Chapter 7

Projections of teacher demand and supply to 2003

Building on the discussion and analysis of the previous chapters, this chapter presents projections for teacher requirements and the supply of teachers up to 2003, at the national and State and Territory level. The year 2003 is chosen as this is the last year for which projections of graduations can be based on actual data for commencements in undergraduate courses.

The analysis in this chapter starts by providing projections at the national level, including an assessment of whether projected graduations are likely to lead to a tightening or loosening of the labour market for teachers at the national level in the early 2000s, compared to that at the end of the 1990s. The analysis then goes on to examine projections at the State and Territory level and concludes by discussing sources of flexibility on the demand and the supply side which assist in the adjustment of the teacher labour market within a jurisdiction and across jurisdictions.

A note of explanation about the projections is warranted. Projections in this report are based on assumptions about key factors which influence demand and supply. As with all projections, some of these factors may not occur. Accordingly, these projections are not intended to be, nor should be interpreted as, forecasts of likely outcomes. The main purpose of the projections is to provide some indication of the possible direction of the labour market for teachers in the next four years as the basis for policy development.

Outlook for the teacher labour market at the national level

Projection of students and the teacher workforce

Projections for enrolments in the primary and secondary sectors at the national level are shown in Chart 18. Projections for the government sector were provided by the State and Territory education authorities. The information for the non-government sector was derived by DETYA. Further details are provided in Attachment 3 and Attachment 4.
The projections for enrolments are based on the ABS population projections by age and assume that grade progression rates remain at the 1999 level. Teacher numbers are broadly based on projected enrolments (for the government and non-government sectors, within the primary and secondary levels) divided by the most recent student-teacher ratios, but education authorities have used additional information to estimate teacher requirements within the government sector in their State or Territory.

Chart 18 indicates a slowing down in the growth in enrolments in the post 2000 period, particularly in the primary school sector where students are projected to grow by only 0.5 per cent between 2000 and 2003. A similar slowing down is projected for senior high school students but junior high school students are expected to continue growing at a stronger pace so that overall secondary students will grow faster than primary students. In some States and Territories enrolments will actually decline. The reasons for these patterns are predominantly due to the trends in the school age population.

Teacher numbers are projected to largely reflect these enrolment trends. After 2001 primary teacher requirements are expected to remain stable, but secondary teacher requirements are projected to continue increasing.

**Projection for the number of teachers to be recruited to 2003**

As indicated in Chapter 4, teacher recruitment is made up of the need to satisfy the growth in requirements and the need to replace teachers who separate from the jurisdiction. Table 12 provides information on the projected number of teachers that will need to be recruited within Australia by the government and non-government sectors at primary and secondary level.

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRIMARY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government</td>
<td>5 600</td>
<td>5 300</td>
<td>4 900</td>
<td>4 800</td>
</tr>
<tr>
<td>Non-government</td>
<td>1 200</td>
<td>1 150</td>
<td>1 150</td>
<td>1 050</td>
</tr>
<tr>
<td>Primary total</td>
<td>6 800</td>
<td>6 450</td>
<td>6 050</td>
<td>5 850</td>
</tr>
<tr>
<td>SECONDARY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government</td>
<td>4 100</td>
<td>3 800</td>
<td>4 100</td>
<td>4 750</td>
</tr>
<tr>
<td>Non-government</td>
<td>1 900</td>
<td>1 900</td>
<td>1 900</td>
<td>2 400</td>
</tr>
<tr>
<td>Secondary total</td>
<td>6 000</td>
<td>5 700</td>
<td>6 000</td>
<td>7 100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12 800</strong></td>
<td><strong>12 150</strong></td>
<td><strong>12 350</strong></td>
<td><strong>12 950</strong></td>
</tr>
</tbody>
</table>

Sources: DETYA (2000, b) and other estimates by DETYA.

For the government sector, recruitment needs have been calculated by the State and Territory education authorities taking into account expected growth in the teachers’ workforce and replacement demand. They are based on each State’s and Territory’s historical data and experience and understanding of the workings of the teacher labour market in that State or Territory. In the case of the non-government sector, estimates have been derived by DETYA as follows:

- additional teachers required have been calculated from the sum of (a) a demand component which is the projected increase in the workforce each year, and (b) the replacement component;
- numbers for the non-government sector workforce have been projected by dividing future enrolments by the 1999 STR;
Demand and supply of primary and secondary school teachers in Australia

- for the non-government sector replacement is estimated as (i) the rate of retirement in the government sector times projected non-government workforce plus, (ii) a rate of resignations which is half that evident in the government sector in each State times projected non-government workforce. This assumes a lower separation rate from the non-government sector. (For the Northern Territory historic separation levels have been used for future replacement);
- the replacement (separations) and demand components have been summed to give totals for the rows estimated in Table 12.

The results from the recruitment projections show different needs for the different levels of schooling:
- in the primary sector, recruitment is projected to fall from 6800 in 2000 to around 5900 in 2003;
- in the secondary sector, projected recruitment is estimated to increase from 6000 in 2000 to over 7000 in 2003.

Projected completions from initial teacher training courses

Projections of completions from initial teacher training courses can be derived from information on commencements in these courses (discussed in section 6 and shown in charts 15 and 16) and applying a completion rate. To project completions in the period to 2003, the following assumptions have been made for the different streams:
- undergraduate completions;
  - for the period to 2003, completions equal commencements four years earlier multiplied by an average completion rate of 60 per cent;
- post-graduate completions;
  - for the period to 2000, completions equal commencements one year earlier multiplied by an average completion rate of 85 per cent;
  - for the period between 2001 and 2003, commencements in postgraduate teaching courses have been assumed to run at a level equal to the average during the previous five years. During that time postgraduate commencements were on a slightly upward trend.

The ‘completion rates’ have been calculated by comparing commencements and completions, suitably lagged, over the 1990s and averaging. While completion rates so derived can vary from one year to another, for a variety of reasons, it has been assumed that these historical average or trend completion rates will apply into the next few years.

As shown in Chart 19, completions are projected to rise gradually in the period to 2003 to levels which approach those at the start of the 1990s. The main reason for this projected recovery is the increase in completions from Initial Primary Teaching (and Initial General Teaching) courses, arising from recent increases in commencements in these courses. The rise in completions from secondary teacher training courses is projected to be more subdued, based on the assumptions described above. Further details are in Attachment 7.
As discussed in Chapter 6, around 87 per cent of all graduates make themselves available for teaching, some after undertaking further study. On this basis, the number of new graduates available to the teacher labour market in the next three years is projected to rise from 8240 in 2000 to 9770 in 2003, as shown in Table 13.

Table 13: Projected graduates from Initial Teacher Education courses and those available for teaching positions, 1999 to 2003

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduates completing initial teaching courses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial primary</td>
<td>3 515</td>
<td>3 282</td>
<td>3 620</td>
<td>4 009</td>
<td>4 309</td>
</tr>
<tr>
<td>Initial secondary</td>
<td>4 360</td>
<td>3 990</td>
<td>4 646</td>
<td>4 257</td>
<td>4 493</td>
</tr>
<tr>
<td>Early childhood</td>
<td>1 460</td>
<td>1 365</td>
<td>1 307</td>
<td>1 350</td>
<td>1 440</td>
</tr>
<tr>
<td>Initial general</td>
<td>384</td>
<td>1 060</td>
<td>1 154</td>
<td>1 013</td>
<td>1 251</td>
</tr>
<tr>
<td>Total</td>
<td>9 720</td>
<td>9 698</td>
<td>10 727</td>
<td>10 629</td>
<td>11 495</td>
</tr>
<tr>
<td>Graduates available for teaching jobs</td>
<td>8 260</td>
<td>8 240</td>
<td>9 120</td>
<td>9 040</td>
<td>9 770</td>
</tr>
</tbody>
</table>

Source: DETYA (2000,a). Refer to Chapter 6 for graduate availability rates.
Adequacy of projected graduate numbers to meet teacher requirements

The recruitment needs of the government and non-government school system as calculated above is not a measure of the level of new graduates required to satisfy the schools’ teacher requirements. There are two main reasons for this. First, some recruitment needs arise because teachers move from one jurisdiction to another and not out of teaching. That element of recruitment is not associated with a loss of teachers but simply with a reshuffling of teachers across jurisdictions. Second, graduates are not the only source of supply to meet the recruitment needs. Many teachers return to the teaching workforce after a period outside it and some come in through migration. For these reasons, recruitment needs as calculated above will exceed the requirement for new graduates.

The more appropriate way to assess whether graduate numbers are adequate is to note that, in order to ensure that teacher labour markets are in balance, the flow of teachers from graduations and immigration provide at least as many teachers as are lost to the teaching profession in net terms plus those required because of growth in the teaching workforce. A lesser number could be maintained for a period if there was an excess pool of available and/or under-utilised teachers, but this would eventually be depleted.

As that begins to happen, it would start to put increasing pressure on the teacher labour market.

While growth in requirements can be estimated quite readily, the net loss to the teaching profession is not easily derivable. The best estimate at this stage is provided by the work of Shah (1999) who reports that the net replacement demand for the teaching profession in Australia as a whole is of the order of 2.9 per cent a year across the full regular contract and casual teaching workforce. The way this estimate was calculated, based on ABS Labour Force Survey data, means that the estimate effectively represents the loss through retirements, resignations and out migration to the profession, after netting out those who come back and/or enter the profession in Australia through immigration.

Over the period 1999 to 2003, the loss rate calculated by using the results from Shah works out at an average of 7000 new teachers a year (on a headcount basis) across the primary and secondary sectors. By contrast, the growth demand over the same time period is expected to be of the order of 1500 a year (on a headcount basis), as noted earlier.

This suggests that balance in the teacher labour market in the next few years can be maintained with a flow of 8500 new graduates a year on average, across the primary and secondary sectors. This is broadly consistent with the graduate requirements implied in the results from the DETYA 2000 Survey reported in Table 12, after taking into account the fact that less than half of government teacher recruitments nationally was met by hiring new graduates (see Table 11). If this proportion were applied to the projected recruitment for 2000 to 2003 in Table 12, around 6000 to 6500 graduates would be needed annually to satisfy these projected recruitment needs. The number of graduates at the national level that are projected to be available for teaching jobs in the next few years (starting at 8260 in 1999 and rising to 9770 in 2003) therefore appears to be broadly in line with the requirements for a stable teacher labour market at the national level. In the period after 2003, however, with retirement pressures starting to emerge, overall replacement needs will rise and an increase in graduate numbers will become necessary (see Chapter 8 for a discussion of this development).

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1 It could be that the loss rate to the profession is higher for regular and contract teachers than for relief and casual teachers, who are included in the Shah estimate. However, as the proportion of the relief and casuals in the teaching workforce at any one time is relatively small (under 20 per cent), their inclusion in the Shah study should not have influenced the loss rate of regular and contract teachers significantly.
Projected trends in teacher requirements and graduations by State and Territory

The trends in teacher requirements and in graduations reported for Australia are discussed at the State and Territory level in this section. The data on government teacher requirements were provided by the State and Territory education authorities while DETYA estimated teacher requirements for the non-government sector.

Graduations data by State and Territory have been obtained by classifying the university at which the initial teacher training course was conducted to the State or Territory in which the university is located, or where the university has campuses in more than one State, to that State or Territory where the campus offering initial teacher training courses is located. The Australian Catholic University, with campuses offering teacher training courses in most of the three States and one Territory where it operates, has been omitted from the statistics. The Australian Catholic University produces less than 5 per cent of all teacher graduates.

New South Wales

Student enrolment growth in New South Wales in the period to 2003 is expected to be relatively modest, averaging less than half of one percentage point a year. This is still above the national average. The main student enrolment growth is expected to be at the secondary school level, and especially in the non-government sector.

Reflecting these enrolment trends, the teaching workforce in New South Wales is projected to increase by less than two per cent in total in the period to 2003 if student-teacher ratios remain unchanged (refer to Chart 20). This is a lower growth rate than experienced in the last five years.

Projections of completions from initial teacher training courses suggest that the number of graduates, while showing some volatility one year to the next as has been common in this labour market in the past, will on average in the five years between 1999 to 2003 be just below the annual mean in the previous five years (1994 to 1998). Because of this, and the small increase in teacher workforce numbers, the New South Wales average training rate (i.e. the ratio of completions to employment) for the projection period is estimated to be slightly lower than during the five years preceding the projection period (i.e. 4.6 per cent compared to 4.9 per cent). Note, however, that during the latter part of the projection period completions are expected to be on a steadily rising trend (Chart 20).

Chart 20: Projected teacher workforce and new graduates, 1999 to 2003, New South Wales

Source: DETYA projections.
Victoria

Student enrolments in Victoria are expected to increase by less than the national average, with an actual fall expected in the primary sector. As in New South Wales, the increase in the secondary sector will be greater in the non-government sector. Despite these low student enrolment growths, teacher employment is projected to be 6 per cent higher in 2003 than in 1998, due primarily to changes in the government policy on teachers in government schools (see Chart 21).

The number of graduates is projected to be, on average, similar to that in the recent past (see Chart 21). In the context of an increasing workforce, though, this means that the training rate would fall (from 4.2 per cent to 3.9 per cent).

Chart 21: Projected teacher workforce and new graduates, 1999 to 2003, Victoria

[Graph showing projected teacher workforce and new graduates]

Source: DETYA projections.

Queensland

In the 1998 to 2003 period Queensland is projected to have the highest growth in student enrolments among the States and Territories (5.1 per cent), just over three times the national average. As for the other States, the growth will be greater for the secondary sector but, unlike other States where primary enrolments are static or declining, primary sector enrolments in Queensland are projected to also increase by a relatively significant amount (4.5 per cent).

In line with these enrolment projections, the teacher workforce in Queensland should grow by around 6 per cent from 1998 to 2003 (Chart 22). While higher than for other States and Territories, a growth of this magnitude is less than half the growth that was achieved in Queensland in the decade to 1999.

Graduates from initial teacher courses are projected to be substantially above the numbers of the recent past (see Chart 22). In the latter part of the projection period graduate levels should be over 50 per cent higher than in the second half of the 1990s. On this basis, the training rate is projected to jump from 4.7 per cent to 5.7 per cent.
South Australia

Student enrolments in South Australia have been rising slowly since 1996 and have only recently regained the peak reached in 1994. However, in the period to 2003 falls are projected for both the primary and secondary sectors, but this will be felt exclusively in the government sector. The non-government sector is projected to grow slightly, particularly at the secondary level.

In line with the declining enrolment trends, teacher numbers are also projected to fall by around 2 per cent over the projection period (Chart 23). This will continue the steady decline in teacher numbers in South Australia since before the start of the 1990s, which was interrupted by the period of slight growth in the second half of the 1990s.

Teacher graduations in South Australia are expected to remain on average much the same as in the pre-projection period (Chart 23), although due to the fall in commencements in 1998, a decline in graduates is expected in 2002. Accordingly, the training rate is also estimated to remain unchanged at 3.2 per cent. This training rate is the lowest of all the States and Territories, except for the Northern Territory, reflecting the more static teacher labour market in South Australia.
Western Australia

Student enrolments in Western Australia are projected to continue growing at above the national average, at both the primary and secondary level, but at a slower pace than in the second half of the 1990s. Most of this growth will be confined to the non-government sector. The government sector is projected to remain roughly stable, with some gains in the primary sector and falls in the secondary.

Teacher numbers are projected to increase relatively strongly in Western Australia (see Chart 24) and somewhat faster than in the other States. This is consistent with the rapid growth in teacher numbers for the whole of the 1990s. In the projection period, most of the increase in teacher numbers is projected to occur in the government primary sector.

Graduate numbers are estimated to be, on average, well above the level of recent years (Chart 24). This is estimated to push the training rate in Western Australia from 4.5 per cent in the second half of the 1990s to 5.0 per cent in the early 2000s.

Chart 24: Projected teacher workforce and new graduates, 1999 to 2003, Western Australia

Source: DETYA projections.

Tasmania

Student numbers in Tasmanian primary schools have been declining steadily through most of the 1990s, while remaining roughly stable in the secondary sector. The decline in the primary sector is expected to continue for at least the next few years, but secondary numbers are projected to remain stable.

Teacher numbers are projected to remain unchanged as a whole (Chart 25), with only small falls in the secondary sector.

Graduate numbers are projected to be somewhat lower over the early part of the projection period than in the second half of the 1990s, but to pick up in the latter part (Chart 25). On average, however, graduate numbers are projected to be below those in the five year period to 1998. The training rate is therefore estimated to fall from 4.6 per cent in the second half of the 1990s to 3.8 per cent in the projection period.
Northern Territory

In recent years, student numbers in the Northern Territory have been rising but at a gradually slower rate. In the projection period to 2003, student numbers are projected to remain roughly stable, with falls in the primary sector being offset by increases in the secondary sector.

Teacher numbers are projected to grow strongly (Chart 26), much as occurred during the 1990s, due to expected improvements in the STR. Graduates from initial teacher education courses have been low in the Northern Territory but there has been a strong rise in commencements in the last few years. This is projected to lead to a substantial increase in teacher completions in the projection period (Chart 26). The training rate accordingly is expected to increase from 2.3 per cent to 5.3 per cent. It needs to be noted that this would be from a relatively small base, which makes projections less reliable.
Demand and supply of primary and secondary school teachers in Australia

Australian Capital Territory

Student numbers in the Australian Capital Territory have declined marginally since the early 1990s, in both the primary and secondary sectors. There was a slight rally in the mid 1990s but since then there has been a downward trend. This trend is expected to continue into the projection period, with student numbers falling in both sectors. Apart from Tasmania, the Australian Capital Territory is projected to experience the greatest percentage fall in student numbers.

In line with the projected fall in enrolments, teacher numbers are also estimated to fall (Chart 26). This follows a period of relative stability in teacher numbers in the Australian Capital Territory.

Graduate numbers in the Australian Capital Territory have been broadly on an upward trend in the 1990s. This is projected to continue, with average graduations in the projection period exceeding those of the pre-projection five year period (Chart 27). As a result, the training rate is estimated to increase from 5.7 per cent to 6.2 per cent. This is the highest in Australia, reinforcing the fact that the Australian Capital Territory has been a net exporter of teachers to other States and Territories.

Chart 27: Projected teacher workforce and new graduates, 1999 to 2003, Australian Capital Territory

In summary, the main trends projected for the States and Territories are:

- Student numbers in total to decline in four States and Territories, namely South Australia, Tasmania, Northern Territory (marginally) and the Australian Capital Territory, and increase in the others. The strongest increase is projected for Queensland and the strongest decline for South Australia. All States and Territories, except for New South Wales, Queensland and Western Australia, are projected to experience a decline in primary students, with the situation for secondary students being more mixed;
- Partly reflecting these enrolment trends, total teacher requirements across the primary and secondary sectors are projected to increase in all States and Territories except South Australia and the Australian Capital Territory, with employment in Tasmania remaining unchanged. Most of the rise in requirements will be in the secondary school sector;
- The level of graduations, averaged over the five projection years, is projected to be higher than in the corresponding five year period prior to 1999 (the start of the projection period) for four of the States and Territories and stable for another. Declines are projected for the remaining three States and Territories (New South Wales, Victoria and Tasmania), although in these States the trend is upwards in the final years of the projection period. The highest training rates are projected to be in the Australian...
Flexibilities and scope for adjustment in the teacher labour market

While it has been possible using the available information to make an assessment of the extent to which projected graduations in the next few years may be adequate to meet the need for new teachers in the Australian teacher labour market as a whole, appropriate data to make a similar assessment at the State and Territory level are not available. In particular, there is no information at the State/Territory level on net replacement rates, which are essential for making an informed assessment of the loss of teachers to the teaching profession within a State. These rates can be expected to vary significantly across the various jurisdictions, reflecting differences in operation of the teacher labour markets across the States and Territories and differences in opportunities available for people with teacher qualifications in the broader local and State labour markets.

However, even if it were found that in one State or Territory the training rate is insufficient by itself to provide enough new graduates to ensure that the State teacher labour market remains in balance, this does not mean that the State or Territory will automatically experience shortages of teachers. There are a number of sources of flexibility in the system which enable the State and Territory teacher labour market to adjust to some extent to potential imbalances between supply and demand. These sources are essentially of two kinds:

- options available to management within a single jurisdiction, such as the State education system. These can be classed as essentially ‘internal flexibilities’.
- some adjustments are possible by way of movements across jurisdictions. For instance, teachers can move from the government education system to the non-government system in the same State, and vice versa; or they can move from one State or Territory to another. These adjustments provide options for ‘external flexibility’.

This section discusses briefly some of these sources of flexibility.

Adjustments within a jurisdiction (internal flexibilities)

If there is an unexpected surge in demand for teachers within the jurisdiction, or a shortfall develops, which cannot be met through additional recruitment of staff because of a general shortage of teachers in the labour market, managers within the education authorities have a number of options at their disposal for dealing with the problem. These could include:

- allowing the STRs to rise by a small amount. A rise in the STR by one half of a percentage point in the secondary sector in any one jurisdiction is equivalent to reducing demand for teachers by about four per cent, which is slightly less than the annual output of teaching graduates in that jurisdiction;
- delaying the granting of long service leave and other leave arrangements to retain existing teachers longer;
- providing more hours of work to those currently working part-time (on a permanent or casual basis) and extending the term of appointment to fixed term contract teachers;
- making greater use of the pool of relief teachers and those registered for vacancies in teaching; and
- re-allocating teaching tasks to make the best use of available teachers, especially if the demand/shortage is for particular types of skills (e.g. mathematics or languages other than English).

A number of these measures have been used successfully in Australia in the past in the context of overcoming recruitment difficulties. Some of these have already been reported by the States and Territories in Chapter 3.
Adjustments through teacher movements between jurisdictions (external flexibilities)

Education jurisdictions and State labour markets do not operate in isolation. There is a significant movement of teachers between jurisdictions within a State and, importantly, between States. This provides an important source of flexibility in the labour market. The extent of these movements is discussed below.

Movement of teachers between jurisdictions within the same State/Territory

Data on movement of teachers between jurisdictions is not available, although it is known to be an important way by which teachers gain promotions and schools expand in areas of need. Some indication of the extent of this can be gleaned from the data on separations from the government school sector nationally and comparing this to the net replacement rate. An important source for the difference between these two measures (of the order of 1-2 percentage points) is likely to be the net flow of teachers out of the government sector into the non-government sector, which has been growing faster than the government sector.

Interstate movements of teachers

Interstate movements can be an important source of flexibility in the teacher labour markets, with surplus teachers from one State or Territory helping to overcome shortages in other jurisdictions. Table 14 provides an indication of the flow of new teacher graduates across State borders to gain employment. The data is based on the Graduate Destination survey undertaken by the Graduate Careers Council of Australia of 1998 graduates. These data relate to new teaching graduates who obtained a job in teaching by the time of the survey (April 1999).

The first point to note is that around 8.4 per cent of graduates in Australia who found employment soon after graduation moved from the State where they obtained their qualification. The proportion varied from almost two thirds in the Australian Capital Territory to less than 3 per cent in Queensland. There was some movement out of the State even in those States which were net gainers of graduates, like the Northern Territory and Tasmania. This is quite normal in the labour market for graduates as they seek out the best opportunities in the labour market.

In the case of New South Wales, South Australia and the Australian Capital Territory, during 1999 a greater number of new teaching graduates left the State to take up a teaching position than came into the State for the same reason. These States could be considered to have been net exporters of new teacher graduates during 1999.

Most of the New South Wales graduates who leave the State go to Queensland. South Australian graduates to the Northern Territory and Victoria; and ACT graduates go to New South Wales.

The States which are net importers of new graduate teachers are the Northern Territory and Queensland and, to a lesser extent, Tasmania. The Northern Territory obtains new graduate teachers from New South Wales, Victoria and South Australia. The main contributor to the Queensland teacher market is New South Wales.

It must be emphasised that this relates only to the movement of new teaching graduates. Graduates of previous years and currently employed teachers are not included in the Graduate Destination Survey. (To illustrate this, in the case of New South Wales a number of interstate teachers and interstate teaching graduates of previous years apply for employment with the Department of Education and Training each year.)
Demand and supply of primary and secondary school teachers in Australia

Table 14: Employed graduate teachers – State of graduation and State of employment (1999)

<table>
<thead>
<tr>
<th></th>
<th>Proportion of the State’s employed teacher graduates who obtained a job in the State (per cent)</th>
<th>Proportion of teacher graduates employed in the State who came from outside the State (per cent)</th>
<th>Ratio of State teacher graduates to State employment of teacher graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSW</td>
<td>88.2</td>
<td>5.3</td>
<td>1.11</td>
</tr>
<tr>
<td>VIC</td>
<td>93.1</td>
<td>7.5</td>
<td>0.99</td>
</tr>
<tr>
<td>QLD</td>
<td>97.7</td>
<td>8.4</td>
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<td>WA</td>
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<td>ACT</td>
<td>34.8</td>
<td>46.7</td>
<td>1.53</td>
</tr>
<tr>
<td>Australia</td>
<td>91.6</td>
<td>8.4</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Source: GCCA (1999), unpublished data.
Note: Numbers for Tasmania, Australian Capital Territory and the Northern Territory are small and need to be treated with caution.

This analysis seems to indicate that new teacher graduates are geographically mobile, to the extent that nationally around 8 per cent of them change State to get a teaching job. This provides a useful degree of flexibility in the labour market for teachers and can be important in balancing demand and supply across States.

Once graduates obtain a job, their mobility declines. Data from the 1996 census, for instance, show that over a five year period perhaps three to four per cent of all employed teachers moved interstate, but this varied from one State and Territory to another. The pattern of net gains and losses reflects the movements of new graduates discussed above, the main exception being Victoria. In the five years to 1996 Victoria seems to have been a net exporter of teachers, while in terms of recent graduates it is neither a net gainer nor a net loser (Table 15).

Table 15: Interstate movements between 1991 and 1996 of employed teachers as a proportion of employed teachers in each State and Territory (per cent)

<table>
<thead>
<tr>
<th>Movement</th>
<th>NSW</th>
<th>VIC</th>
<th>QLD</th>
<th>SA</th>
<th>WA</th>
<th>TAS</th>
<th>NT</th>
<th>ACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTO STATE</td>
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Summary
The time span between 1998 and 2003 is expected to be characterised by two distinct periods. During the first, covering the period to 2001, enrolments in both primary and secondary schools are projected to grow at a fairly steady rate. As a result, teacher requirements are also expected to continue rising. In the second
period, between 2001 and 2003, enrolments in the primary sector are expected to flatten out while those in the secondary sector are projected to continue growing but at a slower pace. Teacher requirements are expected to follow suit.

The slow growth in teacher requirements in the four years to 2003 is therefore expected to generate the need for under 1500 additional recruits a year. The biggest component of recruitment needs, summed over the government and non-government sectors, will arise from the need to replace retiring teachers and teachers who resign, some of them to go to another jurisdiction. On average, this is estimated to come to around 11,000 teachers a year in this period. Other sources through which teachers leave the teaching workforce, such as long term leave, roughly balance out with the number of teachers returning from long term leave.

This estimate of retirements and resignations overstates the loss of teachers from the teaching profession as some resignations involve leaving one teaching jurisdiction to go to another rather than exit from teaching. A better measure of the loss of teachers is the “net replacement rate” calculated by researchers at Monash University, although this tends to understate the teacher loss somewhat. The net replacement rate has been estimated at roughly 3 per cent of the teaching workforce or 7000 teachers a year in the period to 2003.

Ignoring any surplus teachers available to take up positions in teaching when these become available, balance in the labour market requires that new graduates equal the teacher loss rate plus growth in requirements. On this basis, there is a need for at least 8500 new graduates a year (1500 growth plus 7000 loss). This compares with a projected level of teaching graduates available for teaching of the order of 9000 a year in the four years to 2003, suggesting that at the national level graduations should be broadly adequate to meet requirements over that time period. In addition, there is a buffer of teaching resources available in most States in the pools of relief, casual and other teachers currently under-employed (or not employed at all) in teaching.

It has not been possible to undertake a similar analysis for each of the States and Territories because of data limitations. However, even if an analysis of this kind were to indicate that graduations from a particular State or Territory came in under the level required to maintain balance in the labour market, some under-production of graduates can be maintained for a period if there is already a pool of surplus or under-employed teachers. This is the case at the moment in a number of States and Territories. Furthermore, interstate migration of new graduates provides a further source of flexibility to even out supply and demand.

Looking at projected trends in student numbers, teacher employment and graduation within the States and Territories shows significant expected variations across Australia. Student numbers are projected to decline in four States and Territories and increase in the others. The strongest increase is projected for Queensland, followed by Western Australia, and the strongest decline for Tasmania. Teacher requirements across the primary and secondary sectors are projected to increase in all of the States and Territories, with increasing student numbers as well as two of the States and Territories with declining student numbers (i.e. Tasmania and the Northern Territory). Most of the rise in teacher requirements is projected to occur in the secondary school sector.

While nationally graduations are on the rise in the period to 2003, some States and Territories are expected to experience declines. The average training rate (i.e. the ratio of graduations to the teacher workforce) over the period 1998 to 2003 is projected to increase in Queensland, Western Australia, the Northern Territory and the Australian Capital Territory and remain unchanged in South Australia. In part this reflects differential rates of growth in enrolments between the States and Territories noting, for example, that Queensland and Western Australia are the two States with the fastest growing student populations. However, other State-based factors are also at play in other jurisdictions.