



**MINISTRY OF EDUCATION**

*Te Tāhuhu o te Mātauranga*

## **Demographic and Statistical Analysis Unit**

# **Teacher Supply Key Statistics Report May Teacher Loss Rates**

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Data sources:

1. Teacher Payroll Data Warehouse
2. July 2004 Roll Return Survey

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## **Purpose**

This report details trends in teacher numbers, teacher loss rates<sup>1</sup>, and reasons for losses. This analysis will assist in identifying areas of concern to teacher supply. They give an indication of the stability and morale of the teacher workforce and the state of 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 teachers in NZ State and State Integrated schools has decreased very slightly between 2004 and 2005. The number of secondary teachers has increased in the same period. These changes reflect trends in students numbers.
- The average age of teachers has remained at 44 years old for the past seven years.
- The percentage of teachers aged 40 to 55 has decreased in the past five years, while the percentage aged 30 to 34 and aged over 55 has increased.

### ***Teacher losses***

- Primary teacher loss rates have increased slightly on last year, while secondary teachers loss rates have remained the same.
- Primary teachers in Taranaki, the Bay of Plenty, and Southland have the highest loss rates regionally.
- Secondary teachers in Auckland, Wellington, and Southland have the highest loss rates regionally.
- Primary and secondary teachers in low decile schools have lower loss rates than those in medium and high decile schools.

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

- The most common reason for leaving among primary teachers is to go on leave without pay.

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<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.

- The most common reason for leaving among secondary teachers is to teach, work, or travel overseas.
- In both primary and secondary, 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.
- Primary and secondary Principals are more likely to leave to another occupation, or leave due to personal and health reasons, than management and teachers.

## **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 those teachers who have moved to another school.

A loss is assumed to have occurred between May to May if a teacher was teaching at May of one year and not teaching in May the following year. For example, total teacher losses for 2005 is the number of permanent teachers teaching in May 2004 who were not teaching in May 2005. 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 alongside the information given here.
- Readers should also bear in mind changes in school rolls and the effect these have on teacher losses.
- When comparing groups, consideration of population size is needed. 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 population sizes can cause more extreme variations than we would expect in larger groups. Thus large variations in some groups may be explained by population size.

## PART 2 — Teacher numbers at April

There are 686 more teachers in State and State Integrated schools in April 2005 compared to the same period last year (shown in Table 1 and Table 2). This equates to an increase of 1.4 percent.

In April 2005 there were 25,808 primary school teachers employed in New Zealand State and State Integrated schools – a decrease of 0.8 percent on last year's total. This decrease is in line with the decrease seen in primary rolls between 2004 and 2005.

There were also 19,864 secondary school teachers – an increase of 3.5 percent on last year's total. This increase is in line with the increase seen in secondary rolls between 2004 and 2005.

**Table 1: Headcount of teachers as at April, 2003 to 2005**

School type	Measure	Year		
		2003	2004	2005
Primary	Permanent Teachers	20,232	20,140	19,836
	All Teachers	26,143	26,007	25,808
Secondary	Permanent Teachers	14,455	15,288	16,049
	All Teachers	18,346	19,190	19,864
Total*	Permanent Teachers	37,085	38,064	38,654
	All Teachers	47,667	48,546	49,232

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

**Table 2: Change in teacher numbers from April to April**

School type	Measure	Year	
		2003 to 2004	2004 to 2005
Primary	Permanent Teachers	-0.5%	-1.5%
	All Teachers	-0.5%	-0.8%
Secondary	Permanent Teachers	5.8%	5.0%
	All Teachers	4.6%	3.5%
Total*	Permanent Teachers	2.6%	1.5%
	All Teachers	1.8%	1.4%

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

### **Teacher numbers by age**

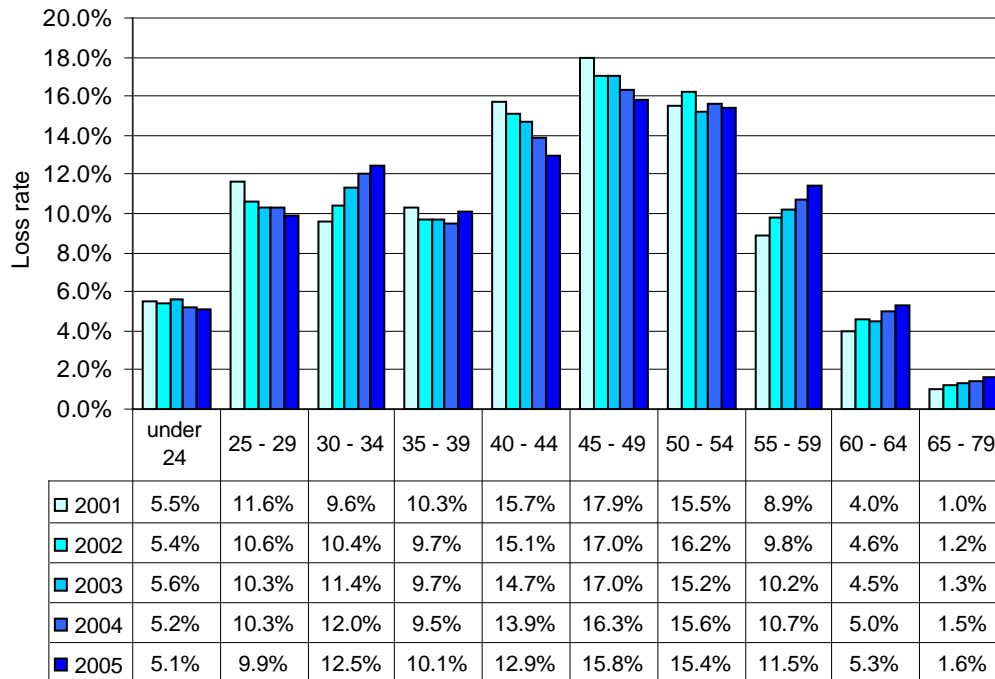
The age profile of the primary and secondary teacher workforce has changed in recent years. A declining proportion of teachers are aged 40 to 49 and this has potential implications for the recruitment and retention of experienced middle management teachers.

In the past five years there has been a growing proportion of teachers above 55 years old, and also growth in teachers between 30 to 34 years old.

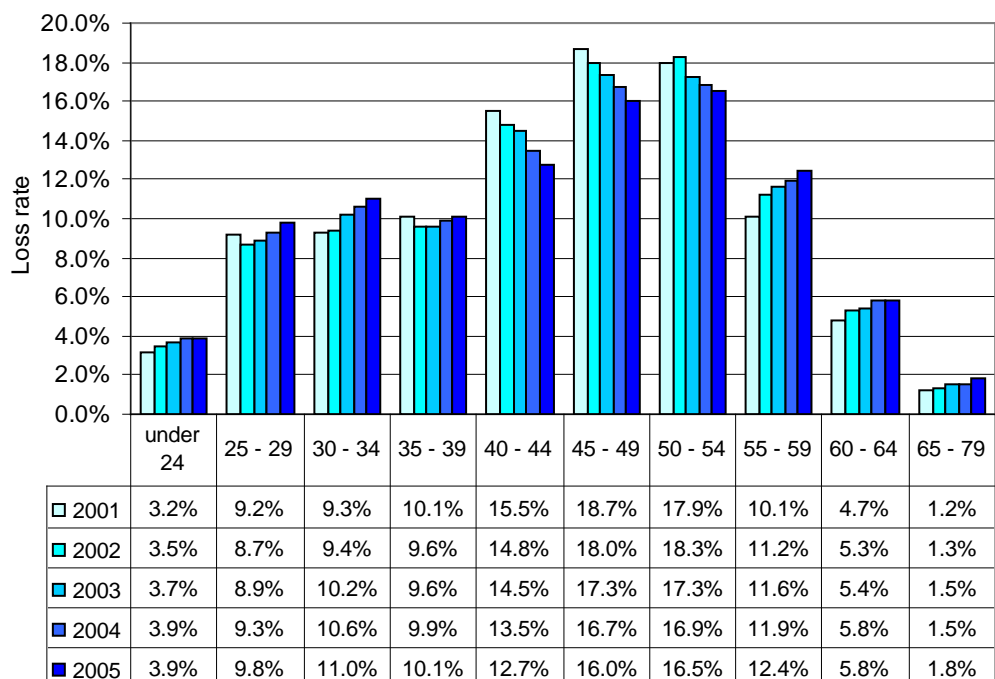
Despite these changes to the age profile of teachers, the average age of teachers has remained steady at 44 for the past seven years.

Figure 1 and Figure 2 show a comparison between primary and secondary teacher age profiles. The age profiles are fairly similar, with the 45-49 and the 50-54 age groups being the largest.

**Figure 1: Percentage of primary teachers by age group, as at April 2001 to April 2005**



**Figure 2: Percentage of secondary teachers by age group, as at April 2001 to April 2005**



## PART 3 — Teacher losses from May to May

Table 3 shows how loss rates are calculated. Although the number of primary losses is considerably higher than the number of secondary losses, the loss rate for primary is only slightly higher due to the greater number of primary teachers overall.

**Table 3: Number of permanent teacher losses, permanent teachers, and loss rates by school type, May 2004 to May 2005**

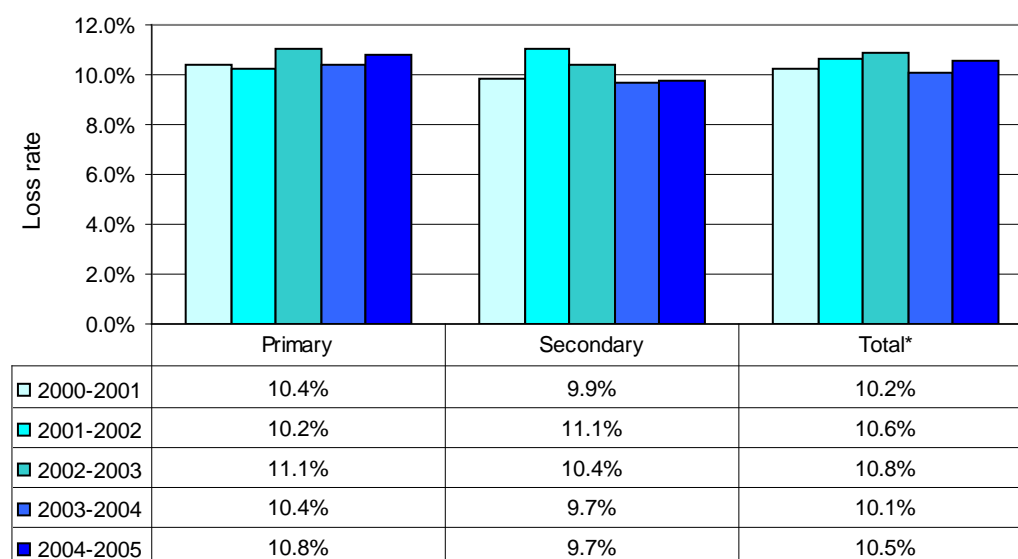
School type	Number of losses 2004-2005	Permanent teachers in May 2004	Loss rate 2004-2005
Primary	2,149	19,949	10.8%
Secondary	1,484	15,227	9.7%
Total*	3,990	37,835	10.5%

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

The most recent loss rate for primary of 10.8 percent is a slight increase on last year (shown in Figure 3). The increase resulted from not only more primary losses, but also slightly less permanent teachers when compared to last year.

The most recent loss rate in secondary remains at a similar level to last year.

**Figure 3: Teacher loss rates by school type, May 2000-2001 to May 2004-2005**



\*Includes composite, special schools and the Correspondence School

### Teacher loss rates by age

#### Primary

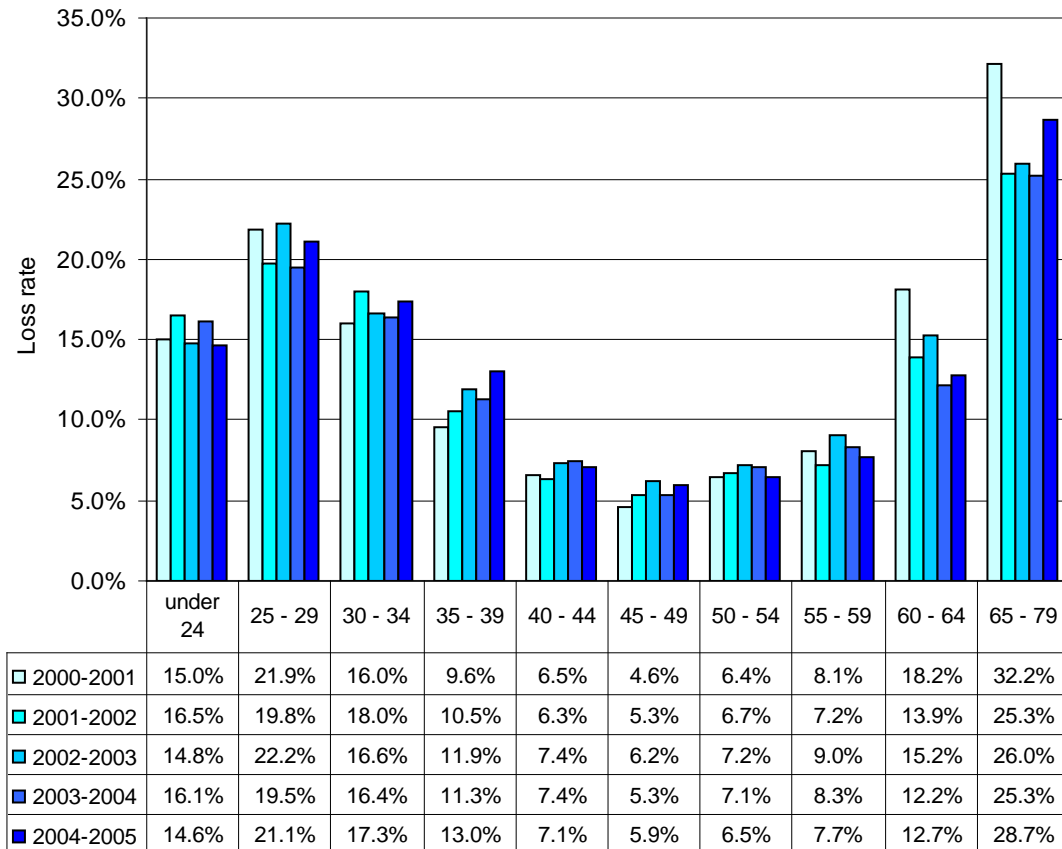
Across all age groups, the proportion of primary teachers who leave the teaching profession has varied from year to year. Primary teacher loss rates for teachers aged 60 to 64 remains low compared to previous years, though the proportion has



increased for 65 to 79 year olds (Figure 4). However, it is difficult to draw conclusions about changes from year to year due to the small size of these older age groups.

The loss rates for the 25-29, 30-34, and 35-39 age groups have all risen since 2003-2004.

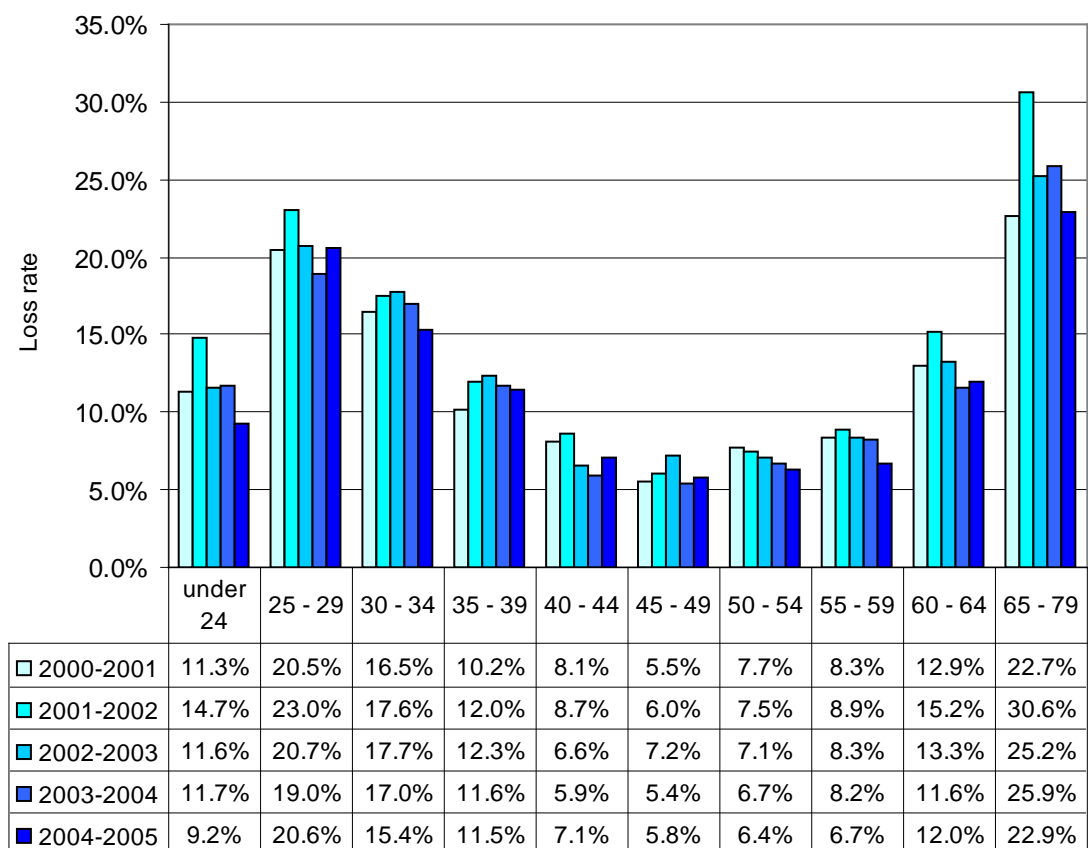
**Figure 4: Primary teacher loss rates by age group, May 2000-2001 to May 2004-2005**



## Secondary

Across all age groups, the proportion of secondary teachers who leave the teaching profession has varied from year to year. Loss rates for secondary teachers aged over 60 years old remain low compared to previous years (Figure 5).

**Figure 5: Secondary teacher loss rates by age group, May 2000-2001 to May 2004-2005**



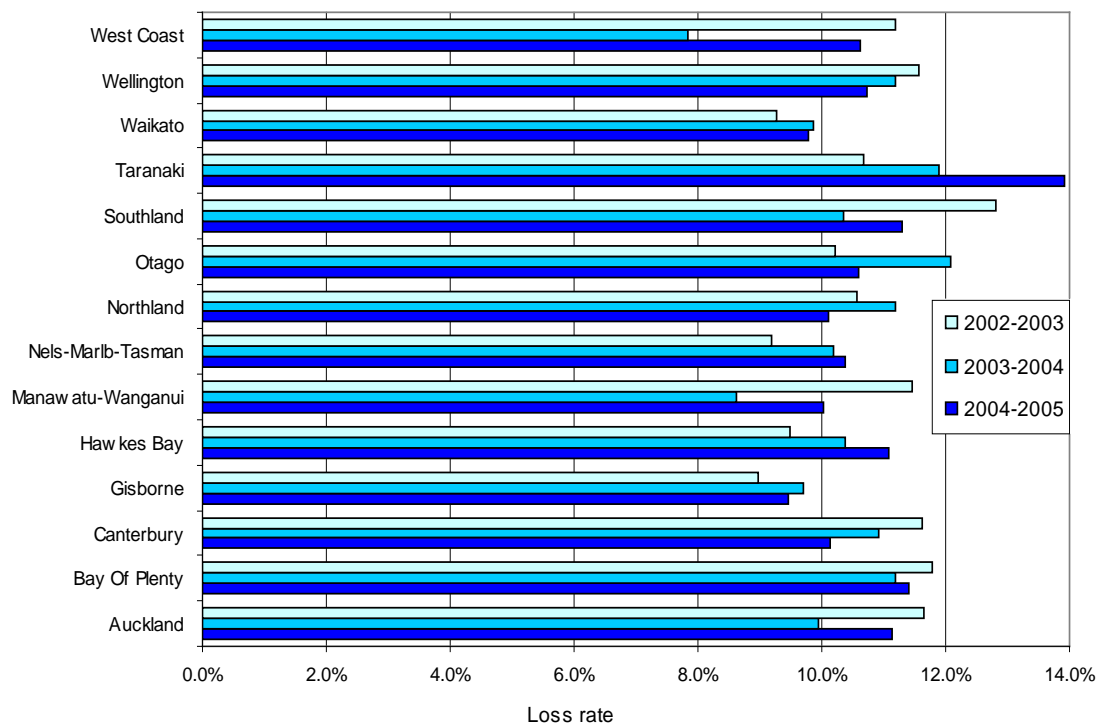
## Teacher loss rates by region

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 2004 to May 2005 primary teachers were more likely to leave the profession in Taranaki, the Bay of Plenty, and Southland (13.9 percent, 11.4 percent, and 11.3 percent respectively). The Gisborne region had the lowest primary teacher loss rates (9.5 percent).

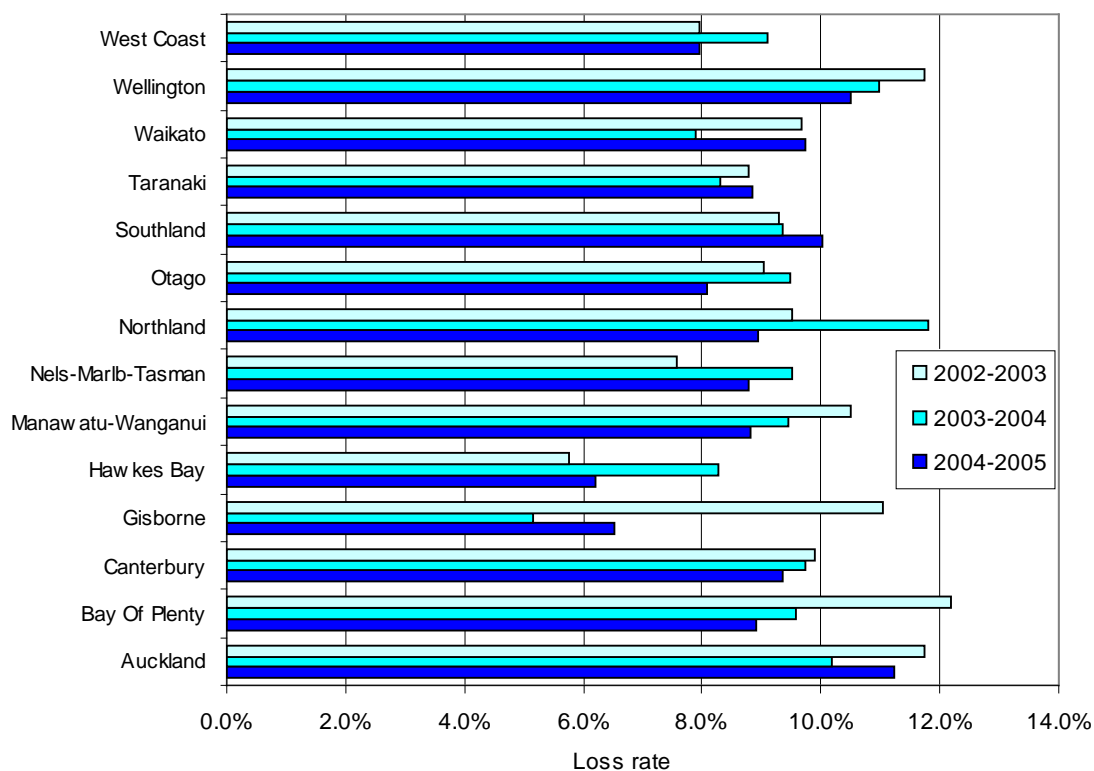
**Figure 6: Primary teacher loss rates by region, May 2002-2003 to May 2004-2005**



## Secondary

In the period May 2004 to May 2005 secondary teachers were more likely to leave the profession in Auckland, Wellington, and Southland (11.2 percent, 10.5 percent, and 10.0 percent respectively). The Hawkes Bay region had the lowest secondary teacher loss rates (6.2 percent).

**Figure 7: Secondary teacher loss rates by region, May 2002-2003 to May 2004-2005**

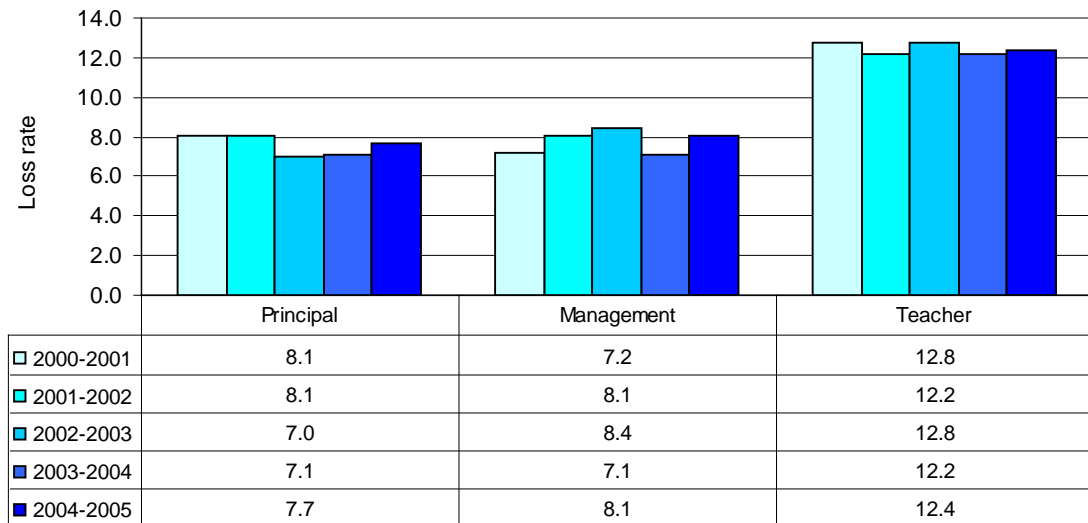


## Teacher loss rates by designation<sup>2</sup>

### Primary

Figure 8 shows the loss rates of teachers by designation. The percentage of primary teachers (excluding management and Principals) leaving the teaching profession has steadied at around 12 percent in recent years. Primary Principals and teachers in management positions are more likely to leave the teaching profession compared to last year.

**Figure 8: Primary teacher loss rates by designation, May 2000-2001 to May 2004-2005**

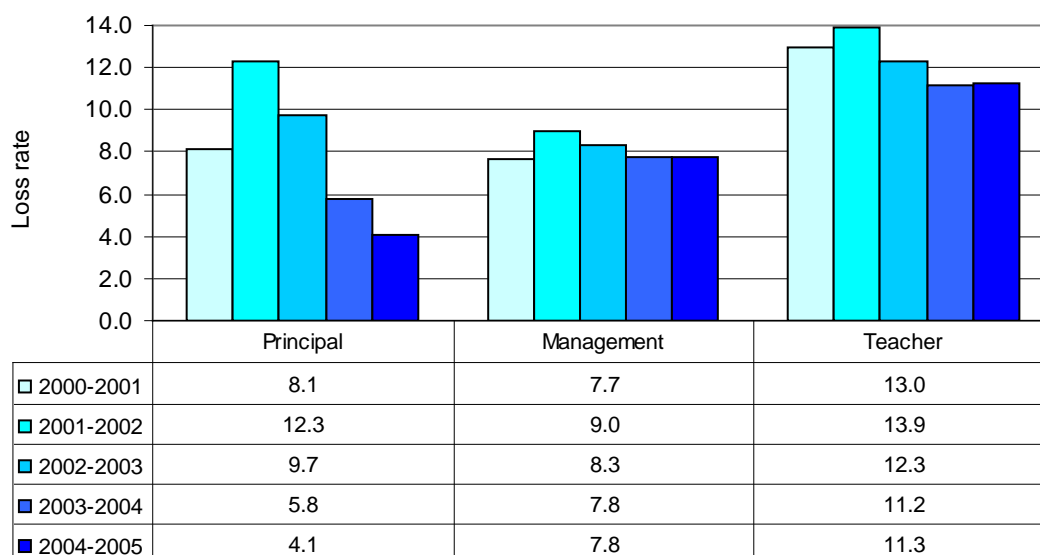


<sup>2</sup> Note that the grouping of teachers into designation categories used in this report may differ from other reports.

## Secondary

Figure 9 shows the loss rates of teachers by designation. The percentage of secondary teachers (excluding management and Principals) leaving the teaching profession has steadied at around 11 percent in recent years. Secondary loss rates for Principals have decreased considerably since 2001-2002.

**Figure 9: Secondary teacher loss rates by designation, May 2000-2001 to May 2004-2005**

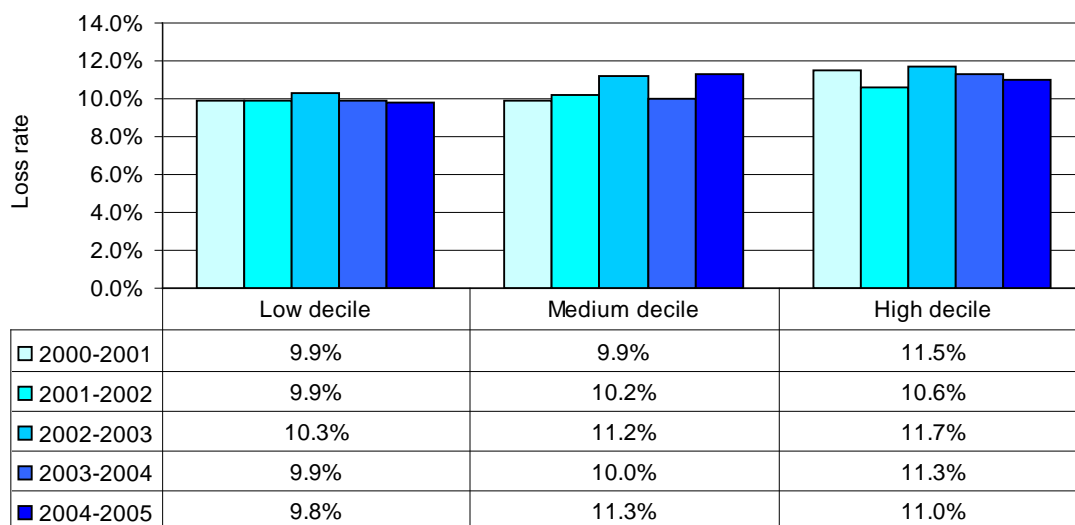


## *Teacher loss rates by school decile*

### Primary

Since 2001 there has been a clear difference in teacher loss rates between medium and high decile schools compared to low decile schools. Teachers in high and medium decile schools are more likely to leave the teaching profession than teachers in low decile schools. This distinction has continued in the period May 2004 to 2005, though medium decile loss rates are now slightly higher than high decile loss rates.

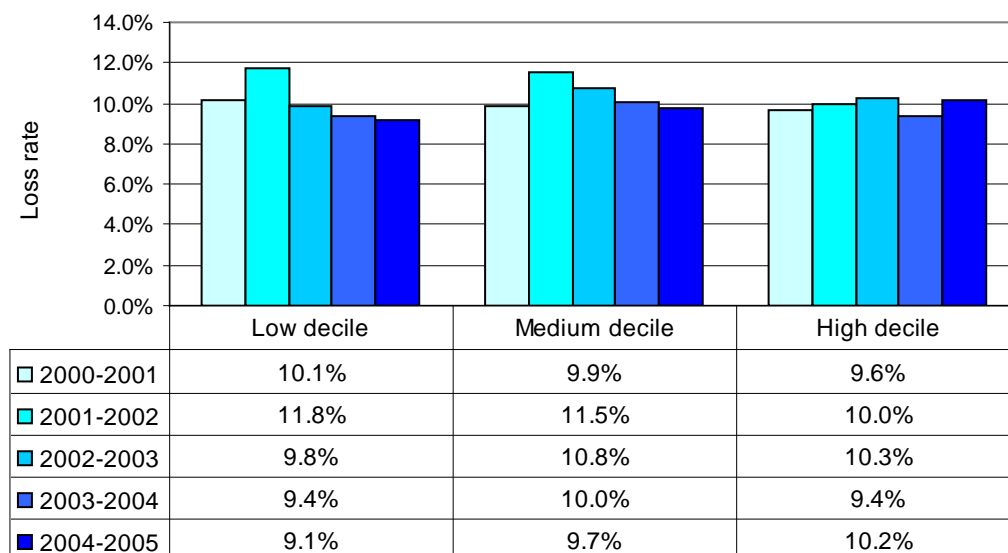
**Figure 10: Primary teacher loss rates by decile, May 2000-2001 to May 2004-2005**



## Secondary

Figure 11 shows that low decile schools have had lower loss rates than medium and high decile schools since 2002-2003. The loss rate for low decile schools has decreased in every period since 2001-2002. The loss rates for medium decile schools have also been falling since 2001-2002.

**Figure 11: Secondary teacher loss rates by decile, May 2000-2001 to May 2004-2005**



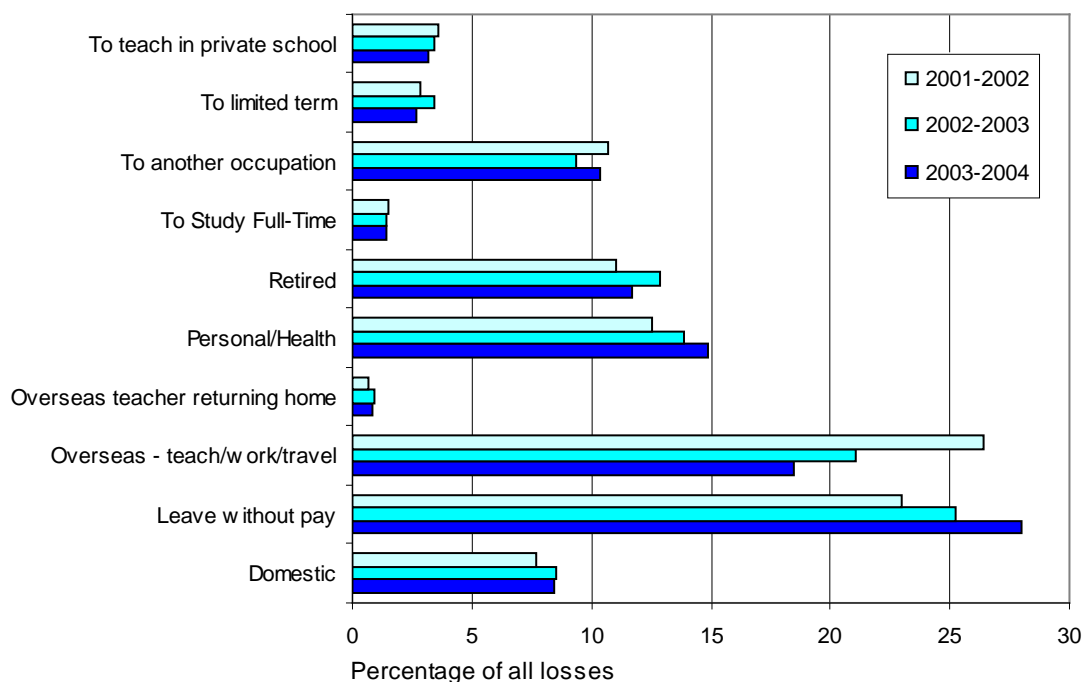
## PART 4 — Summary of reasons for losses

Information on the reasons why teachers leave their positions is collected in the 1 July School Roll Return Survey each year<sup>3</sup>. Schools are sent out a list of teachers who were recorded as a loss between May of the current year and May of the previous year. They are asked to fill in the reasons for each teacher loss during this period. Due to the timing of the 1 July School Roll Return the most recent information available is for the period May 2003 to May 2004.

### Primary

In 2003-04 there were 2,082 primary teacher losses. Figure 12 shows the reason for leaving of primary teachers for the three periods 2001-2002, 2002-2003 and 2003-2004. It excludes losses where the reason for leaving was unknown<sup>4</sup>.

**Figure 12: Primary teachers' reasons for losses, May 2000-2001 to May 2003-2004**



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

For primary teachers who left between 2003 and 2004 the most common reason for leaving was to go on leave without pay (28 percent). The percentage of primary teachers on leave without pay has increased since 2001-2002.

The proportion of teachers leaving to go overseas to travel or work has declined as a reason for leaving from 26 percent in 2001-2002 to 18.5 percent of all losses in 2003-2004. However, this reason remains the most common reason for leaving.

<sup>3</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>4</sup> Losses where the reason for leaving is unknown are excluded because they may distort the proportions. They account for between 3% and 5% of total losses in the three time periods.



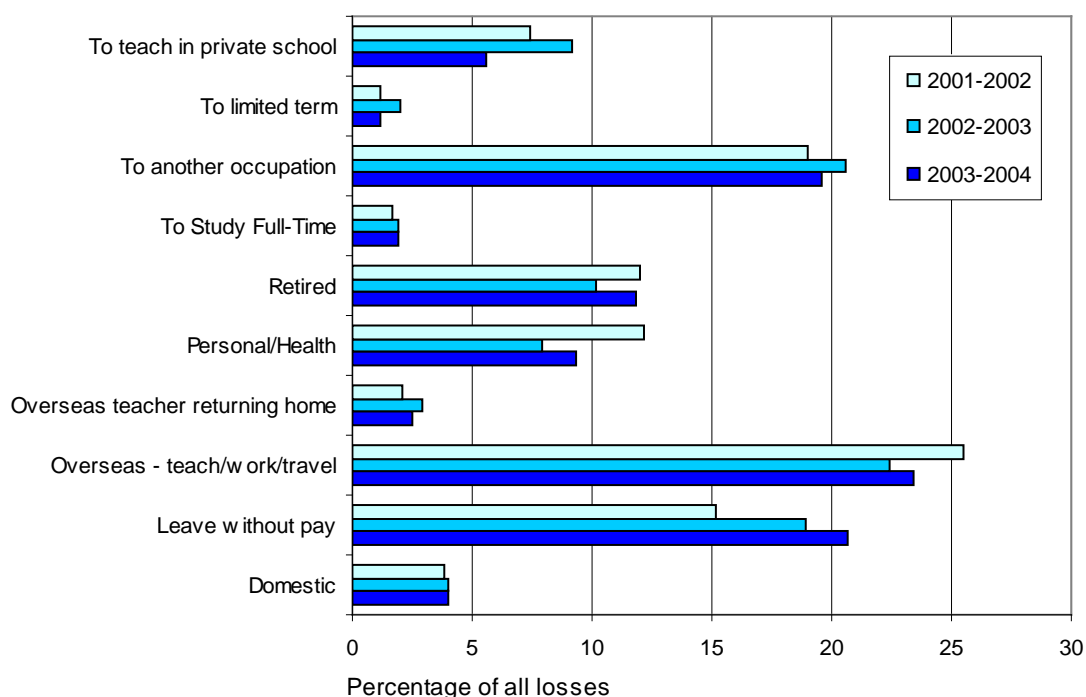
The proportion of primary teachers leaving due to health or personal reasons has increased from 12 percent in the 2001-2002 period to 15 percent in the 2003-2004 period. This is likely to be due to the increase in size of the 55 years or older age groups who are more likely to leave for health and personal reasons.

Just over a tenth of primary teachers who left went to another occupation outside of teaching. This has been relatively stable over the last three years.

## Secondary

In 2003-04 there were 1,392 secondary teacher losses. Figure 13 depicts the spread of secondary teacher losses by reason for leaving for the periods 2001-2002, 2002-2003 and 2003-2004.

**Figure 13: Secondary teachers' reasons for losses, May 2000-2001 to May 2003-2004**



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

The proportion of secondary teachers going to other occupations was much higher than for primary teachers. Around a fifth 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 to other industries more easily.

In both primary and secondary schools, male teachers were more likely to leave for another occupation than female teachers. The higher proportion of male teachers in secondary schools may also contribute to the high proportion of teachers leaving to other professions.

Interestingly the proportion of losses in secondary due to personal or health reasons was noticeably lower than in primary. The proportion leaving for personal or health reasons has declined in secondary while it has climbed in primary.

Between a fifth and a quarter of all the secondary teachers who leave go overseas to travel or work.

## **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). Otherwise the proportion of teachers leaving were spread relatively evenly over the different age groups.

**Table 4: Primary teacher losses by age group, May 2003-May 2004**

	Age Category									Total
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	
Total number of losses	176	350	358	170	192	205	245	203	173	2,072
% of total losses	8.5	16.9	17.3	8.2	9.3	9.9	11.8	9.8	8.3	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 age group. This reason also features strongly in the 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 25-29, 30-34, 35-39 age groups. Almost all the primary teachers who left to take leave without pay were women (92 percent). The combination of the age groups and the gender suggest that many take leave without pay due to childcare responsibilities.

Primary teachers aged 35-49 are more likely to leave to go into another occupation. Younger primary teachers are less likely to another occupation than older teachers.

The most common reason for leaving for the 55-59 and 60+ age groups was retirement. A third of the 231 primary teachers retiring came from the 55-59 age group.

**Table 5: Primary teacher losses by reason for leaving and age group, May 2003-2004**

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	12.5	12.7	12.2	13	5.1	3.2	3.7	2.5	8.4
Leave without pay	13.8	39.2	51.9	35.4	20.3	17.4	24.8	12.7	3.8	28
Overseas - teach/work/travel	63.8	29.7	11.5	13.4	12.4	15.9	9.6	4.2	3.1	18.5
Overseas teacher returning home	1.1	1.2	1.2		1.1	0.5	0.5		1.3	0.8
Personal/Health	6.3	6.1	9.2	15.2	20.9	20	28	24.9	13.8	14.9
Retired					4	5.6	11.5	40.7	69.2	11.7
To study full-time	1.7	0.9	0.9	1.8	3.4	3.1	1.4	0.5		1.4
To another occupation	4.6	5.5	9.8	15.2	16.4	20.5	12.4	9.5	2.5	10.4
To limited term			1.2	4.9	4	7.7	4.6	1.6	3.1	2.7
To teach in private school	4.6	4.9	1.7	1.8	4.5	4.1	4.1	2.1	0.6	3.2
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 overrepresented in the losses. A smaller proportion of secondary teachers under 25 left than at primary. There was a higher proportion of losses from the 45-49, 50-54 and 55-59 age groups for secondary than for primary.

**Table 6: Secondary teacher losses by age group, May 2003-2004**

	Age Category									Total
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	
Total number of losses	57	232	240	141	116	144	187	156	115	1,388
% of total losses	4.1	16.7	17.3	10.2	8.4	10.4	13.5	11.2	8.3	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, 25-29 and 30-34 age groups. In addition, just under a fifth of secondary teacher losses in the 35-39 and 45-49 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. Around 30 percent of the secondary teacher losses in the 35-39, 40-44, 45-49 and 50-54 age groups were accounted for by moving to another occupation. Although this group accounts for a relatively small number of losses overall, it is worth monitoring these teachers considering their level of experience and lower likelihood of returning to teaching`.

Leave without pay is also a common reason for leaving, as it is in the primary teacher losses.

As with the primary teacher losses, a third of the 156 secondary teachers retiring came from the 50-54 age group.

**Table 7: Secondary teacher losses by reason for leaving and age group, May 2003-2004**

Reason for leaving	Age Category									Total %
	20-24 %	25-29 %	30-34 %	35-39 %	40-44 %	45-49 %	50-54 %	55-59 %	60+ %	
Domestic	1.8	4.8	8.2	6	4.8	1.4	2.4	1.4	0.9	4
Leave without pay	21.1	23.3	33.6	24.6	17.1	15.9	21.9	10.4	2.8	20.7
Overseas - teach/work/travel	57.9	42.7	25.9	19.4	15.2	18.8	16	13.9	2.8	23.4
Overseas Teacher Returning Home	1.8	4	4.3	3	2.9	2.2	1.2	0.7		2.5
Personal/Health	5.3	3.1	4.7	6.7	12.4	18.1	14.8	16	5.6	9.3
Retired					1	2.2	6.5	35.4	83.2	11.8
To Study Full-Time	1.8	2.6	2.2	1.5	1.9	0.7	1.2	2.8		1.9
To another occupation	8.8	14.5	13.4	29.1	30.5	29.7	30.2	15.3	3.7	19.6
To limited term		0.4	0.9	1.5	1	2.9	1.2	2.1	0.9	1.2
To teach in private school	1.8	4.4	6.9	8.2	13.3	8	4.7	2.1		5.6
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

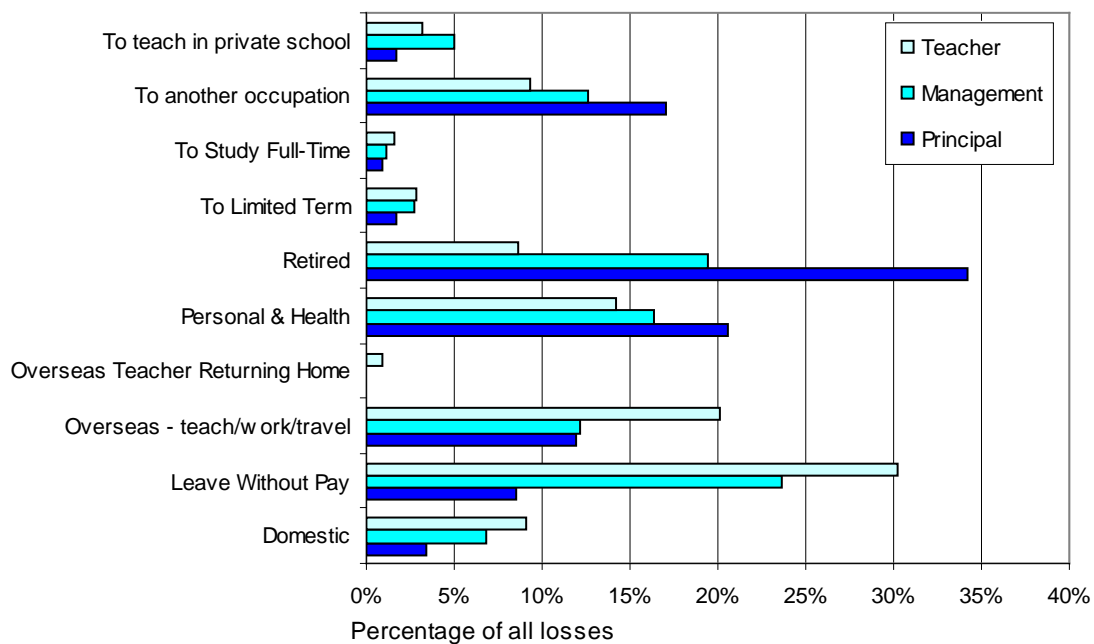
Figure 14 shows reasons for leaving as a percentage of all losses by designation. The majority of primary teachers (excluding management and Principals) left teaching to go on leave without pay (30 percent) or to teach, travel or work overseas (20 percent).

Primary teachers in management positions were most likely to leave to go on leave without pay (24 percent) or to retire (19 percent).

The majority of primary Principals left to retire (34 percent) or for personal and health reasons (21 percent).

The reasons for leaving the teaching profession by designation is 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. Principals are typically older than other teaching staff and so reflect the reasons for leaving of the older age groups.

**Figure 14: Primary teacher losses by reason for leaving and designation, May 2003-2004**



### Secondary

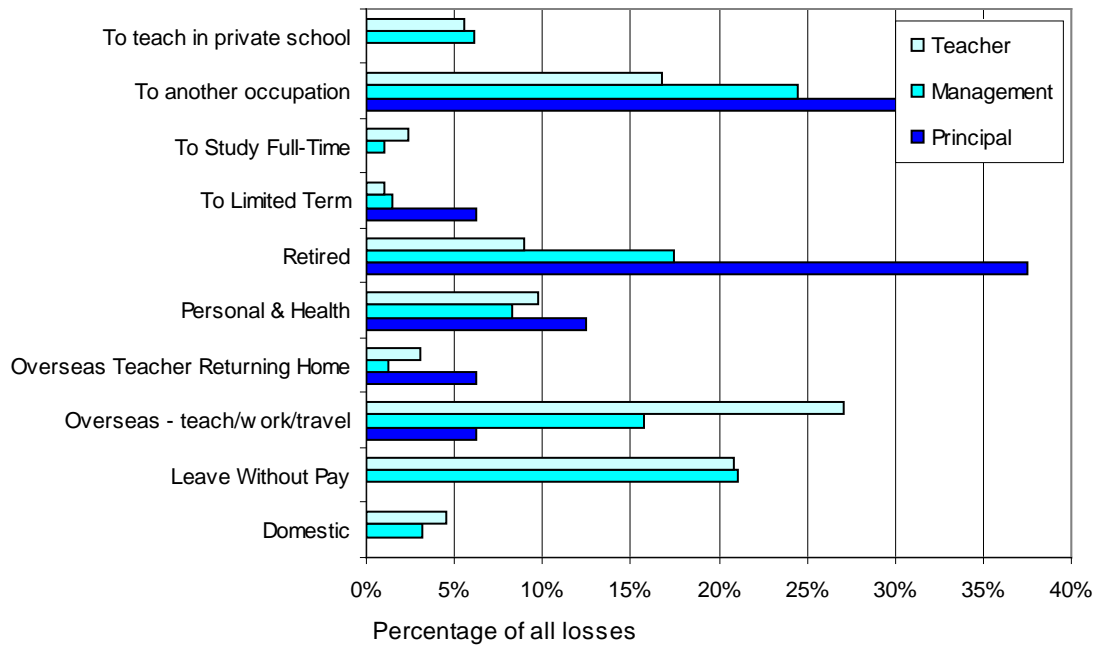
Figure 15 shows the reasons for leaving the teaching profession as a percentage of all losses by designation. The majority of secondary teachers (excluding management and Principals) left to teach, travel or work overseas (27 percent), to go on leave without pay (21 percent), or to another occupation (17 percent).

Secondary teachers in management positions were most likely to leave to another occupation (25 percent) or to go on leave without pay (21 percent).

The majority of secondary Principals left the teaching profession to retire (38 percent) or to another occupation (31 percent).

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

**Figure 15: Secondary teacher losses by reason for leaving and designation, May 2003-2004**



## Appendix – Detailed reasons for losses

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

<b>Reason for loss category</b>	<b>Detail</b>
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