a combination of how the census data has been aggregated and how individuals have represented their job and their qualification level. For example, there are six people who are listed as university lecturers but who are

listed as not even holding a high school qualification.

As can also be seen, the numbers of people with tertiary qualifications in the other two job categories have also increased over time, as qualifications have increasingly become a professional requirement, a way for job applicants to stand out, or a way for people to pursue longer-term career opportunities. For example, 31% of the wider state sector's personal assistants, secretaries and receptionists had a tertiary qualification in 2013, 17% at certificate or diploma level and 14% at degree level.

Another question is whether New Zealand is overqualifying its workforce. Table 1 takes just the cohort employed in the wider state sector who were aged 25–34 at the time of the 2013 census.

This cohort is spread across just 368 distinct jobs, with 37.2% in jobs where a tertiary qualification is generally expected, 33.7% in jobs where the need for a qualification varies, and 29.1% in jobs where a qualification is not required. 86.7% of those with a tertiary qualification in this cohort have one at level 7 (bachelor's) or above. This can be compared to the wider New Zealand

**Table 1: State sector employees aged 25-34 by job qualification requirement.**

| Qualification requirement                         | Jobs       |               | People        |               |                   |                 |
|---------------------------------------------------|------------|---------------|---------------|---------------|-------------------|-----------------|
|                                                   | # of Jobs  | % of Jobs     | # of People   | All People    | Lvl 4-6 cert/dipl | Lvl 7-10 degree |
| Tertiary Qualification Expected                   | 137        | 37.2%         | 24,621        | 52.2%         | 2.7%              | 63.5%           |
| Need for qualification varies                     | 124        | 33.7%         | 14,445        | 30.6%         | 5.0%              | 19.9%           |
| Qualification not required                        | 107        | 29.1%         | 8,094         | 17.2%         | 5.6%              | 3.3%            |
| <b>Totals</b>                                     | <b>368</b> | <b>100.0%</b> | <b>47,160</b> | <b>100.0%</b> | <b>13.3%</b>      | <b>86.7%</b>    |
| Qualification <i>not required but may pathway</i> | 34         |               | 4,089         |               | 3.5%              | 2.0%            |
| Probably overqualified for their job              |            |               | 4,005         |               | 2.1%              | 1.3%            |

**Table 2: Subjects that NZ state sector employees have qualifications in by broad age band.**

| Field of Study<br>(Lvl 7-10) | Wider State Sector |           |           |         | All NZ   |
|------------------------------|--------------------|-----------|-----------|---------|----------|
|                              | Age 20-34          | Age 35-44 | Age 45-54 | Age 55+ | All ages |
| Sciences                     | 4.70%              | 6.40%     | 7.40%     | 8.90%   | 5.85%    |
| ICT                          | 0.10%              | 0.30%     | 0.40%     | 0.20%   | 4.52%    |
| Engineering                  | 0.30%              | 0.60%     | 1.00%     | 0.60%   | 4.39%    |
| Building                     | -                  | 0.20%     | 0.10%     | 0.10%   | 1.68%    |
| Agriculture, etc             | -                  | 0.10%     | 0.20%     | 0.10%   | 1.25%    |
| Medicine & veterinary        | 39.90%             | 27.50%    | 25.90%    | 21.80%  | 16.43%   |
| Education                    | 35.30%             | 39.30%    | 36.50%    | 36.00%  | 16.25%   |
| Business/accounting          | 3.40%              | 5.30%     | 7.00%     | 5.00%   | 30.65%   |
| Law                          | 2.00%              | 2.20%     | 1.80%     | 2.30%   | 1.95%    |
| Economics                    | 0.70%              | 0.80%     | 0.90%     | 0.60%   | 0.97%    |
| Political Science            | 1.20%              | 1.10%     | 0.70%     | 0.60%   | 0.99%    |
| Other - Arts                 | 9.40%              | 14.00%    | 15.90%    | 21.90%  | 9.06%    |
| Creative Arts                | 2.90%              | 2.30%     | 2.10%     | 1.90%   | 5.88%    |
| Food & Hospitality           | -                  | -         | -         | -       | 0.13%    |

population where the proportion with sub-degree tertiary qualifications (19% of the population) is approximately the same as that with degree-level tertiary qualifications (20% of the population).

Of the 107 jobs where a tertiary qualification almost certainly would not be required, 34 are jobs such as farmer, retail manager, police officer, fire service officer, and non-commissioned defence force personnel, although for many of these groups a qualification might potentially open up future opportunities. There are 4,089 people in this category (the second-to-last row of Table 1). The other 73 jobs where a degree-level

qualification almost certainly would not be required include roles such as carpenter, motor mechanic, fitter, gardener and green keeper. On the face of it these jobs have fewer progression opportunities for people with a qualification. There are 4,005 people with tertiary qualifications in these roles, 1.3% (52) of whom have level 7 (bachelor's) or higher degrees. These are shown in the bottom row of Table 1.

Table 2 shows what subjects people qualified in across the wider state sector and how that compares with New Zealand generally. Each column in the table adds to 100%, and it shows the percentage of the wider state sector (and New Zealand)

by broad age band and broad field of study.

Narrowing the focus down to people identified as being in policy roles in the wider state sector, the census lists 771 policy analysts and 510 policy and planning managers. Given the methodology used to collate the census, it's not certain that all 1,281 of these people were actually working in policy roles in central government, but, assuming a large majority were, it is interesting to see what level they qualified at and what they studied. Table 3 shows their highest qualification level. A large majority are qualified at degree level, but a significant proportion are not. Many of those aged under 40 in policy roles without a degree-level qualification are likely to be found in the defence forces, police, courts, and other departments where people have progressed over time after starting at the department or agency in an operational role.

Table 4 shows the subjects policy analysts and policy and planning managers studied at tertiary level. It is notable that political science and arts graduates make up a little over half (50.8%) of all state sector policy analysts and policy and planning managers under the age of 35. Looking more broadly at the census, 27% of New Zealand's degree-qualified 30-34-year-old arts graduates were working in the wider state sector in 2013.<sup>1</sup> By contrast, only 25% of political science graduates were working in the wider state sector. The single largest concentration of arts graduates is in the teaching profession.

#### What are universities doing to prepare graduates for work in the wider state sector?

On best estimates, 26% of New Zealanders with a degree (level 7 or higher) are working in the wider state sector.<sup>2</sup> Despite the government being such a large employer, universities only have a few specific programmes aimed explicitly at preparing graduates for the public service:

- Victoria University of Wellington operates the School of Government which provides a range of short-block training courses and longer-term professional development

**Table 3: Highest qualification by age band of Policy Analysts and Policy & Planning Managers.**

| Highest Qualification     | 25-29      | 30-34      | 35-39      | 40-44      | 45-49      | 50-54      | 55-59      | 60-64      | 65+        |
|---------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| No Qualification          | 0%         | 1%         | 1%         | 1%         | 2%         | 2%         | 1%         | 5%         | 13%        |
| High School Qualification | 7%         | 11%        | 13%        | 16%        | 20%        | 20%        | 19%        | 15%        | 18%        |
| Level 4 Certificate       | 0%         | 2%         | 2%         | 4%         | 4%         | 5%         | 7%         | 5%         | 7%         |
| Level 5/6 Diploma         | 3%         | 2%         | 6%         | 8%         | 11%        | 13%        | 13%        | 14%        | 15%        |
| Level 7 Bachelors         | 44%        | 36%        | 30%        | 29%        | 27%        | 23%        | 21%        | 21%        | 21%        |
| Level 8 Honours           | 24%        | 19%        | 17%        | 16%        | 11%        | 13%        | 11%        | 11%        | 9%         |
| Level 9 Masters           | 21%        | 26%        | 25%        | 22%        | 20%        | 20%        | 23%        | 24%        | 15%        |
| Level 10 PhD              | 0%         | 2%         | 4%         | 4%         | 5%         | 6%         | 4%         | 5%         | 3%         |
| <b>TOTAL Level 7-10</b>   | <b>90%</b> | <b>84%</b> | <b>77%</b> | <b>71%</b> | <b>63%</b> | <b>61%</b> | <b>60%</b> | <b>62%</b> | <b>47%</b> |

programmes weighted towards postgraduate study for people already in the public sector.

- Universities provide the initial education of the teachers, doctors and other professionals who are predominantly employed by the state sector. The same universities offer a range of continuing education programmes for the same professions.
- Most universities offer some programmes, focused around political science departments, aimed at developing knowledge about the machinery of government and policy development.

Universities face challenges in doing more in preparing graduates for work in the state sector. In part this is due to the large range of jobs and skill requirements in the different parts of the state sector. It is also due to the fact that there are few standard qualifications for working for central government, and to the lack of any significant workforce planning or standard educational pathways into the majority of jobs.

Despite this, universities are doing a lot to improve overall graduate employability for all sectors and industries. The government's Tertiary Education Strategy 2014–2019 places a strong priority on universities producing employable, work-ready graduates. There is also an expectation that those graduates will be in numbers that broadly correspond to industry demand. The expectations of students are similarly clear. University students want credentials and a university

**Table 4: Subjects studied by tertiary qualified Policy Analysts and Policy & Planning Managers in broad age bands.**

| Broad Field of Study     | Age Band      |               |               |               |
|--------------------------|---------------|---------------|---------------|---------------|
|                          | 20-34         | 35-44         | 45-54         | 55+           |
| Sciences                 | 4.3%          | 6.8%          | 8.5%          | 3.4%          |
| Information Technology   | 2.0%          | 2.8%          | 2.0%          |               |
| Engineering              | 8.6%          | 9.9%          | 10.8%         | 12.8%         |
| Architecture & Building  | 0.7%          | 0.9%          | 2.3%          | 2.5%          |
| Agriculture & Forestry   | 1.3%          | 2.1%          | 1.7%          |               |
| Medicine & Veterinary    | 1.0%          | 1.6%          | 2.8%          | 7.4%          |
| Education & Teaching     | 1.0%          | 5.6%          | 5.4%          | 11.8%         |
| Finance & Accountancy    | 13.6%         | 22.8%         | 30.0%         | 23.6%         |
| Law                      | 14.0%         | 8.5%          | 5.4%          | 2.0%          |
| Economics                | 1.0%          | 1.6%          | 2.0%          |               |
| Political Science        | 24.6%         | 12.0%         | 7.9%          | 7.9%          |
| Other Arts               | 26.2%         | 23.8%         | 20.7%         | 28.6%         |
| Creative Arts            | 1.7%          | 1.4%          | 0.6%          |               |
| Food & Hospitality       |               |               |               |               |
| <b>Total by Age Band</b> | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> |

experience that will make them stand out to potential employers and will lead to meaningful careers and successful lives. A substantial proportion of students are also mature students, coming to university part way into their career. They are generally wanting qualifications that will either help remove perceived barriers to progressing through their career or help them to change career. Universities are doing a lot to meet these expectations.

In 2013 university students were enrolled in one of three types of university programme. These were:

- Profession-led programmes (28%) in subjects such as accounting, law, architecture, engineering, medicine and teaching. These programmes are all accredited by an industry body acting under a statutory authority and often in conformance to international standards. Each profession has a similar body which consults widely with its members and the organisations that employ its members to ensure that the education programmes that produce its members are

Table 5: Percentage of graduates who are unemployed 7 years out of study (by level of study &amp; broad field of study)

| Broad Field of Study                         | Level 1-3  | Certificates<br>(Level 4) | Diplomas<br>(Level 5-6) | Bachelor's<br>(Level 7) | Honours<br>(Level 8) | Master's<br>(Level 9) | PhDs<br>(Level 10) |
|----------------------------------------------|------------|---------------------------|-------------------------|-------------------------|----------------------|-----------------------|--------------------|
| Natural and Physical Sciences                | 3%         | 4%                        | 5%                      | 1%                      | 2%                   | 2%                    | 0%                 |
| Information Technology                       | 23%        | 11%                       | 7%                      | 1%                      | 2%                   | 0%                    |                    |
| Engineering and Related Technologies         | 7%         | 9%                        | 3%                      | 3%                      | 1%                   | S                     | 0%                 |
| Architecture and Building                    | 10%        | 5%                        | 2%                      | 3%                      | S                    | S                     |                    |
| Agriculture, environment and related studies | 12%        | 15%                       | 2%                      | 1%                      | 0%                   | S                     |                    |
| Health                                       | 8%         | 7%                        | 4%                      | 0%                      | S                    | S                     | 0%                 |
| Education                                    | 11%        | 16%                       | 4%                      | 1%                      | S                    | 0%                    |                    |
| Management and Commerce                      | 15%        | 10%                       | 4%                      | 1%                      | 1%                   | S                     |                    |
| Society and Culture                          | 12%        | 9%                        | 8%                      | 2%                      | 2%                   | 3%                    | 0%                 |
| Creative Arts                                | 10%        | 11%                       | 7%                      | 4%                      | 7%                   | 4%                    |                    |
| Food, Hospitality and Personal Services      | 17%        | 13%                       | 8%                      |                         |                      |                       |                    |
| <b>Total Students</b>                        | <b>14%</b> | <b>10%</b>                | <b>6%</b>               | <b>2%</b>               | <b>1%</b>            | <b>2%</b>             | <b>0%</b>          |

S = suppressed (the number of graduates is so low that the number has been withheld to avoid identifying individuals)

appropriate. For example, the Institution of Professional Engineers New Zealand (IPENZ) is responsible for registering all engineers who work in New Zealand under powers contained in the Chartered Professional Engineers of New Zealand Act 2002. As part of registering engineers, it assesses and accredits the programmes that educate engineers.

- Industry-focused programmes (53%) in subjects such as the sciences, computing, agriculture, forestry, commerce, marketing, finance, library studies, journalism, economics, sports and recreation, the performing arts, graphic design, and food and hospitality. These programmes are delivered with employment in a particular industry (such as agriculture) or industry function (such as technology or finance) in mind. The programmes are typically delivered by a mix of practitioners and academic staff who have either come from an industry background or work with industry consulting or researching.
- Other programmes (19%) in subjects such as history, philosophy, literature and modern languages.

These subjects are often referred to collectively as 'arts' subjects.

The 'other', arts category is popularly perceived as leading to poor employment outcomes for graduates. In fact, outcomes are not significantly dissimilar to those of other graduates. Looking only at 30–34-year-old arts graduates with a level 7 (bachelor's) or higher degree at the time of the 2013 census, 88% were in a job that, on the face of it, probably needed a degree. There is a common belief that arts graduates end up working as baristas or behind the fat fryer at the local McDonald's. For this particular cohort, only 2.4% of them were in jobs such as waiter, cook or sales assistant.

Table 5 shows data from the Ministry of Education's 2014 report *What Young Graduates Earn When they Leave Study* (Ministry of Education, 2014). It shows the percentage of graduates on an unemployment benefit seven years after graduating.

As table 5 shows, unemployment rates for graduates at level 7 and above are well below the unemployment rates for those with lower-level qualifications. The figures in the column for level 1–3 graduates refer to those who have only a high school qualification or equivalent at NCEA levels 1–3.

A similar trend can be seen with earnings. Table 6 shows age-standardised

annual income of people in employment between the ages of 25 and 65 by a mix of broad and narrow fields of study, by level of study at the time of the 2013 census.<sup>3</sup>

By way of contextualising this information, the most recent New Zealand Income Survey (June 2014 quarter) lists median wage and salary income from all sources as \$863 per week, or \$44,876 per year. Note too that New Zealand universities do not offer degree-level qualifications in alternative health or hospitality and food subjects. Though there is significant variation between the different subjects, it is interesting to see that people with PhDs earn an average of 16% more than master's graduates, who earn 4% more than honours graduates, who earn 9% more than bachelor's graduates, who earn 35% more than diploma graduates, who in turn earn 15% more than certificate graduates and school leavers. Of course, these averages vary significantly from individual to individual and between subjects. In general, degree holders (level 7 and above) can expect to earn another \$1.3m over their working lives than people with only a high school qualification.

There is limited information on how these statistics compare with those for graduates in other countries. Table 7 shows graduate unemployment rates and



**Table 6: Age-standardised annual average income of state sector employees in 2013**

| Mixed Narrow & Broad Fields of Study | Lvls 1-3 (School) | Lvl 4 (Certificate) | Lvl 5 (Diploma) | Lvl 7 (Bachelor's) | Lvl 8 (Honours) | Lvl 9 (Master's) | Lvl 10 (PhD) |
|--------------------------------------|-------------------|---------------------|-----------------|--------------------|-----------------|------------------|--------------|
| Sciences                             | 33,612            | 35,889              | 40,610          | 47,757             | 52,658          | 52,638           | 66,362       |
| ICT                                  | 29,903            | 30,731              | 44,553          | 56,441             | 66,946          | 56,776           | 71,476       |
| Engineering                          | 44,315            | 47,698              | 55,900          | 60,998             | 70,332          | 66,165           | 76,660       |
| Architecture & Building              | 43,791            | 44,401              | 47,308          | 52,511             | 62,075          | 53,427           | 49,103       |
| Agriculture & Forestry               | 36,448            | 40,104              | 45,310          | 50,866             | 51,955          | 51,703           |              |
| Health Other (incl nursing)          | 30,338            | 28,281              | 36,442          | 43,382             | 51,184          | 53,718           | 63,095       |
| Medical (incl Doctors)               |                   | 31,697              | 42,416          | 86,642             | 100,026         | 92,459           | 109,808      |
| Dental                               | 33,600            | 33,452              | 39,666          | 62,691             | 60,514          | 88,610           | 78,802       |
| Veterinary                           | 28,573            | 30,493              | 27,837          | 63,378             | 53,638          | 49,281           | 59,955       |
| Alternative Health                   | 16,011            | 27,233              | 23,615          | 23,696             | 32,107          | 37,227           |              |
| Education                            | 28,065            | 26,052              | 35,083          | 43,938             | 46,419          | 47,644           | 62,272       |
| Business & Accounting                | 35,584            | 37,144              | 46,086          | 62,977             | 62,694          | 66,653           | 73,558       |
| Arts                                 | 27,061            | 29,549              | 34,263          | 40,401             | 45,463          | 47,246           | 58,476       |
| Political Science                    |                   |                     | 39,110          | 49,903             | 59,999          | 64,871           | 69,482       |
| Law                                  | 45,203            | 40,692              | 46,625          | 76,484             | 81,107          | 83,354           | 73,103       |
| Economics                            |                   |                     | 37,585          | 57,813             | 70,938          | 66,511           | 86,307       |
| Creative & Performing Arts           | 30,931            | 30,669              | 33,804          | 34,816             | 40,643          | 41,606           | 45,789       |
| Hospitality & Food                   | 28,577            | 31,842              | 31,915          | 38,232             | 32,371          |                  |              |

earnings for New Zealand, the United Kingdom and Australia. Comparisons in Table 7 are indicative only, as each country uses slightly different measures or definitions. Graduate information is for bachelor's level graduates four months after graduation for Australia (and limited to graduates who were under 25 years of age and in their first full-time employment in Australia), six months after graduation for the United Kingdom and Australia, and one year after graduation for New Zealand.

The issue of New Zealand's comparatively low median earnings has been extensively analysed in past studies (for example, Zuccollo et al., 2013). Nevertheless, this country's graduate employment rates and earnings relative to the national median for salary and wage earners is good by international standards. One factor in the success of the New Zealand university system in this area is how New Zealand universities collectively oversee the approval of new programmes and monitor the quality of existing programmes.

**Table 7: Indicative comparison of employment outcomes<sup>4</sup>**

| Measure                                               | New Zealand       | United Kingdom    | Australia        |
|-------------------------------------------------------|-------------------|-------------------|------------------|
| Graduate unemployment rate                            | 2% (2012)         | 6.7% (2012/13)    | 11.6% (2014)     |
| Graduate median salary                                | NZ\$37,959 (2012) | £20,000 (2012/13) | \$A52,500 (2014) |
| Graduate median salary in \$NZ (approx.)              | NZ\$37,959        | NZ\$45,900        | NZ\$58,800       |
| National median salary                                | \$41,900 (2012)   | £26,500 (2012)    | \$A57,400 (2011) |
| National median salary in \$NZ (approximate)          | NZ\$41,900        | NZ\$60,900        | NZ\$64,300       |
| Graduate median salary as % of national median salary | 90.6%             | 75.4%             | 91.4%            |

How does this work? Any time a university wants to add or change a programme it has to put a proposal through a pan-university body, the Committee on University Academic Programmes (CUAP). CUAP meets four times a year and its membership includes one senior academic staff member from each of the universities. CUAP can challenge new programmes or changes to programmes only on quality grounds.

The sorts of things CUAP considers include:

- Is the programme quality and duration consistent with what other universities offer at that level?
- Have relevant employers or industry bodies been consulted and are they supportive of the proposal?
- Is there any chance of confusing or misleading students as to the content

of the programme or what skills and capabilities they will gain through it?

- Has the programme got feedback mechanisms in place (including with employers and graduates) to ensure that graduate outcomes are being realised.

Once CUAP is satisfied that all quality standards have been met, the programme or qualification is approved. Once approved, all programmes are subject to a graduating-year review. In a graduating-year review, the actual outcomes for graduates are tested against the original objectives. This includes talking with employers and graduates and may lead to the programme being redesigned where

interpersonal skills, understanding how business operates and time management. This study matches the findings of similar research carried out internationally (for example, Gray and Koncz, 2014; GMAC, 2015, p.26).

All New Zealand university graduate profiles now include a mix of desired skills, knowledge and capabilities. For example, the graduate profile of a Bachelor of Arts programme is shown below. (This real-world example was approved by CUAP during 2014.)

**Bachelor of Arts programme graduate profile**

- Demonstrate knowledge of the major concepts and theoretical perspectives

problem-solving, creativity and reflection.

- Apply quantitative and qualitative analysis and reasoning skills.
- Demonstrate information and digital literacy through the use of a range of appropriate tools or methods to locate, access, evaluate or present information.
- Integrate and apply their knowledge and skills in responding to unfamiliar or new situations within the practice/professional context.
- Work effectively in teams and with people from other linguistic and cultural backgrounds in a range of collaborative contexts.
- Communicate effectively in a variety of formats, both oral and written.
- Develop time-management practices to manage competing demands.

The Office of the Chief Scientist in Australia recently published a survey of employers of science, technology, engineering and mathematics ... graduates ... which found that occupation-specific technical skills rated only eighth of 13 skills and attributes.

objectives are not being met.

This process is built around each qualification having a graduate profile. A graduate profile details the skills, knowledge and capabilities that a graduate should possess if they complete the programme successfully. Capabilities are the more generic competencies sought by employers, such as critical thinking, critical reasoning and the ability to work well with others. Often employers rate these capabilities above technical skills. The Office of the Chief Scientist in Australia recently published a survey of employers of science, technology, engineering and mathematics (STEM) graduates (Prinsley and Baranyai, 2014) which found that occupation-specific technical skills rated only eighth of 13 skills and attributes. They were below the more general capabilities of learning on the job, critical thinking, complex problem-solving, creative problem-solving,

in their chosen field of study.

- Demonstrate an ability to make connections between knowledge from more than one discipline or field of study.
- Work autonomously and take responsibility for their own learning and development.
- Consider broad social and cultural perspectives in relation to their chosen field of study and area of professional practice.
- Demonstrate an awareness of the ethical responsibilities and challenges in their community of practice.
- Demonstrate an understanding of Aotearoa New Zealand culture and society from the perspective of the Treaty of Waitangi, biculturalism and multiculturalism.
- Use critical thinking skills and strategies that facilitate understanding, explanation, critique,

Since the 1980s a combination of internal assessment, student fees and tighter conditions around student living allowances have led to students spending more of their university life in the library and classroom and less participating in clubs and societies and involved in other social activities. The increased focus on graduate employment outcomes has served to push back at this trend somewhat. As mentioned in the introduction, the proportion of people in New Zealand with a degree has more than tripled since 1991. Having a degree was once a way of differentiating oneself to an employer, where now it is an expectation. Employers now are using the broader capabilities and experiences of graduate applicants to shortlist who gets an interview.

All universities are now encouraging students to travel or study abroad. Students are encouraged to learn a language. Arts graduates are encouraged to develop technology and numeracy skills. Students are encouraged to get involved in clubs and to take on leadership roles. Increasing numbers of students are undertaking internships or work placements, and all students are being encouraged to get work referees who can speak to the skills and capabilities that will be relevant to future employers. To give one example, Auckland University of Technology reported that

80% of its bachelor-level graduates in 2014 had done a work placement during their studies and 30% of those graduates had been offered an ongoing job in the placement organisation.

### Conclusion

This analysis suggests a couple of areas that would warrant further policy analysis. The government is both the largest purchaser and the largest supplier of graduates. At present the government indirectly influences the profile of these graduates, firstly through general expectations that all graduates will be employable, and secondly through the professional standards bodies that oversee the education provided to the 28% of

student's training for professions such as teaching and accounting. At a time when the government is seeking to lift human capital with a view to increasing innovation and national productivity, should parts of the government take a more active involvement in shaping graduate profiles where they are employing large numbers of graduates in non-professional discipline areas?

As the largest employer of graduates, the government has been contributing to national 'qualification creep', where a degree is seen as a requirement for more and more jobs. There would be value in further analysis to ascertain if the government is overqualifying employees in certain areas.

- 1 For the purposes of this statement, arts graduates are all people recorded as having studied anything in the NZSCED 'society and culture' fields of study, excluding law, economics and political science.
- 2 According to the 2013 census figures there were 553,797 25–64-year-olds with a level 7 or higher qualification in New Zealand and 143,415 of those were working in the state sector.
- 3 The age distribution of individuals varies between each subpopulation (characterised by field and level of study). To make the income averages of different subpopulations directly comparable, each income average was adjusted for age – that is, age-standardised. The age-standardised income averages were computed by taking a weighted sum of the age-specific averages within each subpopulation, using weights derived from the age distribution of a reference (or standard) population. The pooled population (which includes all individuals present in New Zealand at the time of the 2013 census) was chosen as the reference population.
- 4 New Zealand graduate unemployment rates are from Ministry of Education, 2014. United Kingdom statistics come from <https://www.hesa.ac.uk/stats-dlhe>; also <https://www.hesa.ac.uk/pr207>. The unemployment statistic relates to full-time first degree leavers 'unemployed and looking for work'. Australian statistics come from [http://www.graduatereports.com.au/wp-content/uploads/2014/12/GCA\\_GradStats\\_2014.pdf](http://www.graduatereports.com.au/wp-content/uploads/2014/12/GCA_GradStats_2014.pdf).

### References

- GMAC (2015) *Corporate Recruiters Survey, 2015 Survey Report*, Graduate Management Admission Council, <http://www.gmac.com/market-intelligence-and-research/research-library/employment-outlook/2015-corporate-recruiters-survey-report.aspx>
- Gray, K. and A. Koncz (2014) 'The skills/qualities employers want in new college graduate hires', National Association of Colleges and Employers, <http://www.nacweb.org/about-us/press/class-2015-skills-qualities-employers-want.aspx>
- Ministry of Education (2014) *What Young Graduates Earn When they Leave Study*, tertiary education occasional paper 2014/02, Wellington: New Zealand Government
- OECD (2001) *The Well-being of Nations: the role of human and social capital*, 2001, Paris: OECD
- OECD (2014) *Education at a Glance 2014*, Paris: OECD
- Prinsley, R. and K. Baranyai (2014) *STEM Workforce*, Canberra: Office of the Chief Scientist
- Statistics New Zealand (1991) *Household Labour Force Survey*, Wellington: Statistics New Zealand
- Zuccollo, J., S. Maani, B. Kaye-Blake and L. Zeng (2013) *Private Returns to Tertiary Education: how does New Zealand compare to the OECD?*, working paper, Wellington: New Zealand Treasury

## Upcoming Event

*This is a very special event being run by the IGPS and the VUW School of Geography, Environment and Earth Sciences*

**President Nakao of the Asian Development Bank will be sharing his insights on New Zealand's role in the Asia-Pacific economy and will be highlighting some of the key trends that the region faces.**



Takehiko Nakao, President, Asian Development Bank



**Monday 31st August – 12:30 – 1:30pm**

**Old Government Buildings**

**Lecture Theatre One**

**RSVP to [igps@vuw.ac.nz](mailto:igps@vuw.ac.nz)**

**Institute for Governance and Policy Studies**

A research institute of the School of Government



**School of Government Announces our recent PhD graduates Dr Verna Smith and Dr Germana Nicklin**



SCHOOL OF GOVERNMENT  
Te Kura Kāwanatanga