

# Secondary Students' Perceptions of Debt and its Effects on Tertiary Enrolment Intentions

*Gray Baldwin, Philip Gendall and Janet Hoek*

Following the introduction of tuition fees and the student loan scheme, it has been hypothesised that negative perceptions of debt to fund tertiary study may be inhibiting secondary student enrolment at university. This study investigated how the idea of debt to fund tertiary study is perceived by senior New Zealand secondary school students. It also tested the hypothesis that a promotion campaign portraying education as an investment, rather than a cost, would increase university enrolment by secondary students. The results indicate that while most secondary students acknowledge the benefits of a tertiary education, many have a genuine fear of indebtedness and do not accept that a university degree provides the job security which would guarantee debt repayment. Misconceptions about the eligibility criteria for borrowing under the student loan scheme are widespread and perceptions of the level of university tuition fees are inflated. Neither students' attitudes to incurring debt for tertiary study nor their probability of enrolment changed significantly following administration of a promotion campaign portraying education as an investment.

Keywords: tertiary, enrolment, education, survey, Juster Scale, promotion, attitude

## Introduction

Tertiary education funding in New Zealand has undergone dramatic change in the past six years. The introduction of fees in 1988, followed by the student loan scheme in 1991, has more or less reflected what has happened in many other countries in the OECD. In the USA, students now contribute to their education by borrowing to a far greater extent than did their parents (Hansen 1989). In the UK, student loans were introduced in 1990 following an extensive debate in education and political circles (Woodhall 1989). In Australia, tertiary students now contribute directly towards the cost of their education through a graduate tax (Todd 1994).

Universities depend directly on student attendance for their financial wellbeing. Not only is government funding directly related to the number of Effective Full Time Students (EFTS) enrolled at each university, but each student who attends university makes a direct contribution to funding through their fees. This system has resulted in the creation of a competitive tertiary education market in New Zealand and each individual institution has significant incentives to maximise enrolments.

New Zealand students may borrow 100% of their tuition fees and further amounts to cover living and course related costs, provided they are prepared to take legal and moral responsibility for the loan in future. The emotional step involved in "owning" indebtedness is likely to vary between students and it seems reasonable to assume that the step may be harder to take in an environment of negative rhetoric such as that created by Students' Associations, local bodies with a large tertiary sector, and some political parties.

In a British study, Lewis, Sandford and Thomson (1980) found that a large number of students would be less willing to enrol at university under a student loan scheme versus a system of means tested grants. In New Zealand there has been anecdotal observation of the

apparent willingness of some students to go into debt for a depreciating asset like a car, while at the same time being unwilling to take on debt for a (potentially) appreciating asset, education.

This paper reports the results of a study which aimed to test the following three hypotheses:

- H<sub>1</sub>: That incurring debt to fund university study is perceived negatively by New Zealand secondary students;
- H<sub>2</sub>: That such negative perceptions inhibit university enrolment;
- H<sub>3</sub>: That a promotion campaign portraying student loans as an investment, rather than a cost, would change attitudes to debt and increase the likelihood of enrolment at university.

## Method

Four secondary schools in the Massey University catchment provinces of Taranaki and Hawkes Bay were selected for the study. The schools were chosen on the basis that the majority of their students were not from families at either socio-economic extreme i.e., "wealthy" and "poor" schools were avoided.

Within each province, one school was designated "experimental" and the other was designated "control". During July 1994, an initial questionnaire was administered to fifth, sixth and seventh formers in all selected schools. The questionnaire used the Juster scale (Juster 1966) to estimate the proportion of students likely to enrol at university. This is an 11-point probability scale, ranging from "0 - no chance, almost no chance (1 in 100)" to "10 - certain, practically certain (99 in 100)". Students were given their own copy of the scale and asked "Using the scale in your answerbook, how likely is it that you will go to university when you leave school? This initial questionnaire also attempted to measure awareness of university costs, knowledge of student loan scheme details, and attitudes to debt and its implications.

Following this initial questionnaire, experimental schools were subjected to a campaign which promoted the idea of a student loan as a sound investment that would yield lifelong dividends. The promotion consisted of brochures (developed by Ogilvy & Mather Advertising) that were distributed to students and accompanying posters (developed from

within the Marketing Department at Massey University) that were placed in classrooms. Headed by the slogan "*You don't need a degree to work out that you need a degree*", the content of the brochure consisted of a light-hearted discussion of the benefits of borrowing for a university education. The brochure made extensive use of teenage vernacular and symbolism. The accompanying posters, which were placed for three weeks in the classrooms of the test schools, showed pictures of a car and a university degree and the copy suggested that borrowing for a degree was a better investment than borrowing for a car.

A second questionnaire was administered in all schools during August 1994. The questionnaire covered the same ground as the initial questionnaire, with the objective of assessing whether any change in likely enrolment behaviour or attitude to debt had occurred as a result of the promotion campaign. Students in experimental schools were also given the

opportunity to comment qualitatively on the brochures and posters they had seen. The sample characteristics are summarised in Table 1. In total, 345 responses were received, although not all students completed both questionnaires.

**Table 1. Characteristics of respondents**

| <b>School</b>               | <b>No. of students</b> |
|-----------------------------|------------------------|
| Taranaki High School No.1   | 101                    |
| Taranaki High School No.2   | 76                     |
| Hawkes Bay High School No.1 | 83                     |
| Hawkes Bay High School No.2 | 85                     |
| Total                       | 345                    |
| Form 5                      | 119                    |
| Form 6                      | 110                    |
| Form 7                      | 116                    |
| Total                       | 345                    |
| Male                        | 155                    |
| Female                      | 190                    |
| Total                       | 345                    |

## Results

### Cost awareness and student loan scheme

Students were asked the question: *"How much do you think it would cost you to spend one year at university studying towards a degree?"*. Tertiary cost categories were printed in student answerbooks and a verbal qualification was given as follows: *"Think about basic arts, science or business degrees rather than specialist vocational degrees such as dentistry or veterinary science"*. Mean estimates of university costs by cost category, together with the range of responses, are summarised in Table 2. The mean estimate of university tuition fees was approximately double that charged by most institutions for basic arts, science or business degrees. The other cost categories are more realistic.

Students were tested on their knowledge of student loan scheme eligibility criteria. Their responses are summarised and presented in Table 4. While a majority of respondents (53%) correctly identified the universal availability of student loans, a large number of students thought that some sort of restrictive eligibility criteria applied.

**Table 2. Estimates of university cost by cost category**

| Cost category    | Mean<br>\$ | Std Dev<br>\$ | Min<br>\$ | Max<br>\$ |
|------------------|------------|---------------|-----------|-----------|
| Tuition fees     | 400        | 2800          | 100       | 20000     |
| Texts/stationery | 1200       | 1700          | 100       | 10000     |
| Living           | 5350       | 2900          | 150       | 15000     |
| Total            | 10550      |               |           |           |

\* Only responses from students who completed Questionnaire 1 (270 students) are included in this Table.

Students were asked to indicate how much money was available per year through the student loan scheme. The mean estimate of the amount that could be borrowed was \$9000, with a wide range of estimates around this mean (\$500 through to \$100000). The actual amount available for, say a BBS degree at Massey in 1994, is about \$7500. Although the mean estimate of \$9000 is not too wide of reality, the large variation in responses indicates widespread lack of knowledge of student loan scheme details.

**Table 3. Preferred sources of funding for university costs**

| Funding Sources   | No. of responses | %<br>(n=270) |
|-------------------|------------------|--------------|
| Parents           | 231              | 84           |
| Student loan      | 225              | 82           |
| Part time work    | 205              | 75           |
| Allowances        | 103              | 37           |
| Scholarships      | 91               | 33           |
| Savings           | 66               | 24           |
| Bank loan         | 41               | 15           |
| Friends/relations | 16               | 6            |
| Other             | 64               | 23           |

**Table 4. Eligibility for student loans**

| Eligible persons                  | No. of responses | %   |
|-----------------------------------|------------------|-----|
| All students                      | 141              | 53  |
| Students from low income families | 91               | 34  |
| Students subject to credit test   | 17               | 6   |
| Students of certain age groups    | 12               | 5   |
| Students with high grades         | 6                | 2   |
| Students without allowances       | 3                | 1   |
| Total                             | 270              | 100 |

### Attitudes to fees and borrowing for tertiary education

A series of statements were shown on an overhead projector, and respondents were asked to indicate on a five point agreement scale whether they agreed or disagreed with each statement. The statements used, together with the responses given for experimental schools, are summarised in Table 5.

**Table 5. Mean "agreement score" for various statements about university education: Experimental schools**

| Statement   | Mean Score |       |       |
|---|------------|-------|-------|
|   | Time1      | Time2 | Diff. |
| Borrowing for your education makes more sense than borrowing for a car  | 3.6        | 3.5   | -0.1  |
| People who have a university degree benefit from it personally so they should pay for some of the costs of universities | 2.9        | 3.1   | 0.2   |
| Education benefits all of society so universities should be free  | 3.4        | 3.5   | 0.1   |
| The idea of having a \$30,000 debt when I leave university really scares me   | 4.4        | 4.2   | -0.2  |
| I am happy to mortgage my future to gain a good education   | 2.5        | 2.5   | 0     |
| For most people, a university degree means a better job and more money  | 3.4        | 3.5   | 0.1   |
| A \$30,000 loan is not such a big deal when you consider the benefits of having a university degree                     | 2.4        | 2.4   | 0     |
| Going into debt is worth the risk because you are sure to get a job   | 1.9        | 1.8   | -0.1  |

Note. Only students who were able to answer both questionnaires (n=119) have their responses included in this Table. (1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)

The results are presented as mean scores on the agreement scale. Because the differences in mean agreement score for each questionnaire are small, no significance tests have been carried out. Time1 and Time2 refer to the mean score recorded on the first and second questionnaires respectively.

There were no substantial changes in mean attitude score between the two questionnaires in experimental schools. A similar pattern was observed amongst students in control schools and mean scores were also similar. Instead, we detected a pattern of absolute agreement and disagreement with most of the statements that did not change between administration of the first and second questionnaires. For example, there was strong disagreement, in both questionnaires, with the last statement relating to loans being worth the risk because of employment certainty (score is less than 2). There was strong agreement with the statement that "A \$30000 debt really scares me" (score is greater than 4). The second statement relating to the suggested private gain component of a university education appeared to result in equivocation and non commitment for both groups of students (score around 3, which corresponds to neutrality on the scale).

### Likely university enrolment behaviour

Students were given their own copy of the Juster scale and asked: "Using the scale in your answer book, how likely is it that you will go to university when you leave school? Results are presented in Table 6 as mean Juster scores for the entire sample and are also broken down by form and by sex. At the bottom end of the scale, a zero means no chance or almost no chance of university enrolment, while at the top end a ten corresponds with a certain or almost certain enrolment at university

**Table 6. Mean enrolment probability for control and experimental schools**

|              | Mean Enrolment probability |       |       |                         |       |       | F for Diff.       | p    |
|--------------|----------------------------|-------|-------|-------------------------|-------|-------|-------------------|------|
|              | Control<br>(n=89)          |       |       | Experimental<br>(n=119) |       |       |                   |      |
|              | Time1                      | Time2 | Diff. | Time1                   | Time2 | Diff. |                   |      |
| All students | 5.3                        | 5.3   | 0     | 4.3                     | 4.3   | 0     |                   |      |
| Males        | 4.8                        | 4.8   | 0     | 4.7                     | 4.5   | -0.2  | 0.29 <sup>1</sup> | 0.29 |
| Females      | 5.9                        | 5.9   | 0     | 4.0                     | 4.2   | +0.2  |                   |      |
| Form 5       | 5.5                        | 5.1   | -0.4  | 5.9                     | 5.6   | -0.3  | 0.77 <sup>2</sup> | 0.46 |
| Form 6       | 4.8                        | 4.8   | 0     | 2.7                     | 2.8   | +0.1  |                   |      |
| Form 7       | 5.5                        | 5.9   | +0.4  | 4.6                     | 4.8   | +0.2  |                   |      |

Note: Only respondents who were able to complete both questionnaires are included here.

The headings "Time1" and "Time2" refer to mean Juster score for the first and second questionnaires, respectively.

1. Difference in Juster score between sexes in experimental schools.

2. Difference in Juster score between form level in experimental schools.

There was no significant change in Juster probability of university enrolment in either the control or experimental group of students.

### Suggested Themes

Respondents, having viewed and commented on the promotional material that was used, were then given the opportunity to express their own ideas as to what may be effective advertisement copy to promote student loans and university enrolment amongst their peers. This was achieved by asking the following open ended question: *"If you were trying to convince your friends that borrowing money to go to university was a good idea, what sort of arguments would you use?"*. Responses have been grouped and summarised in Table 7.

**Table 7. Potential themes for promoting university enrolment and student loans**

| Suggested arguments                   | No. of responses | %<br>(n=154) |
|---------------------------------------|------------------|--------------|
| Better job opportunities              | 54               | 35           |
| Gain independence from parents        | 22               | 14           |
| Student loan finance lucrative credit | 19               | 12           |
| Increase chances of successful life   | 14               | 9            |
| Degree is a strategic asset           | 13               | 8            |
| Gain a good education                 | 8                | 5            |

Although some subjectivity was required to group the responses, a series of ideas that may be useful to incorporate in any future campaign, was elicited. The most popular choice of promotion theme was that of career advancement, followed by the idea of gaining independence from parents.

### Discussion

Measuring awareness of tertiary costs is a useful precursor to understanding how the idea of debt to fund tertiary study is perceived. Clearly, the higher the assumed cost of tuition fees, the more onerous potential borrowers will perceive the debt required to meet them.

The mean estimate of the dollar value of tuition fees at universities (\$4000) was double the actual average cost charged by most institutions. This result could perhaps be explained by a lack of factual information relating to tertiary fees being circulated amongst secondary students. It could also be argued that some of the more prestigious (and expensive) degrees receive more publicity when fee increases are announced. For example, during 1994, prior to the survey being conducted, there was publicity relating to probability of Otago University raising tuition fees for the B.D.S. degree to \$14000. This sort of publicity clearly has the potential to raise perceptions of tuition fees charged for all other degrees.

There is a widespread perception (among 47 % of respondents) that the Student Loan Scheme is subject to eligibility restrictions. In reality, the only restriction to borrowing under the scheme relates to the concurrent receipt of student allowances. This observation suggests that an information campaign which clearly describes the eligibility criteria relating to student loans may be an important precursor to any campaign which seeks to deal with the emotional problem of "owning" indebtedness, by promoting student loans as an investment. Clearly, students who are in doubt as to their eligibility to borrow money are less likely to think about the potential advantages that borrowing for a degree will confer on them.

The primary objective of attempting to measure attitudes through agreement or disagreement with particular statements was to see if any change would occur as a result of the promotion campaign. However, given that no significant changes did occur, it is perhaps appropriate to comment briefly on the absolute levels of agreement and disagreement with the eight statements shown to respondents.

Students acknowledge the benefits of having a degree and agree that borrowing for education makes more sense than borrowing for a car. However, they do appear to have a genuine fear of indebtedness and do not accept that the cost-benefit analysis comes out in favour of borrowing for education. Unwillingness to borrow may be associated with the uncertainty of gaining employment that will enable repayment of the debt.

A tendency towards mean neutrality on the scale for the statement about the need for private contribution to tertiary costs, given the personal gain involved, perhaps reflects the fact that there is widespread divergence of views on this topic in society at large. Most contributions to the public versus private good debate have a distinctly political rather than intellectual flavour and it is likely that respondents would have been influenced by their own particular political preferences in indicating their level of agreement.

The lack of certainty of employment clearly weighs heavily on students' minds, as the strongest level of disagreement was accorded to the statement relating to job security following university study. Although graduate unemployment in New Zealand is of concern (NZVCC 1993), statistics that have been collected show much higher earnings for graduates compared with non-graduates (e.g., Department of Statistics 1991, discussed by Ansley 1993). It is not inconceivable that the circulation of graduate employment statistics, together with graduate earnings relative to the general population would be helpful in changing perceptions relating to the correlation between education, employment and earnings. Such statistics could form the basis of a potentially more successful promotion campaign.

There were no significant changes in the mean Juster probability of university enrolment in either the control or the experimental groups of students. Several explanations for this are possible. Firstly, that the quality of execution and the themes contained in the stimulus material were inadequate. An attempt was made to test this hypothesis by requesting qualitative assessment of the stimulus by respondents. These comments did not shed any conclusive light on the overall quality of the stimulus, because of the even balance of complimentary and derogatory comments received. However, it is clear that a number of respondents found the posters and the brochure inadequate and unappealing, and to that end it is appropriate to apportion at least some of the blame for failing to increase enrolment probability on the quality of the stimuli used.

Secondly, it is possible that the university enrolment decision is not made solely on the basis of students' own perceptions and wishes. For example, it is probable that parental views are influential in the decision process. Lewis et al. (1980) went to some lengths to gauge parental as well as student preferences for the various tertiary funding options being discussed in Britain at the time of their study. If an external factor such as parental views has a high level of influence on enrolment behaviour, it is unlikely that promoting the idea of tertiary education as an investment to students, on its own, will have a major effect on tertiary enrolment probability.

Various trends are evident when the Juster score data is broken down into gender and form specific categories. Females and seventh formers appear to respond more markedly to the promotion stimuli than males and fifth or sixth formers. However, the lack of statistical significance prevents any firm conclusions being drawn from these trends.

## **Conclusion**

The promotion campaign used was not successful in changing students' attitudes to incurring debt for university study, or their probability of university enrolment. It can be reasonably concluded that the content and/or delivery mode of the stimulus material used in the study is not effective. Any further use of the material for attitude and behaviour change objectives would, therefore, be of questionable value.

Despite this, the responses to awareness questions and attitudinal statements are of interest in themselves. Parties who have an interest in maximising university enrolments (e.g., individual institutions to attract funding, government to "educate the workforce") would, based on the findings of this study, be justified in trying to significantly improve the information material relating to tertiary costs and student loans that is available in secondary schools. This assertion is based on the fact that there is still significant misunderstanding of these issues amongst some secondary students. Elimination of such misunderstandings clearly has the potential to increase university student enrolments.

The attitude measurement component of the study confirmed that the benefits of university study are perceived positively by secondary students, but that the idea of debt to fund such study is not so popular. The extent to which these negative perceptions of debt inhibit university enrolment remains elusive.

This study has attempted to shed light on one of the factors that is an important part of the university enrolment process, that is costs, and the option of meeting these costs via borrowing. However, it should not be forgotten that tertiary enrolment behaviour is a complex process and is likely to be determined by a range of factors, including costs, parental views, career ambitions, family precedents and social factors. A possible area for future research would be the construction of a model of tertiary enrolment behaviour whereby each of these factors could be included and estimates of their relative importance made.

## References

Ansley MH (1993). A qualified success. *New Zealand Listener*, June 19, 60.

Hansen J (1989). Cost sharing in higher education: The United States experience. In M Woodhall [ed], *Financial support for students: Grants, Loans or Graduate Tax*. Institute of Education, University of London.

Juster T (1966). *Consumer buying intentions and purchase probabilities*. Report Number 99, Columbia University Press.

Lewis A; Sandford C & Thomson N (1980). *Grants or Loans: A survey of opinion on the finance of maintenance costs of university students*. Institute of Economic Affairs, London.

N.Z.V.C.C. (1993). *Graduate Employment in New Zealand*. New Zealand Vice-Chancellors Committee, Wellington.

Todd J (1994). *Funding growth in tertiary education and training*. Report of the Ministerial Consultative Group, Ministry of Education, Wellington.

Woodhall M (1989). Introduction: Sharing the costs of higher education. In Woodhall M [ed], *Financial support for students: Grants, Loans or Graduate Tax*. Institute of Education, University of London.

**Gray Baldwin was an Assistant Lecturer, Philip Gendall is Professor of Marketing and Head of Department, and Janet Hoek is Senior Lecturer, in the Department of Marketing, Massey University.**