



CHAPTERFOUR

THE INTEGRATED DATASET ON STUDENT LOAN SCHEME BORROWERS

Key Findings

- Those who complete higher-level qualifications tend to have larger student loans on leaving study. But they also tend to earn higher incomes after they leave study.
- Higher qualifications lead to faster repayment times – even if they are associated with higher levels of borrowing.
- Of those who left study having used the loan scheme in 1992, three-quarters of borrowers had repaid in full after 10 years. Men and women were equally likely to have repaid in full.
- In the first five years following study, women are more likely than men to repay in full. Over time, however, men tend to catch up.
- Borrowers who are less likely to make progress towards repayment of their student loans include:
 - men
 - those who don't complete a qualification
 - those who study at lower levels, and
 - Māori.

4.0 Introduction: The integrated dataset on Student Loan Scheme borrowers

This section reports on some of the recent findings from the analysis of the integrated dataset on Student Loan Scheme borrowers. The dataset is managed by Statistics New Zealand on behalf of the agencies responsible for the Student Loan Scheme. It combines:

- information collected by tertiary education providers on students and on their enrolments
- information collected by StudyLink on students' borrowings under the Student Loan Scheme
- data from Inland Revenue on student loan balances and repayments, and
- Inland Revenue data on income and tax status.

The integrated dataset enables us to study the effects of the Student Loan Scheme by making linkages between those four sets of information, and hence gives us a better understanding of the interactions between borrowers' loan balances, their incomes in the years following study and their repayment rates. We can analyse how these factors affect different groups of borrowers.

The integrated dataset currently contains matched records for the years 1997 to 2002. It will be extended annually with new waves of data. The update to include 2003 data is scheduled for December 2005. Over time, the integrated dataset will give us a longitudinal, multidimensional view of the scheme, and hence will enable us to analyse and report on its impacts more fully.

The dataset also contains Inland Revenue data on income and loan balances for those who used the Student Loan Scheme between 1992 and 1996. This earlier data has not been matched to education or borrowing data.

The data in the integrated dataset is not precisely comparable with the other statistical information in this report. A small number of records (about 7 percent) could not be matched and were excluded from the dataset. Therefore, the total number of records in the dataset is not exactly equal to the numbers in the agencies' databases.

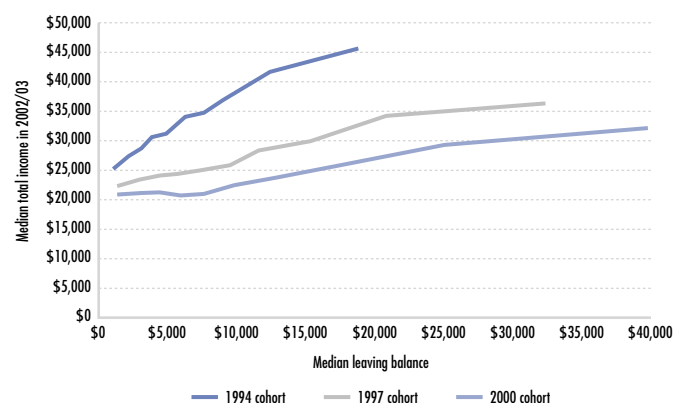
The information below is drawn from the analysis of the dataset being undertaken by the Ministry of Education. This information complements the information set out elsewhere in this report²⁶. The prefatory note, to be found earlier in this report, contains details of the confidentiality protocols that are used by Statistics New Zealand to ensure that the privacy of borrowers is protected.

4.1 What the integrated dataset shows about the relationship between loan balances and post-study income

Two of the most important factors influencing the level of income of people once they leave tertiary education are the level of qualification studied and whether the qualification was completed successfully. Both of those factors are associated with higher levels of borrowing, principally because higher-level qualifications require more years of study and because most of those who don't complete a qualification tend to abandon study relatively early²⁷.

This raises the question of the relationship between the size of student loans on leaving study and the incomes earned after leaving study. Figure 34 explores this issue by considering the incomes in the tax year 2002/03 of three groups of borrowers – those who left study in 1994, those who left in 1997 and those who left in 2000. For each group, the median income in 2002/03 is plotted against the level of the student loan balance on leaving study.

Figure 34 Loan balance on leaving study and 2002/03 taxable income for selected cohorts of borrowers – those who last studied in 1994, 1997 and 2000



Notes:

1. The population is borrowers who last studied in 1994, 1997 and 2000 and who also had New Zealand taxable income in 2002/03.
2. For each leaving cohort, the 10 deciles of leaving loan balance is plotted against the median taxable income in 2002/03 of the people in that decile.
3. The leaving loan balance is the borrower's student loan balance at 31 March of the year following study.

Source: Statistics New Zealand, Integrated Dataset on Student Loan Scheme Borrowers

The relationship between larger student loans and higher income is clear. The only exception is for the lowest five deciles of loan balance for the 2000 cohort.

Figure 34 also illustrates the extent to which leaving loan balances have grown over time.

- Of the 1994 cohort, the tenth decile of leaving loan balance had a midpoint of less than \$20,000.

²⁶ More detailed analyses can also be found on the Ministry of Education website at www.minedu.govt.nz/goto/tertiaryanalysis.

²⁷ Refer to Scott D (2005) *How long do people spend in tertiary education?* www.minedu.govt.nz/goto/tertiaryanalysis for an analysis of the timing of abandonment of study.

- In the 1997 cohort, the tenth decile was more than \$30,000.
- For those who left in 2000, the midpoint of the tenth decile was \$40,000.

It is also noteworthy that between 1997 and 2000, there was little movement in the lowest six deciles of leaving loan balance²⁸, indicating that the majority of those leaving study in 2000 left with students loans no higher than those who finished studying in 1997.

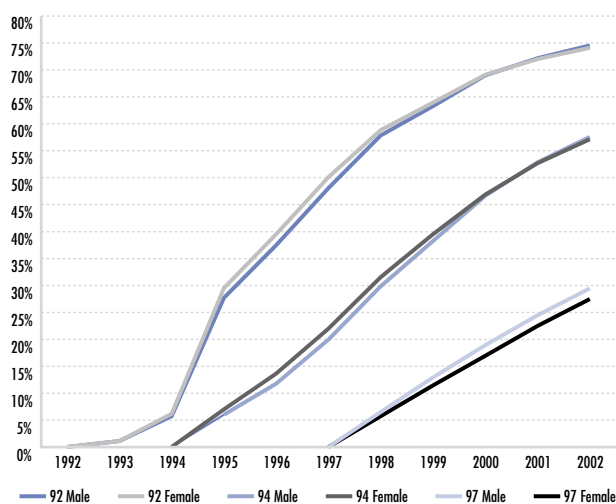
Figure 34 also illustrates how incomes rise over time. In each decile of leaving loan balance, the median incomes in 2002/03 of those who left study in 1994 was significantly higher than those of the 1997 leavers, whose incomes were significantly higher than those in the 2000 leaving cohort.

4.2 What the integrated dataset shows about repayment rates

As people gain experience in the workforce, their incomes tend to rise. And as their incomes rise, so does their repayment obligation. Therefore, repayment rates tend to start slowly but increase over time. This section analyses repayment rates for three groups of borrowers – those who left study at the end of the first year of the Student Loan Scheme 1992, those who left at the end of 1994 and those who left at the end of 1997. It looks at the proportion who had been successful in repaying their loans completely by 31 March each year up to 2003.

Figure 35 shows the proportions who have fully repaid year by year for these three groups of leaving borrowers²⁹.

Figure 35 Percentage of borrowers who have fully repaid their student loans for the 1992, 1994 and 1997 leaving cohorts by gender



Notes:

1. The leaving cohorts are those who last studied in a given year, had borrowed from the scheme, and had a student loan balance of \$10 or more at 31 March in the following year.
2. Full repayment is deemed to occur when the student loan balance has fallen below \$10, and includes both tax non-resident and tax resident borrowers.
3. The percentages in this graph relate to the situations of borrowers on 31 March of the year following the year shown on the horizontal axis.

Source: Statistics New Zealand, Integrated Dataset on Student Loan Scheme Borrowers

²⁸ Refer also to Table 6, earlier in this report. The median leaving student loan in 1997 was \$8,960. By 2000, this figure had risen to \$9,160 – a rise of only 2 percent. That figure masks the fact that the leaving debt of those with large student loans – those in the highest 20 percent – was significantly larger.

²⁹ In this section, those who had repaid their loan before 31 March of the year following study have been excluded. These fast repayers have, however, been included in the calculation of median repayment times.

By 31 March 2003, 10 years after they left study, around 75 percent of the 1992 leavers had repaid in full. Nearly 60 percent of the 1994 leavers and just under 30 percent of the 1997 leavers had also completely repaid by 31 March 2003.

The 1994 cohort tended to repay more quickly than the 1997 cohort. Five years after leaving study, 40 percent of the 1994 cohort had repaid whereas only 29 percent of the 1997 cohort had repaid by the end of 2002, ie five years after they left study. The difference between these groups is largely due to the rise in the level of student loans on leaving study between these years – the median leaving loan balance in 1994 was \$5,910 while in 1997 it was 52 percent higher at \$8,960.

There is a small but consistent gap between the repayment rates of women and men at the five-year mark. From the 1994 cohort, 0.7 percent more females than males had repaid completely after five years, a margin which grew to 2.0 percent with the 1997 cohort. The faster repayment of women reflects both the fact that women have a higher rate of completion of tertiary education than men³⁰ and that they tend to be better represented in qualifications at degree level³¹. And completion and the level of study are two of the key drivers of income and hence of repayment rates. By 31 March 2003, however, there was almost no difference between the men and the women of the 1994 leaving group in the percentage who had repaid in full – the men had caught up with the women.

Likewise, among the 1992 leavers, there was no significant difference in the proportion of men and women who had completely repaid by the end of 2002.

The graph shows a median repayment time of 6.6 years for both men and women for the 1994 cohort.

1992 was the first year of the Student Loan Scheme. The cohort of borrowers who last studied in 1992 is unusual in that they had at most one year to accumulate student loans. As a result, their median leaving loan balance was very low – \$3,170. While half of these students managed to repay in a little over five years, after 10 years one-quarter remain with student loan balances. However, progress has not stopped. Of those with outstanding loans in 2001, 8 percent managed to repay in 2002, and it seems likely that over the following three years further progress will be made with perhaps 80 percent having made full repayment.

One of the main determinants of income, and hence of the capacity to repay, is whether the borrower was successful in completing a qualification. Figure 37 shows the proportion of the 1997 leavers who have repaid, by years out of study, for men and women and by completion status³².

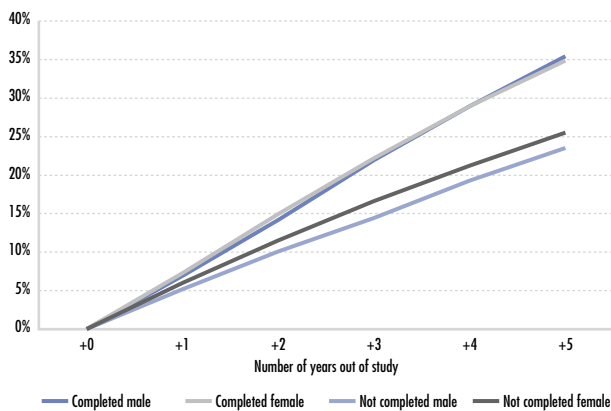
Among those who completed a qualification in 1997, there is little discernable difference in the repayment rates of the men and women. Women who are not successful in completing a qualification are more likely to repay in full than men who don't complete. The better progress to full repayment among women has occurred despite the fact that for this group of borrowers the median loan balance of women leaving study exceeded that of men.

³⁰ Refer to Ministry of Education (2004a), pp 17, 18 and pp 53, 54. Refer also to Ministry of Education (2004b), Appendix Tables, Table 3.29, p 51.

³¹ Refer, for instance, to Ministry of Education (2004b), Appendix Tables, Table 3.26, pp 44, 45.

³² It is not possible to do this disaggregation for earlier groups. This is because the linking of the three sources of data was possible only for the years 1997 and later.

Figure 36 Percentage of the 1997 leaving cohort who have fully repaid their student loans in each year post-study by gender and completion status



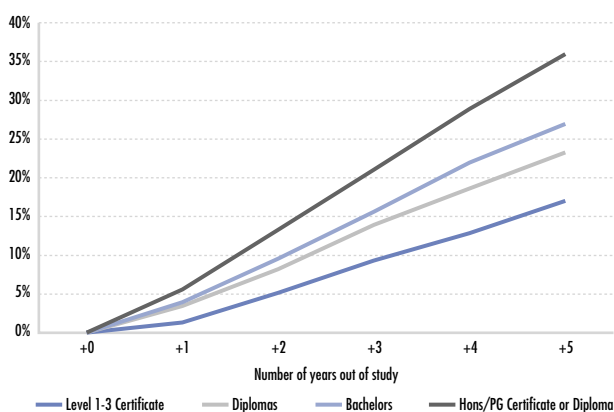
Notes:

1. The leaving cohort is those who last studied in 1997, had borrowed from the scheme, and had a student loan balance of \$10 or more at 31 March in the following year. Excluded are 3.4 percent who had repaid their loan before 31 March 1998.
2. Full repayment is deemed to occur when the student loan balance has fallen below \$10, and includes both tax non-resident and tax resident borrowers.
3. A student is deemed to have completed if he/she successfully completed a qualification in his/her last year of study.

Source: Statistics New Zealand, Integrated Dataset on Student Loan Scheme Borrowers

Figure 37 shows the proportion of those who last studied in 1997 who had repaid in each of the subsequent years by the level of the qualification studied.

Figure 37 Percentage of the 1997 leaving cohort who have fully repaid their student loan in each year post-study – selected qualification levels



Notes:

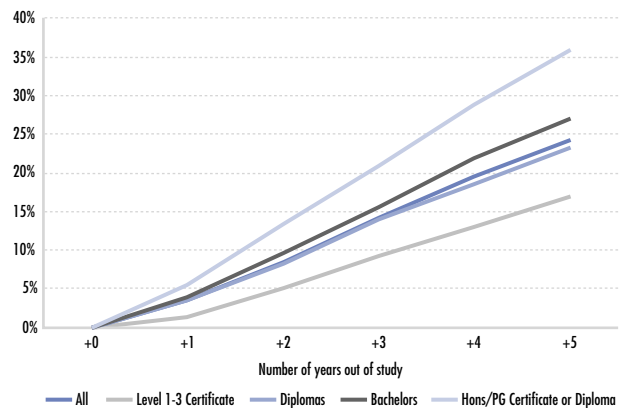
1. The leaving cohorts are those who last studied in a given year, had borrowed from the scheme, and had a student loan balance of \$10 or more at 31 March in the following year.
2. Full repayment is deemed to occur when the student loan balance has fallen below \$10, and includes both tax non-resident and tax resident borrowers.
3. The percentages in this graph relate to the situations of borrowers on 31 March of the year following the year shown on the horizontal axis.

Source: Statistics New Zealand, Integrated Dataset on Student Loan Scheme Borrowers

While borrowers who take higher qualifications tend to leave study with larger loans, the proportion of these borrowers who pay off their loans is higher.

Figure 38 gives the proportion of the aggregate 1997 leaving loan balance that has been repaid in each of the five subsequent years.

Figure 38 Percentage of aggregate student loan balance repaid by the 1997 leaving cohort in each year post-study – selected qualification levels



Notes:

1. The leaving cohorts are those who last studied in a given year, had borrowed from the scheme, and had a student loan balance of \$10 or more at 31 March in the following year.
2. Full repayment is deemed to occur when the student loan balance has fallen below \$10, and includes both tax non-resident and tax resident borrowers.
3. The percentages in this graph relate to the situations of borrowers on 31 March of the year following the year shown on the horizontal axis.

Source: Statistics New Zealand, Integrated Dataset on Student Loan Scheme Borrowers

Again, the higher qualification/higher repayment rate relationship is clear.

4.3 What the integrated dataset shows about people who make no progress in repaying loans

It was noted above, that around 25 percent of those who left study in 1992 had still not repaid their loans 10 years after leaving study. If a Student Loan Scheme borrower has a low income, he or she may be unable to repay the loan in full. If a borrower's income remains below a certain threshold (given the level of his or her loan balance), it is possible the student loan will never be repaid.

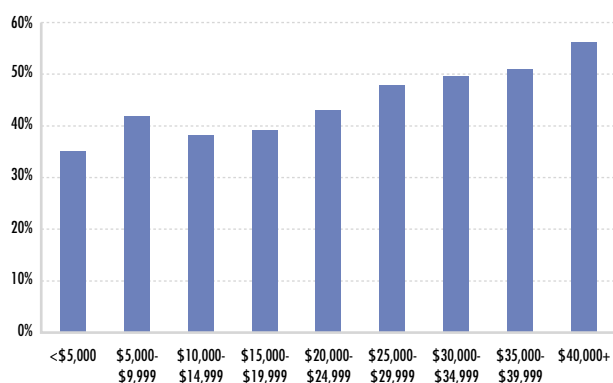
This situation was envisaged in the design of the scheme. It is one of the reasons for the provision for the write-off of a student loan on the death of a borrower. Allowing for these write-offs is one of the purposes of the doubtful debt provision in the scheme, described elsewhere in this report. This gives rise to questions about the characteristics of borrowers who make little or no progress in repaying their loans.

This section looks at those who finished study in 1997 and explores the characteristics of those with a loan balance on 31 March 2003 that was the same as, or higher than, it was when they left study.

All other things being equal, the higher the level of the loan balance on completion of borrowing, the more likely it is that the borrower will have made slow progress in reducing the balance.

Figure 39 shows the proportions of those who finished study in 1997 who had made no progress towards repayment by the end of 2002, broken down by the level of the loan balance on leaving study.

Figure 39 Proportion of borrowers who last studied in 1997 who had made no progress to repayment by the end of 2002 by the level of their leaving loan balance



Source: Statistics New Zealand, Integrated Dataset on Student Loan Scheme Borrowers

In general, those with a higher leaving loan balance have a higher incidence of no progress. It needs to be recognised, however, that the number of borrowers with higher balances is relatively small; there were fewer than 750 with a balance of over \$40,000 and around 600 with a balance of between \$35,000 and \$40,000. More than half of this group of borrowers fall within the lowest two bands in the graph and 55 percent had a loan balance on leaving study of \$10,000 or less.

Table 16 Proportion of borrowers who last studied in 1997 who had made no progress to repayment by the end of 2002 by completion status and ethnic group

		Completed			Not Completed				
European	Māori	Pasifika	Asian	Other	European	Māori	Pasifika	Asian	Other
24.6%	41.6%	42.9%	33.3%	40.9%	39.5%	60.1%	61.2%	50.0%	53.4%

Source: Statistics New Zealand, Integrated Dataset on Student Loan Scheme Borrowers

Table 16 shows that there are differences among ethnic groups in the incidence of no progress towards repayment. Whether complete or incomplete, the incidence of no progress is higher among Māori than European.

If the borrower's income is below the repayment threshold, the nominal value of the loan will rise by the interest adjustment rate – effectively, by the rate of inflation. The higher the balance, the greater the increase in absolute dollars to the nominal value of the balance; this will make it harder to reduce the value of the loan to below its original level if the income later rises to above the repayment threshold.

Another determinant of progress to repayment is completion status. Of those who left study in 1997 having successfully completed a qualification, 29 percent had made no progress, compared with 47 percent of those who left study without completing. The margin that completers have over non-completers applies whether the borrower is male or female and is irrespective of ethnic group.

Tables 15 and 16 summarise the incidence of no progress by completion status and gender and by completion status and ethnic group.

Table 15 Proportion of borrowers who last studied in 1997 who had made no progress to repayment by the end of 2002 by completion status and gender

Completed		Not Completed	
Male	Female	Male	Female
30.2%	27.4%	48.1%	46.6%

Source: Statistics New Zealand, Integrated Dataset on Student Loan Scheme Borrowers

Women are somewhat less likely to have made no progress than men. This applies both to completers and those who have not completed – despite the fact that the median leaving loan balance of women among those who finished study in 1997 was about 5 percent higher than the corresponding figure for men. Women who have made progress have done so despite having on average higher leaving loan balances than the men who have made progress.

The incidence of no progress is considerably higher among those who took certificates than among those who took bachelors degrees, when we control for completion status. Those who successfully completed a bachelors degree were less likely to have made no progress than those who completed a level 1 to 3 certificate. Of those who left without completing their qualification, those who enrolled for a bachelors degree were less likely to have made no progress than those who took certificate-level study. These findings apply equally for men and women and for Māori and European.

The data is set out in Tables 17 and 18.

Table 17 Proportion of borrowers who last studied in 1997 who had made no progress to repayment by the end of 2002 by gender and completion status for selected levels of study

Level 1-3 Certificate				Bachelors			
Completed		Not Completed		Completed		Not Completed	
Male	Female	Male	Female	Male	Female	Male	Female
37.7%	38.6%	53.6%	53.6%	26.4%	23.0%	48.7%	42.9%

Source: Statistics New Zealand, Integrated Dataset on Student Loan Scheme Borrowers

Table 18 Proportion of borrowers who last studied in 1997 who had made no progress to repayment by the end of 2002 by completion status, for selected ethnic groups and for selected levels of study

Level 1-3 Certificate				Bachelors			
Completed		Not Completed		Completed		Not Completed	
European	Māori	European	Māori	European	Māori	European	Māori
31.5%	51.2%	44.2%	68.4%	22.6%	31.7%	41.3%	53.8%

Source: Statistics New Zealand, Integrated Dataset on Student Loan Scheme Borrowers