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DISCUSSION PAPERS

Australian Higher Education Financing: Issues for Reform

A Submission to the
Senate Employment, Workplace Relations, Small Business and
Education References Committee Inquiry:
The Capacity of Public Universities to Meet Australia's Higher Education Needs[†]

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[†] This submission is very much focused on a particular aspect of the Inquiry, issues of financing higher education. Issues of management, administration, service delivery, teaching standards, and others, are not discussed.

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ABSTRACT

The paper documents the recent history of higher education financing in Australia. It is argued that there have been radical changes to financing arrangements over the last 12 years or so, which have taken the form of the imposition and increase in student charges. Contributions from students are justified, and the collection mechanism used in Australia is argued to be the best arrangement: income contingency.

A major part of the paper takes up this theme through the comparison of the economic and social consequences of different financing arrangements involving student charges. It is argued that bank loans and/or scholarship systems with up-front fees are necessarily inferior to arrangements that take into account a former student's future capacity to pay. The HECS – or similar income contingent policies – are argued to be the only way to go.

It is also argued that the Australian higher education financing system is in need of reform. The issues documented include: relative academic salaries have fallen significantly over the last two decades; enterprise bargaining is a poor collective bargaining instrument for public sector universities; and, there is a need for some institutional price flexibility.

Even so, it is pointed out that unfettered price flexibility for Australian universities is undesirable, for two reasons. The first is that there have been many years of public subsidy for the well-established institutions, and the second is that these same institutions have considerable real estate benefits from their propitious geographic locations. Both issues necessarily mean that allowing full charge discretion will deliver considerable and unfair rents to the most advantaged institutions and their contemporary staff.

However, a case for limited price flexibility is offered. The potential benefits are the encouragement of increased competition and to allow additional revenue. It is stressed that it is critical that policy reform along these lines should necessarily involve income contingent repayment, and it is explained how this might work.

The final part of the paper analyses the Government's recently announced plan to allow Postgraduate students the option of paying their charge with an income contingent loan. That is, HECS is to be extended to Postgraduate study. It is argued that, in principle, this is an excellent reform of higher education financing arrangements.

The scheme is not, however, straightforward. Because HECS has a zero real rate of interest, the new scheme means that there will be a significant level of subsidy for both students and universities, and the extent of the subsidy is illustrated for a range of different student circumstances. An implication of these subsidies is that, eventually, the Government will very likely impose changes. It is argued that the worst possible reform would be to cap levels of student borrowing through HECS. A much better solution would be to offer a discount for up-front payment of postgraduate charges.

1 A Recent History of Australian Higher Education Financing

1 (a) Introduction

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 unrecognisable compared to those in place under the Whitlam Government.

1 (b) 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 socio-economic 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 entrance became an option.

1 (c) The Higher Education Administration Charge

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

HEAC was an up-front fee and its introduction is a watershed: it introduced universal 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]

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[1] See Reform of Higher Education Financing (the Wran Report), 1988.
[2] See National Institute for Labour Studies (1988).

HEAC was symbolically important in that a user pays perspective had previously been rejected by 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 (d) HECS

The Higher Education Contribution Scheme, 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 $1,800 (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 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 (e) 1996/97 Budget changes

In its first Budget the Coalition government announced four significant higher education 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 $30,000 to about $21,000 (in 1996 terms).
- the uniform charge was replaced with three levels.

[3] Committee for Higher Education Financing (the Wran Report) (1988).
[4] For analysis of the background to HECS, see Edwards (2001).
[5] Income-contingent loan schemes for higher education are now in place in New Zealand, the UK, 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 (1997a).
[7] For analysis of the effects of these changes, see Chapman and Salvage (1997).

- universities were allowed to set whatever level of fee they wanted for undergraduates not accepted under existing HECS quotas.

The most significant direct change to HECS relates to the repayment thresholds. Because the whole structure was moved down, all people repaying HECS – most of whom had graduated before 1997 – would 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 (1997) 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, 1997b). A movement of this type, without income contingent payment arrangements, embodies the least desirable social and economic features of a higher education financing system, a major point now explained in detail.

2 Options for Higher Education Financing

2 (a) Introduction

Several different policy approaches, currently in operation internationally, are now analysed with respect to their social and economic implications. It will be argued that a charge is justified, and that by far the best way for students to pay is via income contingency, such as HECS.

2 (b) 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].

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[8] For critical commentary on these changes, see Chapman (1997b).

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

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. A no charge system is unquestionably regressive[11].

2 (c) Up-front fees with no financial assistance

If there should be a charge, how should it be paid? One possibility would be to offer subsidies to universities, but beyond that allow the institutions to charge fees, with there being no other financing assistance provided. Such an arrangement would unambiguously be poor policy. In this context the critical issue relates to a major borrowing problem, often referred to as "capital market failure".

Some students would not have the resources to pay the fees and would need to approach a bank for a loan. However, banks will be 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.

Thus prospective students without sufficient financial resources to cover fees will not be able to enrol. 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 (d) Up-front fees with bank loans

A possible solution to the capital market problem described above is used in many countries and 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. While this seems to address the capital market failure, there are several problems.

The first is that students' access to loans is usually means-tested on the basis of family income. This then presumes equal access of individuals to family finances; however, those in charge of the distribution of household finances may not have the prospective student's view of the value to them of education. This implies that some prospective

[10] See *Financing Higher Education,* Australian Government Printing Service, Canberra, 1988.
[11] See *Financing Higher Education,* Australian Government Printing Service, Canberra, 1988, and Chapman (1997a).

students who do not qualify for bank loan assistance will not be able to pay fees. 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[12]. And if there is a guarantee that defaults will be paid for by the government banks will put little effort into debt recovery. Default is very expensive for taxpayers.

Students also face an important 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[13]. This problem can be traced, in part, to the fact that bank loan repayments are insensitive to the borrower's financial circumstances.

2 (e) 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[14].

First, there is no concern with intra-family sharing so long as the scheme is universal. That is, no students would be denied access through the imposition of means-testing arrangements that could exclude some whose parents or partners are unwilling to help.

Second, given an efficient collection mechanism, there is no default issue for the government. That is, for example, if the tax system is used to collect the debt (and, at least for Australia, this is essential because the ATO is the only institution with reasonably good information on a former student's income), it is extremely difficult for the vast majority of graduates to avoid repayment. There is a trivial "default" issue in that some students will not pay back in full, but this is because income contingent systems are designed to excuse some former student's payments because their lifetime incomes are too low[15].

Third, because repayments depend on incomes, there should be no student default concerns. That is, once an individual's income circumstances determine repayment – so long as the repayment parameters are sufficiently generous – it is not possible to default because of a lack of capacity to pay.

A bottom line with respect to the desirability of HECS relates to access and equity. The system has been in operation since 1989, and there is now considerable evidence

[12] Harrison (1995) 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 Committee Report, 1988).
[13] For analysis of this issue see Chapman (1997b).
[14] For theoretical analysis see Chapman (1997a).
[15] Harding (1993) 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)).

concerning its consequences[16] for both demand for higher education and the access of the poor: there have been negligible (or no) effects in both areas. This appears to be true even for the less generous conditions imposed from 1997[17].

3 Current Issues in Australian Higher Education Financing

3 (a) Introduction

What now follows explores a subset of the many contemporary challenges for university funding, now noted. First, is there a case for universities to have discretion to set student charges, and how much discretion should there be? Second, if some price discretion is desirable, what policy framework is necessary to make this socially and economically acceptable, and how might it work? Third, how problematic is it that universities might be engaging in differential marking standards according to the nature of students' charging status?

3 (b) A Case for Institutional Price Flexibility?

. Background

Many commentators argue that there should be a restoration of past levels of government financing (see, for example, the submissions to the current Senate Inquiry by both Marginson and Quiggin). In historical terms it seems incontestable that the relatively low current (per student) funding levels have had major effects on teaching inputs and the quality of output. Related to this is that the decline in academic relative salaries over the past several decades are very likely to have influenced detrimentally the quality of teaching staff and the interests of talented students pursuing academic careers. These are important problems for Australian academia.

However, it seems unlikely in the short term that future governments will markedly increase per student higher education outlays. If this is true, the strong financial pressures on universities with respect to salaries and other concerns imply that there might be a case for some increased institutional price flexibility. Two factors leading to this situation are now explained.

. Fiscal Parsimony and Institutional Price Flexibility

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, even if for many observers the social implications are undesirable.

An indirect implication is that academic real wages have fallen significantly.[18] This must imply decreases over time in the relative attractiveness of academic employment and thus a diminution in the quality of applicants and increased resignations of some

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[16] See the annual reports from HEC (1990-2000), Chapman and Smith (1995), Chapman (1997b), and, most importantly, Andrews (1999).

[17] See Andrews (1999) and Chapman (1997b).

[18] For example, the salary of a Level E Professor decreased by around 25 per cent in real terms over the 20 years to the late 1990s.

of the best staff. Concomitantly the average quality of academic staff is very likely to have been falling.

. Enterprise Based Bargaining and Institutional Price Flexibility

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 can't vary prices[19] or institute profit sharing relationships.

That is, Australian academics in an enterprise bargaining world face a 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 Benefits of Institutional Charge Autonomy

The above factors suggest that there are now clearly financial pressures on Australian universities; if these are not solved through federal government expenditure changes something else needs to give. One candidate is the introduction of some (limited) institutional revenue autonomy.

The broad case for increased higher education pricing autonomy would recognise that 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 to a limited extent their circumstances and goals. This would allow more choice for both providers and students, and has the potential to improve service delivery.

Such autonomy would have two effects, the most obvious being that universities would have more revenue which would be supplied through higher imposts on students[20]. Second, so long as most of the additional revenue is delivered directly to the university departments there is some potential to promote propitious outcomes, such as relative changes in academic salaries to more accurately reflect outside opportunities.

But if universities are to have some discretion over prices, several questions arise. They concern the extent to which there should there be price regulation, and how such a system might work.

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[19] There is some limited scope for universities to affect revenue, from overseas and domestic fee-paying student, but these sources of revenue cover small percentages of enrolments.

[20] Whether or not this is desirable in terms of economic theory depends on the subjective valuation given to the value of externalities. However, it would seem to be the case that the potential for large changes in this context are limited.

3 (c) Desirable Characteristics of Institutional Price Flexibility

. Limiting Pricing Autonomy

There is perhaps now a case for an increase in institutional autonomy with respect to pricing. Universities could offer different charges to enhance revenue and improve resource allocation. The latter potential would follow if some institutional pricing autonomy encouraged differential salaries more reflective of market opportunities. Policy suggestion along these lines is not new, and interesting and relevant analysis is in both Miller and Pincus (1997) and Karmel (2001). An example of how it might work is offered below.

A critical issue concerns the extent to which universities should be free to set prices.

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. In turn this suggests that the alleged benefits of competition could be undermined without close attention to these issues of both geography and history.

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. Economic theory suggests strongly that these consequences are likely to be undesirable. This means that the government needs to set price boundaries.

. The Necessity of Universal Income Contingent Repayment

The most critical price flexibility issue concerns the nature of student payment of differential charges. It is that all financing reforms have to be underpinned by universal access to an income contingent payment system, such as HECS. As explained and stressed in Section 2, any financing arrangements involving mandatory payment of up-front fees - even with scholarships or other concessions - constitute poor policy from either a social or economic perspective.

This suggests that those arrangements currently in place allowing institutional charging flexibility - such as full up-front fees for some undergraduates and postgraduates, and indeed, with respect to TAFE charges[21] - are in need of change. As discussed in Chapman (1997b), reform in these areas allowing universal HECS-type coverage could be instituted without cost to the Budget and with major benefits to

[21] Up-front charges currently exist for Associate Diplomas in TAFE, and many of these Diplomas can be used for accreditation for undergraduate degrees for which students pay HECS. This anomaly is in need of close attention (Chapman (1997b)).

both students and the society. It is a continuing indictment of the Australian policy process over the last decade or so that this hasn't occurred.

. How Institutional Price Autonomy Reform Could Work

Existing arrangements could be modified to incorporate some price flexibility and revenue autonomy, all necessarily with an income contingent repayment basis. While many variations are possible, the following example is offered for discussion.

The idea is most easily comprehended if we start with the concept of 'standard' levels of HECS, representing the amount that the Commonwealth expects to recover from each student in a funded place in each course category. Universities would set their level of HECS charges for their own students which may involve a margin above the standard HECS levels. The Government should limit the extent of the additional charge to a maximum of, say, 25 per cent above the standard HECS level. The additional component could be referred to as a 'premium HECS'.

A student enrolling in a course with a premium HECS charge could choose to pay the premium (the extra) up-front, in which case the funds would be retained unconditionally by the university.

If, as is likely, the premium is deferred and collected through HECS, the adjustment to a university's funding could then be handled relatively simply through current operating grant arrangements. DETYA would compare the expected HECS liability of each student (based on 'standard' HECS) with the actual liability recorded in each year of a student's enrolment. Where the amount is greater, because premium HECS has been levied, the university's operating grant would be increased by a corresponding amount in the subsequent year. The government would receive this back through HECS.

In the above case there is more revenue than is now the case, with the major distinction with respect to current arrangements being that the institution has more autonomy with respect to the use of its resources. However, variations of current policy in this direction do not necessarily mean that student imposts have to increase, even if the HECS charge is greater. This apparent conundrum can be understood through recognition of the critical role played by the HECS repayment rules. That is, nominal charge increases - and the associated additional direct revenue received by a university in the above example - could be accompanied by changes in repayment arrangements that effectively lower students' debt liabilities. For example, higher income threshold and/or lower percentage repayments at low levels of income will have the effect of reducing the net present value of the debt. There might well be a case for such changes to the current repayment rules independently of the moves towards price flexibility suggested above.

There is also no reason why a university should not be free to set its HECS rates below the standard rate in some or all courses, perhaps in order to capture a niche market. In this case, an institution's operating grant would be adjusted downward using the same approach. In practice, it is likely that a total standard HECS liability

would be calculated for each university and compared with the total actual HECS liability incurred.

There are many different ways of thinking about increased institutional autonomy with respect to financing that preserve and protect the critical role of income contingent repayment. As noted, the best analyses are to be found in Pincus and Miller (1997) and Karmel (2001).

3 (d) Differential Marking Standards for Full-fee Paying Students

An issue of interest for the current Senate inquiry relates to the possibility of up-front fee paying students being treated differently in terms of grading than are others.

The problem is that there are likely to be economic incentives to promote differential treatment, with the extent to which this is likely being related to how university revenues are received and distributed. That is, students paying full up-front fees provide untied revenue for a university, and do not depend on the emphases of the federal Department. Further, full-fee up-front payments are likely to result in "profits" for the institution given the high probability that the charge exceeds the marginal cost of the provision of the service. That is, the potential problem with having full-fee paying students in conjunction with HECS is that there are economic reasons for a university to be more interested in the re-enrolment of the former group of students.

Even so, there are important caveats to the proposition that a university will have different academic standards depending on the form of the revenue received from students. These relate essentially to matters of both information and the rules adopted by universities with respect to the distribution of the funds.

On the first issue, it is not obvious that academics responsible for grading will know what the revenue status of each student is. Some institutions, for example, adopt "blind marking" of exams in which the marker doesn't know the name of the student. Even in the situation where the marker knows a student's name, it seems unlikely that they would be able to link the name to the student's charge status.

The second caveat relates to the incentive for a marker to engage in differential grading standards, which will be determined in part by the financial consequences of such behaviour. In the likely event that all the revenue from fee-paying students does not accrue directly to the university department, or is in large measure a university-wide resource, it is hard to believe that individual markers will profit from differential grading standards. The essential point is that both information and revenue distribution rules within universities will influence importantly incentives for there being lower academic standards for full-fee paying students.

With these important caveats noted it is still the case that the current arrangement is one in which there is a higher price for not having uniform standards. The case is stronger where there are small classes (since academics would be more likely to know the revenue status of each student), and where the university allows most of the fee to be delivered directly to the university department. Since in general these conditions are not met it seems unlikely that the practice is endemic for most undergraduate

courses; the possibility might need to be explored for Honours and Masters courses, for example.

The bottom line is that while the possibility of differential grading standards warrants attention, and can be traced to the relative attraction of full-fee paying students, it is unlikely that this is currently a major issue with respect to undergraduate teaching. Even so, the incentives for differential standards exist, and the issue warrants serious attention and vigilance. It should be stressed that the problem disappears when all students are equivalent in terms of their revenue status, as would be the case with comprehensive income contingent repayment coverage. A system with this latter characteristic could be designed even in the presence of markedly different charges for students.

4 Postscript: The Recent Plan for Postgraduate HECS loans

4 (a) The Recent Plan Explained and Motivated

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[22] the Minister, David Kemp, offered details of the new scheme.

The main features are: 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 (b) 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 …”. However, this is more complicated than is apparent.

[22] Interview with David Kemp, *The Australian*, 6th February, 2001.

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 relatively 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 incomes above the repayment threshold, 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 some 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 in fact 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.

4 (c) Estimates of the Subsidy

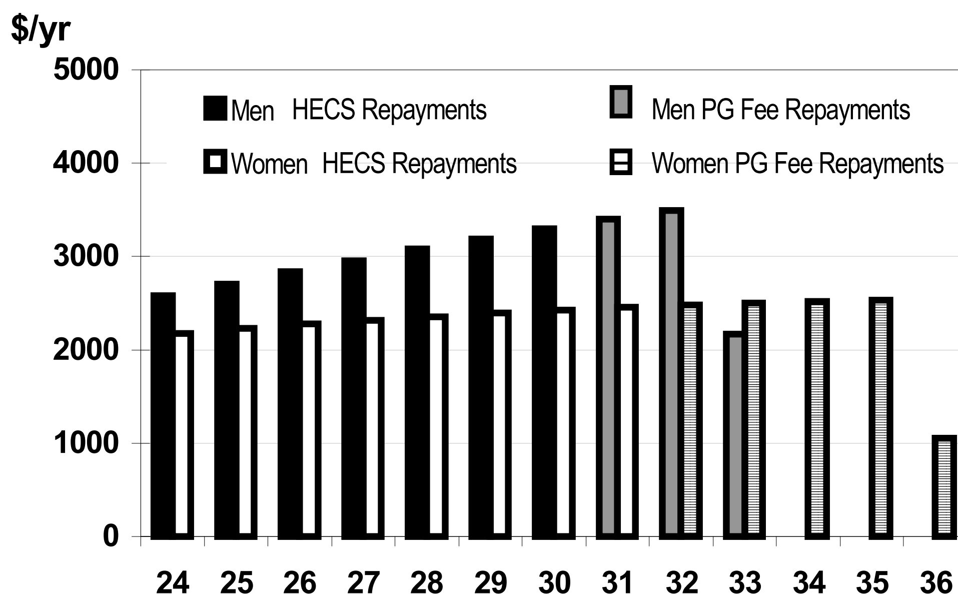
An obvious way to work out the size of the subsidies implicit in the new postgraduate policy approach is through the application of human capital techniques with respect to the net present value of charges under the planned arrangements. This is now reported from the use of cross-sectional data with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

The 1994/95 ABS Income Distribution Survey is an apposite data set available to address the issue. For this exercise some simple counter-factuals 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 $19,720. Further, it is assumed that the student chooses to undertake two extra years of postgraduate study for which there is a charge of $5,000 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.

Figure 1
Repayments of HECS Undergraduate and Post Graduate Debt



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 NPV of the charges paid up-front to calculate the implicit subsidy, now shown in Table 1.

Table 1
NPV of a $10,000 Postgraduate Debt, HECS Unpaid

	Men	Women
NPV of the debt	$5,941.85	$5,329
Implicit subsidy (per cent)	40.5	46.7

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

Two other examples are now presented. They are for men and women with no HECS debts, undertaking postgraduate two-year degrees which they begin to repay at ages 24 and 34, while earning the predicted incomes for postgraduates of those at ages. The results are shown in Table 2.

Table 2
NPV of a $10,000 Postgraduate Debt, HECS Paid

	Men	**Women**
Scenario 1: Paid HECS, Postgraduate studies at age 22	$8,137	$7,971
Implicit subsidy (per cent)	18.6	20.3
Scenario 2: Paid HECS, Postgrad studies at age 32	$8,266	$8,052
Implicit 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. Also, 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[23], and for other prospective students there will be no subsidy at all[24].

Even given that there is a large range of subsidies, and accepting that for many students already earning these subsidies will be low, it is still the case that on average under the new system effective charges will be lower than before. Thus the tendency

[23]

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

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 diminish the likelihood of charge increases. The critical issue is that, if this happens, what then will be the consequence?

4 (d) The consequences of charge increases

There are important policy questions raised by the very real likelihood of universities increasing postgraduate charges as a consequence of the subsidy implicit in the new arrangements. The first point is that higher charges mean an even greater level of subsidy, since the additions to the loan will be repaid even later. Higher charges mean both higher levels of and higher proportionate subsidies[25].

In response to this budgetary issue a government would have several options. One possibility, already raised publicly, is that the increases in nominal postgraduate charges could result in the government capping the amount that a student can borrow. This would arguably be the least desirable response, given the real possibility that such a capping would end being below the subsequent charge for many students, meaning that up-front fees would still then exist, but in a different (top-up) form.

Second, the government could cap the charge levels (keeping no restrictions on borrowing), which would essentially be an extension of differential HECS introduced in 1997. Such an approach would be better than the first option, since it would keep intact an income contingent method of payment with no possibility for top-up up-front fees. However, neither of the above responses adequately addresses the subsidy level implicit in the new arrangements.

There is a strikingly easy way of addressing the subsidy issue, now explained. The subsidy can be redressed through the introduction of a discount for up-front payment. The discount could be set at 25 per cent, which would make it consistent with undergraduate HECS, and is also a reasonable approximation of the overall subsidy of the postgraduate loans scheme. Making it work would be straightforward: the university sets the fee (to a maximum level set by government?), and those preferring to delay payment incur an obligation to the government which is 25 per cent higher than the fee paid by the government to the university on enrolment.

4 (e)

The Government's recent announcement that income-contingent loans will be made available to assist postgraduates to pay fees is a productive development in Australian higher education financing policy. To the extent that it means the demise of up-front fees 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.

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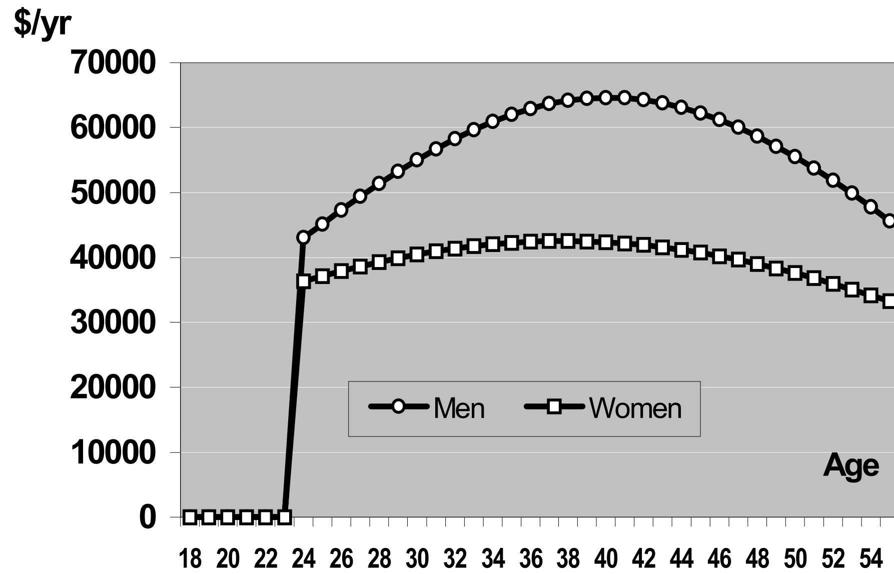
[25] We have worked out that he subsidy for a 32 year old undertaking a postgraduate two year degree costing $10,000 is around 20 per cent, but this rises to over 30 per cent for a charge of $30,000.

However, because the new scheme entails the use of an interest-free loan, this implies that a sizeable proportion of students will receive a government subsidy; this 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.

Appendix 1

2001 Age Earnings Profiles: Postgraduates.



Source: Derived from the 1994/95 Income Distribution Survey. The profiles have been smoothed with the use of a typical earnings function.

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