

Sharing the Private and Public Costs of Tertiary Education

Do University Students Know How Heavily Their Education is Subsidised and How Would Increases in Course Fees Change Their Study Behaviour?

The direct costs of tertiary education are shared between students and government on the basis that there are both private and public returns from tertiary education, and because the government has limited financial resources to commit towards tertiary education. However, the question ‘who should pay?’ is controversial. In 2005 the New Zealand general election was won arguably as a result of a promise to make student loans interest-free for New Zealand-based borrowers (Roy, 2011).

A key policy decision for government is how best to share the costs of tertiary education, including the extent to which it should allow course fees – the largest direct private cost – to rise. Government fee regulation

prohibits tertiary education organisations (TEOs) from increasing course fees by more than 4% per year in most cases.

It is difficult to have an informed debate about whether there should be

changes to how the public and private costs are shared unless there is a good understanding of the current cost-sharing arrangements. The likely impact of changes in cost-sharing arrangements on study behaviour is also an important factor for government to consider. This article outlines the findings of a survey designed to understand university students’ knowledge of the government subsidies that go towards their education. Prior to this study being undertaken, no previous research appeared to exist on this issue in New Zealand. The survey also considered the likely impact of course fee rises on students’ study decisions.

Three hundred and thirty-four students undertaking two 100-level papers¹ at Victoria University of Wellington in the second trimester of 2011 were surveyed. The survey covered questions about:

- students’ understanding of government expenditure on tertiary education;

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- students' understanding of how course fees charged in New Zealand compare with those charged overseas;
- how changes in course fees might influence students' study decisions;
- students' demographic and education profile, and whether they receive direct financial aid from government.

New Zealand government expenditure on tertiary education and how it compares internationally

Total expenditure

For the year ended 30 June 2010, total nominal government expenditure on tertiary education was \$4.46 billion, made up of:

- \$570 million on student allowances (non-repayable grants);
- \$1,525 million on student loans (generally repaid through the tax system);
- \$2,364 million on funding to TEOs (tuition subsidies and research funding). (Ministry of Education, 2011c)

Student loans represent a government subsidy to students because of loan write-offs, doubtful debts, the timing of repayments, and because of the government's cost of capital/opportunity cost of capital. For every \$1 that is lent through the student loan scheme, the government writes down 44.7 cents in its books (Ministry of Education, 2011c). That is, for every dollar the government lends, 55.3 cents is treated as an asset and 44.7 cents as an expense. Approximately 20c in every \$1 lent is written down as a result of the interest-free student loan policy.

The course fees TEOs charge also have a direct impact on the total level of government expenditure on tertiary education, because increases in course fees lead to increased borrowing through the student loan scheme. While course fee regulation was re-introduced in 2001 under the guise of making tertiary education more affordable for students, the student loan costs to government from fee increases are now so high that affordability to government has now become a barrier to relaxing fee regulation. Borrowing for course fees accounted for 64% of total borrowing

Figure 1: Nominal government expenditure on tertiary education, years ending 30 June 2002-2010

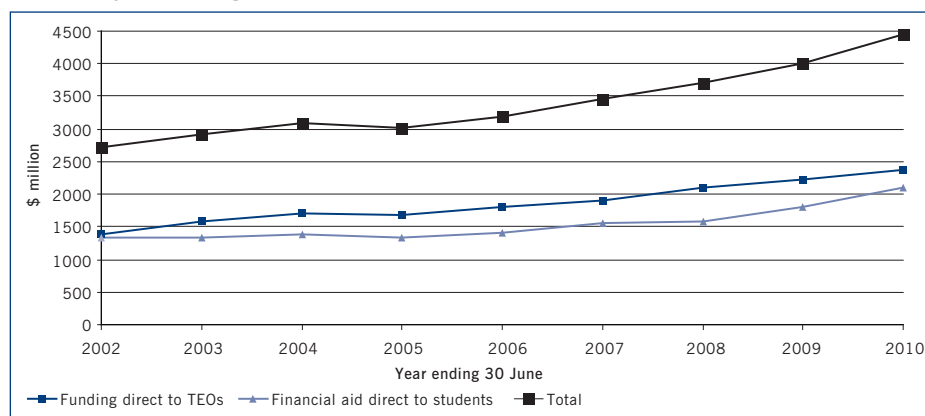


Table 1: 2011 university equivalent full-time student SAC funding rates

EFTS subsidy category		Level of study		
		Undergraduate	Taught postgraduate	Research-based postgraduate
Arts	A	\$6,014	\$7,591	\$8,028
Engineering	C	\$11,060	\$14,057	\$15,129
Education	I	\$8,569	\$10,759	\$11,196
Commerce, law	J	\$6,014	\$7,591	\$8,028
Science	L	\$10,338	\$13,033	\$13,910

Source: Tertiary Education Commission, 2011

under the student loan scheme in 2009 (Ministry of Education, 2010a).

Figure 1 shows how nominal expenditure on tertiary education has changed over time. In real terms, government expenditure on tertiary education has increased by 32% between 2001/02 and 2009/10 (Ministry of Education, 2011a).

Tertiary education also accounts for a significant proportion of the government's total education expenditure. In 2009/10 approximately 36% of the government's total education expenditure was spent on tertiary education (primary, secondary and tertiary education expenditure only) (Ministry of Education, 2011b).

Per student

The bulk of the government's contribution to TEOs is made through tuition subsidies, called student achievement component (SAC) funding. SAC funding rates are set per equivalent full-time student and differ depending on the type of study and level of study. For example, science study attracts a higher funding rate than business study, and postgraduate study attracts a higher

funding rate than undergraduate study. Table 1 shows SAC subsidy rates for the most common areas of study for the students surveyed.

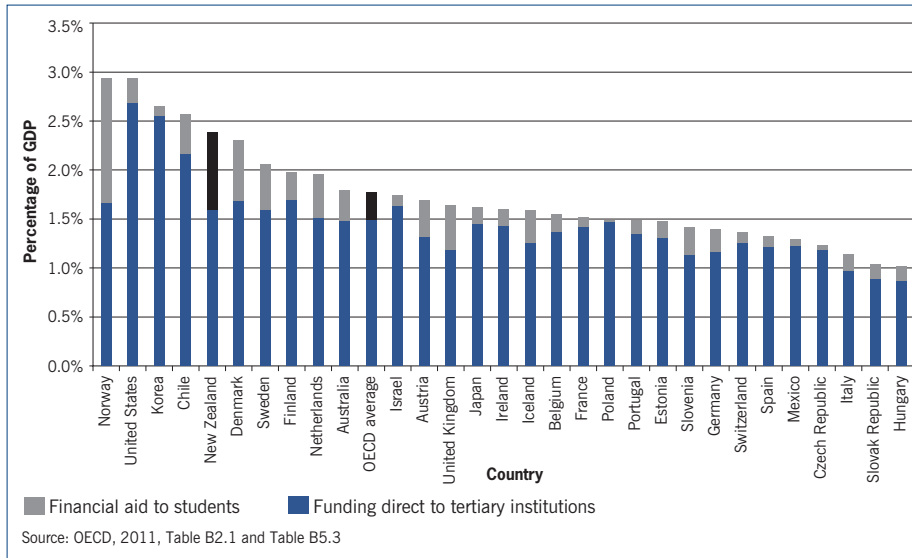
Excluding the implicit government subsidy through the student loan scheme, tertiary education students' share of the direct cost of tertiary education fell from 32% in 2000 to 27% in 2010 as a result of fee regulation policies (Ministry of Education, 2011c). When the implicit government subsidy for student loans is taken into account, on average students paid 16%, and government 84%, of the direct cost of tertiary education in 2010.²

International comparison

As shown in Figure 2, New Zealand's total expenditure on tertiary education is relatively high as a percentage of GDP: the fifth highest of all OECD countries in 2008.

New Zealand does, however, spend a much higher proportion of its tertiary education budget on financial aid to students than most OECD countries do. OECD countries spend, on average, 21% of their government tertiary education budgets

Figure 2: Expenditure on tertiary education as a percentage of GDP (2008)



on financial aid to students; New Zealand spends more than double this, with 41.6% of government expenditure committed to aid to students. Only three OECD countries – Chile, Norway and the United Kingdom – spend a higher proportion.

Commentary from universities on tertiary education funding tends to focus on the fact that they receive less direct government funding than other OECD countries in per-student dollar terms. In 2008, New Zealand’s per-student expenditure on tertiary institutions was 23% below the OECD average. Spending was also below that of the countries we often compare ourselves to: Australia, Canada, the United Kingdom and the United States. However, this simply reflects New Zealand’s lower economic resources (Ministry of Education, 2010b). As a proportion of GDP, New Zealand’s funding of tertiary institutions was slightly higher than the OECD average for the same period.

Students’ understanding of New Zealand government expenditure on tertiary education was poor

Students were asked multi-choice questions about their understanding of government expenditure on financial aid to students, funding direct to providers, total expenditure on tertiary education, and how New Zealand government expenditure compares to that of other OECD countries.

In general, students had a poor understanding about the subsidies that

go towards their education, and typically underestimated the subsidy levels that exist:

- Nearly 70% of students underestimated the proportion of government expenditure spent on direct financial aid to students.
- 67% of students underestimated the amount the government writes down its books for every \$1 lent through the student loan scheme because of the interest-free student loan policy and because some people do not repay their loans.
- The majority of students underestimated the direct tuition subsidy that Victoria University receives for each equivalent full-time student enrolled.
- 57% of students underestimated the proportion of the government’s total education expenditure that goes towards tertiary education.
- 96% of students underestimated the increase in real government expenditure on tertiary education that occurred between 2001/02 and 2009/10.

Students also did not have an accurate picture of New Zealand’s tertiary education expenditure relative to other countries:

- Most students thought that OECD countries spend a similar proportion of their tertiary education budget on financial aid to students, despite New Zealand spending almost double this proportion.

- 58% of students incorrectly thought that OECD countries spent a higher proportion of their GDP on tertiary institutions than New Zealand does.

Students were asked how confident they were about the answers they had provided about government expenditure on tertiary education. The responses are shown in Figure 3. Only 6% of students indicated that they were reasonably confident or very confident of the answers provided, with a third of students indicating that they were just guessing.

In general, responses differed little by demographic, education or financial aid profile, suggesting that no one group is any more informed than another about government expenditure on tertiary education.

The survey sample included 76 international students. These students would be expected to know very little about the subsidies that the New Zealand government puts towards tertiary education given that they do not benefit from them. However, the responses provided by international students differed little from those provided by domestic students.

Why the poor understanding of government expenditure on tertiary education is not a surprise

There is little public debate on how tertiary education costs should be shared, and there is a lack of easily accessible public information about subsidy rates. As a consequence, it is not surprising that students had a poor understanding of government expenditure on tertiary education. Understanding the tuition subsidy system and rates requires a ministerial determination to be downloaded – not something that most people would be aware of, or know where to find. The government agency websites most likely to be used by students and their families (StudyLink, Careers New Zealand and Inland Revenue) also contain no information about subsidy rates. (The Ministry of Education’s website does contain some useful information, but is only likely to be accessed by people seeking out information on the topic.)

TEOs also do not voluntarily inform current or prospective students about

the subsidies received from government, and there is no government requirement for this to occur. There may actually be a strong incentive for TEOs not to provide such information, as it may result in students being more likely to question the value for money that is received from TEOs.

In the last two years ministers have begun to comment on occasion on the tertiary education costs government faces. Some policy changes have been made at the margins because of the government's current financial position, with some resulting commentary from ministers (for example, commentary relating to policy changes in the budgets of 2010 and 2011) (see for example Joyce, 2010, 2011a, 2011b; Q+A, 2011). However, any media coverage on the tertiary education costs faced by government is generally reactive, in response to comments made by politicians, rather than proactive investigation of the matter of how costs should be shared.

Changes that could be made to improve understanding of government expenditure on tertiary education

There are a number of changes that could be made to improve awareness of government expenditure on tertiary education, which are outlined in Table 2. Ultimately, there needs to be an appetite from ministers to put these actions into place. Raising awareness of government expenditure on tertiary education will inevitably have an associated political risk – the government rightly or wrongly being accused of wanting to push more of the cost burden onto students, with the implication that this is an unfair thing to do.

How fee increases may change study behaviour

There is a significant international body of literature on the impact of course fee rises on study. As standard economic theory would suggest, the literature typically finds that as course fees rise, demand for tertiary education decreases (see for example Leslie and Brinkman, 1987; Heller, 1999; St John and Starkey, 1995; Neill, 2009; Dearden, Fitzsimons and Wyness, 2011). However, the effects are not felt proportionately:

Figure 3: Students' confidence in their answers about understanding of government expenditure on tertiary education

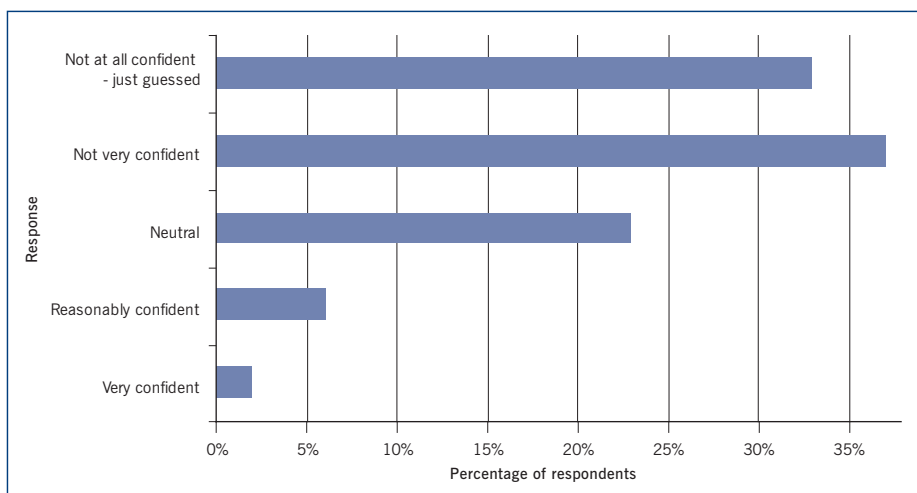
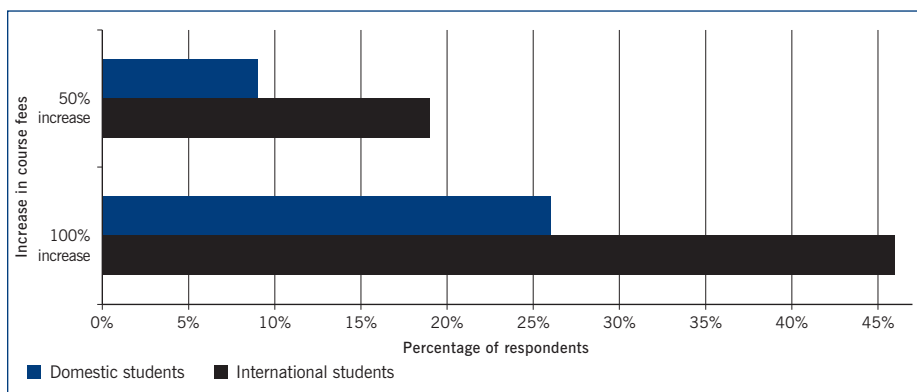


Figure 4: Proportion of students who indicated that they would stop studying altogether if course fees were to increase



low-income students are more price sensitive than high-income students. That is, demand for tertiary education is likely to decrease more rapidly for low-income students than for high-income students as a consequence of fee rises.

Students were asked how increases in course fees of 50% and 100% – both during study and prior to study beginning – would change their study behaviour. Students were informed that the average course fee for full-time university students increased by 22% between 2003 and 2007 (Ministry of Education, 2010a). The increases in course fees suggested were therefore much more significant than those that students have faced in recent years. Most students indicated that they would continue to study, regardless of the level of the fee increase and when the increase occurred. The majority of students indicated that they would look to borrow more money through the student loan scheme to pay for the additional cost, which, in turn, will lead to changes

in the composition of the government's tertiary education expenditure. Whether government's overall costs increase depends in part on whether it reduces the number of student places it funds. Looking for a part-time job or increasing the number of hours worked during study became more popular.

Price sensitivity did rise rapidly. The proportion of domestic students who would give up study increased almost threefold in the case of a 100% fee increase compared to a 50% increase (see Figure 4). Interestingly, the amount of the fee increase was a more important factor than when the fee increase occurred. International students were much more price sensitive than domestic students.

A 50% increase in course fees would lead 26% of international students to stop studying (compared to 9% of domestic students). A 100% increase in course fees would lead to 46% of international students choosing to stop studying (compared to 26% of domestic students). This higher

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rate of international students discontinuing study may be because the students view New Zealand as one of many potential study destinations (whereas New Zealand students may have other reasons, such as family ties, as additional reasons to continue study here). Research by Education New Zealand and the Department of Labour found that the relative cost of study may be a driving factor for international students choosing to study in New Zealand (Education New Zealand and Department of Labour, 2007).

Student allowance recipients (a proxy for low socio-economic status) were less price sensitive than non-student allowance recipients at a 50% fee increase, which is contrary to what the literature suggests. However, student allowance recipients were more price sensitive at a 100% fee increase.

More work is needed before fee regulation policy is relaxed

Universities argue that they should have greater flexibility around student course

fees if the government does not invest more money in tertiary education (New Zealand Vice-Chancellors' Committee, 2008), and the government has indicated that there will be no significant cash injections into tertiary education in the foreseeable future (Joyce, 2010). However, more work is needed before fee regulation policy is relaxed to enable fees to rise more quickly.

First, there needs to be an understanding of the reasons why some students are likely to choose not to study at higher fee levels. Even with fee increases

Table 2: Potential changes to improve understanding of government expenditure on tertiary education

Potential change	Commentary
Publish long-term cost forecasts	Long-term government tertiary education cost forecasts could be published and commented on, enabling people to form a view on whether the current policy settings are sustainable. This approach would be consistent with recommendations in the government's recent review of expenditure on policy advice (Scott, Duignan and Faulkner, 2010, p.49).
Publish the tertiary education policy work programme	The government's tertiary education policy work programme could be made publicly available, enabling people to be aware of the issues that the government is considering and the priority it has given to them. There are examples of this occurring elsewhere within government: the tax policy work programme is published annually, for example (Inland Revenue, 2010).
Take a more public approach to significant policy issues	A more public approach could be taken to preparing advice on significant policy issues than is currently being taken. For example, the Minister for Tertiary Education, Skills and Employment has indicated that he has commissioned a review of tuition subsidy levels from the Ministry of Education. This is a significant policy issue; any changes to subsidy rates will inevitably have an impact on current cost-sharing arrangements between the government and students. However, it is unclear from public information what the objective, scope, timing and resources dedicated to this review is, or what advice is being sought externally. Taking a more public approach to significant policy issues would also be consistent with recommendations in the government's review of expenditure on policy advice (Scott, Duignan and Faulkner, 2010, p.49).
Provide information on government agency websites in an easily accessible format	Government agencies could modify their websites to provide information on government expenditure on tertiary education in a format that is understandable to the layperson.
Show subsidy rates on invoices to students	TEOs could be required to provide details of subsidy rates to students. For example, TEOs could be required to provide a statement on fee invoices, such as: <i>In addition to the fees outlined in this statement, the New Zealand Government has contributed a tuition subsidy of approximately \$6,500 this year towards the cost of your tertiary education.</i> <i>The Government makes a further financial contribution to the costs of your education through research grants to tertiary providers, and through the provision of student loans and allowances.</i> <i>For more information about Government subsidies towards your tertiary education go to www.governmentagencywebsite.govt.nz</i> The potential costs of implementing such a requirement would need to be considered. TEOs would inevitably resist such a change. They would likely argue that: <ul style="list-style-type: none"> • it would result in an unnecessary administrative burden, with students ringing to understand what the commentary meant; • their systems could not cope; • it is too difficult to calculate tuition subsidy rates for an individual student.
Regularly publish advice from officials	Much of the policy work undertaken by officials is not publicly available, unless requested under the Official Information Act 1982. Although the Ministry of Education appears to have made more of an effort in the past two years to make its advice more accessible, it is still the exception rather than the norm for its advice to be made public. The research work undertaken by the Ministry of Education is published regularly.
Adopt and adapt key information sets	The United Kingdom is introducing 'key information sets', which are comparable sets of standardised information about undergraduate courses (Higher Education Funding Council for England, 2011). They are designed to provide information in an easy-to-read format for prospective students. Such an item could be adopted here and adapted to also include information about government subsidies towards tertiary education.

of 50% and 100%, the literature suggests that the average private returns from tertiary education in New Zealand (in the form of higher incomes) would continue to be positive (see OECD, 2011). It would, therefore, be useful to explore the reasons behind some students indicating they would give up study, and whether these students are aware of average private returns of tertiary education.

Second, alternative options to relieve cost pressures that would result in fewer people choosing to study should be investigated. While most students indicated that they would continue to study if fees increased significantly, a number said they would not. It would be useful to explore whether there are other options which would have a lesser impact on the numbers of people studying than fee rises. For example, would adding interest on student loans (and passing the reduction in cost to government onto TEOs in the form of more student places or higher SAC funding rates) result in the same reduction in people studying as increases in fees?

Third, while most students indicated that they would continue to study at higher fee levels, the longer-term consequences of fewer people undertaking tertiary education study, and the potential consequences of increases in hours worked during study, need to be considered.

Conclusion

Deciding how the costs of tertiary education should be shared is an important public policy issue. Yet people's understanding of the current cost-sharing arrangements has previously not been explored in the New Zealand literature. While only one small group of stakeholders was surveyed, the research reported here raises questions about the quality of information students and the public have about the costs of tertiary education paid for by government. Some simple steps could be taken to improve people's knowledge of the tertiary education costs and policy issues government faces. Further research could also be undertaken to explore a wider

group of students' and/or members of the public's understanding of government tertiary education expenditure.

Making a decision on how the costs of tertiary education should be shared involves deciding how quickly course fees can rise. Relaxing fee regulation is seen as an easy answer by universities to increase the revenue they receive. While most students surveyed said that they would continue to study if fees increased significantly, a number said they would not. Before fee regulation is relaxed, more work is needed to understand whether there are other policy options that would have a lesser impact on the numbers of people studying, and to explore why students would choose to give up study even when the average private returns to tertiary education are likely to be positive.

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- 1 POLS 114, Introduction to Comparative Politics and FCOM 111, Government, Law and Business
 - 2 Shares of total costs are calculated as follows:
 - the full cost of tertiary education = SAC funding + domestic course fees;
 - government's share = SAC funding + write-down on fees-lending;
 - students' share = total fees – write-down on fees-lending.

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