



**MINISTRY OF EDUCATION**

*Te Tāhuhu o te Mātauranga*

## **Teacher supply key statistics report**

### **May teacher loss rates 2006/2007 and reasons for losses 2005/06**

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Demographic and Statistical Analysis Unit

Data sources:

Teacher Payroll Data Warehouse

July 2006 Schools Roll Return

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## **Purpose**

This report details trends in teacher numbers, teacher loss rates, and the reasons for the losses. This analysis assists in identifying areas of concern in teacher supply. The data gives an indication of the stability and morale of the teacher workforce and the state of the labour market.

The report begins with the key findings and some background information on teacher losses and loss rates. The topics covered include: trends in teacher numbers with a focus on the age profile of the teaching workforce; trends in teacher losses by age, region, designation and school decile; and a summary of the reasons for teacher losses by age and designation.

This report is part of a series of regular updates on trends in teacher numbers and losses produced by the Demographic & Statistical Analysis Unit.

## **Key findings**

### ***Teacher numbers***

- The number of primary and secondary teachers in NZ State and State Integrated schools has increased between 2006 and 2007, although the increase was not as great as that seen in 2005 to 2006.
- The average age of teachers overall is 44.5 years, slightly up on the long term average of 44 years.
- Generally, the percentage of teachers aged 40 to 54 has decreased in the past five years, while the percentage aged 30 to 39 and aged over 55 has increased.

### ***Teacher losses***

- Current primary and secondary teacher loss rates are slightly up but on a par with previous years.
- Regionally, Taranaki and the West Coast have the highest loss rates of primary teachers. The West Coast region had by far the highest loss rates of secondary teachers.
- Primary teachers in low decile schools tend to have lower loss rates than those in medium and high decile schools. In secondary schools the loss rates are similar across all deciles.

### ***Reasons for losses***

- The most common reason primary teachers left the profession was to go on leave without pay, with overseas work or travel the second most common reason. For secondary teachers these two reasons are about equally common. Retirement is the fourth most common reason for both sectors.
- In both primary and secondary schools younger age groups are more likely to teach, work, or travel overseas, and less likely to leave to another occupation or leave due to

personal or health reasons. In both sectors retirement is the most common reason for leaving in teachers aged 55 and older.

## Part 1. Background

### What is a teacher loss?

Teacher losses include all permanent teachers who have left the teaching profession, or who are on leave without pay. They do not include teachers who have moved to another school.

A teacher is considered lost from the profession if they were teaching in May of one year and not teaching in May the following year. For example, the total number of teachers lost for 2007 are the number of permanent teachers teaching in May 2006 who were not teaching in May 2007. A *loss rate* is the number of losses of permanent teachers in the May to May period divided by the total number of permanent teachers at the first May.

### What do teacher losses tell us?

Teacher loss rates are useful component of teacher supply analysis when considered alongside other components, such as trends in school enrolments, teacher vacancies, and intake rates. In particular, loss rates give an indication of the stability and morale of the teacher workforce and the state of the labour market.

### Limitations of this measure

- A loss does not necessarily mean an actual loss to the teaching profession, as teachers may be on leave without pay, or maternity leave.
- This report focuses on teacher loss rates and teacher numbers, and so presents a limited view of teacher movements in New Zealand. Other factors, such as intake rates and the movement of teachers between schools, should be considered in conjunction with the information given here.
- Readers should also bear in mind changes in school rolls and the effect these have on teacher losses.
- When making comparisons between groups, consideration of the group size is important. For example, teachers in the 60+ age group (see Figure 4 and Figure 5) have seen large variations in loss rates compared with other age groups. However, the number of teachers in this age group (see Figure 1 and Figure 2) has typically been smaller than the other age groups. Smaller group sizes can give rise to more extreme variations than we would expect in larger groups. Particularly large variations in some groups may simply be explained by their small size.

## Part 2. Teacher numbers at April

There were 396 more teachers in State and State Integrated schools in April 2007<sup>1</sup> compared to the same period last year. This equates to an increase of 0.8 percent (see Table 1 and Table 2).

In April 2007 there were 26,469 primary school teachers employed in New Zealand State and State Integrated schools – an increase of 0.6 percent on last year's total.

There were also 20,398 secondary school teachers – an increase of 0.8 percent on last year's total.

There has been a decrease in the rate of increase of teachers from 2005/06 to 2006/07.

**Table 1: Headcount of teachers April 2004 to April 2007**

<i>School type</i>	<i>Measure</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>
Primary	Permanent Teachers	20,140	19,836	20,032	20,208
	All Teachers	26,007	25,809	26,305	26,469
Secondary	Permanent Teachers	15,288	16,058	16,668	16,963
	All Teachers	19,190	19,872	20,241	20,398
Total*	Permanent Teachers	38,064	38,663	39,536	40,087
	All Teachers	48,546	49,241	50,125	50,521

*\*Includes composite, special, and the Correspondence school.*

**Table 2: Percent change in teacher numbers from April to April**

<i>School type</i>	<i>Measure</i>	<i>2004 to 2005</i>	<i>2005 to 2006</i>	<i>2006 to 2007</i>
Primary	Permanent Teachers	-1.5%	1.0%	0.9%
	All Teachers	-0.8%	1.9%	0.6%
Secondary	Permanent Teachers	5.0%	3.8%	1.8%
	All Teachers	3.6%	1.9%	0.8%
Total*	Permanent Teachers	1.6%	2.3%	1.4%
	All Teachers	1.4%	1.8%	0.8%

*\*Includes composite, special, and the Correspondence school.*

<sup>1</sup> The official series for reporting teacher numbers is the April series, while the official series for reporting teacher losses is the May series.

## Teacher numbers by age

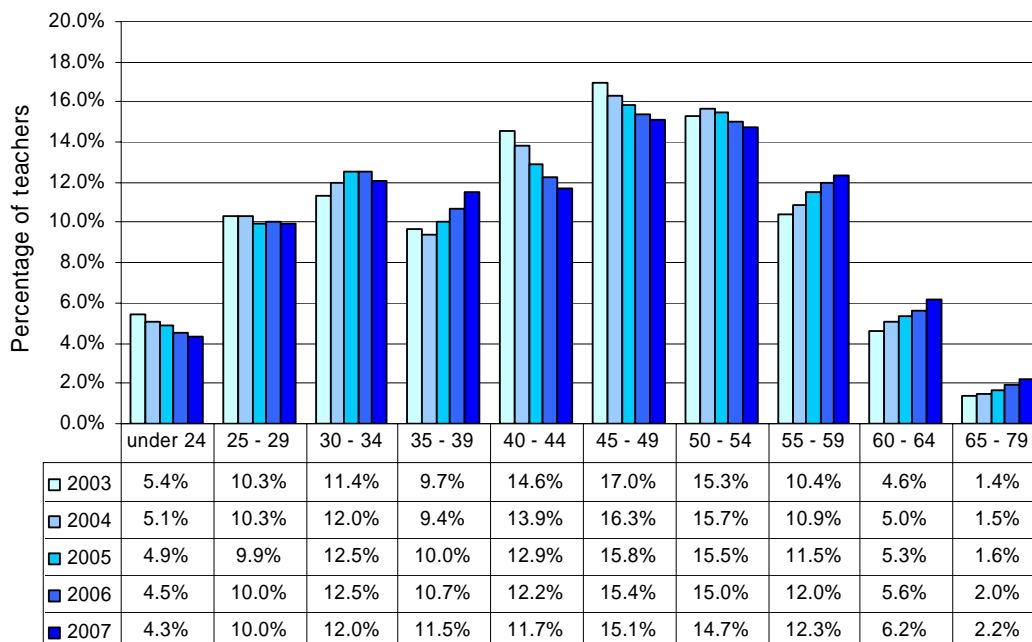
The age profile of the primary and secondary teacher workforce has flattened in recent years, with growing proportions in the ‘younger’ and ‘older’ age groups, and declining proportions in the mid-range of ages.

The declining proportion of teachers aged 40 to 49 has potential implications for the recruitment and retention of experienced middle management teachers.

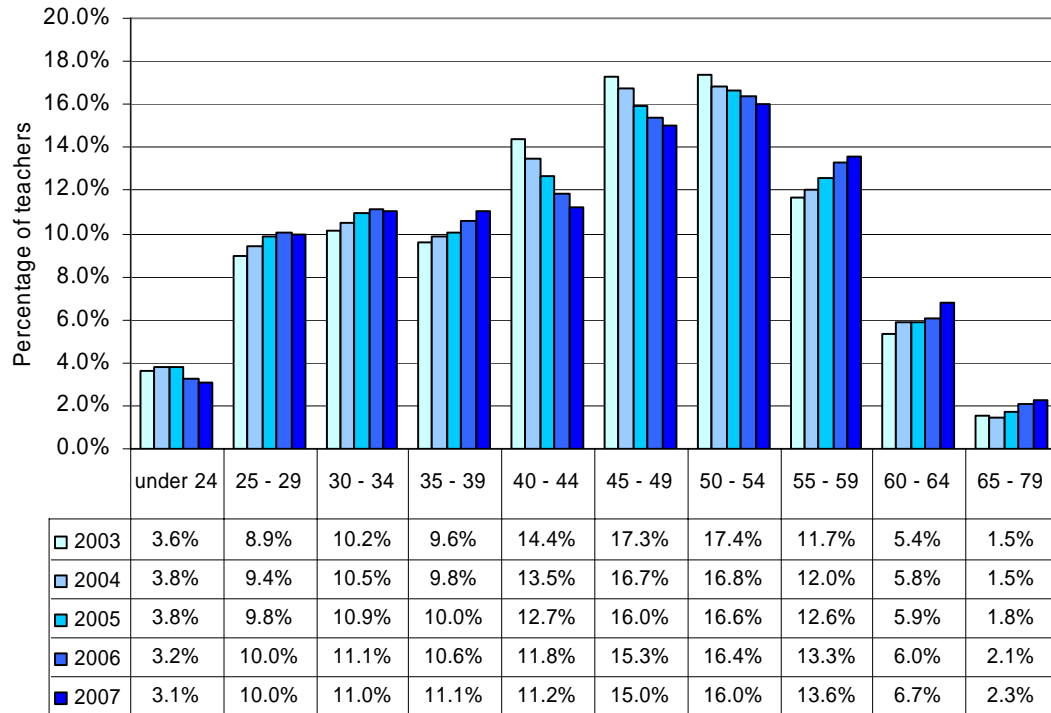
Despite these changes to the age profile of teachers, the average age of teachers has remained relatively steady, being 44 for the past eight years; for the current period the average age is 44.5 years.

Figure 1 and Figure 2 show a comparison between primary and secondary teacher age profiles. The age profiles are fairly similar, as are changes in the age profiles through time.

**Figure 1: Percentage of primary teachers by age group, as at April 2003 to April 2007**



**Figure 2: Percentage of secondary teachers by age group, as at April 2003 to April 2007**



### Part 3. Teacher losses from May to May

Table 3 shows loss rates by school type. Although the number of primary teachers lost is somewhat higher than the number of secondary teachers lost, the loss rate for primary is only slightly higher due to the higher number of primary teachers overall.

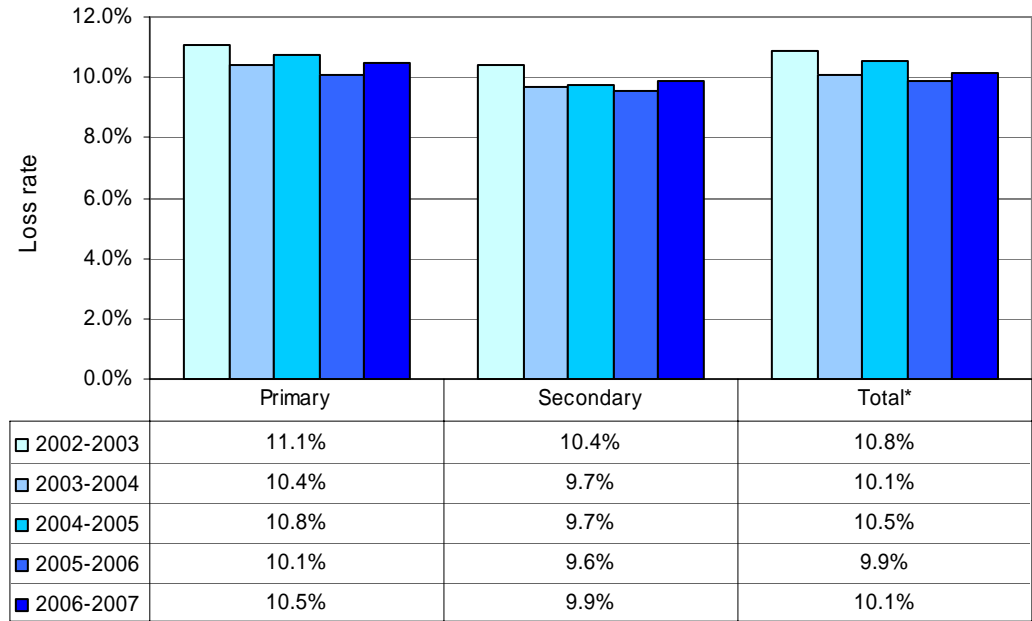
**Table 3: Number of permanent teacher losses, permanent teachers, and loss rates by school type, May 2006 to May 2007**

School type	Number of losses 2006-2007	Permanent teachers in May 2006	Loss rate 2006-2007
Primary	2,077	19,866	10.5%
Secondary	1,635	16,586	9.9%
Total*	3,985	39,276	10.1%

\*Includes composite, special, and the Correspondence school.

Current loss rates for primary and secondary teachers are slightly up on last year's rates, but overall there is a general downward trend over the past five years (see Figure 3). For secondary schools this trend is reversed in 2006/07. In general, loss rates have remained within a small range over the past few years.

**Figure 3: Teacher loss rates by school type, May 2002-2003 to May 2006-2007**



*\*Includes composite, special schools and the Correspondence School*

## **Teacher loss rates by age**

### **Primary**

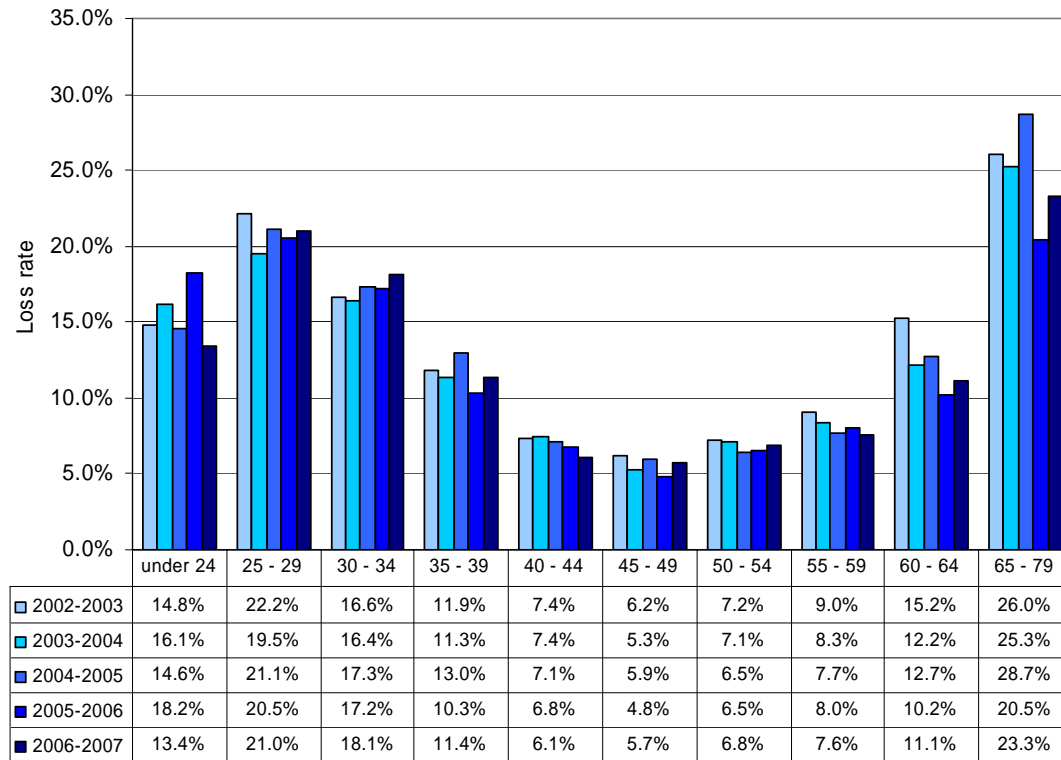
Across all age groups, the proportion of primary teachers who leave the teaching profession has varied from year to year (Figure 4). Broad trends appear to be an increase in the rate for teachers 25–39 years old, while for older teachers there appears to be a decreasing trend. Care needs to be used in considering the youngest and oldest groups because of their small sizes.

### **Secondary**

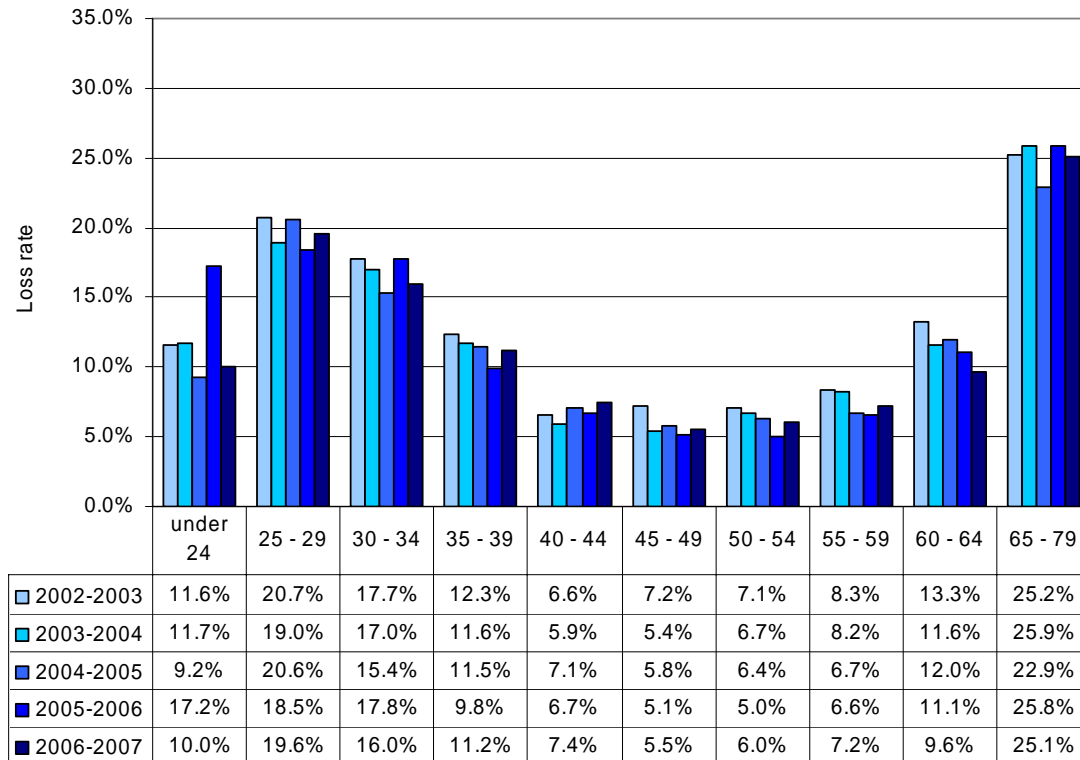
Across all age groups, the proportion of secondary teachers who leave the teaching profession has varied from year to year (Figure 5). Most age groups this period showed a slight increase, reversing previous trends. In other groups the previous year's trends continue.



**Figure 4: Primary teacher loss rates by age group, May 2002-2003 to May 2006-2007**



**Figure 5: Secondary teacher loss rates by age group, May 2002-2003 to May 2006-2007**



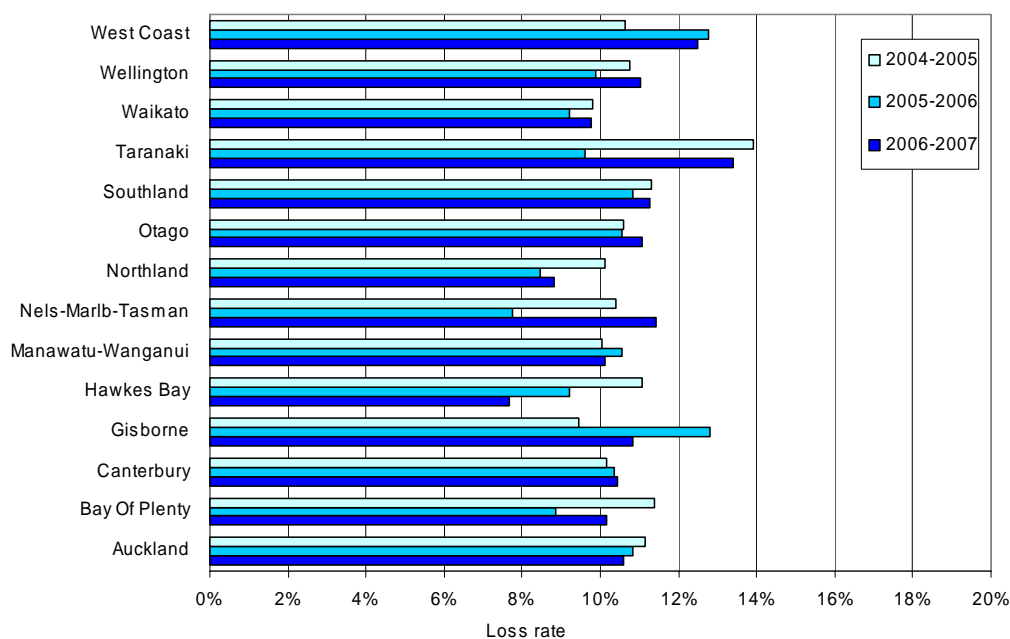
## Teacher loss rates by region

Variations in regional loss rates can in part be explained by factors such as job opportunities and roll change. Small regions also tend to have greater variability from year to year, as changes to loss numbers have a relatively larger effect on small population sizes.

### Primary

In the period May 2006 to May 2007 primary teachers were more likely to leave the profession in Taranaki (13.4 percent) and the West Coast regions (12.5 percent). Hawkes Bay region had the lowest primary teacher loss rates (7.7 percent).

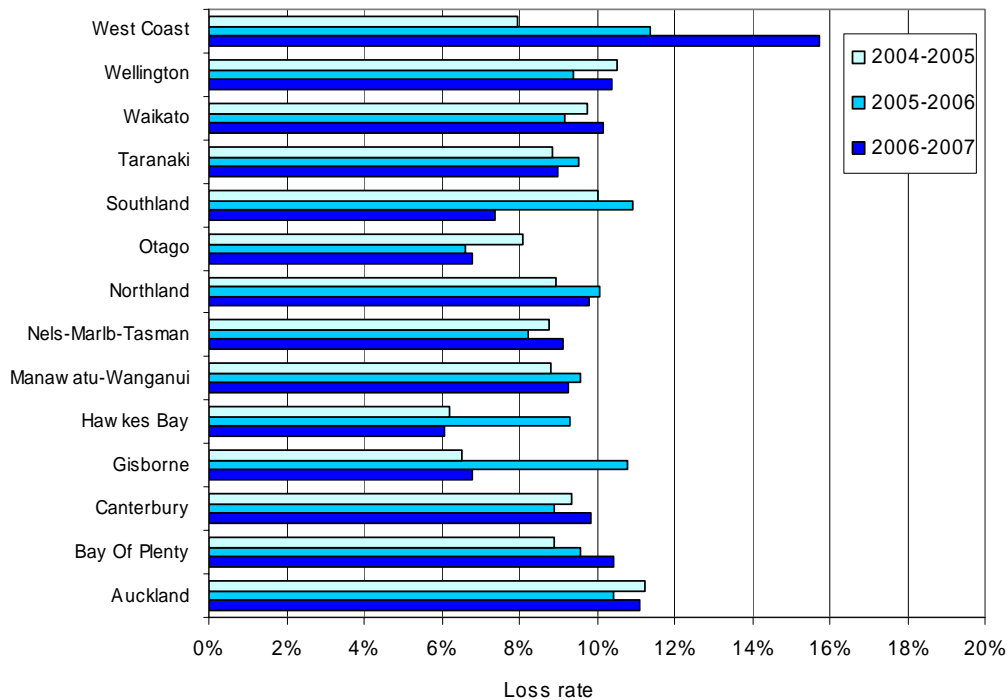
Figure 6: Primary teacher loss rates by region, May 2004-2005 to May 2006-2007



### Secondary

In the period May 2006 to May 2007 secondary teachers were more likely to leave the profession in the West Coast (15.7 percent). Hawkes Bay, Otago and Gisborne regions had the lowest secondary teacher loss rates (6.1, 6.8 and 6.8 percent respectively).

**Figure 7: Secondary teacher loss rates by region, May 2004-2005 to May 2006-2007**



## ***Teacher loss rates by designation<sup>2</sup>***

### **Primary**

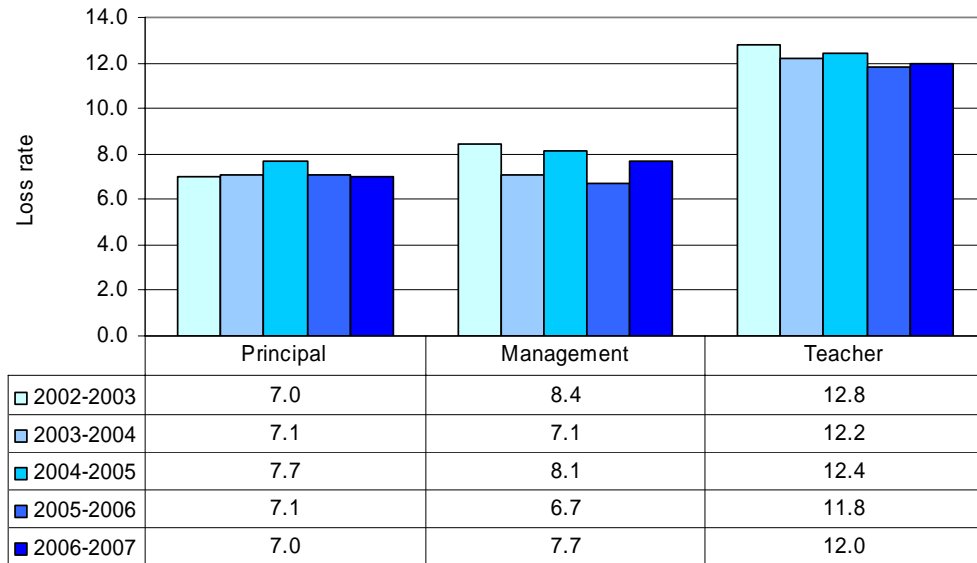
Figure 8 shows the loss rates of teachers by designation. The percentage of primary teacher losses (excluding management and principals) has steadied at around 12 percent in recent years. Primary principals' loss rates declined slightly, while loss rates for teachers in management positions rose a percentage point, but are still down on the rate of two years ago.

### **Secondary**

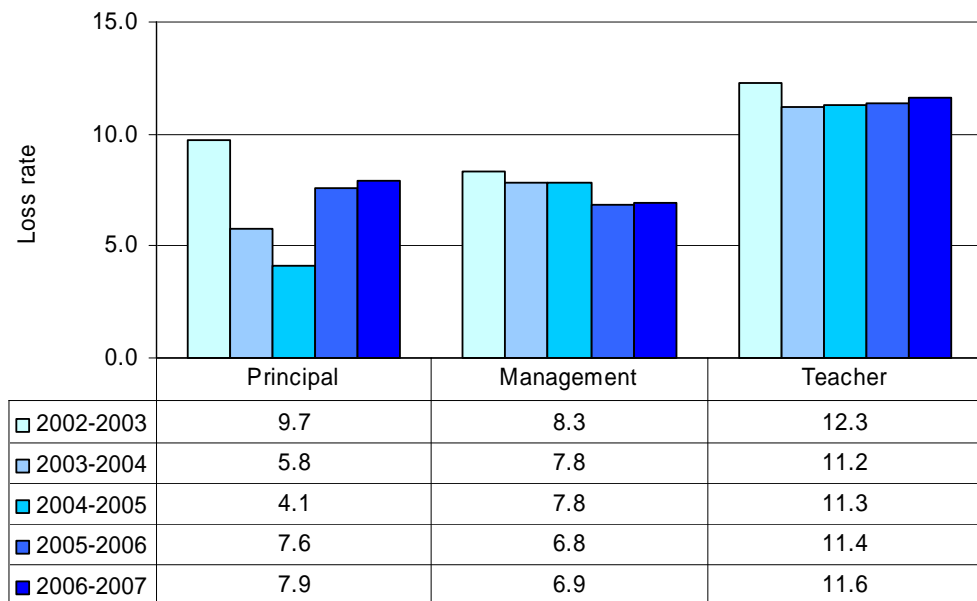
Figure 9 shows the loss rates of teachers by designation. The percentage of secondary teacher losses (excluding management and principals) has been increasing incrementally over the past four years. Secondary loss rates for principals have increased again this year, although loss rates remain lower than in the early 2000s. Secondary loss rates for teachers in management positions remain low.

<sup>2</sup> Note that the grouping of teachers into designation categories used in this report may differ from other reports.

**Figure 8: Primary teacher loss rates by designation, May 2002-2003 to May 2006-2007**



**Figure 9: Secondary teacher loss rates by designation, May 2002-2003 to May 2006-2007**

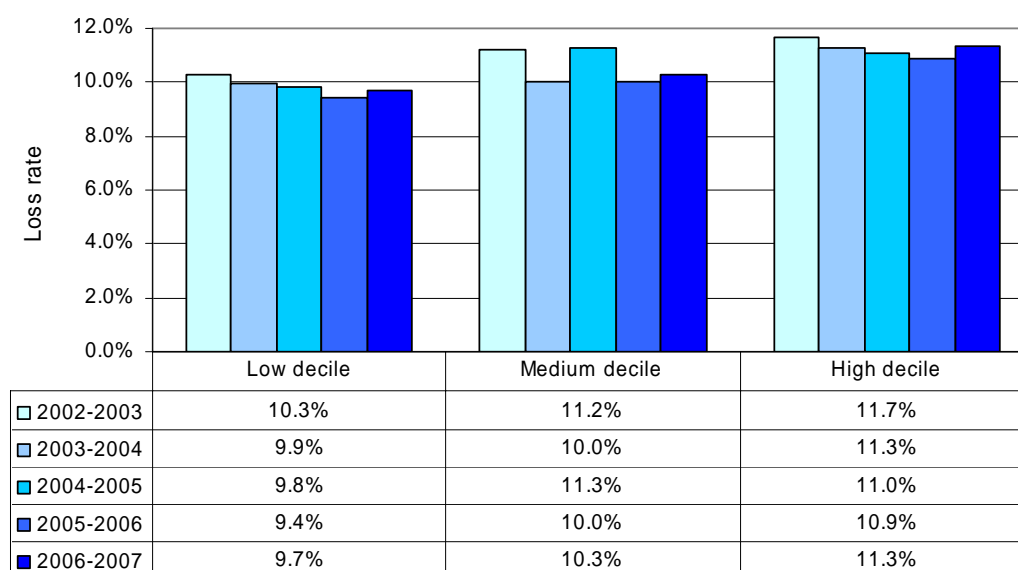


## Teacher loss rates by school decile<sup>3</sup>

### Primary

Figure 10 shows that teachers in low decile schools<sup>4</sup> have had consistently lower loss rates than medium and high decile schools. The medium decile group have had the most variability in loss rate over the past five years. In addition, notwithstanding the difference in absolute loss rate between the low and high decile groups, the trends through time are similar.

**Figure 10: Primary teacher loss rates by decile group, May 2002-2003 to May 2006-2007**



### Secondary

Loss rates in secondary schools do not show as clear a pattern as that seen in primary schools.

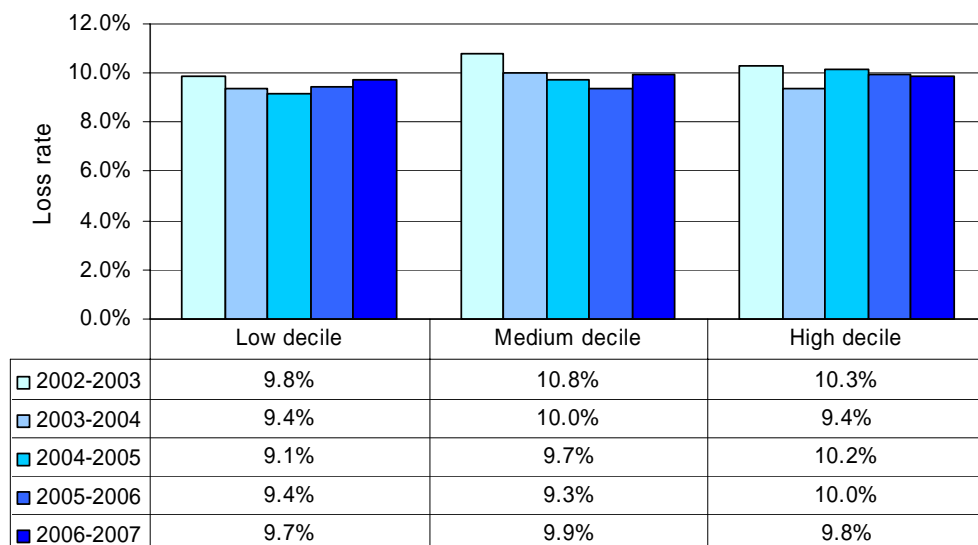
Figure 11 shows that low and medium decile schools are following a similar pattern of changes in loss rates, although medium decile schools' teacher loss rates this year are higher than low decile schools. High decile schools do not have an increase in loss rate this year, defying the trend seen in all other decile categories across both school sectors.

Generally loss rates this period are much the same across all decile groups in secondary schools.

<sup>3</sup> Deciles measure the extent to which a school draws its students from low-socio-economic communities. For example, Decile 1 schools are the 10 percent of school with the highest proportion of students from low-socio-economic communities, whereas Decile 10 schools are the 10 percent of schools with the lowest proportion of these students.

<sup>4</sup> Low decile schools are those with decile ratings 1-3. Medium decile schools are those with decile rating 4-7. High decile schools are those with decile rating 8-10.

**Figure 11: Secondary teacher loss rates by decile, May 2002-2003 to May 2006-2007**



## Part 4. Summary of reasons for losses

Information on the reasons why teachers leave their positions is collected in the July School Roll Return Survey each year<sup>5</sup>. Schools are sent a list of teachers who were recorded as a loss between May of the current year and May of the previous year, and they are asked to provide the reason why each teacher left. Due to the timing of the July School Roll Return the most recent information available is for the period May 2005 to May 2006.

### Primary

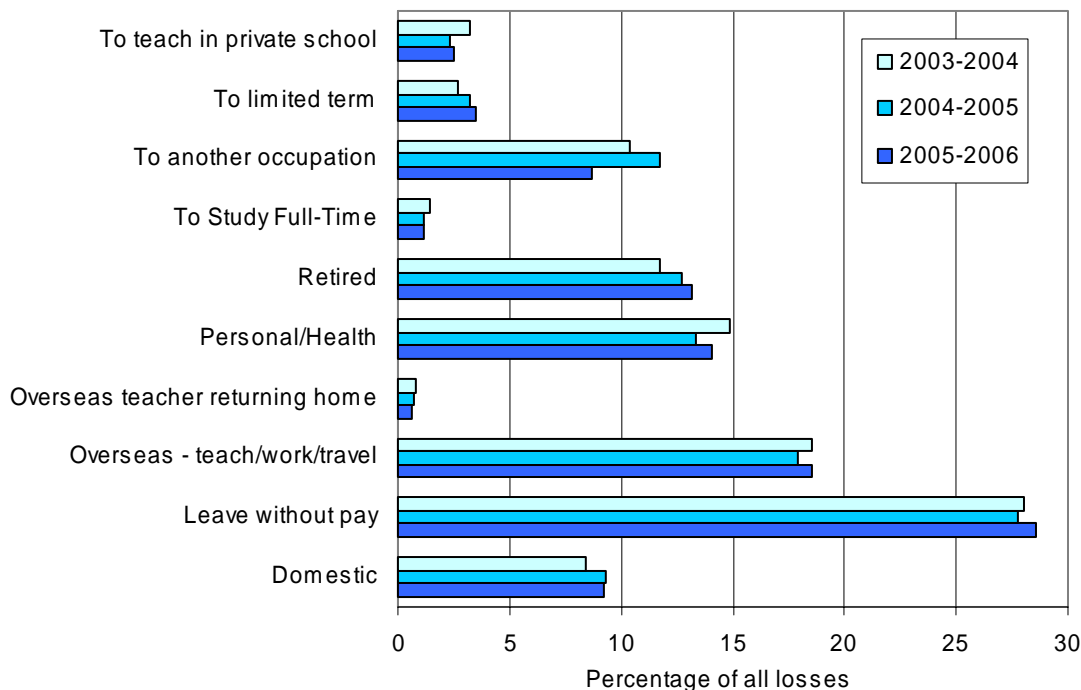
In the period May 2005 to May 2006 there were 1,987 primary teacher losses.

Figure 12 shows the reason for leaving of primary teachers for the last three years for which data is available. It excludes losses where the reason for leaving was recorded as unknown<sup>6</sup>.

<sup>5</sup> Reasons for losses have been categorised to fit the purposes of this report. These categories may differ to other publications. Details of the reasons for loss within each category are provided in the appendix.

<sup>6</sup> Losses where the reason for leaving is unknown are excluded because they may distort the proportions. They account for a small proportion of the total losses in the three time periods.

**Figure 12: Primary teachers' reasons for losses, May 2003-2004 to May 2005-2006**



*Note: Excludes losses where the reason is unknown or unspecified*

For primary teachers who left between 2005 and 2006 the most common reason for leaving was to go on leave without pay (29 percent).

The proportion of teachers leaving to go overseas to travel or work is the second most common reason for leaving at 19 percent.

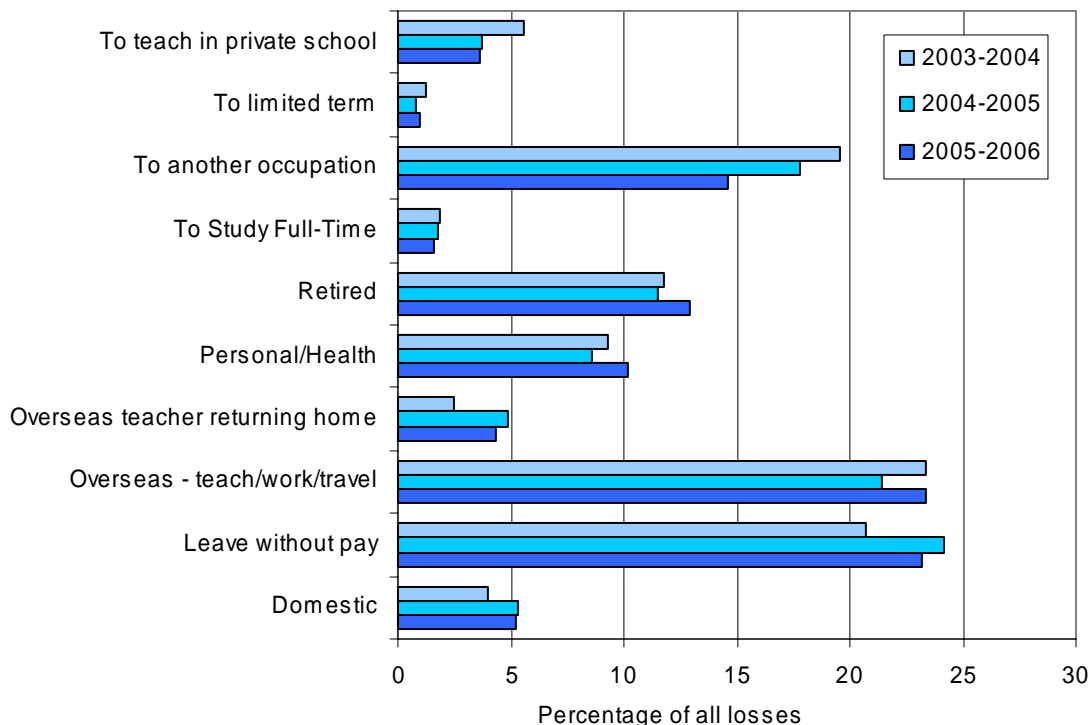
The proportion of primary teachers leaving to another occupation has fallen back from the high level seen last period.

The category that has steadily increased over the past three periods is 'retired', and in 2005/06 was just behind personal/health as a reason for leaving.

**Secondary**

In the period May 2005 to May 2006 there were 1,529 secondary teacher losses. Figure 13 depicts the spread of secondary teacher losses by reason for leaving for the last three years.

**Figure 13: Secondary teachers' reasons for losses May 2003-2004 to May 2005-2006**



*Note: Excludes losses where the reason is unknown or unspecified*

For secondary teachers who left between 2005 and 2006 the most common reason for leaving was to go overseas to travel or work (23.4 percent), having overtaken leave without pay by 0.2 percentage points (23.2 percent).

The proportion of secondary teachers going to other occupations was much higher than for primary teachers. Around 15 percent of all secondary teachers who leave go to another occupation. This is possibly because a higher proportion of secondary teachers than primary teachers have non-teaching qualifications, and this may enable them to move more easily to other industries. However, the proportion that is leaving to go to another occupation has been steadily decreasing over the past three periods.

The proportion of teachers retiring do not show the steady increase as seen in primary schools, but this is the fourth most common reason for leaving for secondary teachers, and at 13 percent is similar to the primary teacher rate.

### **Reasons for loss by age**

#### **Primary**

The highest number of losses for teachers in primary schools occurred in the 25-29 and the 30-34 age groups (shown in Table 4), and these groups are over-represented in teacher losses (compare with Figure 1). Otherwise the proportions of teachers leaving were spread relatively evenly over the different age groups.



**Table 4: Primary teacher losses by age group, May 2005 to May 2006**

	Age Category									Total
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	
Total number of losses	75	345	372	179	143	133	207	208	198	1,867
Percent of total losses	4.0	18.5	19.9	9.6	7.7	7.1	11.1	11.1	10.6	100.0

*Note: Excludes losses where teacher age is unknown*

Table 5 shows the spread of reasons for leaving within each age group. Going overseas to teach, work, or travel was the most popular reason for primary teachers in the 20-24 and 25-29 age group. This is not surprising given the age limit of 30 on the working visas to the UK.

Leave without pay was the most common reason for leaving for the 30-34 and 35-39 age groups.

Leaving to go into another occupation featured strongly among primary teachers aged 40 to 49. Generally, younger primary teachers are less likely to go to another occupation than teachers 40 to 54 years.

Personal/Health reasons featured strongly among primary teachers aged 40 to 59.

The most common reason for leaving for the 55-59 and 60+ age groups was retirement.

**Table 5: Primary teacher loss rates by reason for leaving and age group, May 2005 to 2006**

Reason for leaving	Age Category									Total
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	
	%	%	%	%	%	%	%	%	%	%
Domestic	4.0	12.5	16.1	11.7	8.4	6.8	6.8	3.8	0.5	9.2
Leave without pay	14.7	32.8	48.7	44.1	20.3	23.3	22.7	12.5	7.1	28.6
Overseas - teach/work/travel	66.7	35.9	15.9	15.6	15.4	10.5	10.1	10.6	2.5	18.5
Overseas teacher returning home	1.3	0.9	0.8	0.6		0.8		1.0		0.6
Personal/Health	4.0	5.8	7.3	11.7	21.7	27.8	23.2	25	11.1	14.1
Retired			0.3	1.1	2.1	4.5	12.1	30.8	73.2	13.2
To study full-time		0.9	0.3	2.8	1.4	3.8	1.9	0.5	0.5	1.2
To another occupation	4.0	6.7	6.2	6.7	18.9	12	16.4	9.6	1.5	8.7
To limited term	5.3	1.7	2.7	2.8	4.9	6.0	4.8	4.3	3.5	3.5
To teach in private school		2.9	1.9	2.8	7.0	4.5	1.9	1.9		2.5
Total percentage	100	100	100	100	100	100	100	100	100	100

*Note: Excludes losses where teacher age is unknown. Also excludes losses where reason for leaving is unknown*

## Secondary

As was the case with primary teacher losses, secondary teachers in the 25-29 and 30-34 age groups were over-represented (compare Table 6 and Figure 2).

**Table 6: Secondary teacher losses by age group, May 2005-2006**

	Age Category									Total
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	
Total number of losses	39	259	299	155	117	119	137	145	190	1468
% of total losses	2.7	17.6	20.4	10.6	8.0	8.1	9.3	9.9	12.9	100.0

*Note: Excludes losses where teacher age was unknown*

Going overseas to travel or work accounted for a high proportion of secondary teacher losses in the 20-24 and 25-29 age groups (see Table 7). In addition, just under a fifth of secondary teacher losses in the 30-34 through to 50-54 age groups were due to overseas travel or work. This is somewhat different from the pattern for primary teacher losses.

Teachers moving to other occupations are less likely to return to teaching in the future. This was the most common reason for teachers leaving in age groups from 40-44 through to 50-54. An interesting change from last year is that teachers 55-59 have retired as their most common reason for leaving, while last year it was to go to another occupation.

**Table 7: Secondary teacher losses by reason for leaving and age group, May 2005-2006**

Reason for leaving	Age Category									Total
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	
	%	%	%	%	%	%	%	%	%	%
Domestic	12.8	6.2	8.0	5.2	4.3	4.2	3.6	2.8	2.1	5.2
Leave without pay	17.9	17.4	43.1	31.6	18.8	18.5	25.5	13.1	3.7	23.2
Overseas - teach/work/travel	43.6	49	23.7	24.5	23.1	15.1	12.4	13.1	4.2	23.4
Overseas Teacher Returning Home	5.1	6.2	5.4	8.4	5.1	4.2	2.2	1.4		4.3
Personal/Health	2.6	3.1	4.7	11	9.4	21.8	14.6	19.3	13.2	10.2
Retired					1.7	2.5	7.3	24.1	73.2	12.9
To Study Full-Time	2.6	2.3	0.3	1.9	3.4	1.7	0.7	2.8	0.5	1.6
To another occupation	10.3	12	10.4	13.5	23.9	26.9	26.3	17.9	2.6	14.6
To limited term		0.4	0.7	0.6	4.3	1.7	2.2	0.7		1.0
To teach in private school	5.1	3.5	3.7	3.2	6.0	3.4	5.1	4.8	0.5	3.6
Total percentage	100	100	100	100	100	100	100	100	100	100

*Note: Excludes losses where teacher age is unknown. Also excludes losses where reason for leaving is unknown*

## Reasons for loss by designation

### Primary

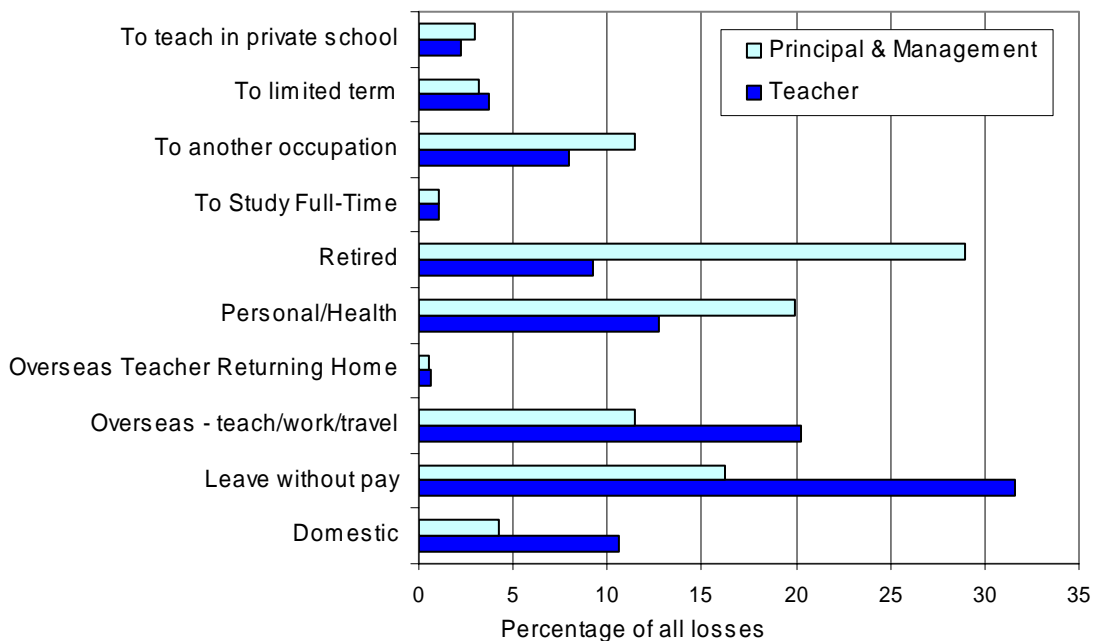
Figure 14 shows reasons for leaving of primary teachers as a percentage of all losses by designation. Principals and management have been grouped due to the small numbers of losses from these designations.

The majority of primary teachers (excluding management and principals) left teaching to go on leave without pay (32 percent) or to teach, travel or work overseas (20 percent). These rates are both up on last year's values.

Over a quarter of primary principals or management staff left to retire. A fifth left for personal or health reasons, while 16 percent left to go on leave without pay.

The reasons for leaving the teaching profession by designation are tied to the typical ages of these designations. Teachers (excluding management and principals) are typically younger than management and principals and so reflect the reasons for leaving of the younger age groups. Management and principals are typically older than other teaching staff and so reflect the reasons for leaving of those age groups.

**Figure 14: Primary teacher losses by reason for leaving and designation, May 2005-2006**



### Secondary

Figure 15 shows the reasons for leaving the secondary teaching profession as a percentage of all losses by designation. Again principal and management level positions have been grouped.

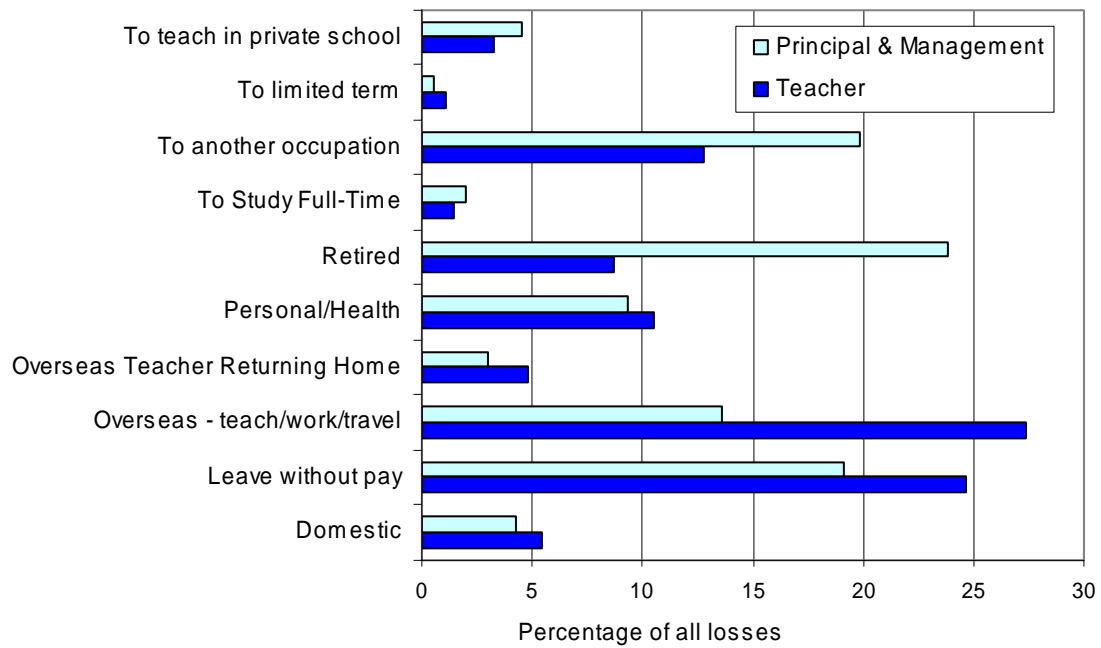
The majority of secondary teachers (excluding management and principals) left to teach, travel or work overseas (27 percent), to go on leave without pay (25 percent), or to another occupation

(13 percent). Compared to last year, this represents a shift away from going to another occupation, with increases in the other two categories.

Secondary teachers in management and principal positions were more likely to retire (24 percent) or go to another occupation (20 percent). A further 19 percent were on leave without pay.

Across all designations, secondary teaching staff were more likely to leave to go to another occupation than primary teaching staff.

**Figure 15: Secondary teacher losses by reason for leaving and designation, May 2005-2006**



## Appendix: detailed reasons for teacher losses

**Table 8: Details of reason for loss categories used in this report**

Reason for loss category	Detail
Domestic	Change in employment area within NZ of partner Family commitment other than maternity/childcare Resigned following parental or childcare leave
Leave without pay	Leave without pay (incl. parental leave)
Overseas - teach/work/travel	To teach overseas To travel or work overseas
Overseas teacher returning home	End of Exchange period Overseas teacher returning home
Personal & health	Deceased Health reasons Personal reasons Termination following protected teacher status (e.g. supernumerary) Unsuitable
Retired	Retired
To limited term	To limited term full-time or part-time teaching
To study full-time	To study full-time
To another occupation	To another occupation outside of teaching in schools
To teach in private school	To teach in private education service