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# A Submission on Financing Issues to the Department of Education, Science and Training Inquiry Into Higher Education Reform

by

Bruce Chapman*

Economics Program
Research School of Social Sciences
Australian National University

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## 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.

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[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.

1 (f) *Crossroads,* 2002.

*Crossroads* signals an opportunity to revisit several areas of teaching funding, including: the role of HECS; university price discretion; TAFE; and PELS. In various ways these issues are considered further below. Before this is undertaken it is useful to consider some basic conceptual issues associated with student financing. This now follows.

## 2 Options for Higher Education Financing: Theoretical Issues

### 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.

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

## 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].

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.

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

[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).

## 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 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

[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).

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 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 Contemporary Issues in Australian Higher Education Financing

### 3 (a) Introduction

What now follows explores a subset of the many contemporary challenges for university funding, several of which have been properly raised in *Crossroads*. First, as background, the scene is set through reference to changed levels of financial support to higher education over the last decade or so. This suggests that in the absence of changes to current trends, universities will find it increasingly difficult to deliver high quality services over the next short to medium term. These funding challenges are seen by some to promote the case for higher levels of non-HECS public expenditure; others see a way out through universities being accorded flexibility to set student charges.

This latter issue involves the questions: how much discretion should there be; if some price discretion is desirable, what policy framework is necessary to make this socially and economically acceptable; and how might it work? All three issues are addressed in what follows.

Third, in 2002 the government improved markedly postgraduate financing through the introduction of PELS. The benefits and potential costs of the scheme are considered in some detail.

And fourth, TAFE funding issues are examined. In particular, the following question is addressed: is there a case for making TAFE charge arrangements more consistent with those in operation in higher education and, if so, how might his work?

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[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)).

[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).

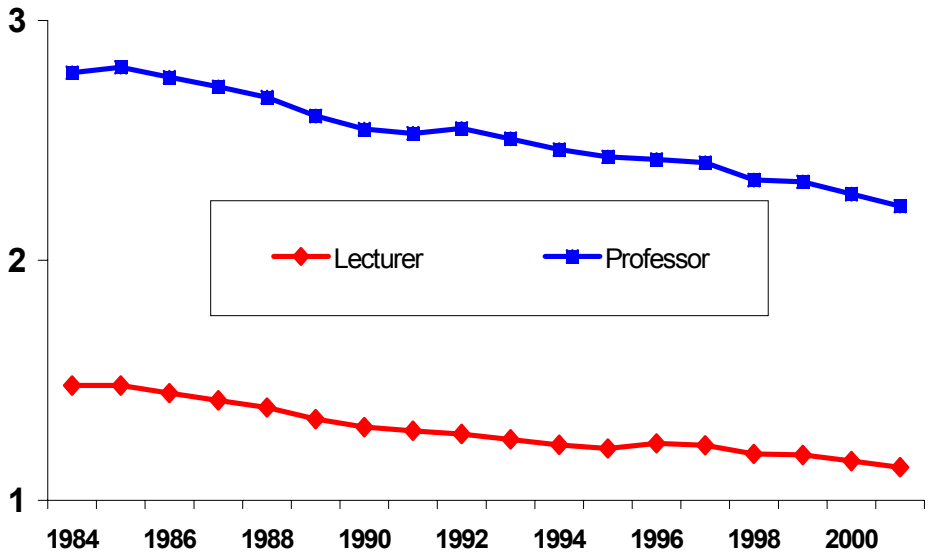
## 3 (b) Some Important Aspects of the Current Funding Situation

There are significant financial pressures on higher education, traceable to difficulties with enterprise bargaining and diminished public support to universities. Several policy reform suggestions are offered, all of which relate to the maintenance and expansion of HECS arrangements.

Figure 1 shows the long-term decline in the relative remuneration of academics. This has been of the order of 25 percent since the early 1980s. As a consequence there have been increasing difficulties in attracting high quality staff, with implications for the delivery of higher education services.

**Figure 1**

**Academic Salaries as a Proportion of Average Weekly Earning**




Source: Figures calculated from Academic Salaries Tribunal data (to 1996), ANU academic salaries data and ABS AWE series, 6202.0.

In this context the introduction of enterprise bargaining in the 1990s, with its concomitant funding pressures, is important. Since the early 1990s Federal governments have embraced and encouraged the enterprise bargaining as the industrial relations system for public universities. This has raised some significant challenges.

One is that, unlike in the private sector, there is little capacity to make enterprise bargaining operational. In the private sector there are many things a firm can adjust to accommodate a change in working relationships. Most obviously, it can choose to vary prices, institute profit sharing, or change the level and/or quality of output.

Universities in an enterprise bargaining situation face the unpalatable problem of a fixed pie: they can give a pay rise to maintain the growth in real incomes, but if this is done something else must give, such as the lay off of staff. In a context of declining

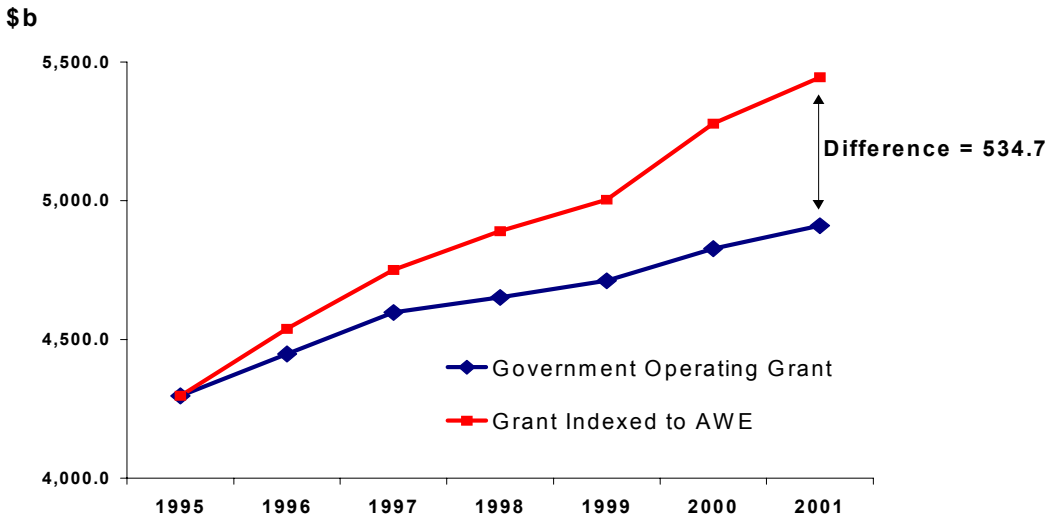
real government expenditure, enterprise bargaining inevitably exerts pressure to find so-called independent funding sources. Enterprise bargaining makes better sense if there is an instrument that can adjust to take into account changed economic relations between employers and employees.

An enterprise bargaining system for universities — supported by both major parties — has made life difficult in a context of diminishing real grants compared to average salary changes. It is arguable that it encourages conflict between staff and university administrations, yet leads to few obvious productivity gains. The major point is that enterprise bargaining has contributed to funding pressures.

It is important to note that around 75 percent of universities' costs are directly related to employees' wages. Figure 2 (from Burke and Phillips, 2001) shows the extent to which government outlays have fallen behind the growth in average earnings. By the end of 2001 the difference was of the order of half a billion dollars.

**Figure 2**

University Base Grants: Actual Funding Compared to an AWE Index



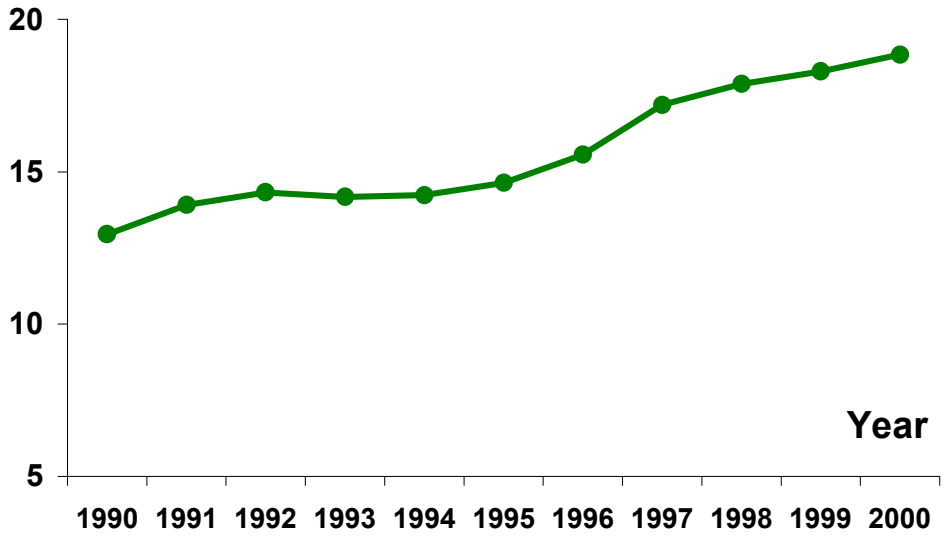

Source: Burke and Phillips (2001).

The government has not adjusted outlays to allow universities to index salaries in line with broad community changes in real wages. As a consequence the higher education sector has had to find other mechanisms to maintain relative salaries. To not do so would make recruitment of high quality staff even more difficult, and risk losing some of the best employees.

Burke and Phillips' analysis suggests that these funding pressures have had detrimental implications for the quality of higher education service delivery. Figure 3 shows that the number of students per academic staff member has increased from around 13 to nearly 20 over last decade. This is not the result of variations in the composition of teaching — it is a general phenomenon. It should not be surprising given the changes in public sector funding levels juxtaposed with difficulties in raising outside revenue. Something had to give.

**Figure 3**

**Higher Education Student/Staff Ratios: 1990–2000**




Source: Derived from published DETYA data.

The critical point for policy concerns the implications of these changes for the delivery of the social benefits of education. If these depend partly on the quality of the higher education experience, the increase in student/staff ratios suggests the potential for lower overall benefits from higher education.

This issue could be resolved in various ways, and some commentators promote strongly the case for additional public sector outlays (Chubb, 2002; Marginson, 2001; Quiggin, 2001). A different response, supported enthusiastically by the University of Melbourne and others, has involved the promotion of university price discretion, perhaps with the expectation that this will inevitably mean higher average contributions from students. To the credit of these making such a case, and consistent with the theoretical analysis offered above, it is suggested that all additional charges should be covered by a universal HECS-type of loan. The broad issue of price flexibility is now considered.

3 (c) Price Flexibility for Universities

. 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[18]. 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.

. 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 four 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.

Second, 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.

[18] 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.

The first two reasons suggest that allowing completely free market principles in the pricing of higher education services in Australia is currently inappropriate, and will likely lead to significant economic rents accruing to well-placed and highly reputable institutions. These concerns could be resolved in part through movements towards universities compensating the public sector for these advantages, but there seems to be little contemporary discussion of this issue.

There are two additional reasons for not allowing unfettered pricing flexibility, and both are related to the charge burdens on students. One is that it is difficult to believe that the current HECS levels are markedly below what they should be. In some cases currently, Law for example, it is very likely that students are paying more than the teaching costs involved. Full price discretion would suggest that such examples are likely to become commonplace. This rest uneasily with economic theory, which suggests that activities associated with spillover social benefits should be subsidised by taxpayers; in other words, that students should pay less than the full costs of the activity.

Finally, there will be some level of HECS above which it is not feasible to collect the debt – former students will simply run out of time while earning. Recent re-estimations have been undertaken of lifetime HECS repayments of the form first presented in Chapman (1997).[19]

The calculations used the 1995 ABS Income Distribution and Household Survey, updated for 2001 wage levels. They showed that the average female graduate, working full-time, could not repay more than $60,000 from age 22 to age 60. This suggests also that a very large number of women would repay less than this figure, since many women work part-time in their lifetimes, and for even those in the full-time labour force many will earn less than the average.

For average male graduates the story is brighter with respect to HECS collections, since men earn considerably more than women over their lifetimes. It was further found that the average male graduate could repay $100,000 in debt, and that this would take around 31 years or so.

A solution would be to make the HECS repayment parameters less generous, but it is not credible to suggest that there is currently scope for this.

A misguided suggestion from some is the imposition of a real rate of interest on the debt. Several points need to be noted in this context.

First, HECS already has a rate of interest greater than the rate of inflation. That is, those choosing to repay HECS through the tax system rather than up-front, pay 33.33 per cent higher in nominal terms, given that there is a 25 per cent discount for an up-front payment. As well, since there is a 15 per cent discount for early repayments after HECS loans are undertaken, this conception of a rate of interest above the inflation rate is reinforced over a graduate's repayment period.

Second, there are strong reasons to prefer the current form of the HECS rate of interest to a simpler scheme which adds a further five per cent per year, for example,

[19] These estimates were undertaken by Bruce Chapman and Tony Salvage in July 2002. The data, method and results are available from the author.

to the sum of unpaid debt. All workers face uncertain future income streams, meaning that a conventional real rate of interest on a HECS debt is associated with the possibility of rapidly growing financial obligations beyond the control of HECS debtors. The current HECS discount arrangements are thus much safer for borrowers than would be the alternative.

Finally, adding a conventional real rate of interest onto the HECS debt will be equivalent to increasing the charge in real terms by about 30 per cent. But it is critical to record that the relative increase will be much higher for relatively poor graduates than it will be for those earning higher incomes. That is, recent calculations reveal that for an average female graduate paying HECS with no discounts, a real rate of interest of 5 per cent increases the cost of HECS by 38 per cent. However, for an average male graduate the increase will be only 18 per cent.

Further, with a real rate of interest those with the capacity to pay up-front will then be receiving a very large bonus not available to relatively poor students without the capacity to do so. Overall, a conventional real rate of interest imposed on HECS will clearly be a strong movement towards inequity and regressivity. The suggestion has practically nothing going for it.

. The Necessity of Universal Income Contingent Repayment

A 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 above, 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.

The same point applies to expenditures associated with enrolling in university, such as for books and other learning materials, and union fees. All of these should be covered with an option for students to borrow through HECS, repaying an additional 33.33 per cent in nominal terms as is the case for HECS tuition charges.

The essential point implies that those arrangements currently in place allowing some institutional charging flexibility - such as full up-front fees for some undergraduates and indeed, with respect to TAFE charges[20] - are in need of change.

TAFE funding reform towards consistency with higher education need not be radical. One way of going about this would be to apply a HECS-type option only to courses with strict accreditation to universities. Students could be allowed to pay up-front the current charge, or to take a HECS loan and repay through the tax system an additional 33.33 per cent as is currently the case for university HECS. Maintaining current TAFE charge levels would arguably be important.

[20] 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)).

## . How Institutional Price Autonomy Reform Could Work

Existing arrangements could be modified to incorporate some price flexibility and revenue autonomy for universities, 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 charges involving a small 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 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. The best analyses are to be found in Pincus and Miller (1997) and Karmel (2001).

## 3 (d) PELS

### . 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[21] 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.

### . Some Implications of PELS for Postgraduate Charge Levels

The former Minister 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.

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.

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

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.

. 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.

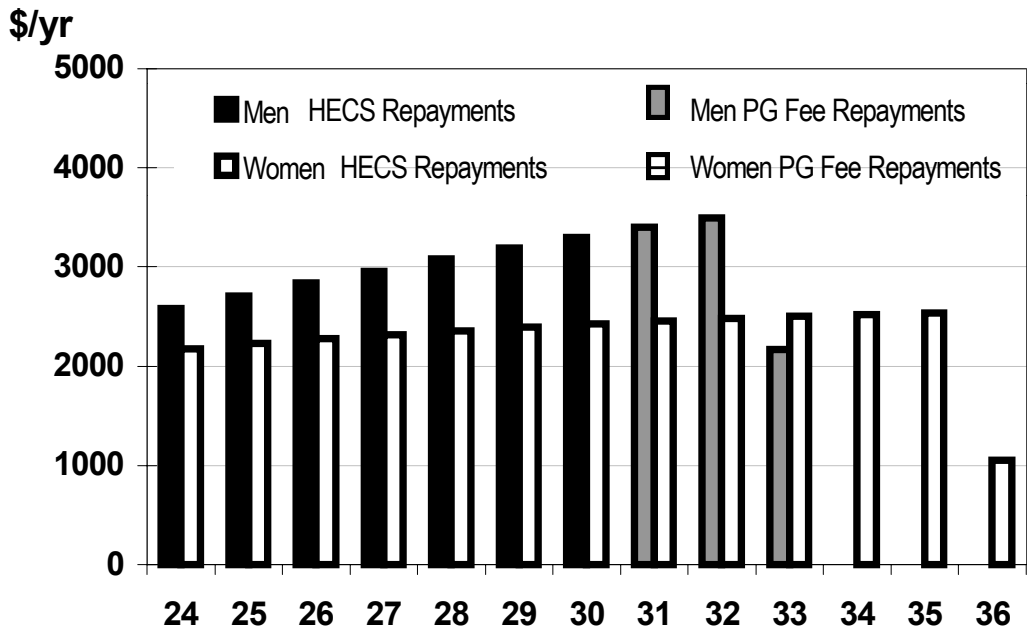
The 1994/95 ABS Income Distribution Survey is an apposite data set available to address the issue. For this exercise some simple counter-factuals have to be defined. The first is as follows.

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, Postgraduate 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[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 in employment 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 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?

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

. 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[24].

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 then 33.33 per cent higher than the fee paid by the government to the university on enrolment.

. PELS and Private Institutions

Legislation is currently being considered to extend PELS to some private colleges and to Bond University. The politics of this issue is complex, but the economics is simple. That is, all the analysis above concerning the extent of government subsidies and their implications for higher nominal charges apply identically to private institutions.

The important economic point for the debate concerning PELS being made available to institutions outside the public sector concerns the existence and the extent of the subsidies. The analysis presented above makes highly visible the fact that PELS - as currently designed - for the private sector means taxpayer transfers to these institutions, and these will likely be around 20-40 per cent of nominal charges. A different way of thinking about the economics of this would be for the government to recover the taxpayer subsidy through charging these institutions for the benefit of their use of the HECS collection mechanism.

[24] We have worked out that the 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.

. Conclusion

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.

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.

## 4 The Bottom Line

University financing issues currently require important attention and change. The system is experiencing significant stress.

With respect to allowing the maintenance of earnings matching average Australian wage increases, public sector outlays have been falling. These falls are above and beyond what has occurred with the justifiable switch in financial contributions from from taxpayers to students. Those arguing for some restoration of government support have a point.

There might be partial remedies to the situation through some increased price flexibility for universities. Movements in this direction should recognise that some of the benefits entail additional resources being made unconditionally available to the particular higher education institution. As well, for important reasons outlined, the case for price discretion is not a case for full institutional charge flexibility. Significant limits need to be placed on the extent of price discretion; this suggests that changes in this direction are unlikely to be the panacea to current funding dilemmas.

HECS has worked well, and is in both theory and practice the correct student charge funding mechanism. There are limits to how much HECS charges can be increased, and we are arguably very close to the limits currently. But HECS could easily be extended as a facility to include direct student costs, and as an option for a small number of courses in higher education accredited TAFE courses.

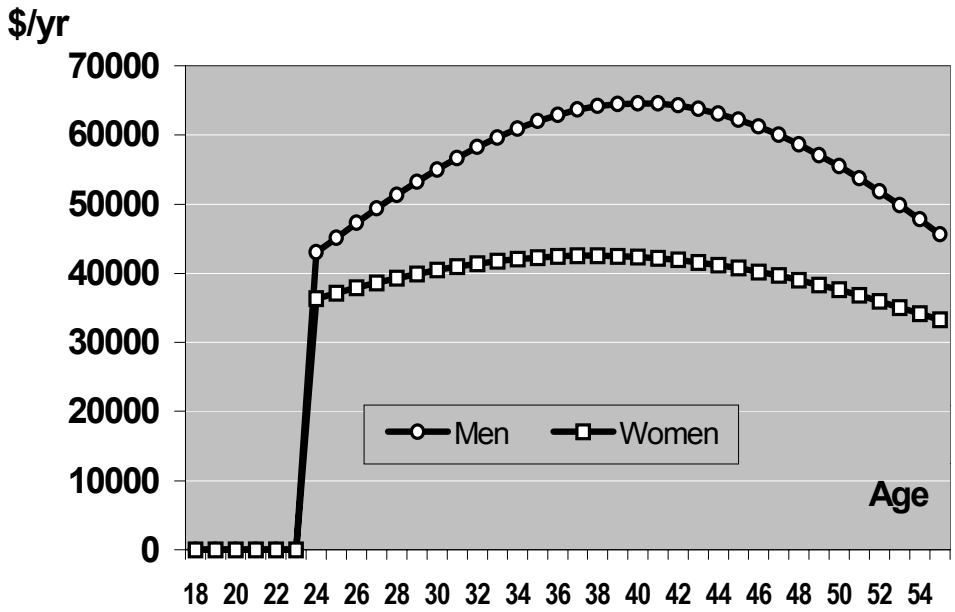
Other than this, HECS does not need revision, although some decreases in repayment percentages could usefully accompany prospects of a small increase in the charge level. However, no more than a small increase in the charge is justified, and the notion

that the debt requires a real interest rate reflects a poor understanding of the economics of the matter.

PELS is a significant improvement over previous postgraduate charge arrangements. There will be two implications: it will result in both higher nominal charges and increased revenue for many higher education institutions. But down the track there is likely to emerge pressure for changes to PELS. If this happens, arguably the most sensible option would be to make PELS consistent with HECS by allowing a 25 per cent discount for an up-front payment. And even in this context there are reasons for thinking seriously about limiting postgraduate charge levels.

## 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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