Briefing Note: New Zealand's tertiary education workforce – 2017 annual data

To: Hon Chris Hipkins, Minister of Education
Date: 20 July 2018
Priority: Medium
Security Level: In Confidence
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Round robin: No
Messaging seen by Communications team: Yes

Purpose of the report

The purpose of this paper is to brief you on three factsheets on the tertiary education workforce and to:

Note that the factsheets and associated tables will be published on 2 August on the Education Counts website

Note that this briefing will be proactively released.

Summary

- These factsheets are the first publications to use annual workforce data provided to the Ministry of Education by tertiary education providers. Before 2016, the data collected and published was from a snapshot of the first week in August.

- The move to annual data gives a more accurate picture of the funded tertiary education workforce but does not substantively change the proportions of staff by age, gender, ethnicity or designation (job title/level).

- Overall the numbers of people in the tertiary education workforce of funded providers have remained stable.

- The workforce tends to be older than the total New Zealand workforce, evenly split over male and female (although not in senior university roles), largely self-identified as European and mostly full-time.

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Acting Group Manager, Tertiary Education
Graduate Achievement, Vocations and Careers
20/07/2018
Background

1. The Ministry has collected aggregate workforce data from government funded tertiary education providers for more than 15 years. In 2012, the Ministry expanded the data collection to include age and ethnic group. The data already included gender, full-time equivalent staff and broad designation groups.

2. In 2016, following a small trial in 2015, tertiary education providers began reporting annual data on the staff employed or contracted by them. Capturing annual data ensured that staff who worked at any time of the year were included in the counts from 2016.

3. While the shift to annual data improved the quality and completeness of the data collection, it increased compliance for providers (collecting and ensuring the data is accurate). Publication of these factsheets allows them to see their data at a sub-sector level.

What does the 2017 data show?

4. Overall the tertiary education workforce of funded providers remains stable. While there are small differences and changes within and between subsectors these usually reflect changing enrolment numbers, organisational restructures and (sometimes) differing interpretations of definitions for data provision, across years.

5. In 2017, public providers employed, or contracted, 46,100 staff (or 31,000 full-time equivalent staff) and funded private providers 7,540 staff (or 5,510 full-time equivalent staff).

Structure of the tertiary education workforce in 2017

6. The split of the workforce into academic and non-academic staff at polytechnics and universities changed by 1 to 2 percentage points from 2015 to 2017. In 2017, academic full-time equivalent staff comprised 52 percent at polytechnics and 34 percent at universities. Research-only staff at universities accounted for 6.1 percent of the total full-time equivalent staff in 2017.

7. While academic staff are structured in similar ways at universities, polytechnics and wānanga, the proportions in each academic designation are more evenly distributed at universities than at polytechnics and wānanga, where tutors represent about two-thirds of the academic staff.¹

8. Non-academic staff at universities and polytechnics are structured in similar ways, with a large advisory staff and smaller executive, general services and other staff.

9. While the annual return improves the capture of part-time staff it is not detailed enough to show any clear trends of any casualisation of the work force.

Age profile of the tertiary education workforce in 2017

10. The age profiles of academic staff at public providers were similar in 2017 and 2012, with 48 percent aged 50 years and over. This compared to 35 percent aged 50 years and over in the total New Zealand workforce.² Non-academic staff at public providers had a

¹ Information on private training establishments does not include data on the designations of staff.
² Data from the population censuses showed that 35 percent of the total workforce was aged 50 years in 2013.
younger age profile than the academic staff, with 36 percent aged 50 years and over in 2017.

**Ethnic profile of the tertiary education workforce in 2017**

11. While there were slightly more academic staff than non-academic staff whose ethnic group was unknown in 2017, the data now represents a large majority of the staff (over 80 percent).

12. In 2017, the majority of academic staff at universities, polytechnics and private training establishments identified as European, with small percentages of staff in the Māori, Pacific Peoples and Asian ethnic groups. At wānanga, 72 percent of academic staff were identified as Māori in 2017.

**Gender in the tertiary education workforce in 2017**

13. Data on gender is presented in each factsheet by age, ethnicity, full-time equivalent and by designation. In particular the small number of women in very senior roles at universities is clearly shown (26 percent as professors and 36 percent as associate professors). Some of the other differences shown are due to different designations across provider types and possibly due to different interpretations of the designations.

**Release of the fact sheets**

14. The Ministry will publish the fact sheets and associated tables on the Education Counts website on 2 August 2018.

**Proactive Release**

15. It is intended that this Briefing is proactively released as per your expectation that information be released as soon as possible. Any information which may need to be withheld will be done so in line with the provisions of the Official Information Act 1982.

Agree / Disagree

**Annex**

The three fact sheets are attached in Annex 1.
Structure of the tertiary education workforce in 2017

Introduction
This fact sheet describes the structure of the workforce at public tertiary education providers in 2017 by designation, full-time or part-time status and gender. It also examines distributional changes associated with the shift to full calendar year data in 2016. Up until 2016, the information on the workforce was based on a snapshot of staff employed in the first week of August.

Information on the age and ethnic groups of the tertiary education workforce is available in separate fact sheets.

Staff headcounts/full-time equivalent staff
There were 46,100 staff employed, or contracted, by New Zealand’s public tertiary education providers in the year ended December 2017. This number converted to 31,000 full-time equivalent staff. See Table 1.

The number of academic staff at universities, polytechnics and wānanga totalled 18,200 and there were 12,400 non-academic staff. The universities also had 1,825 research-only staff and 1,850 research support staff.

The academic staff headcount made up 34 percent of the total workforce at universities and the research-only and research support staff 12 percent. The academic staff headcount made up 51 percent at polytechnics and 58 percent at wānanga.

Private training establishments employed, or contracted, 7,540 staff in 2017. This number converted to 5,510 full-time equivalent staff. The academic staff headcount comprised 60 percent of the total staff at private training establishments.

Structure by designation: academic staff
The tertiary education sectors are impacted differently by changes in student enrolment trends and this is reflected in the numbers of their academic workforce. While the academic staff is structured in a similar way at universities, polytechnics and wānanga, the proportions in each academic designation are more evenly distributed at universities than at polytechnics and wānanga, where tutors represent about two-thirds of the academic staff. See Figure 1 on page 2.

Professors or associate professors made up 10 percent of the academic and research-only staff at universities and another 23 percent was made up by senior lecturers. The number of research-only staff, research fellows, and postdoctoral research fellows at universities has been increasing. These staff now comprise 15 percent of the total academic and research-only staff. In 2004, the Performance-Based Research Fund was introduced and this increased the focus on research.

Deans and heads of departments made up 4.3 percent of the academic staff at polytechnics and 2.8 percent at wānanga. See Figure 1 on page 2. Principal lecturers also made up a substantial proportion of the academic staff at polytechnics, at 17 percent. At wānanga, this group comprised 2.8 percent of the academic staff.

Lecturers comprised 14 percent of the academic and research-only staff at universities, while tutors comprised 69 percent of the academic staff at polytechnics and 64 percent at wānanga. The other academic staff accounted for 29 percent of the academic and research-only staff at universities. This compared to 31 percent at wānanga and 9.7 percent at polytechnics.

Table 1: Public tertiary education workforce by designation and sub-sector

<table>
<thead>
<tr>
<th></th>
<th>Academic</th>
<th>Research-only</th>
<th>Research support</th>
<th>Non-academic</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Staff headcount in 2017</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Universities</td>
<td>10,300</td>
<td>1,825</td>
<td>1,850</td>
<td>16,950</td>
<td>30,950</td>
</tr>
<tr>
<td>Polytechnics</td>
<td>6,600</td>
<td>15</td>
<td>15</td>
<td>6,320</td>
<td>12,960</td>
</tr>
<tr>
<td>Wānanga</td>
<td>852</td>
<td>10</td>
<td>0</td>
<td>930</td>
<td>2,220</td>
</tr>
<tr>
<td><strong>Total headcount</strong></td>
<td>18,213</td>
<td>1,955</td>
<td>1,845</td>
<td>24,210</td>
<td>46,140</td>
</tr>
<tr>
<td><strong>Full-time equivalent (FTE) staff in 2017</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Universities</td>
<td>7,225</td>
<td>1,285</td>
<td>735</td>
<td>11,910</td>
<td>21,160</td>
</tr>
<tr>
<td>Polytechnics</td>
<td>4,255</td>
<td>10</td>
<td>15</td>
<td>3,895</td>
<td>8,150</td>
</tr>
<tr>
<td>Wānanga</td>
<td>980</td>
<td>10</td>
<td>0</td>
<td>735</td>
<td>1,725</td>
</tr>
<tr>
<td><strong>Total FTE staff</strong></td>
<td>12,440</td>
<td>1,365</td>
<td>750</td>
<td>16,540</td>
<td>31,035</td>
</tr>
</tbody>
</table>

Note: Data has been rounded to the nearest five.

1 Universities, polytechnics and wānanga.
2 Lecturers, executive staff, librarians, computer staff, general services staff, and so on.
3 This full calendar year data includes staff who work for any part of the year.
4 The analysis of the workforce structure from 2016 to 2017 is based on the number of full-time equivalent staff.
5 Comprises research-only staff, research fellows and postdoctoral research fellows.
6 While private training establishments, who receive government funding, are required to provide information on their workforce, the information provided does not include data on the designations of staff.
7 For more information on tertiary education research funding see Ministry of Education (2017) (Policy & Trends 2017). New Zealand tertiary education research, Wellington: Ministry of Education.
Structure by designation: non-academic staff

The non-academic staff is structured in a similar way at universities and polytechnics. See Figure 2. It comprises a large advisory staff with a smaller executive, general services and other staff. At wānanga, the executive staff was larger than advisory staff.

At universities, the executive staff accounted for 3.0 percent of the non-academic staff.7 This compared to 13 percent at polytechnics and 36 percent at wānanga. The executive staff numbered 515 at universities, 815 at polytechnics and 330 at wānanga.

The variations by sector in the composition of the non-academic staff are often the result of grouping their staff compared to universities. For example, the executive staff at universities comprises vice-chancellors, senior academic managers and senior managers, while at polytechnics and wānanga it is made up of the chief executive, or tumuaki, directors, managers, and directorate support staff.

The advisory and general support staff, which includes advisors, other support staff, information officers, clerical staff and computer staff, comprised 62 percent at universities, 41 percent at polytechnics and 33 percent at wānanga.

Staff in student services, such as welfare, registry and student administration, comprised 30 percent of the non-academic staff at universities and wānanga. This compared to 30 percent at polytechnics.

There was also variation between the sectors in the proportion of the non-academic staff designated as technicians. Technicians comprised just over 9 percent of the non-academic staff at universities compared to around 7 percent at polytechnics and under 1 percent at wānanga.

Caretakers, cleaners and general services staff accounted for 16 percent of the non-academic staff at wānanga and polytechnics. The comparable proportion was 11 percent at universities. Caretakers, cleaners and general services staff does not include the staff of other companies who provide these types of services to tertiary education providers.

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7 Excluding research support staff.

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Figure 1: Distribution of academic and research-only staff in 2017 by designation and sub-sector

Figure 2: Distribution of non-academic staff in 2017 by designation and sub-sector
Full-time/part-time: academic staff

Part-time employment was common for other academic staff at universities, and among tutors at polytechnics. Part-time employment of the academic staff was less common at wānanga.

In each sub-sector, the employment of part-time staff was most common for tutors, tutorial assistants and other academic staff. See Figure 3.

Twenty-nine percent (or 3,500) of the academic and research-only staff at universities were designated as other academic staff. These staff worked, on average, 0.42 of a full-time equivalent.

The employment of part-time staff at polytechnics was most common among tutorial assistants and other academic staff. These staff comprised about 10 percent (or 640) of the academic staff at polytechnics and they worked, on average, 0.40 of a full-time equivalent.

Most senior academic staff worked mainly full-time, although at universities some professors and associate professors worked part-time. Similarly, at universities and polytechnics some principal and senior lecturers worked part-time.

Research-only staff accounted for 15 percent of the total academic and research-only staff at universities. There was some part-time employment of these staff who worked, on average, 0.71 of a full-time equivalent.

Tutors accounted for 69 percent (or 4,540) of the academic staff at polytechnics. There was some part-time employment of polytechnic tutors and, on average, they worked 0.60 of a full-time equivalent.

At wānanga, deans, heads of department and principal and senior lecturers worked mainly full-time. Deans, heads of department and principal and senior lecturers made up 5.6 percent (70) of the academic staff at wānanga. Tutors made up 64 percent (810) and worked, on average, over 0.80 of a full-time equivalent. Tutorial assistants and other academic staff at wānanga made up 31 percent (or 300) of the academic staff. These staff worked, on average, 0.64 of a full-time equivalent.

Full-time/part-time: non-academic staff

The executive staff in each sub-sector worked mainly full-time. See Figure 4 on page 4. At wānanga, the advisory and other teacher support staff also worked mainly full-time. Non-academic staff at wānanga were mostly full-time, with the advisory and executive staff making up 85 percent of the total.

There was more part-time employment of advisory and other teacher support staff at polytechnics and universities. Advisory and other teacher support staff comprised 77 percent of total non-academic staff at universities and 71 percent at polytechnics. These staff worked, on average, 0.71 of a full-time equivalent at universities, and 0.61 of a full-time equivalent at polytechnics.

At universities, part-time employment was common among the research support staff.

In each sub-sector, part-time employment was also common for caretakers, cleaners and general services staff.

Gender: academic and non-academic staff

Fifty-one percent of the academic staff at public tertiary education providers were women. The figures were 49 percent at universities, 52 percent at polytechnics and 62 percent at wānanga.

Fifty-two percent of the research-only staff at public tertiary education providers were women. The figures were 51 percent at universities, 71 percent at polytechnics and 75 percent at wānanga.
Sixty-five percent of the non-academic staff at public tertiary education providers were women. The figures were 64 percent at universities, 67 percent at polytechnics and 71 percent at Wananga.

The proportion of women in senior academic roles at public tertiary education providers (see Table 2) was 27 percent for professors and deans, 39 percent for associate professors and heads of department and 48 percent for principal and senior lecturers.

Table 2: Workforce by gender, designation and sector in 2017

<table>
<thead>
<tr>
<th></th>
<th>Universities</th>
<th>Polytechnics</th>
<th>Wananga</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of women (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professors/deans</td>
<td>26</td>
<td>48</td>
<td>38</td>
<td>27</td>
</tr>
<tr>
<td>Assoc. professors/heads of department</td>
<td>36</td>
<td>51</td>
<td>68</td>
<td>39</td>
</tr>
<tr>
<td>Principals/senior lecturers</td>
<td>48</td>
<td>49</td>
<td>47</td>
<td>48</td>
</tr>
<tr>
<td>Lecturers/Instructors</td>
<td>56</td>
<td>51</td>
<td>60</td>
<td>53</td>
</tr>
<tr>
<td>Tutorial assistant/other academic staff</td>
<td>56</td>
<td>62</td>
<td>68</td>
<td>60</td>
</tr>
<tr>
<td>Research-only staff</td>
<td>51</td>
<td>71</td>
<td>75</td>
<td>52</td>
</tr>
<tr>
<td>Research support staff</td>
<td>57</td>
<td>59</td>
<td>na</td>
<td>50</td>
</tr>
<tr>
<td>Executive staff</td>
<td>41</td>
<td>62</td>
<td>79</td>
<td>59</td>
</tr>
<tr>
<td>Advisory and support staff</td>
<td>67</td>
<td>70</td>
<td>71</td>
<td>67</td>
</tr>
<tr>
<td>General services staff</td>
<td>48</td>
<td>61</td>
<td>61</td>
<td>52</td>
</tr>
</tbody>
</table>

Note: “Research-only staff” comprises research-only staff, research fellows and post-doctoral research fellows.

There were more women than men employed by public tertiary education providers (see Table 2) with the following designations: lecturer, tutor, tutorial assistant, other academic staff, research-only staff, research support staff, executive staff, advisory and support staff and general services staff. There was an exception to this at universities, where there were fewer women than men employed as executive staff and general services staff.

Figure 4: Number of non-academic staff (headcount and full-time equivalent) in 2017 by sub-sector

8 Excluding research support staff
Shift to annual data in 2016 and changes in workforce data

Summary of shift to annual data
This analysis is based on the number of full-time equivalent staff employed, or contracted, by public tertiary education providers. In 2016 these providers supplied full-year data for the first time. Previously their data was taken from a one-week snapshot in August of each year. Moving from snapshot to full-year data means that larger numbers of staff were captured as all staff working at any time during the year are now captured.

Academic and non-academic full-time equivalent staff by sub-sector can be seen in Figure 6. Academic staff at wānanga comprised 63 percent of total full-time equivalent staff in 2015, 49 percent in 2016 and 57 percent in 2017. At polytechnics and universities, academic and non-academic staff proportions shifted by only 1 to 2 percentage points from 2015 to 2017. Academic full-time equivalent staff comprised 52 percent at polytechnics and 34 percent at universities in 2017. Research-only staff at universities accounted for 6.1 percent of the total full-time equivalent staff in 2015 and in 2017.

The distribution of academic full-time equivalent staff by designation did not alter greatly from 2015 to 2017 at universities. One exception to this was an offsetting shift from research-only staff to research fellows in 2017. See Figure 5.

At polytechnics and wānanga, there were small changes from 2015 to 2017 in the distribution of academic staff by designation. See Figures 7 and 8 on page 6.

At wānanga, shifting to annual data in 2016 appears to be associated with distributional changes among non-academic full-time equivalent staff by designation. For example, student welfare staff comprised 3.6 percent in 2015, compared to 17 percent in 2016 and 8.1 percent in 2017. It is possible that these differences were methodological (definition or interpretation differences) rather than real. The distributional changes by designation in non-academic staff from 2015 to 2017 were smaller at polytechnics and universities than at wānanga.

Academic and research-only staff by designation
Academic and research-only full-time equivalent staff at universities in 2016 and 2017 (annual data) and 2015 (snapshot data) by designation can be seen in Figure 5. Shifting to annual data in 2016 did not alter the distribution of the university academic staff by designation very much.

The shift from research-only staff to research fellows in Figure 5 is the result of this information being separately collected from 2016 onwards.

Figure 6: Distribution of academic, non-academic and research full-time equivalent staff by sub-sector

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17 In 2011, the number of research staff was 25 at polytechnics and 10 at wānanga.
At polytechnics, shifting to annual data in 2016 was associated with small distributional changes to academic full-time equivalent staff by designation. Figure 7 shows that the proportion of senior academic staff was smaller in 2016 than in 2015 and the proportion of combined tutorial staff was larger. Combined tutorial staff comprised 67 percent of total full-time equivalent staff in 2015, compared to 70 percent in 2016 and 71 percent in 2017.

Non-academic staff by designation

The introduction of annual data in 2016, was associated with more distributional changes among non-academic full-time equivalent staff by designation at wānanga than at universities and polytechnics.

Wānanga

At wānanga, shifting to annual data in 2016 was associated with substantial differences in the distribution of non-academic full-time equivalent staff by designation. See Figure 9.

The number of student welfare staff at wānanga varied across years, comprising of 3.6 percent of the total non-academic staff in 2015, 17 percent in 2016 and 8.1 percent in 2017.

The proportion of non-academic staff designated as advisory and general support staff has varied substantially from 2015 to 2017. It comprised 28 percent in 2015, compared to 22 percent in 2016 and 37 percent in 2017.

Executive staff numbers have become smaller since 2015, comprising 46 percent in 2015, 43 percent in 2016 and 37 percent in 2017.

General services staff at wānanga comprised 18 percent of non-academic staff in 2015, 15 percent in 2016 and 13 percent in 2017.

Universities

Shifting to annual data was associated with small proportional changes to university non-academic full-time equivalent staff by designation. See Figure 10 on page 7.

The university executive staff and student welfare staff were slightly larger in 2016 and 2017 than in 2015.

Non-academic advisory and general support staff remained constant with 63 percent in 2015, 61 percent in 2016 and 62 percent in 2017.

\(^{13}\) Senior academic staff comprises deans, heads of department and principal lecturers. The combined tutorial staff refers to senior tutors, tutors, tutorial assistants and other academic staff.

\(^{14}\) Including research support staff.
Polytechnics
Shifting to annual data in 2016 was associated with small distributional changes to the polytechnics' non-academic full-time equivalent staff by designation. See Figure 11.

The proportions of general services staff and technical staff at polytechnics were larger in 2016 and 2017 than in 2015, while for advisory staff they were smaller. Advisory staff are the largest group within non-academic staff. They comprised 45 percent in 2015 and in 2017 the proportion was 39 percent.

Executive staff comprised 16 percent of non-academic staff at polytechnics in 2017, compared to 17 percent in 2015.

More about the data used in this fact sheet
The information presented here is based on data provided to the Ministry of Education by tertiary education providers. It refers to the number of staff employed, or contracted, for the year ended December 2017.

The tertiary education workforce consists of staff in technical and vocational education and training and in higher education. Academic staff refers to the people who teach and carry out research such as professors, deans, heads of department, lecturers, and tutors. Providers also supply information on the number of tutorial assistants, other academic staff and staff who carry out ‘research-only’ activities. At universities, other academic staff refers to other teaching or combined teaching/research staff. This group includes assistant lecturers, visiting academics, teaching fellows, etc.

Non-academic staff are the people who provide advice, support and management services.

A supporting set of statistical tables is available on the Ministry of Education's website: www.educationcounts.govt.nz/statistics/tertiary_education/resources.
Age profile of the tertiary education workforce in 2017

Introduction
Information on age groups has been collected for the tertiary education workforce since 2012. This fact sheet describes the 2017 age profile of the tertiary education workforce by sub-sector and gender. It looks at both academic and non-academic staff. To highlight age group movement we distinguish between those aged under and over 50 years.

Full-year information on the workforce was provided to the Ministry of Education by tertiary education providers for the first time in 2016. Before the shift to annual data, the information on the workforce was based on a snapshot of staff employed in the first week of August. Although the 'annual' and 'snapshot' staff numbers are not directly comparable, the proportions by broad age group provide insight into the age profiles of the tertiary education workforce in 2012 and 2017.

Information on ethnic groups and the structure of the tertiary education workforce is available in separate fact sheets.

Summary
The percentage of academic staff at public providers aged 50 years and over has remained relatively stable at 49 percent in 2012 and 2017.

At the sub-sector level, the proportion aged 50 years and over increased from 2012 to 2017 to 52 percent at polytechnics and 41 percent at wānanga. At universities, the proportion aged 50 years and over decreased from 2012 to 2017 to 46 percent.

Non-academic staff at public providers had a younger combined age profile than academic staff. In 2017, 36 percent of non-academic staff were aged 50 years and over. This compared to 37 percent in 2012.

At private providers the age profiles of academic and non-academic staff were similar in 2017. Thirty-eight percent of academic staff were aged 50 years and over, compared to 37 percent of non-academic staff.

Public tertiary education institutions

Academic staff
Forty-eight percent of the combined academic staff at public providers were aged 50 years and over in 2017 and 2012. Academic staff aged 30 to 49 years were most common, with 44 percent of the staff in this age group in 2017. The shift to annual data in 2016 showed a decrease in the proportion of the combined academic staff aged under 30 years, down from 11 percent in 2015 to 7 percent in 2016.

At universities, the proportion of academic staff aged 50 years and over was 3 percentage points smaller in 2017 than in 2012. See Figure 1 below and Table 1 on page 2. This was the result of the proportion aged under 30 years almost doubling and decreases in the proportions of staff aged 30 to 64 years. The largest decrease was for staff aged 60 to 69 years. Partially offsetting these changes was an increase in the proportion aged 65 years and over.

Figure 1: Academic staff by age group and sub-sector

Universities

Politechnics

Wānanga

1 Universities, polytechnics and wānanga are tertiary education institutions and public providers of tertiary education. Private training establishments provide post-school education or vocational training and may be privately owned or operated by charities or other organisations.
In 2017, there were 3,500 other academic staff at universities and 31 percent of this group was aged 50 years and over.

At polytechnics, the proportion of academic staff aged 50 years and over was 3.6 percentage points larger in 2017 than in 2012. See Table 2 below and Figure 1 on page 1. This was the result of a substantial reduction in the proportion aged 30 to 49 years and increases in the proportions aged 60 years and over. Partially offsetting these changes was a decrease in the proportion aged 50 to 59 years.

In 2017, there were over 600 tutorial assistants and ‘other’ academic staff at polytechnics and 38 percent of this group was aged 50 years and over.

Table 2: Distribution of academic staff at polytechnics by age group

<table>
<thead>
<tr>
<th>Age group</th>
<th>&lt;30</th>
<th>30-49</th>
<th>50-59</th>
<th>60-64</th>
<th>≥65</th>
<th>≥50</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>5.1</td>
<td>46.0</td>
<td>30.8</td>
<td>9.9</td>
<td>8.1</td>
<td>48.8</td>
</tr>
<tr>
<td>2017</td>
<td>5.2</td>
<td>42.4</td>
<td>29.5</td>
<td>11.9</td>
<td>11.0</td>
<td>52.4</td>
</tr>
<tr>
<td>% point difference</td>
<td>+0.1</td>
<td>-3.7</td>
<td>-1.3</td>
<td>-2.0</td>
<td>+3.0</td>
<td>+3.6</td>
</tr>
</tbody>
</table>

At wānanga, the proportion of academic staff aged 50 years and over was 3.1 percentage points larger in 2017 than in 2012. See Table 3 on the right and Figure 1 on page 1. This was the result of increases in the proportions aged 60 years and over and decreases in the proportions aged 60 years.

Table 3: Distribution of academic staff at wānanga by age group

<table>
<thead>
<tr>
<th>Age group</th>
<th>&lt;30</th>
<th>30-49</th>
<th>50-59</th>
<th>60-64</th>
<th>≥55</th>
<th>≥50</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>11.3</td>
<td>50.9</td>
<td>26.1</td>
<td>6.9</td>
<td>4.8</td>
<td>37.8</td>
</tr>
<tr>
<td>2017</td>
<td>11.1</td>
<td>48.0</td>
<td>24.5</td>
<td>10.0</td>
<td>6.5</td>
<td>40.9</td>
</tr>
<tr>
<td>% point difference</td>
<td>-0.2</td>
<td>-2.9</td>
<td>-1.7</td>
<td>+3.1</td>
<td>+1.7</td>
<td>+3.1</td>
</tr>
</tbody>
</table>

In 2017, there were about 400 tutorial assistants at wānanga and 34 percent of this group was aged 50 years and over.

Non-academic staff

Overall, 36 percent of non-academic staff at public providers were aged 50 years and over in 2017, compared to 37 percent in 2012. Non-academic staff aged 30 to 49 years were most common, with 42 percent of the staff in this age group in 2017. The shift to annual data in 2016 was associated with an increase in the proportion of the combined non-academic staff aged under 30 years, up from 15 percent in 2015 to 21 percent in 2016. While the proportion of the combined non-academic staff aged 65 years and over also increased from 2015 to 2016, there were proportional decreases for the other age groups.

At universities, the proportion of non-academic staff aged 50 years and over was 2.0 percentage points smaller in 2017 than in 2012. See Table 4 and Figure 2. This was the result of decreases in the proportions aged 50 to 64 years and an increase in the proportion aged under 30 years. Partially offsetting these changes were a decrease in the proportion aged 30 to 49 years and an increase in the proportion aged 65 years and over.

Table 4: Distribution of non-academic staff at universities by age group

<table>
<thead>
<tr>
<th>Age group</th>
<th>&lt;30</th>
<th>30-49</th>
<th>50-59</th>
<th>60-64</th>
<th>≥65</th>
<th>≥50</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>16.1</td>
<td>45.2</td>
<td>24.2</td>
<td>8.2</td>
<td>4.4</td>
<td>36.8</td>
</tr>
<tr>
<td>2017</td>
<td>24.3</td>
<td>41.0</td>
<td>30.9</td>
<td>7.8</td>
<td>6.1</td>
<td>34.8</td>
</tr>
<tr>
<td>% point difference</td>
<td>+7.2</td>
<td>-9.2</td>
<td>-3.3</td>
<td>-0.4</td>
<td>+1.7</td>
<td>-2.0</td>
</tr>
</tbody>
</table>

Figure 2: Non-academic staff by age group and sub-sector
At polytechnics, the proportion of non-academic staff aged 50 years and over was 0.8 percentage points larger in 2017 than in 2012. See Table 5 below and Figure 2 on page 2. This was mainly the result of a decrease in the proportion of staff aged 30 to 49 years and increases in the proportions aged 60 years and over. Partially offsetting these changes was a decrease in the proportion aged 50 to 59 years and an increase in the proportion aged under 30 years.

Table 5: Distribution of non-academic staff at polytechnics by age group

<table>
<thead>
<tr>
<th>Age group</th>
<th>&lt;30</th>
<th>30-49</th>
<th>50-59</th>
<th>60-64</th>
<th>&gt;65</th>
<th>&gt;70</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% point difference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Academic staff and gender

Figure 3 below and Table 7, on page 4, illustrate the 2017 age profile of academic staff at public providers by gender. Overall, 48 percent of men and 46 percent of women in the academic staff were aged 50 years and over in 2017.

At universities, 48 percent of men and 44 percent of women in the academic staff were aged 50 years and over in 2017. This compared to 54 percent of men and 51 percent of women at polytechnics. At wānanga, the age profile of the academic workforce by gender was older for women than men, with 42 percent of women and 39 percent of men aged 50 years and over.

Non-academic staff and gender

Figure 4 below and Table 7, on page 4, illustrate the 2017 age profile of the non-academic workforce in public providers by gender and sub-sector. Overall, the age profiles of non-academic staff by gender were similar in 2017, with 35 percent of men and 36 percent of women aged 50 years and over.

At universities, 35 percent of women and 34 percent of men in the non-academic staff were aged 50 years and over in 2017 and their age distributions were similar.

At polytechnics, 38 percent of men and 39 percent of women in the non-academic workforce were aged 50 years and over in 2017. This was mainly the result of a larger proportion of women than men aged 50 to 59 years.
At wānanga, 39 percent of men and 31 percent of women in the non-academic workforce were aged 50 years and over in 2017. There was a substantially larger proportion of women than men aged 30 to 49 years: 54 percent of women, compared to 45 percent of men. Also, in the wānanga non-academic staff there were larger proportions of men aged 50 years and over, particularly in the 50 to 59 years age group.

<table>
<thead>
<tr>
<th>Academic staff</th>
<th>Non-academic staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females %</td>
<td>Males %</td>
</tr>
<tr>
<td>Universities</td>
<td></td>
</tr>
<tr>
<td>&lt; 30 years</td>
<td>10.2</td>
</tr>
<tr>
<td>30-49 years</td>
<td>46.3</td>
</tr>
<tr>
<td>50-59 years</td>
<td>25.3</td>
</tr>
<tr>
<td>60-64 years</td>
<td>10.9</td>
</tr>
<tr>
<td>65+ years</td>
<td>7.4</td>
</tr>
<tr>
<td>Polytechnics</td>
<td></td>
</tr>
<tr>
<td>&lt; 30 years</td>
<td>4.9</td>
</tr>
<tr>
<td>30-49 years</td>
<td>44.3</td>
</tr>
<tr>
<td>50-59 years</td>
<td>29.5</td>
</tr>
<tr>
<td>60-64 years</td>
<td>11.9</td>
</tr>
<tr>
<td>65+ years</td>
<td>9.5</td>
</tr>
<tr>
<td>Wānanga</td>
<td></td>
</tr>
<tr>
<td>&lt; 30 years</td>
<td>10.5</td>
</tr>
<tr>
<td>30-49 years</td>
<td>47.6</td>
</tr>
<tr>
<td>50-59 years</td>
<td>26.6</td>
</tr>
<tr>
<td>60-64 years</td>
<td>8.0</td>
</tr>
<tr>
<td>65+ years</td>
<td>6.3</td>
</tr>
</tbody>
</table>

Table 7: Distribution of staff in 2017 by age group, gender and sub-sector

<table>
<thead>
<tr>
<th>Age group</th>
<th>&lt;30</th>
<th>30-49</th>
<th>50-59</th>
<th>60-64</th>
<th>≥65</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>11.7</td>
<td>82.3</td>
<td>4.2</td>
<td>1.8</td>
<td>1.8</td>
<td>100</td>
</tr>
<tr>
<td>2017</td>
<td>14.4</td>
<td>70.7</td>
<td>13.6</td>
<td>1.6</td>
<td>1.6</td>
<td>100</td>
</tr>
<tr>
<td>% point difference</td>
<td>+2.7</td>
<td>-1.6</td>
<td>-2.1</td>
<td>-0.2</td>
<td>-0.2</td>
<td>-2.3</td>
</tr>
</tbody>
</table>

Table 8: Distribution of academic staff at private training establishments by age group

**Private training establishments**

**Academic staff**

The combined academic staff at private providers\(^1\) has a younger age profile than the combined academic staff at public providers. Academic staff aged 30 to 49 years were most common, with 47 percent of the staff at private providers in this age group in 2017. The shift to annual data shows small changes from 2015 to 2016 for each age group.

The proportion of academic staff at private providers aged 50 years and over was 2.3 percentage points larger in 2017 than in 2012. See Table 8 and Figure 5. This was the result of a substantial decrease in the proportion of staff aged 30 to 49 years and increases in the proportions aged 60 years and over. Partially offsetting these changes was a decrease in the proportion aged 50 to 59 years and an increase in the proportion aged under 30 years.

**Non-academic staff**

The proportion of non-academic staff at private providers aged 50 years and over was 4.5 percentage points larger in 2017 than in 2012. See Table 9, on page 5, and Figure 5 below. This was the result of increases in the proportions of staff aged 50 years and over and decreases in the proportions aged under 50 years, particularly in the 30 to 49 years age group.

Non-academic staff aged 30 to 49 years were most common, with 44 percent of staff in this age group in 2017. The shift to annual data shows small changes from 2015 to 2016 for each age group.

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\(^1\) Data refers to private training establishments who received government funding and/or had students with student loans or allowances.

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Age profile of the tertiary education workforce in 2017
Academic staff and gender

In 2017, 40 percent of women and 37 percent of men in the academic staff at private providers were aged 50 years and over. Also, while the proportion of the academic staff aged 30 to 49 years was larger for women than men, there were proportionately more men than women aged under 30 years. See Table 10 and Figure 6.

Non-academic staff and gender

In 2017, 41 percent of men and 35 percent of women in the non-academic staff at private providers were aged 50 years and over. See Table 10 and Figure 6. This was the result of larger proportions of men aged 50 years and over, combined with larger proportions of women aged under 50 years.

About the data used in this fact-sheet

The information presented here is based on data provided to the Ministry of Education by tertiary education providers. In 2017, it refers to the number of staff employed, or contracted, for the year ended December and, in 2012, it refers to the staff employed, or contracted, in the first week of August.

The proportions for each age group have been calculated excluding individuals with unknown ages.

The tertiary education workforce consists of the staff in technical and vocational education and training and in higher education.

Academic staff refers to the people who teach and carry out research such as professors, deans, department heads, lecturers, and tutors. Providers also supply information on tutorial assistants, other academic staff and staff who carry out ‘research-only’ activities. At universities, the ‘other academic staff’ refers to other teaching or combined teaching/research staff. This group includes assistant lecturers, visiting academics, teaching fellows, etc.

Non-academic staff are the people who provide advice, support and management services.

A supporting set of statistical tables is available on the Ministry of Education’s web site: www.educationcounts.govt.nz/statistics/tertiary_education/resources
Ethnic profile of the tertiary education workforce in 2017

Introduction

Information on ethnic groups in the tertiary education workforce has been collected by the Ministry of Education since 2012. This fact sheet describes the 2017 ethnic profile of the tertiary education workforce by sub-sector and gender.

The 2017 data is based on a full calendar year. Full-year information on the workforce was provided to the Ministry of Education by tertiary education providers for the first time in 2016. Previously the information was taken from a one-week snapshot at the beginning of August each year.

The ethnic profiles in 2017 are not complete but represent a large majority of the staff. In 2017, the ethnic group of academic staff was known for 83 percent of staff at public providers and 88 percent of staff at private providers. Fewer non-academic staff had an unknown ethnic group. In 2017, the ethnic group for non-academic staff was known for 85 percent of staff at public providers and 91 percent of staff at private providers.

Information on the structure and age groups of the tertiary education workforce is available in separate fact sheets.

Summary

Overall, 56 percent of academic staff at public providers identified as European in 2017. This compared to 70 percent of Europeans in the population.

The majority of the academic staff at universities and polytechnics identified as European in 2017. The percentage of European academic staff at private providers was 53 percent in 2017. At wānanga, 72 percent of academic staff were Māori in 2017.

Public tertiary education institutions

The ethnic profile of the New Zealand population and the 2017 ethnic profile of the academic workforce in public tertiary education institutions is shown in Table 1.

Table 1: Ethnic group distribution of the New Zealand population and academic staff at public tertiary education institutions

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentages</td>
<td>Percentages</td>
</tr>
<tr>
<td>Euroweans</td>
<td>70.0</td>
<td>55.6</td>
</tr>
<tr>
<td>Māori</td>
<td>14.1</td>
<td>10.7</td>
</tr>
<tr>
<td>Pacific peoples</td>
<td>7.0</td>
<td>2.1</td>
</tr>
<tr>
<td>Asians</td>
<td>11.1</td>
<td>8.1</td>
</tr>
<tr>
<td>Other</td>
<td>2.7</td>
<td>6.9</td>
</tr>
<tr>
<td>Unknown</td>
<td>5.4</td>
<td>17.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Notes:
- The ethnic group data is based on a “total response” method. That is, the totals exceed 100 percent as people may report to be in more than one ethnic group.
- The total for academic staff may be less than 100 percent as not all staff may have been reported.


Academic staff at universities

At universities, the ethnic group distribution of the academic staff in 2017 was as follows:

- 64 percent Europeans
- 4.8 percent Māori
- 1.5 percent Pacific peoples
- 10 percent Asians, and
- 6.6 percent were in the Other ethnic group.

See Figure 1 on page 2 for the distribution and Table 2(A) on page 3 for the percentages.

1 University, polytechnics and wānanga are tertiary education institutions and public providers of tertiary education. Private training establishments provide post-school education or vocational training and may be privately owned or sponsored by iwi, trusts and other organisations. Private training establishments that receive government funding are required to provide information on their workforce.

2 Following the shift to annual data in 2016, staff who worked at any part of the year became included and for some of these staff the ethnic group was not available in 2017.

3 Over time, as data collection systems are set up, or extended, it is expected that the proportion of unknowns will become smaller. This was the case with the 2001 and 2006 census where the number of unknowns decreased from 21 percent in 2001 to 15 percent in 2006.

4 The ethnic group distribution of the population refers to Statistics New Zealand’s data; from the 2013 Population Census.

5 The percentages for each ethnic group have been calculated using the total number of staff and population. As staff and population in the population may be included in more than one ethnic group the total exceeds 100 percent. The academic staff excludes non-academic staff.

6 In 2017, the ethnic group was known for 88 percent of university academic staff, and 85 percent of the non-academic staff.
Academic staff at polytechnics

At polytechnics, the ethnic group distribution of the academic staff in 2017 was as follows:\(^6\)

- 52 percent Europeans
- 8.1 percent Māori
- 2.5 percent Pacific peoples
- 5.6 percent Asians, and
- 8.3 percent were in the Other ethnic group.

Academic staff at wānanga

At wānanga, the ethnic group distribution of the academic staff in 2017 was as follows:\(^7\)

- 72 percent Māori
- 7.5 percent Europeans
- 5.2 percent Pacific peoples
- 2.0 percent Asians, and
- 2.6 percent were in the Other ethnic group.

Non-academic staff

The ethnic profiles of non-academic staff are very similar to those of academic staff. Two small differences can be observed. At universities and polytechnics, non-academic staff had slightly larger proportions of Māori, Pacific and Asian people than academic staff. At wānanga, non-academic staff had a larger proportion of Europeans than academic staff.

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\(^6\) In 2017, the ethnic group was known for 77 percent of the academic staff at polytechnics, and 82 percent of the non-academic staff.

\(^7\) In 2017, the ethnic group was known for 89 percent of wānanga academic staff, and 93 percent of the non-academic staff.
Non-academic staff and gender

The 2017 ethnic profile of non-academic staff by gender and sub-sector shows only small differences between the genders in each sub-sector. One slightly bigger difference between the genders was for Europeans. At polytechnics, 53 percent of the female non-academic staff were European compared to 49 percent of men. At universities, 50 percent of the female non-academic staff were European, compared to 56 percent of men. At wānanga, a greater proportion of the male academic staff were European – 16 percent of men compared to 11 percent of women. See Figure 4.

About the data used in this fact-sheet

The information presented here is based on data provided to the Ministry of Education by tertiary education providers. It refers to the number of staff employed, or contracted, for the year ended December 2017.

The tertiary education workforce reported on here consists of the staff in technical and vocational education and training and in higher education.

Ethnic group data is collected on a total response basis. That is, staff may be counted in more than one ethnic group.

Academic staff refers to the people who teach and carry out research such as professors, deans, department heads, lecturers, and tutors. Information is also provided for tutorial assistants, other academic staff and staff who carry out ‘research-only’ activities. At universities, the other academic staff refers to other teaching or combined teaching/research staff. This group includes assistant lecturers, visiting academics, teaching fellows, etc.

Non-academic staff are the people who provide advice, support and management services.

A supporting set of statistical tables is available on the Ministry of Education’s website: www.educationcounts.govt.nz/statistics/tertiary_education/resources
Private training establishments

The ethnic profile8s of non-academic and academic staff were similar in 2017. An exception was a larger percentage of non-academic than academic staff in the Asian ethnic group. See Figure 5 and Table 3.

For both academic and non-academic staff, the 2017 ethnic profiles show that the percentages of Europeans and Māori among women were slightly larger than for men. For non-academic staff, there was a larger percentage in the Asian ethnic group for men than for women. See Figure 6.

Table 3: Distribution of academic staff in 2017 at private training establishments by ethnic group

<table>
<thead>
<tr>
<th>Ethnic group</th>
<th>Academic staff</th>
<th>Non-academic staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europeans</td>
<td>53.4</td>
<td>59.5</td>
</tr>
<tr>
<td>Māori</td>
<td>13.3</td>
<td>12.9</td>
</tr>
<tr>
<td>Pacific peoples</td>
<td>5.3</td>
<td>5.7</td>
</tr>
<tr>
<td>Asians</td>
<td>10.3</td>
<td>14.4</td>
</tr>
<tr>
<td>Other</td>
<td>5.7</td>
<td>5.4</td>
</tr>
<tr>
<td>Unknown</td>
<td>12.2</td>
<td>8.8</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Notes:
1. The ethnic group data is based on a "total response" method, that is, the percentage exceed 100 percent as people may report in more than one ethnic group.

Figure 5: Academic and non-academic staff in 2017 at private training establishments by ethnic group

Figure 6: Academic and non-academic staff in 2017 at private training establishments by ethnic group and gender

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Tertiary Sector Performance Analysis
Graduate Achievement, Vocations and Careers
Ministry of Education

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8 In 2017, the ethnic group was known for 38 percent of the academic staff at private providers, and 91 percent of the non-academic staff.