AIC Conference on Profitable Education

Resourcing: How Are We Going to Pay for Tertiary Education?

Roger Kerr
EXECUTIVE DIRECTOR
NEW ZEALAND BUSINESS ROUNDTABLE

WELLINGTON
3 NOVEMBER 1992

RESOURCING: HOW ARE WE GOING TO PAY FOR TERTIARY EDUCATION?

Introduction

The resourcing of tertiary education is a broad topic. It includes government and private funding, corporate sponsorship, and other issues such as the registration of education providers. In a brief paper, I can only touch on a few of the many aspects.

In a finite world - more particularly in a country with a large fiscal deficit and a very large public debt - the issue of resourcing always concentrates the mind on all those hard questions such as:

- Should this activity be supported?
- If it is worth supporting, to what extent should we do so?
- How does this activity stack up against all those other activities which we think are also important and worth supporting?
- Who exactly should contribute to the resourcing of the activity and, if more than one party should contribute, how should the costs be allocated?

These questions become all the more complicated when we are talking about a service or product which is diverse. And tertiary education is, of course, far from a homogeneous service. It ranges from very basic education to post-graduate work of a very advanced kind. And it takes in both general education and education which is very specifically related to a particular trade or profession. It covers all sorts of providers from trades schools and universities to firms undertaking their own on-the-job training in the factory, farm or office. So we may get very different answers to these questions depending on what sort of tertiary education we are talking about.

If we are going to get any sort of consistency in our approach to the resourcing issues, we need to clarify the questions. Establishing the right questions is usually a good move if we want to arrive at some helpful answers.

Public and private benefits and costs

Asking about the benefits to individuals and the benefits to other members of society of investment in education is a helpful way to proceed since it is reasonable to expect those who benefit should pay commensurately with those benefits.[1]

---

1 For discussion of the 'merit good' or 'positive right' approach see Boston J, *The Future of New Zealand Universities,* Wellington, Victoria University Press, 1988. This approach argues that people have inherent rights to goods or services seen as 'meritorious' and that the state should ensure access to those rights. While we can readily agree that education is, in a general sense, 'meritorious', this approach quickly leads into problems, which it is unable to address, of how to define degrees of merit and how far the 'positive rights' of students compare with the rights of other groups including taxpayers. See also Savage J, and Thompson M A, *Social Policy Issues in Education: An Economic Perspective,* NZIER, Wellington, February 1988, for a discussion of various approaches.

Clearly individuals benefit in all sorts of ways from their education. They may enjoy the experience in which case it can be seen as a current consumption good. It can also be seen as an investment which will lead to future benefits in the form of higher salaries, better health, and so on. But society also benefits from having a better educated population through enhancement of culture, a more adaptable workforce, lower costs of law enforcement, and in many other ways. Thus there may be benefits from the education of the individual which 'spill over' to society.

The extent to which society should subsidise education through the tax system depends on the extent to which these 'spill-over' benefits (or externalities) would occur anyway without government assistance to the individual. If the private benefits provide sufficient incentive then there would be little point in government assistance.

However, economists point to other reasons for government assistance and these include imperfections in the capital markets and information problems. There may, for example, be a case for government intervention to assist the financing of tertiary education because commercial lending institutions might not otherwise lend on the security of future earnings to the degree or on the conditions thought desirable from a national perspective. Also students may lack sufficient information on which to base investment decisions.

There is also the question about the extent to which the costs of government involvement offset any 'spill-over' benefits through sacrifices in community income or welfare. These are important costs which are often overlooked and include the economic and administrative costs associated with taxation and the efficiency costs of interposing a third party, the government, between consumer and provider.[2]

Thus this approach raises a number of questions which are, in brief:

- What are the private benefits?
- What are the 'spill-over' benefits to society?
- Are the private benefits such as to provide sufficient incentive for the individual to undertake the investment without government assistance?
- Are there other reasons for government intervention such as equity objectives, imperfections in the capital markets or inadequate information?
- What are the costs of government intervention and how do they compare with the benefits?

---

2 See Lindbeck, A (1986), 'Limits to the Welfare State', *Challenge*, January-February, pp 31-36 and references cited therein for a summary of relevant research on general taxation costs, and Treasury *Government Management vol 2 - Education Issues*, Government Printer, 1987, chapter 2 for a discussion of the effects of governrnent intervention in education.

Some conclusions on key resourcing questions

There is much debate on these questions. But there would seem to be wide agreement on the view that the majority of the benefits of tertiary education accrue to the students themselves. Gary Becker, a distinguished economist of human capital theory, has stated:

> "...I am not at all convinced that the external effects of the education of the typical college graduate are very important. Indeed, I believe that the private effects captured in the form of better earnings, better health, etc. are far the dominant return from education for the great preponderance of people who go through college."[3]

Becker was writing of the United States situation, but it seems reasonable to conclude that his assessment applies equally to much tertiary education in New Zealand. A similar view seems to be gaining currency in the United Kingdom. *The Economist* goes further in arguing, in respect of the United Kingdom, that

> "The case for financing universities out of general taxation was always hard to defend in theory: graduates are overwhelmingly drawn from the higher social classes and go on to earn higher-than- average incomes".[4]

Government assistance at the tertiary level may, in my view, be justified on the ground that commercial capital markets are not sufficiently geared to lending against expected future student income streams. As I point out later, while this may justify a government-supported loan scheme, it doesn't necessarily justify significant government subsidisation.

The equity argument is a further argument for government assistance. At the tertiary level it would seem that the bulk of assistance will benefit those most prepared to succeed at the tertiary level, namely the children from a higher socio-economic background. At this level, the equity aim should therefore be to adjust the distribution of assistance in favour of the disadvantaged. This requires targeted assistance if perverse income redistribution and higher overall tax rates are to be avoided.

There is a substantial cost in raising tax revenue. As noted in a recent New Zealand Business Roundtable report:

> "Taxes distort people's willingness to save, to invest, to work and to bear risks, and influence behaviour in a host of other ways. These costs reduce output and incomes and bias choices. Overseas studies typically show the

---

3 Personal communication, August 11, 1988. See also Blandy R, *Reforming Tertiary Education in New Zealand,* New Zealand Business Roundtable, June 1988.

4 *The Economist,* 20 June 1992, p. 56. It has also proposed that a future (specifically, Labour) govemment should seek "to recover the full costs of post-18 education (including tuition costs) from those who benefit", *The Economist, May* 18,1991, p. 20.

> marginal cost of raising an extra dollar of tax revenue is between $1.20 and $3.00."[5]

My main conclusions, in brief, are:

- There are inherent difficulties of measurement and consequently no definitive way of knowing when we have reached the optimal balance in the apportionment of education costs. However, we can be reasonably confident that at the tertiary level the private benefits are a significant proportion of all benefits and that this should be reflected in the apportionment of costs.

- There may be capital market imperfections associated with student loans, and this could be a valid argument for government intervention in that area.[6]

- Assistance should, where possible, be tightly targeted to equity objectives.

Other questions

Our list of issues does not stop there, however. There are many issues closely related to those affecting resourcing which should be noted, if only in passing. In coming to some conclusions about resource requirements and how the resourcing costs are to be allocated, we also need to consider:

- the form in which resources are to be made available and the manner in which they are to be delivered, since these aspects may have a strong effect on the efficiency with which the resources are used;

- the eligibility criteria for receipt of government assistance;

- the governance structure of state institutions, since the form of governance will affect the incentives for decision making and hence the efficiency of resource usage; and

- accountability mechanisms in respect of government funds, including monitoring procedures and the sanctions available to encourage efficiency.

The current tertiary resourcing situation

To assess current arrangements against the conclusions outlined, it is necessary first to summarise the key features of current resourcing policies.

---

5 New Zealand Business Roundtable, *Budgetary Stress*, April 1992, p. 9. The research cited is summarised in Lindbeck A, op. cit.

6 There may be other grounds for intervention such as information asymmetry, but they go beyond the scope of this paper.

- **State institutions and private training establishments (PTEs)**

Tuition subsidies

Courses are assigned to one of a number of course types, each of which attracts a different tuition subsidy. All extra-mural courses are assigned to one type and all PTE courses and programmes are assigned to another. Institutional courses are assigned to one of eight other types.[7]

The institutions and PTEs receive a percentage of the tuition subsidy. The rate of subsidy for study right students (generally those under 22 on first enrolment) is 95 percent of the tuition subsidy, and for non-study right students the rate is 85 percent in 1992 falling to 80 percent in 1993 and to 75 percent in 1994 and thereafter. The study right subsidy rate applies for three equivalent full-time years after which the non-study right level applies.[8]

The tuition subsidy includes a common element for capital costs except in the case of the tuition subsidy for PTE courses and programmes which is consequently set at a lower level than those for institutional courses.

Institutions set student fees to recover the balance of funding required to cover the difference between their revenue targets and the tuition subsidies. There is no limit on the fees they can set[9] or the number of students they can enrol.

The total amount of funding available to each institution is negotiated annually between it and the government and will reflect performance, such as whether previous enrolment targets were attained or not.

The funding made available to private training establishments in 1992 is under interim arrangements. The basis for a more comprehensive method of funding is being considered.

The introduction of a capital charge regime for state tertiary institutions is also being considered.

The student allowance

Students over 16 attending recognised courses receive living allowances. For those under 25 the allowances are subject to a parental means test.

The loan scheme

---

7 For details see Ministry of Education, *The EFTS Funding System in Tertiary Instztutions*, April 1992 reprint.

8 For details see Ministry of Education, *Prescription: Study Right Tuition Subsidy 1992*, 21 November 1991.

9 In the case of foreign students, fees must at least cover marginal cost.

Students can raise loans from a government funded facility to cover fees, course expenses and living expenses subject to certain maxima. The interest rate was set at 8.2 per cent for 1992 (this appears to approximate the real government borrowing rate plus inflation) which is well below the unsecured borrowing rate. The loans become repayable through the tax system once income reaches a threshold level set at about the top benefit rate. The annual repayment rate is 10 percent of the difference between the borrower's income and the threshold level.

- **Industry based training**

Industry based training assistance is administered through the Education Training and Support Agency. It currently amounts to about $30m per annum and is mainly used for establishing standards and subsidising off-job training for apprentices. Increasingly, the administration of these funds will involve the Industry Training Organisations (ITOs) to be established under the Industry Training Act 1992.

Work-based assistance for the training of young people between 15 and 21 will be provided by a Youth Traineeship Scheme at a cost of $4.4m in 1992/93.

- **Labour market training programmes**

Assistance for the training of the unemployed is delivered through the ACCESS scheme at an annual cost of about $158m. This scheme will be progressively replaced by the Training Opportunities Programme (TOP) which will provide free training for school leavers and long-term unemployed with low qualifications.

Comments

The reforms in the tertiary sector are the latest to be introduced and policy on a number of elements, such as capital charging, industry training and the resourcing of private providers is still under consideration or development.

This makes the reforms difficult, if not impossible, to evaluate on the basis of actual experience. We shall have to wait a few years before we can take some definitive readings of the effects of current changes.

We can, however, make some comments on the analytical basis for the various changes. My comments are confined to resourcing issues, but I would note in passing that further work on other aspects, such as governance arrangements, remains to be undertaken.

The composition of assistance (state institutions and PTEs).

For state institutions and PTEs the components of the assistance regime are:

- the tuition subsidy;
- the student allowance; and
- the loans scheme.

I will consider each in turn.

The tuition subsidy

The overall level

The general level of tuition subsidy is high. For younger students (the majority of the student body) the subsidy is 95 percent of estimated course costs while for older students it will reduce to 75 percent. As will be apparent from my earlier remarks, the current levels of subsidy are way out of line with most estimates of the 'spill-over' benefits flowing from tertiary education to the wider society. Moreover, it is highly questionable whether there would be a substantial fall in demand if subsidy levels were significantly reduced from the current high levels. In countries with much lower levels of subsidy than New Zealand tertiary enrolment rates are typically much higher. This is because higher education is a sound private investment for many.

Setting tuition subsidies in terms of course cost also presents a problem. If costs go up, then the subsidies will be dragged up with them irrespective of whether any increase in external benefits to society can be expected. It cannot reasonably be assumed that costs and external benefits move together. It would be preferable to relate the subsidy level to some estimate, however tentative, of the 'spill-over' benefits that can be expected.

Institutions might also wish to consider the desirability of being so dependent on one source of funding. Diverse sources may well be more protective of academic freedom as well as total income.

An increase in the proportion of tuition costs met by students would encourage more careful selection of courses and higher student performance, and would lead students to demand better and more cost effective tuition. Institutions would be likely to consider changes in the length and timing of courses, for example, in line with student preferences rather than the preferences of tutors and lecturers, and to cull out low value courses. There have been many anecdotal reports of such developments since tuition fees were raised from earlier very low levels.

The tuition subsidy is the largest element in the government's tertiary assistance package and the fact that it is untargeted presents equity problems. As noted earlier, untargeted assistance will always benefit primarily those from wealthier families.

Thus on equity, efficiency and wider fiscal grounds there is a strong case for reductions in the tuition subsidy levels, in my view.

Course types

The assumption behind differing subsidy levels for different courses is, presumably, that the 'spill-over' benefits vary according to course. I have considerable doubts as to whether they vary as much as present arrangements appear to imply. However, the grouping of courses within a relatively small number of cost categories is a substantial improvement on previous arrangements. The review of the EFTS system announced in the budget[10] will presumably include a consideration of the number of course types.

---

10 B.6 [Pt. 11] p. 66.

The inclusion of PTE courses as a separate course type is an interim arrangement pending the development of more comprehensive arrangements for the funding of private providers. The aim should be to exclude ownership considerations from government purchase decisions, so that similar courses attract the same tuition subsidy according to some assumption about the 'spill-over' benefits they offer. A similar consideration applies in the case of courses which are offered by both secondary schools and tertiary providers. This is becoming an increasingly important issue as senior secondary schools increase their range of courses to cater for a wider range of students in terms of ability and interest. Again the general aim should be to attach tuition subsidies to courses rather than, in this case, according to the type of provider. The review of the EFTS scheme will presumably also address these issues.

Hitherto private establishments have been crowded out of much of tertiary provision by the monopoly access of state institutions to government funding. By and large, private providers have concentrated on small niche markets not served by state institutions and most offer only one type of service. The growth of alternative providers is highly desirable for the efficiency of the sector. Greater competition in the sector should make institutions more sensitive to student demand and to costs and quality. The more we can rely on responsiveness to student demand and an informed student body, the less we need to be concerned about input controls on, and output monitoring of, tertiary institutions. The introduction of a scheme for the funding of private training establishments, albeit on an interim basis, is therefore to be welcomed.

Determining allocations to institutions and PTEs

The current process of determining allocations of tuition subsidy to institutions and PTEs requires annual negotiation and will inevitably involve a certain degree of arbitrariness in setting student quotas per course type for each institution and PTE. It also poses fiscal problems for the government since institutions can enrol above quota while all students enroled have access to the student allowance and subsidised loan assistance.

The problem seems to me to stem, in part at least, from the high rates of government assistance. A move to a situation in which fees sent a more realistic signal about the costs of courses would reduce reliance on artificial rationing devices.

Capital costs

The definition of course types and the tuition subsidies attached to them will need review in the light of whatever decisions are made on capital charging. The policy aim should be to avoid distinguishing between various types of input costs in setting tuition subsidies. There is no one ideal balance between capital and other inputs and such decisions should therefore be left to the institutions.

The proposal to introduce capital funding and charging is another important step towards greater efficiency since its introduction will require institutions to take the costs of capital into account in their management decisions. The value of the capital assets of the state tertiary institutions is, I understand, in the region of $2 billion, and any change that encourages more efficient use of such a large asset base should be implemented.

The introduction of capital charging will also be important from the perspective of encouraging the emergence of a wider range of private providers who do, of course, have to take capital costs into account and would otherwise be disadvantaged vis-a-vis the state institutions.

Study right

Differentiating the subsidy level by age of student is an interesting development which in itself raises a number of questions. The rationale for this distinction is not entirely clear. It might be argued that younger students have less information, less savings and are less well qualified to evaluate the benefits of tertiary education and training and that for these reasons a higher subsidy is required. Or it might be argued that, since the working life of younger students will be longer, their contribution to society will be greater. Of course there are counter arguments and the issues were well traversed in the Tertiary Review Group's report.[11] On balance, I agree with the Review Group's conclusion that the disadvantages of the targeting proposals outweigh their advantages.

Fee setting

Putting responsibility for fee setting in the hands of institutions is to be applauded as a key step towards making institutions more accountable for their services and for enhancing their responsiveness to changes in student demand.

The response of institutions has varied. Some stuck to a uniform fee across all courses involving cross-subsidisation between courses and between study right and non-study right students. Some have set fees for each course at the difference between their revenue target and the tuition subsidy level for each course, while others have adopted an intermediate position setting 'flatish' fees involving limited cross-subsidisation.

The existence of cross-subsidisation of fees between courses is not necessarily indicative of inefficiency. It can be a legitimate part of a marketing strategy. However, the flat fee regime adopted by some institutions would appear to reflect current high tuition subsidy levels, weak competitive pressures and, perhaps, something of a 'club' mentality among the institutions concerned. Greater reliance on pricing signals, through lower subsidies and higher fees, would result in a more competitive situation in which students would demand quality and providers would be more concerned to demonstrate that they were meeting quality expectations.

---

11 Ministry of Education, *The Review of Study Right*, April 1991.

Financing of students

Recent policy changes have changed the levels of, and eligibility for, student allowances. The student allowance is much more tightly targeted than previously, and this seems appropriate.

The loans scheme

The main argument for the introduction of a separate loan scheme is the limited extent to which the private sector will lend on a borrower's expected future income. This argument has some weight. It could also be argued that such a scheme is necessary as an interim measure while parental attitudes to saving for their children's tertiary education change.

However, these arguments do not extend to subsidisation and there is clearly a high degree of subsidy in that the interest charges do not cover administrative and default costs and interest write-offs. The aim should be to keep the subsidy element and administrative costs as low as possible. The scheme incorporates some equity elements in that the Crown meets the real interest of low and non-income earners. It is reasonable that this cost should be met by taxpayers rather than spread across other borrowers. On the other hand, there appear to be some significant subsidy elements, including government payment of most administrative costs, which are generally available and which will tend to result in further transfers from poor to rich.

Industry training

The basis for industry training support is not clear. It could be argued that government subsidies are justified on the grounds that other forms of post compulsory education and training are subsidised. However, the 'spill-over' benefits would appear to be very small and the rationale would further diminish if, as suggested, subsidies elsewhere are reduced. Moreover, there appear to be some inconsistencies in the availability of assistance, for example between assistance for apprenticeship training and for other types of industry training.

Conclusions and the way ahead

If we are going to arrive at good answers to our difficult resourcing questions, we need to identify the right questions and apply rigorous analysis. It is possible to over-invest in education just as in other income-producing assets, or to invest in the wrong areas. There is not much point in throwing a lot of money at tertiary education in a haphazard way and hoping our economic and social problems will somehow go away. A lot of countries tried that in those 'golden years' for education, the 1950s and 1960s. Many millions were spent, especially on new tertiary institutions, but, by and large, the results were disappointing. There is some danger of going that way again. Beyond government action to take account of any 'spill-over' effects and to achieve equity objectives, there are advantages in allowing market mechanisms to determine the appropriate level of resources to be committed to higher education rather than the political process.

If we get the wrong answers now, we could just end up with a lot more low yielding investment and saddle the next generation with a national debt that is much larger than it might otherwise have been. The lessons from our 'Think Big' experience apply to education as much as to any other area. Equally, we need to apply with appropriate modifications the lessons from our recent successes in improving the efficiency of the state sector, including the former government trading departments, through a better governance and management structure.

Most of the elements of the financing system and of the institutional framework recently introduced for the tertiary sector do, in my view, stand up to critical analysis. The overall result is a considerable improvement on the previous system. It was also pleasing to see the discussion of education and training in the recent budget papers set in the context of a broad social and economic strategy.

There are, however, some weak points in the tertiary policy framework and hence some unfinished business. The main points to concentrate on for the future are, I suggest:

- lowering total government assistance levels to achieve a more equitable apportionment of costs as indicated by consideration of the balance between private and public benefits;

- relating tuition subsidies to estimates of 'spill-over' benefits rather than to course costs. This suggests:

    - fewer course types; and

    - no distinction between tuition subsidies on the grounds of provider ownership or provider type;

- shifting the balance between the components of the assistance programme with more reliance on a loan scheme that has a minimum element of subsidy and less reliance on tuition subsidies;

- ensuring that living allowances remain tightly targeted;

- implementing capital charging for state institutions;

- reviewing the need to maintain a distinction by student age for tuition subsidy levels; and

- undertaking further work on industry training with a view to establishing more clearly the rationale for assistance, and defining suitable eligibility criteria and the form it should take.