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Policy Forum: Higher Education Funding

Australian Higher Education Financing: Issues for Reform

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1. A Recent History of Australian Higher Education Financing

The financing of Australian higher education has undergone radical change since the early 1970s. At that time the Federal Government provided practically all funding, and until the late 1980s there was little political support for change. However, over the last decade there has been a very significant move towards greater private contributions, particularly student tuition charges.

Further, since the change in Federal Government in 1996 the levels of student charges and the nature of their payment have changed. There have also been policy moves over the last few years promoting greater institutional autonomy and flexibility with respect to charging. The current arrangements are almost unrecognisable compared to those in place under the Whitlam Government.

1.1 Fee Abolition in 1973

In the early 1970s up-front fees were paid by some students. These were abolished by the newly elected Federal Labor Government, in 1973. This policy change had two key motives.

First, fees were believed to erect barriers to participation in higher education by the poor. Thus their abolition was seen to be important in improving the access of the disadvantaged to better lifetime opportunities. Second, fee abolition was symbolically important as a reflection of the Labor Government's social democratic credentials.

The abolition of university fees at this time had no discernible effects on the socioeconomic composition of higher education students,[1] for two reasons. First, only a small proportion of students (20–25 per cent) paid fees, since the great majority had either Teacher's College or Commonwealth Scholarships. Second, because secondary schooling retention rates to the equivalent of Year 12 were very low at the time (less than 30 per cent), most prospective students from poor families had left the education system well before university.

1.2 The Higher Education Administration Charge

The Coalition Government of 1975–83 made no significant changes to university financing. However, the Labor Government introduced the so-called Higher Education Administration Charge (HEAC) in 1986.

HEAC was an up-front fee and its introduction is a watershed: it introduced user-pays. The charge was small—$250 (in 1986 terms)—and did not vary with respect to course load. There is some evidence that it had a small negative effect on mature-aged part-time enrolments.[2]

HEAC was symbolically important as a user-pays perspective had been rejected by

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Australian governments of different persuasions for over a decade. As well, HEAC showed the intention of several Cabinet Ministers (notably Peter Walsh and John Dawkins) to address what they thought was a critical equity issue: not charging for higher education is regressive because the subsidy from all taxpayers—including the poor—goes mainly to those from advantaged families. The pejorative labelling of 'free education' as 'middle class welfare' was a major theme at the time.

1.3 Higher Education Contribution Scheme

The Higher Education Contribution Scheme (HECS), recommended by the Wran Committee set up by John Dawkins in 1988,[3] was adopted in 1989. This was a universal charge to undergraduate students of $1800 (in 1989 terms), with a unique feature: students could defer payment until their future incomes reached a particular threshold, with no real rate of interest being charged on the debt. This was the world's first income-contingent charge for higher education,[4] a policy arrangement that has since been adopted or recommended in many other countries.[5]

HECS came about because the government wanted to increase higher education enrolments but was not prepared to pay for the increased expenditure through taxation. Most importantly, 'free education' was seen to be regressive and unfair.[6]

While many critics of HECS alleged at the time that the new system would have major adverse consequences for the access of the disadvantaged, this has not turned out to be the case. Some part of HECS' success on this level relates to the significant advantages of the nature of repayment, an issue analysed below.

1.4 1996–97 Budget Changes

In its first Budget the Coalition Government announced four significant financing modifications:[7]

- all charges were increased, by around 40 per cent on average.
- the income thresholds for repayment of the debt were reduced considerably—for example, the annual income initiating the first repayment fell from about $30000 to about $21000 (in 1996 terms).
- the uniform charge was replaced with three levels.
- universities were allowed to set whatever level of fee they wanted for undergraduates not accepted under existing HECS quotas.

The most significant change to HECS relates to the repayment thresholds. Because the whole structure was moved down, all people repaying HECS—most of whom have graduated—now pay more in net present value terms, because they would have less of the subsidy implicit in an interest-free loan. Chapman and Salvage (1998) estimate that this meant an average increase in effective repayment obligations of about 10 per cent.

The new three-tier charge structure was set with reference to a combination of course costs and what seems to be a presumption of the income advantages of different degrees. For example, one of the lowest cost courses (Law) was accorded the highest charge, and one of the high cost courses (Nursing) was accorded the lowest charge. Interestingly the Wran Report also suggested a three-tier charge structure, but with the charges reflecting course costs only.[8]

Allowing universities price discretion for additional students was a radical departure from centralised fee control. While so far there has been little take-up of this option, it represents the most significant movement towards institutional pricing autonomy in the history of Australian higher education (Chapman 1997).

2. Options for Higher Education Financing

Several different policy approaches, currently in operation internationally, are now analysed with respect to their social and economic implications.

2.1 A No Charge System

Many, although increasingly fewer, countries do not charge for higher education. What this means can be understood through reference to standard principles, now explained briefly.

A role for government is to help ensure the production of optimal quantities of goods and services. In some circumstances this requires public subsidies equal to the marginal value of the externality associated with an activity.[9]

All charging systems implicitly place a value on externalities. For example, having no charge suggests that societal benefits at least equal the size of the subsidy, and, implicitly, that graduates receive no direct benefits. While there is little agreement on the size of externalities, it is certainly clear that the process delivers important private benefits to graduates.[10]

The other issue related to not charging for higher education is that of equity. There is no doubt that university students are more likely to come from privileged backgrounds, and it is also true that graduates do well in the labour market. Thus a no charge system is unquestionably regressive.

2.2 Up-Front Fees with No Financial Assistance

If there should be a charge, how should it be paid? In this context the critical issue relates to a major borrowing problem, often referred to as 'capital market failure'.

The important point is that banks are reluctant to loan to students because of problems associated with default. An education loan is risky for a bank because, in the event of default—and unlike with respect to a housing loan—the bank has no collateral to sell. This implies that, without assistance, banks will not be interested in the underwriting of human capital investments.

There will be three important effects: a loss of talent, and thus a cost to the whole society; a loss of opportunity to individuals; and a cementing of the nexus between family background and a person's lifetime income, meaning that such a system is regressive.

2.3 Up-Front Fees with Bank Loans

A possible solution to the capital market problem used in many countries involves government-assisted bank loans to students with low family incomes. The most important form of public sector support is the guarantee of repayment of the debt to the bank in the event of default. There are several problems here.

The first is that access to loans is usually means-tested on the basis of family income. This presumes equal access of individuals to family finances. But those in charge of the distribution of household finances may not have the prospective student's view of the value of education. If so, outcomes will not be optimal.

The second problem is default. For the government this is costly since bank-financed student loans default rates are very high.[11] And if there is a guarantee that defaults will be paid for by the government, banks will put little effort into debt recovery.

Students also face a default issue. This is that some may be reluctant to borrow for fear of not meeting future repayment obligations, with concomitant damage to a person's credit reputation (and thus access to future borrowing, for example, for a house). A consequence is that some eligible prospective students will not be prepared to take bank loans.[12] This problem can be traced to the fact that bank loan repayments are insensitive to the borrower's financial circumstances.

2.4 Income-Contingent Charging Mechanisms

A final approach to student financing involves income-contingent charges, such as HECS. The attraction of income-contingent schemes is that they can be designed to avoid all the problems associated with alternative financing policies outlined above.[13]

First, there is no concern with intra-family sharing so long as the scheme is universal. Second, given an efficient collection mechanism, there is no default issue for the government.[14] Third, because repayments depend on incomes, there should be no student default concerns.

HECS has been in operation since 1989, and there is now considerable evidence concerning its consequences[15] for both demand for higher education and the access of the poor: the bottom line is that there have been negligible effects in both areas.[16]

3. Current Issues in Australian Higher Education Financing: Towards a Solution

What now follows explores a subset of the many contemporary challenges for university funding: should universities have discretion to set charges for students? should the government limit the extent of university price autonomy? and what are the right reform directions?

3.1 The Background to a Case for Institutional Price Flexibility

It is unlikely that future governments will markedly increase subsidies for higher education. And given that there are currently strong financial pressures on universities, there is a case for increased institutional price flexibility. Two factors leading to this situation are now explained.

- Fiscal parsimony

Over the last two decades most Australian and OECD governments have endorsed low-tax fiscal positions. There is no reason to believe that this will soon change.

An indirect implication for Australian public sector universities is that academic real wages have fallen significantly.[17] This means decreases over time in the relative attractiveness of academic employment and thus a diminution in the quality of applicants and resignations of some of the best staff. Concomitantly the average quality of academic staff has been falling.

- Enterprise-based bargaining

There has been a government-initiated movement over the last ten years or so towards enterprise bargaining in universities. However, unlike what this means for the private sector, there are no instruments to make the arrangement operational; unlike private firms universities cannot vary prices or institute profit-sharing relationships.

That is, Australian universities face a fairly fixed pie. A pay increase for all staff, for example, is likely to mean job losses. In the context of governments not being willing to maintain real levels of higher education expenditure, an enterprise bargaining system inevitably exerts significant pressure for independent funding sources.

The above factors mean that something has to give, and one candidate is the introduction of some institutional revenue autonomy, with the additional resources being delivered directly to the institutions. This would promote competition, which has several potential benefits, now explained.

Australia is now in a situation whereby universities supply services for a large and diversified market. Higher education is no longer elite and small, and there will increasingly be opportunities for specialisation in terms of both subject matter and the targeting of particular consumers.

In this context quality and price differentiation promote the case for allowing universities to offer services and prices reflecting their circumstances and goals. This would allow more choice for both providers and students, and has the potential to improve service delivery.

But if universities are to have some discretion over prices, two questions arise: should there be price regulation? and, how can the movement to greater institutional pricing autonomy be achieved without compromising students' access?

3.2 Towards Reform: Price Regulation and the Payment Mechanism

There is perhaps now a case for greater institutional autonomy with respect to pricing. Universities could offer different charges to encourage competition and improved resource allocation.

This raises two critical issues: the extent to which universities should be free to set prices;

and what payment mechanisms should be available.

3.2.1 Problems with Unfettered Price Setting

There are two important reasons to be concerned about unfettered price competition between Australian universities. The first is that the extent to which institutions will be able to benefit from price discretion will be a result of their location and history. For example, the Universities of Sydney, Western Australia, Adelaide and Melbourne are located in prime areas of their respective cities, and this gives them a significant commercial advantage. The fact that universities do not pay rent means that the playing field is not level.

Further, an important part of universities' relative standing is the result of many years of public subsidy. Reputations have been built up from these subsidies, implying that there might be important rents accruing to some universities from unfettered price competition.

The bottom line is that allowing free market principles in the pricing of higher education services in Australia is premature until convincing analysis of the likely consequences is available. This means that, at least in the short term, the government will need to set boundaries on the level of price changes.

3.2.2 Payment of Charges

For reasons documented in Section 2 it is critical that any moves towards greater institutional price flexibility have to be accompanied by student access to a HECS-type financing scheme. Indeed, if this does not happen, and universities are simply allowed to set prices to improve competition, the net effects will unambiguously be negative.

It is not difficult to devise a scheme characterised by increased competition that also has an income-contingent repayment basis. For example, the government could specify broad bands of charges by discipline and allow universities to set prices up to 25 per cent above[18] specified levels. At enrolment students would commit to repaying the debt through HECS, or pay the charge directly to the university with the current 25 per cent discount.[19]

In the circumstance of a student choosing the pay-later option, the government would pay the university the additional charge amount (discounted by 25 per cent). In the future, on average, the government will receive charge revenues from pay-later students which will be close to the net present value of the discounted charge. Many variations of this approach are possible, and the scheme could take the forms described in Karmel (2000) or Miller and Pincus (1998).

3.3 Conclusion

There are good reasons to reform the current system. Public funding is sparse and will remain so, irrespective of which party is in government, and the current arrangements are not very sensitive to issues of allocative efficiency. This can be promoted by allowing increased institutional flexibility with respect to pricing, with the additional fee revenue being delivered directly to the institutions. Changes along these lines are likely to promote diversity and help arrest the decline in academic employment conditions.

However, there are important reasons to limit the extent to which universities are able to vary prices. Moreover, the case for the provision of income-contingent financing support for students is overwhelming. Irrespective of the nature of other financing reform, any movement towards up-front fees and away from HECS will undoubtedly result in a poorer policy prescription.

4. A Postscript: The Government's Plan for Postgraduate HECS Loans

In January 2001 the Government announced, as part of its Innovation Statement, that an income-contingent loan would soon be available to all fee-paying non-research postgraduate students to cover current up-front charges. In a subsequent interview[20] the Minister, David Kemp, offered details of the new scheme.

4.1 The Plan Explained and Motivated

The main features are that there will be no limits on the amount a student can borrow; the loan would be repaid according to the current HECS arrangements; and universities would remain free to set postgraduate charges.

As stressed above, there are very good reasons for an income-contingent charge mechanism for postgraduate degrees. Allowing the payment of up-front fees with the use of HECS-style loans will increase the access of the relatively disadvantaged to postgraduate studies. This will have the two important effects of increasing the pool of talent available for postgraduate studies and expanding the access of the system to the less privileged.

In principle, this policy change should be applauded. Moves away from up-front fees and towards income-contingent repayment reflect correct principles of reform for the Australian higher education system. There are some interesting issues with respect to the form of this particular proposal, however.

4.2 Some Implications of the Plan for Postgraduate Charge Levels

The Minister has argued that competition would restrict the extent to which universities would commensurately increase postgraduate fees, saying: 'We're not expecting that there will be any significant change in fees as a result …'.[21] However, this is more complicated than is apparent.

In analysing the implications of this policy change it is critical to recognise that the postgraduate charge facing a student who can pay with an interest-free loan is necessarily different to the fee received by the university. This is because the university receives the money at the time of enrolment, but the student repays the debt later. Critically, the absence of a real rate of interest on the debt means that in financial terms the student will necessarily be facing a lower impost than the actual charge. In other words, there will be a government-financed subsidy.

The extent of the subsidy depends on how long before the student begins to repay the postgraduate loan, and the length of time taken to repay it once repayments begin. That is, among other things, the subsidy depends on students' expected future incomes and the level of outstanding HECS undergraduate debt at the time the postgraduate loan is taken. The latter is critical because the postgraduate obligation will only start to be repaid once other HECS obligations have been met.

For example, students starting a postgraduate qualification when they have a large undergraduate HECS debt will have a long period of subsidised benefit, and thus will implicitly face a relatively small charge in true financial terms. On the other hand, postgraduate students with no HECS debts, and already earning, will receive relatively small subsidies.

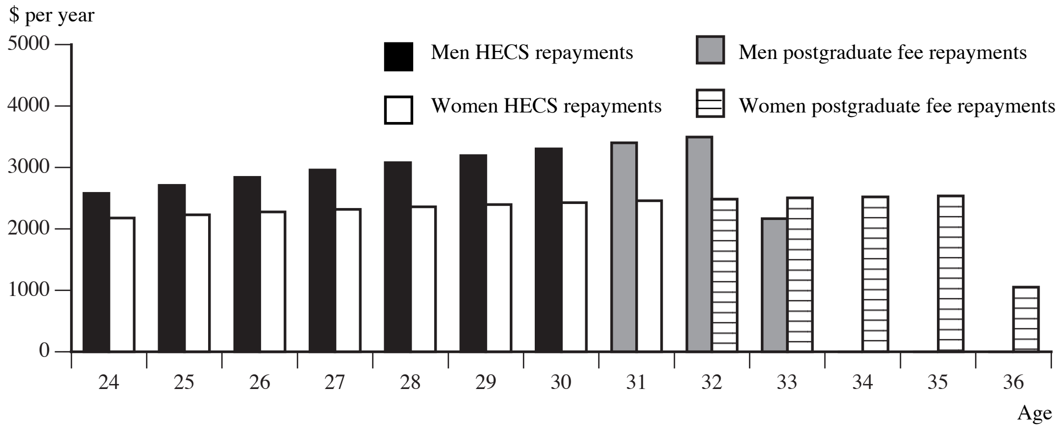
Unambiguously, however, if the nominal size of the charge remains unchanged, the new scheme financially benefits all students taking the loan. This has a very important implication for a university's postgraduate pricing policy in the context of the government allowing complete postgraduate fee flexibility. What then is likely to happen?

The answer is that because these new arrangements mean that the effective charges faced by most students are now lower than before, universities will be able to increase the fee charged. Importantly, these fee increases, while real for the university, are not necessarily true increases for students who can defer payment since they have access to the (real) interest-free loan.

The existence of competition between the universities will have limited impact on the above. After all, all universities will have the benefit of students now facing lower true charges, and the system will deliver new nominal charges reflecting this fact.

With the presumed higher charges the universities will be unambiguously better off, since they will be receiving the additional revenue at the time of student enrolment. Prospective postgraduate students are also likely to be advantaged, but the extent of their benefit will be determined by how large the presumed nominal fee increases turn out to be. The costs of the subsidy will be financed by the public sector.

Figure 1 Repayments of HECS Undergraduate and Postgraduate Debt



4.3 Estimates of the Subsidy

An obvious way to work out the size of the subsidies implicit in the new postgraduate policy approach is through the application of human capital techniques with respect to the net present value of charges under the planned arrangements. This is now reported from the use of cross-sectional data with information on individuals' age, earnings, education and sex.

The 1994–95 Australian Bureau of Statistics' Income Distribution Survey is an apposite data set available to address the issue. For this exercise some simple counterfactuals have to be defined. The first is as follows.

Imagine that a person has completed a four-year undergraduate degree begun at age 18 and completed at age 22. A middle-range HECS debt would be $19720. Further, it is assumed that the student chooses to undertake two extra years of postgraduate study for which there is a charge of $5000 per year.

Our hypothetical students will have the benefit of not paying any real interest on the additional debt until their existing HECS debt is repaid. Assuming that they earn the average incomes of men and women with a higher degree (the earnings profiles being shown in Appendix 1) it is possible to illustrate when the repayments occur, and these are shown in Figure 1.

The data show that for the examples chosen, men and women will start to repay the postgraduate loan at ages 31 and 32, and will finish the repayments at ages 33 and 36 respectively. These data can be converted into calculations of the net present value of the charges, calculated at age 22. The results can be compared to the net present value of the charges paid up-front to calculate the implicit subsidy, now shown in Table 1.

The data from Table 1 show that for some students there is a very large subsidy implicit in the Government's plan: in the order of 41–47 per cent.

Two other examples are now presented. They are for postgraduate students with no HECS debts beginning their courses at age 22 and age 32 respectively. The results are shown in Table 2.

Table 1 Net Present Value of a $10000 Postgraduate Debt, HECS Unpaid

	Men	*Women*
Net present value of the debt	$5942	$5329
Implicit subsidy (per cent)	40.6	46.7

Table 2 Net Present Value of a $10000 Postgraduate Debt, HECS Paid

	Men	*Women*
Scenario 1: Paid off HECS debt before postgraduate studies beginning at age 22	$8137	$7971
Subsidy (per cent)	18.6	20.3
Scenario 2: Paid off HECS debt before postgraduate studies beginning at age 32	$8266	$8052
Subsidy (per cent)	17.3	19.5

The subsidies of around 17–20 per cent are much lower than would be the case for students with high outstanding undergraduate HECS debts. It is also critical to note that a very large number of current postgraduate students are both part-time and aged over 30, implying strongly that they are full-time workers already earning over the HECS repayment threshold. For these students the subsidies will be somewhat lower than for Scenario 2,[22] and for other prospective students there will be no subsidy at all.[23]

Even given that there is a large range of subsidies, and accepting that for many students already earning high incomes these subsidies will be low, it is still the case that on average under the new system the effective charges will be lower than before. Thus the tendency will be to increase the pressure for universities to increase (nominal) postgraduate charges. Since all universities will face similar increases in the effective demand for their services from the new arrangements, the role of competitive forces is unlikely to stop this happening. While this is not obviously a bad or a good thing, the critical issue is what then happens.

4.4 Conclusion

The Government's recent announcement that income-contingent loans will be made available to assist postgraduates to pay fees is an excellent development in Australian higher education financing policy. It will improve access for prospective postgraduate students, and will as a result mean that there will be less wasted educational talent and a better workforce. It will also improve significantly the opportunities for poorer prospective students.

However, the new scheme implies that a sizeable proportion of students will receive a government subsidy which will increase effective demand for the service. This is likely to facilitate nominal charge increases, meaning that universities will receive higher charge revenues. The government will thus be subsidising both students and universities more than currently. It is of interest that a reasonable response to this issue would be the offering of a 25 per cent discount for those paying up-front, which is the way undergraduate HECS works. In practice this would be straightforward: the government would pay the fee to the university for the student and the student would agree to repay through the tax system a nominal sum which is 25 per cent higher.

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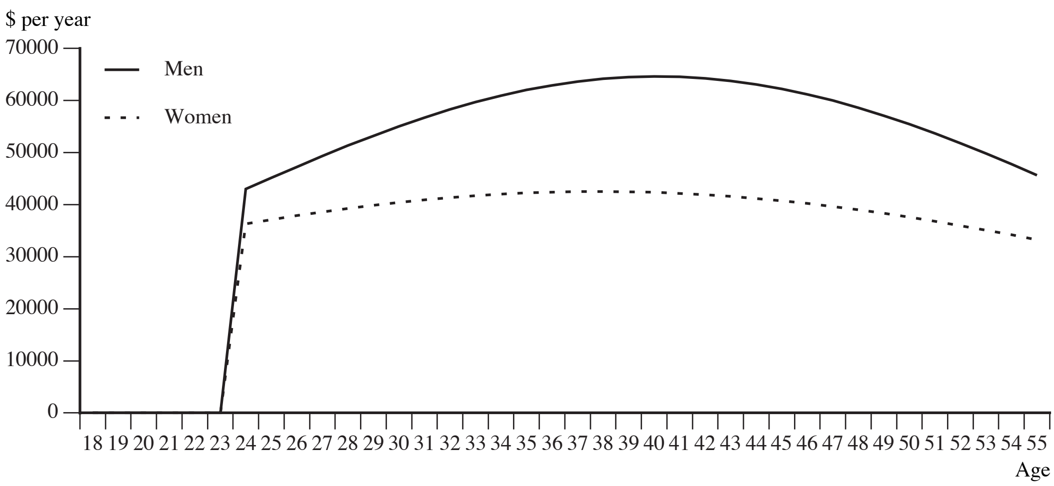
Appendix 1: Age Earnings Profiles for Postgraduates

Figure A1 Age Earnings Profiles: Postgraduates



Source: Derived from Australian Bureau of Statistics, *1994–95 Income Distribution Survey*, Cat. no. 6523.0.

Endnotes

1. See Committee on Higher Education Funding (Wran Report) (1988).

2. See Robertson, Sloan and Bardsley (1989).

3. See the Wran Report (1988).

4. For an analysis of the background to HECS, see Edwards, Howard and Miller (2001).

5. Income-contingent loan schemes for higher education are now in place in New Zealand, the United Kingdom, Ghana, and Namibia, and have been recommended by the World Bank, or are currently being implemented in Ethiopia, Rwanda, Hungary and Malaysia.

6. For further analysis of the background to the policy, see Chapman (1997).

7. For an analysis of the effects of these changes, see Chapman and Salvage (1998).

8. For a critical commentary on these changes, see Chapman (1997).

9. The nature and importance of higher education externalities are documented in Chapman and Withers (forthcoming).

10. See the Wran Report (1988).

11. Harrison (1996) notes that in US Propriety Colleges the default rate is as high as 50 per cent. The average default rate for student loans is around 15–30 per cent (Wran Report 1988).

12. For an analysis of this issue, see Chapman (1997).

13. For a theoretical analysis, see Chapman (1997).

14. Harding (1995) calculates that the total repayments remaining uncollected because of the nature of HECS would be of the order of 15–25 per cent for the original scheme (when the repayment conditions were much more generous for the student (before the 1996–97 changes)).

15. See the annual reports from the Higher Education Council (1990–2000), Chapman and Smith (1985), Chapman (1997), and Andrews (1999).

16. For a summary, see Chapman (1997).

17. For example, the salary of a Level E Professor has decreased by around 25 per cent in real terms over the last 20 years.

18. It is of interest to note that some institutions might be encouraged to charge low prices to encourage the establishment of a market niche.

19. For details of how this might work, see Chapman (2001).

20. See Illing (2001).

21. See Illing (2001, p. 35).

22. The subsidies will be of the order of 10–15 per cent. See Chapman (2001).

23. For those students who currently pay the up-front fee to qualify for a self-education tax deduction there will be no subsidy.

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