Teacher supply has been a priority for the Ministry of Education since 1996 when demographic and policy changes combined to shift the balance of teacher supply rapidly from a surplus to a shortfall. To monitor the staffing situation in New Zealand schools, the Research Division of the Ministry of Education has, since 1997, undertaken a survey of all state and state-integrated schools at the beginning of each school year.

The surveys ask principals to indicate the number of vacancies and re-advertised vacancies in their schools on the first day of the school year, to state how these vacancies are being covered, and to provide information on the numbers of beginning and overseas teachers in their schools. Principals in secondary schools are also asked in which subject areas vacancies occur.

This article presents the results of the latest (2001) staffing survey.

As in previous years, this year’s survey achieved a very high response rate of 98.8 percent overall, with 98.6 percent of primary schools and 100 percent of secondary schools returning completed survey forms.

To date, increased roll growth has mainly been experienced in the primary sector. While it appears likely that primary rolls have now peaked, the flow-on effect of primary school roll growth is beginning to impact on the secondary sector. Secondary school rolls are projected to increase by several thousand students this year.

Despite the projected increase in secondary student numbers and a corresponding increase in the number of entitlement staffing positions within secondary schools, the impact on the level of vacancies in secondary schools at the beginning of the school year remained relatively low, representing just 1.1 percent of all secondary entitlement positions (up from 0.8 percent in 2000). Re-advertised vacancies, often referred to as ‘hard to staff’ positions, comprised just 0.4 percent of all entitlement positions in secondary schools.

Vacancies in primary schools on the first day of the school year, while also up slightly from last year, comprised 1.0 percent of all primary entitlement staffing positions.

Sources of teacher supply for New Zealand schools include the recruitment of newly trained (beginning) teachers and the recruitment of teachers from overseas. The present survey found that while the number of beginning teachers in primary schools had increased slightly (1,457, compared to 1,400 in 2000), there were fewer employed in secondary schools (733, compared to 815). However, the 733 beginning secondary teachers this year is very similar to the number of these teachers employed in schools in 1999 (740).
The number of ‘overseas teachers’ at the beginning of 2001 was lower than in previous years. For example, whereas the present survey identified that there were 679 overseas teachers in New Zealand schools, the comparable figure in 2000 was 1,019 overseas teachers.

Continuing trends evident in the data from the previous surveys, the survey further showed that at the beginning of the 2001 school year:

- the majority of all schools (87%) had no entitlement staffing position vacancies;
- the highest levels of vacancies in secondary schools were recorded in mathematics (14%) and science (14%), followed by technology (12%) subjects;
- teaching vacancies were more likely in rural rather than urban areas, in schools with the largest concentrations of Māori students, and in schools in lower socio-economic areas (deciles 1–3 schools);
- of all regions, Northland and Southland recorded the highest proportion of vacancies, each having 1.6 percent of their entitlement positions vacant; and
- the use of trained relief staff employed for 10 weeks or less was the most common method of covering vacancies in both primary (60%) and secondary (59%) schools.

While the 2001 survey results show that vacancy levels have increased slightly, just one percent of all entitlement staffing positions were vacant at the beginning of the year. The Ministry of Education will continue to monitor the teacher supply situation, particularly in the secondary sector where secondary student numbers are projected to increase over the next several years.

Background

Since 1996, New Zealand schools have experienced significant roll growth, particularly in the primary sector. However, although primary rolls appear to have peaked in 2000, increases in student numbers are now becoming evident in the secondary sector as primary students progress through the school system into secondary school. Student numbers in secondary schools over the next several years are predicted to increase from 244,700 in 2001 to an estimated 273,700 in 2006. Compared to 2000, secondary school rolls are expected to increase by several thousand students this year.

As student roll numbers rise or fall so too does the demand for teachers. Ministry of Education projections indicate that the demand for secondary teachers will peak in 2006/07 as the large number of students who entered primary schools in the 1990s move on to secondary schools. The demand for primary teachers, on the other hand, is projected to remain stable, or even decline, over the coming years as forecasts indicate a levelling off in student numbers.

Since 1997, at the beginning of each school year, the Research Division of the Ministry of Education has undertaken a survey — often referred to as the ‘Teacher Vacancy Survey’ — of all state and state-integrated schools in order to monitor the staffing situation in New Zealand schools. The present report summarises the results from the latest survey conducted at the beginning of the 2001 school year. Where appropriate, data from previous staffing surveys are also included in the report, to illustrate trends.

Method and Response Rates

As in previous years, schools were asked to complete a brief, one-page survey form outlining their staffing situation as at the first day of the new school year. The form asked principals to indicate the number of vacancies and re-advertised vacancies in their schools.

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1 ‘Overseas teachers’ are defined as those who had been teaching in New Zealand for up to two years at the time of the survey. For example, for the current survey, this meant that an ‘overseas teacher’ would be a teacher who had begun teaching in New Zealand for the first time in either 1999, 2000, or on the first day of the 2001 school year.

2 Details of the full report on the 2001 survey are given at the end of this article.
and how these vacancies were being covered. Secondary schools were also asked to indicate the subject areas in which the vacancies occurred. In addition, information was sought on the numbers of beginning and overseas teachers working in schools.

This year, primary schools were asked to outline their staffing situation as at 30 January and secondary schools as at 1 February. Schools were then asked to fax their completed forms back to the Ministry of Education's Research Division.

The response rate for previous teacher vacancy surveys has been very high, and this year was no exception, with 98.6 percent of primary and 100 percent of secondary schools responding (98.8% overall). Completed surveys were received from 2,185 primary and special schools and 398 secondary and composite schools, a total of 2,583 schools.

Although the total number of schools responding this year is slightly lower than in previous years, the number of entitlement staffing positions within participating schools has increased, from 37,973 positions last year to 38,496 this year.

### Results

#### Entitlement Staffing Vacancies

An 'entitlement staffing vacancy' was defined in the survey form as any position which was not filled by a permanent teacher or long-term reliever whose tenure was more than 10 consecutive weeks. Positions such as Reading Recovery and Operations Grant funded-teachers were not to be included.

As in previous years, the majority of all schools (87%) indicated having no entitlement staffing vacancies at the beginning of the 2001 school year.

Secondary schools (33%) were more likely to have vacancies than their primary counterparts (10%). Although there was an increase in the number of secondary vacancies this year, they still only comprised 1.1 percent of all secondary entitlement positions (up from 0.8% in 2000). This level of vacancies is similar to the 1.2 percent level experienced by secondary schools in 1997 (see Table 1).

Vacancies in primary schools, as a proportion of all entitlement positions, also increased this year, but only slightly and at a lower level than that for secondary schools, from 0.9 percent in 2000 to 1.0 percent.

### Table 1: Entitlement staffing vacancies as at the beginning of the 1997, 1998, 1999, 2000, and 2001 school years

<table>
<thead>
<tr>
<th></th>
<th>Primary</th>
<th></th>
<th>Secondary</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vacancies (FTTE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– number</td>
<td>407.7</td>
<td>365.3</td>
<td>286.1</td>
<td>208.0</td>
<td>221.6</td>
</tr>
<tr>
<td>– proportion of all entitlement positions</td>
<td>2.0%</td>
<td>1.7%</td>
<td>1.3%</td>
<td>0.9%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Schools with any vacancy</td>
<td>329</td>
<td>311</td>
<td>245</td>
<td>189</td>
<td>215</td>
</tr>
<tr>
<td>– number</td>
<td>14.5%</td>
<td>13.7%</td>
<td>11.0%</td>
<td>8.5%</td>
<td>9.8%</td>
</tr>
<tr>
<td>– proportion of all schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schools with at least one FTTE vacancy</td>
<td>278</td>
<td>272</td>
<td>206</td>
<td>159</td>
<td>157</td>
</tr>
<tr>
<td>– number</td>
<td>12.3%</td>
<td>12.0%</td>
<td>9.2%</td>
<td>7.2%</td>
<td>7.2%</td>
</tr>
<tr>
<td>– proportion of all schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a FTTE = Full-time teacher equivalent.
b This includes schools with vacancies in positions that are less than full-time teacher equivalent positions (eg, a 0.2 or 0.5 position).
There was a slight increase in the number of schools reporting that they had at least one full-time teacher equivalent (FTTE) entitlement staffing vacancy at the beginning of Term 1, from 9.6 percent in 2000 to 10.6 percent this year; however, this increase was evident at the secondary level only.

Re-advertised Vacancies

While many schools do, from time to time, experience staffing vacancies, ‘re-advertised vacancies’ (also referred to as ‘hard to staff’ positions) are considered a more likely measure of any difficulty experienced by schools in recruiting teachers.

A ‘re-advertised vacancy’ was defined as any position which had been advertised nationally more than once with no appointment being made after the first time advertised.

Re-advertised vacancies in 2001 represented just 0.2 percent of all entitlement staffing vacancies, a proportion unchanged from 2000. This year, however, increases in the number of re-advertised positions, as well as increases in the number of schools with re-advertised positions, are evident in both primary and secondary schools, though to a lesser extent in the primary sector. Although the number of re-advertised vacancies in the secondary sector is higher than that experienced last year, it is considerably lower than the number experienced in 1997, despite the number of secondary vacancies at the beginning of the 2001 school year being similar to that in 1997.

Similar to the findings of the 1999 and 2000 staffing surveys, the number of re-advertised vacancies this year represented around a quarter of all teaching vacancies. However, this year, there was a slight increase in the percentage of re-advertised vacancies at the primary level (from 15.4% in 2000 to 16.5% in 2001) and a corresponding decrease in the percentage of re-advertised secondary vacancies (from 37.3% to 34.6%).

Characteristics of Schools where Vacancies and Re-advertised Vacancies were Concentrated

Table 2 identifies some of the characteristics of the schools (locality, percentage of Māori students on the roll, and school decile) that indicated having vacancies and re-advertised vacancies at the beginning of the 2001 school year.

<table>
<thead>
<tr>
<th>Vacancies</th>
<th>Re-advertised vacancies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schools</td>
<td>Positions (FTTE)</td>
</tr>
<tr>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td><strong>Locality</strong></td>
<td></td>
</tr>
<tr>
<td>Main urban (population &gt; 30,000)</td>
<td>168</td>
</tr>
<tr>
<td>Secondary urban (10,000 to 30,000)</td>
<td>24</td>
</tr>
<tr>
<td>Minor urban (1,000 to 9,999)</td>
<td>54</td>
</tr>
<tr>
<td>Rural (&lt; 1,000)</td>
<td>99</td>
</tr>
<tr>
<td><strong>Māori Roll (quartiles)</strong> b</td>
<td></td>
</tr>
<tr>
<td>0 percent to 6.6 percent</td>
<td>59</td>
</tr>
<tr>
<td>6.7 percent to 15.4 percent</td>
<td>87</td>
</tr>
<tr>
<td>15.5 percent to 32.3 percent</td>
<td>86</td>
</tr>
<tr>
<td>32.4 percent to 100 percent</td>
<td>110</td>
</tr>
<tr>
<td><strong>Socio-economic indicator</strong></td>
<td></td>
</tr>
<tr>
<td>Deciles 1–3 (lowest)</td>
<td>133</td>
</tr>
<tr>
<td>Deciles 4–7</td>
<td>148</td>
</tr>
<tr>
<td>Deciles 8–10 (highest)</td>
<td>64</td>
</tr>
</tbody>
</table>

* Note that percentages in this table are based on the total number of schools or total number of entitlement staffing positions (based on provisional data for the 2001 school year) in each category.

b No Māori roll information was available for three schools with 2.4 FTTE vacancies and one school with 0.5 FTTE re-advertised vacancies.
As in previous years, this year’s survey results showed that vacancies and re-advertised vacancies were more likely to occur in schools with the largest concentrations of Māori students and in schools in lower socio-economic areas (deciles 1–3 schools). However, although an increase in numbers of vacancies and re-advertised vacancies occurred across the board, compared to last year (2000), present results show that the trend for there to be more vacancies and re-advertised vacancies in schools with largest concentrations of Māori students and/or lower decile ratings was more marked.

As a proportion of their total staffing entitlement, levels of teacher vacancies at the beginning of the 2001 school year were higher in rural areas than in other areas, whereas levels of re-advertised vacancies were higher in minor urban areas. Vacancies in rural schools, however, were concentrated in a few schools rather than spread uniformly across all rural schools: as in the previous staffing surveys, the 2001 data show that proportionately fewer schools in rural areas reported proportionately more vacancies than was the case for schools in other areas.

The Geographic Location of Schools with Vacancies and Re-advertised Vacancies

As well as analysing the data by specific school characteristics, the geographic location of schools with vacancies and re-advertised vacancies was also of interest to determine whether particular regions in New Zealand experience greater difficulty in employing staff than others.

To compare the data for schools in different regions and districts, vacancies were calculated as a percentage of the total number of entitlement staffing positions in each region or district. The Ministry of Education Property Districts categorisation was used for the analysis.

Table 3 provides details of regional vacancies and re-advertised vacancies for 2000 and 2001.

As in 2000, the Northland (1.6%) and Southland (1.6%) regions again recorded a higher proportion of vacancies than other regions; in addition, this year’s data showed that the figures for these regions were up slightly from the 2000 figures (1.3% and 1.5% respectively).

Although the Northland region also recorded the greatest proportion of re-advertised positions in 2001, the proportion of all entitlement positions for this

<table>
<thead>
<tr>
<th>Ministry of Education Property District</th>
<th>Vacancies (FTTE)</th>
<th>Re-advertised vacancies (FTTE)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2000</td>
<td>2001</td>
</tr>
<tr>
<td>Northland</td>
<td>22.5</td>
<td>29.0</td>
</tr>
<tr>
<td>Auckland</td>
<td>75.2</td>
<td>108.2</td>
</tr>
<tr>
<td>Waikato</td>
<td>33.2</td>
<td>50.6</td>
</tr>
<tr>
<td>Bay of Plenty</td>
<td>23.0</td>
<td>25.7</td>
</tr>
<tr>
<td>Central West</td>
<td>40.8</td>
<td>33.4</td>
</tr>
<tr>
<td>Central East</td>
<td>30.9</td>
<td>33.3</td>
</tr>
<tr>
<td>Central South</td>
<td>28.6</td>
<td>35.3</td>
</tr>
<tr>
<td>Marlborough (including West Coast)</td>
<td>12.2</td>
<td>20.4</td>
</tr>
<tr>
<td>Canterbury</td>
<td>31.8</td>
<td>28.1</td>
</tr>
<tr>
<td>Otago</td>
<td>17.0</td>
<td>10.8</td>
</tr>
<tr>
<td>Southland</td>
<td>17.5</td>
<td>17.5</td>
</tr>
<tr>
<td>Total</td>
<td>332.7</td>
<td>392.3</td>
</tr>
</tbody>
</table>

* Percentage of entitlement positions (FTTE) within participating schools.
region that had to be re-advertised had decreased slightly, from 0.7 percent in 2000 to 0.5 percent.

Subject Vacancies in Secondary Schools

In 2001, it is evident that secondary schools continue to particularly seek teachers of mathematics, science, and technology subjects. Of the 170.7 FTTE entitlement vacancies recorded at the beginning of the 2001 school year, most were in the areas of mathematics (14%), science \(^5\) (14%) and technology (12%). Compared to the 2000 survey data, the percentage of vacancies in each of mathematics and science increased, while the percentage of technology vacancies decreased. The most significant increase was in the science area, up from six percent in 2000 to 14 percent this year. It is worth noting, however, that despite the six percent of vacancies in science recorded in 2000, in the previous three years, science consistently had one of the highest levels of vacancies (10% of vacancies in 1999, 12% in 1998, and 16% in 1997).

Measures Taken by Schools to Cover Vacancies

As found in the previous teacher vacancy surveys, the use of trained relief staff employed for 10 school weeks or less was the most common measure used to cover vacancies in both primary (60% of all vacancies) and secondary (59% of all vacancies) schools. Other methods used frequently by both primary and secondary schools included the use of departing staff (9% and 10% respectively) and the use of management teachers (8% and 12%). A slight decrease from last year in the use of departing staff as a method for covering vacancies was evident in both sectors.

Overseas Teachers

Over recent years, when demand for teachers has been high, overseas teachers have been actively encouraged to apply for positions in New Zealand. The survey form asked principals whether their schools employed any overseas teachers, and, if so, how many they employed (irrespective of whether they worked on a full- or part-time basis) and the year in which they began teaching in New Zealand.

For the 2001 survey, an ‘overseas teacher’ was defined as a teacher who had come to teach for the first time in New Zealand in either 1999, 2000 or 2001.

As can be seen in Table 4, there were 679 overseas teachers in New Zealand schools, who had started teaching in New Zealand for the first time in 1999, 2000, or at the beginning of the 2001 school year. This number is considerably less than the 1,019 overseas teachers who had been teaching in New Zealand for an equivalent period identified in last year’s survey. Around three-quarters of overseas teachers identified this year began teaching here in either 1999 or 2000.

Of the 171 overseas teachers who began teaching in New Zealand at the beginning of this year, two-thirds (67%) were teaching in secondary schools and a third (33%) were in primary schools. These data show that, compared to last year, more overseas teachers entered secondary than primary schools \(^6\), a result which is consistent with this year’s increase in the numbers of advertised and re-advertised vacancies in the secondary sector relative to the primary sector, discussed earlier.

<table>
<thead>
<tr>
<th>When the overseas teacher began teaching in New Zealand</th>
<th>Primary (headcount)</th>
<th>Secondary (headcount)</th>
<th>Total (headcount)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>138</td>
<td>121</td>
<td>259</td>
</tr>
<tr>
<td>2000</td>
<td>108</td>
<td>124</td>
<td>232</td>
</tr>
<tr>
<td>At the beginning of 2001</td>
<td>56</td>
<td>115</td>
<td>171</td>
</tr>
<tr>
<td>Between 1999 and 2001 but starting date not known</td>
<td>11</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>313</td>
<td>366</td>
<td>679</td>
</tr>
</tbody>
</table>

At the beginning of the 2001 school year, there were 403 overseas teachers employed in schools who began teaching in New Zealand for the first time in either 2000 or 2001. These overseas teachers are considered ‘relatively new’ to teaching in New Zealand. Not only has the number of ‘relatively new’ overseas teachers

\(^5\) Includes teachers of biology, chemistry and physics.

\(^6\) The equivalent figures in 2000 were 58 percent for secondary and 42 percent for primary schools.
continued to decrease this year (down from 546 in 2000), the percentage of schools employing these teachers has also continued to decrease, from 13 percent in 2000 to 10 percent in 2001.

The decrease in the number of ‘relatively new’ overseas teachers employed in New Zealand schools at the beginning of 2001 was most evident in the primary sector, although there was also a decrease at the secondary level. The proportion of all secondary schools employing at least one ‘relatively new’ overseas teacher in 2001 (35%), however, remains unchanged from 2000.

As in previous years, overseas teachers were, as a proportion of all teachers, more likely to be employed in schools with a higher proportion of Māori students and in deciles 1–3 schools. By contrast, they were least likely to be employed in rural schools.

Regional trends for overseas teachers in the 2001 survey were similar to those for the previous surveys. Half of the overseas teachers (N=201) who began teaching in New Zealand in 2000 or 2001 were teaching in the Auckland region. As a proportion of the teaching force, these teachers accounted for 1.3 percent of teachers in the Auckland region. The Central South region (N=49) had the next highest proportion of ‘relatively new’ overseas teachers (1.0% of teachers in the Central South region). ‘Relatively new’ overseas teachers were least likely to be employed in the Otago region.

Beginning Teachers

As the recruitment of newly trained (beginning) teachers is an important source of teacher supply, the survey also asked principals to indicate the number of beginning teachers in their school.

There were 2,190 beginning teachers in schools at the start of the 2001 school year, a slight decrease overall from the 2,215 beginning teachers in 2000. While an increase in the number of beginning teachers employed in primary schools was evident this year (from 1,400 in 2000 to 1,457*), there was a decrease in the number of secondary beginning teachers (down from 815 in 2000 to 733). However, the 733 beginning secondary teachers this year is similar to the number employed at the start of the 1999 school year (N=740).

There was a small increase in the number and proportion of secondary overseas teachers who were also beginning teachers this year, from 17 in 2000 to 24 in 2001, but the number of beginning overseas teachers in primary schools remained the same as it was in 2000 (N=17). Almost all overseas teachers in New Zealand at the beginning of the 2001 school year had had prior teaching experience.

As in previous years, when considered as a proportion of all teachers in each of the sectors, more beginning teachers entered the primary than the secondary sector. Beginning teachers (as a proportion of all teachers) were more likely to be teaching in lower decile (1–3) schools and in schools with larger concentrations of Māori students.

The Central South region had the greatest proportion of beginning teachers, with 5.1 percent of all teachers in that region being beginning teachers. The Auckland (4.6%) and Central West (4.6%) regions were the next highest employers of beginning teachers.

Concluding Comments

The results from this year’s staffing survey suggest that the increased roll growth experienced in the primary sector in recent years is now beginning to impact on secondary schools. While primary rolls were forecast to have reached their peak in 2000, Ministry projections indicate that secondary rolls will increase by several thousand students this year (2001). Despite projected roll growth and a corresponding increase in entitlement staffing positions in secondary schools this year, vacancies in secondary schools, although up from last year, remained relatively low at just 1.1 percent of all secondary entitlement positions in 2001. Vacancy levels in primary schools comprised just 1.0 percent of all

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7 Beginning teachers are those for whom employing schools can claim the Beginning Teacher Time Allowance. (This allowance, paid in respect of teachers in their first year of teaching following completion of teacher training, is equivalent to 0.2 of a full-time position per week. Amongst other things, its purpose is to allow schools to release beginning teachers from the classroom for part of each week so that they can take up professional development opportunities.)

8 Completed survey forms were not received from 31 primary schools. The number of beginning teachers in primary schools, therefore, may be slightly higher than this number.
primary entitlement positions. Re-advertised positions, often referred to as ‘hard to staff’ positions, remained relatively unchanged from last year.

In terms of covering their vacancies, both primary (60%) and secondary (59%) schools were most likely to use trained relief staff for 10 weeks or less, continuing the trend of the last several years.

It was further found that teaching vacancies continue to be more likely in rural areas, in schools with the largest concentrations of Māori students, and in deciles 1–3 schools. The Northland and Southland regions recorded the highest levels of vacancies, each having 1.6 percent of their entitlement staffing positions vacant.

As well, the highest levels of vacancies in secondary schools were recorded in mathematics (14%), science (14%), and technology (12%) subjects. Since 1997, these subject areas have regularly recorded high levels of vacancies.

While results of the 2001 staffing survey indicate that vacancies have increased from last year, overall, just 1.0 percent of all entitlement positions were vacant at the beginning of the current school year and the majority of all schools (87%) indicated having no staffing vacancies.

The Ministry of Education will continue to monitor the teacher supply situation, particularly in the secondary sector, where significant roll growth is forecast over the coming years.

Copies of the full report, Monitoring Teacher Supply: Survey of Staffing in New Zealand Schools at the Beginning of the 2001 School Year, are available on request from the Research Division of the Ministry of Education by phoning 0-4-463 8297 or e-mailing research@minedu.govt.nz. The report may also be downloaded from the Ministry’s website on www.minedu.govt.nz (under ‘Research’/‘Documents’/‘Monitoring Teacher Supply’).

Acknowledgement
The author would like to thank all those who responded so promptly to this survey. Schools’ ongoing willingness to participate in our surveys is very much appreciated.