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SHIFTING THE DIAL



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The Productivity Commission

The Productivity Commission is the Australian Government's independent research and advisory body on a range of economic, social and environmental issues affecting the welfare of Australians. Its role, expressed most simply, is to help governments make better policies, in the long-term interest of the Australian community.

The Commission's independence is underpinned by an Act of Parliament. Its processes and outputs are open to public scrutiny and are driven by concern for the wellbeing of the community as a whole.

Further information on the Productivity Commission can be obtained from the Commission's website (www.pc.gov.au).

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Key Points

- Universities are essential to Australia's continued prosperity. Their research helps to raise productivity and living standards, while the knowledge and skills they teach to students develops human capital for better lifetime prospects, wages and productivity.
- However, there are tensions between universities' research and teaching functions. Many university staff are more interested in, and rewarded for, conducting research (due to established cultures and the importance international research rankings). Teaching therefore plays second fiddle to research, with consequences for student satisfaction, teaching quality, and graduate outcomes.
- Realigning university incentives (both financial and institutional) closer towards the interests of students and taxpayers would help restore balance.
 - As the exact scale of any issues in teaching quality or student outcomes are difficult to determine, a first step would be improving their measurement, which would itself encourage universities to focus more on their teaching function.
 - The appropriateness of Australia's existing consumer law provisions and their application to the higher education sector could also be reviewed to determine whether they provide sufficient restitution for inadequate teaching quality.
 - Financial incentives, such as through performance-contingent funding (as proposed in the 2017-18 Budget) are also a step in the right direction, although there are a range of challenges with making this approach fair and effective.
- There is limited evidence that teaching quality is improved by universities jointly undertaking research and teaching (the 'teaching-research nexus'), which undermines the rationale for the Australian Government's restriction that all universities must do both.
- The teaching-research nexus is also used to justify cross-subsidies from teaching to research. This can create labour market distortions, as it encourages universities to increase the number of students undertaking high-margin courses and minimise the number doing low-margin courses, to increase research funds.
 - Making payments to universities for Commonwealth-supported places more cost-reflective would be an option to address the problem. However, it would have undesirable flow-on effects to university research capacity unless offset by other funding initiatives. It cannot be recommended without a reassessment of research funding arrangements for universities, or indeed their overall operation.
- Structural challenges in the Higher Education Loan Program (HELP) debt system can also result in unproductive skills formation. Increased costs for taxpayers associated with this may encourage short-term savings that have unintended consequences (such as limiting access and efficiency) or that undermine the principles of the system.
- As a solution, the Government has proposed decreasing the initial HELP repayment threshold. More debtors would make repayments, reducing the cost of the system.
 - This is unlikely to address many long-term structural challenges and could result in reduced labour supply and workforce participation through higher effective marginal tax rates. It could also undermine the historical 'guaranteed returns' principle of HELP (although it is subject to debate whether this remains a valid rationale).
 - A less distortionary method of reducing doubtful HELP debts would be to collect outstanding amounts from deceased estates (with adequate protections for hardship).

1 Background and existing policy settings

1.1 Introduction¹

The university sector is vital to Australia's future in its role as the educator and trainer of the workforce, as well as through advancing the wealth of knowledge and technical capabilities through its research function. The Commission decided early on in the process of reviewing Australia's productivity performance to explore some of the issues in the higher education sector — so critical is its functioning for future growth and productivity.

An increasing number of Australians are now being educated in the university sector. Student numbers were over 1.3 million in 2015, including nearly 1 million domestic students, whose growth rate still exceeds overall population growth (DET 2016i). Since 1971, the share of the population aged 15 years and above with a bachelor's degree or higher has grown from 2 per cent to nearly 19 per cent in 2011 (Parr 2015). University qualification rates are even higher for younger cohorts — 38.8 per cent of 30-34 year olds had a bachelor degree or higher in 2016 (ABS 2016). The sector also has a large direct economic impact. Total university teaching revenue in 2015 was about \$19.2 billion, sourced from both students (domestic and international) and the Australian Government (DET 2016f).²

However, the sector is also facing significant challenges (a range of which are listed in chapter 3 of the main report). Many of these challenges reflect recent changes in the sector.

The most prominent change has been the move to a demand-driven model for Commonwealth-supported students, with the previous system of caps on total Commonwealth-supported places eased and then abolished between 2008 and 2012 (Kemp and Norton 2014). Total funding for domestic students has therefore risen, while removal of the cap has, as one party put it to us, 'opened the universities for business' in the domestic student market. The shift to a demand-driven system has been accompanied by

¹ This paper uses unit record data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey. The HILDA Project was initiated and is funded by the Australian Government Department of Social Services (DSS) and is managed by the Melbourne Institute of Applied Economic and Social Research (Melbourne Institute). The findings and views reported in this paper, however, are those of the author and should not be attributed to either DSS or the Melbourne Institute.

² Includes revenue from CGS grants, Commonwealth scholarships, HELP loans, upfront student contributions and all categorised fees and charges. Data for Bond and Torrens Universities not available.

another market development — the substantial growth in international student numbers, rising by 51 per cent between 2005 and 2015 (DET 2013a, 2016b).

In addition, traditional university teaching models are being disrupted by new technologies, particularly by the growth of the massive open online courses (MOOCs) (Australian Government 2014a; DET 2013c; PC 2016a). An open question for the sector is the role of traditional universities in progressing new models of teaching (such as MOOCs), and the effect that these have on the sustainability of the university's existing business models.

The architecture and conduct of the university system is heavily influenced by the Australian Government's suite of regulatory and funding arrangements.³ In particular, the Government provides considerable direct funding to the sector, as well as substantial financial support to almost all domestic students through direct subsidies, caps on tuition fees and subsidised income-contingent loans. Grasping these is a prerequisite for any reforms, as is an understanding that some regulation and public funding is strongly justified (box 1.1).

1.2 Fees, contributions and government loans

Almost all students attending university are required to make some contribution towards the cost of their university education. These student contributions are necessary because:

- graduates generally obtain substantial private benefits (monetary and non-monetary) that justify contributions to encourage efficient pricing and avoid excess demand
- at some point there is a limit on the amount the Australian Government can tax Australians. This means that ever increasing spending on higher education due to higher enrolment rates must reduce spending in other important areas where there is a lower potential for, or desirability of, raising private contributions (for example, social housing or access to justice)
- of concerns about equity. Many taxpayers do not go to university, so excessive reliance on public funds can be seen as regressive (although this also depends on the structure and progressivity of the tax and transfer system) (Barr 2014).

³ As State and Territory Government university funding forms a small and decreasing share (Universities Australia 2015), it is not the focus of this paper. The Commonwealth is also the sole regulator of the sector.

Box 1.1 Why is government involved in higher education?

Higher education is not like a standard product. Most people recognise that some government funding and regulation is justified, especially given the importance of the sector for Australia's future prosperity. Commonly cited rationales for involvement include the following.

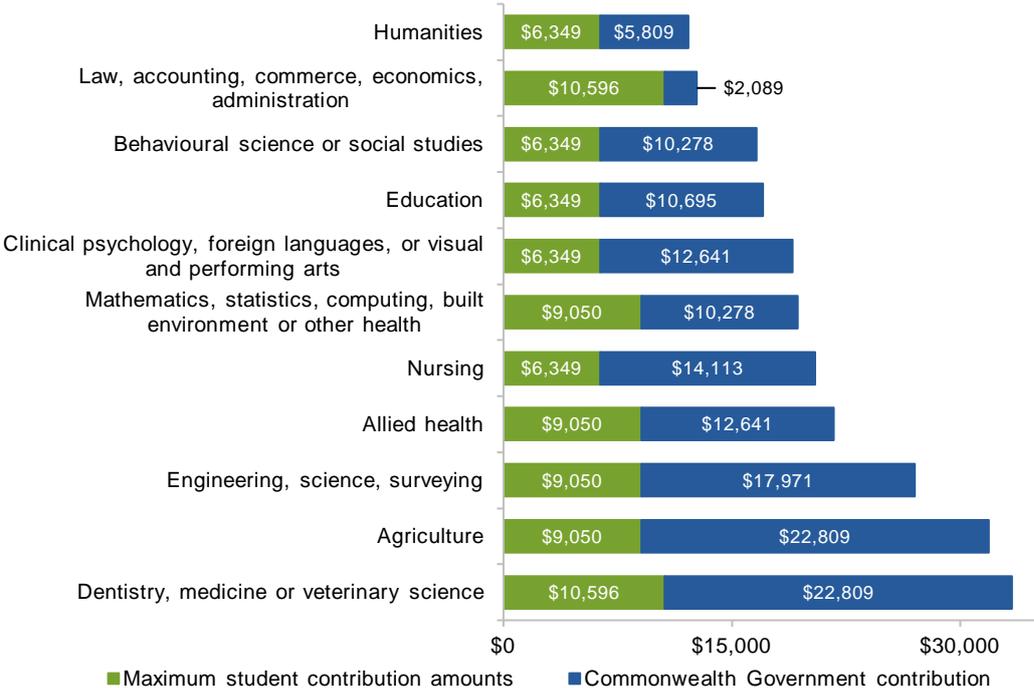
- **Positive spillovers from education** — university education can produce benefits for the community beyond those captured by students (positive 'spillovers' or 'externalities'). Spillover benefits can be social (improved social cohesion, enhanced political and social awareness, and reduced crime rates), fiscal (reduced welfare spending and increased tax revenue) or capture broader indirect effects on innovation, technology diffusion and organisational learning. Although their abstract nature makes the magnitude of the benefits difficult to determine, there is broad consensus that they exist (Deloitte Access Economics 2015; Gibbs 2001; Hemsley-Brown 2011; IC 1997; Jongbloed 2003; Marginson 2009; Norton 2012).
- **Liquidity constraints and equity considerations** — considerable uncertainty about the future earnings of individual students and a lack of bankable collateral means that private lenders are generally unwilling to finance higher education on commercial terms. Without Government-supported loans, this would create equity and efficiency problems, as the university sector would be less accessible to poorer students unable to pay upfront (Higgins and Chapman 2015; IC 1997; Norton and Cherastidtham 2016a).
- **Public goods from research** — much of the knowledge that universities produce through their research is considered a 'public good' — their consumption by one consumer does not prevent consumption by others (non-rivalrous); and their benefits cannot be confined to individual buyers (non-excludable). Without government funding, commercial markets would tend to underinvest in valuable public good research (Cutler 2008; Deloitte Access Economics 2015; Jongbloed 2003; Marginson 2009; PC 2007).
- **Asymmetric information** — higher education is an 'experience good' in that students cannot determine in advance whether a degree is good quality or suits their capabilities and preferences. This means that students are not always able to make good decisions in advance, leading to poor outcomes or the misallocation of resources (Baldwin and James 2000; Dill 1997; Jongbloed 2003; Nelson 1970; Wolf 2017).

The majority of domestic students at Australian universities (approximately 811 000) are enrolled in Commonwealth-supported places (CSPs). These are mostly in bachelor degree programs, and pay a 'student contribution fee' that covers part of the cost of their tuition. Universities set the student contribution fees, up to a maximum amount per annual equivalent full-time student load (EFTSL) determined by the Government. In 2017, the maximum student contributions ranged from \$6349 to \$10 596 depending on the discipline (figure 1.1). Although universities *can* charge students an amount less than these limits, in practice all universities charge the maximum rate (Lomax-Smith, Watson and Webster 2011; Norton and Cherastidtham 2015a).

All domestic students *not* in a Commonwealth-supported place are required to pay full, uncapped tuition fees. This includes all students at private universities (such as Bond

University), as well as most domestic postgraduate coursework students⁴ and sub-bachelor (associate degree and diploma) students at public universities. The Government does not control tuition fees for these students, so they vary considerably.

Figure 1.1 Resourcing for Commonwealth supported places
By discipline, 2017



Source: DET (2016c).

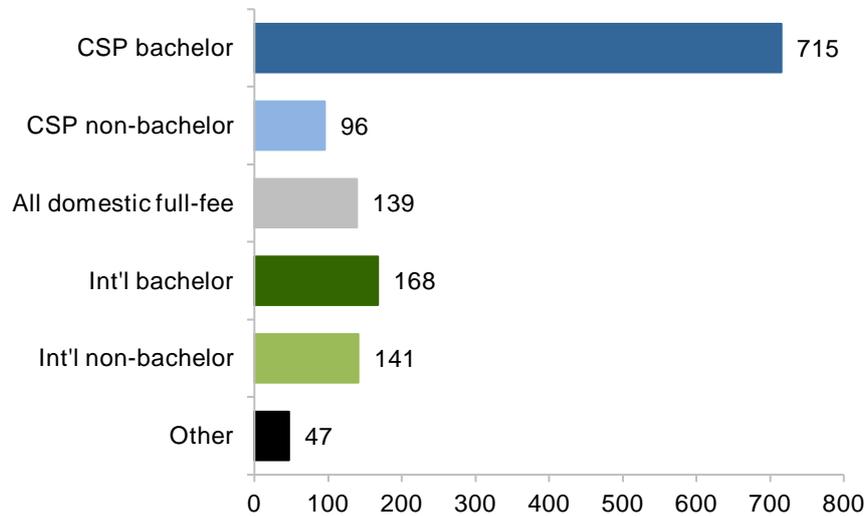
Fees for the 322 000 international students that currently study at Australian universities are also not subject to Government limitation (see figure 1.2 for student numbers by course level and liability status).

These different arrangements for university tuition fees mean that different students contribute vastly different sums for the same course. For example, a Master of Accounting at the Australian National University (ANU) has an indicative annual fee of \$30 768 for domestic full-fee paying students, but some students may be eligible for a CSP, reducing their annual contributions to only \$10 596 (alongside a \$2089 Commonwealth subsidy). For international students by comparison, the indicative annual tuition fee is \$41 040 (ANU 2017a, 2017b).

⁴ However, most postgraduate *research* students (including those undertaking Doctorates and Master’s by Research) are not charged tuition fees under the Government’s Research Training Program (RTP) (DET 2016h).

Figure 1.2 **University student numbers**

By course level and liability status, thousands, 2015^{a,b}



^a 'Other' includes domestic and international Research Training Program students and non-award course students. ^b 'Non-bachelor' includes sub-bachelor (e.g. diploma) and postgraduate coursework students (e.g. graduate certificates).

Sources: DET (2016b, 2016i).

Income-contingent HELP loans

Although payment of fees upfront is an option, nearly 90 per cent of students pay their tuition fees and student contributions through the Higher Education Loan Program (HELP) (DET 2016b). First introduced in 1989, HELP loans (then known as the Higher Education Contribution Scheme, or HECS) are income-contingent loans with an interest rate linked to inflation (that is, the Australian Government does not apply any real interest to a student's borrowings). The different loan types available to students include:

- **HECS-HELP** — uncapped loans available to domestic students enrolled in a CSP. These account for a majority of HELP loans.
- **FEE-HELP** — available for domestic full fee-paying domestic students to pay all or part of their tuition fees, up to a lifetime limit of just over \$100 000 for 2017.
- **VET Student Loans** — available for eligible students undertaking certain vocational education and training (VET) courses of study (at diploma level or above) with an approved provider (including some 'dual sector' universities), to pay all or part of their tuition fees. These loans are also subject to the FEE-HELP lifetime limit. They replaced VET FEE-HELP in late 2016.
- **Overseas Study (OS-HELP)** — available to assist with living expenses for domestic students in Australian universities who wish to undertake part of their study overseas, including for airfares, accommodation and other travel or study expenses.

-
- **Student Amenities (SA-HELP)** — available to domestic students to pay their student services and amenities fee, which universities can charge for services of a non-academic nature (such as sporting facilities, employment and career advice and child care), up to a maximum of \$294 in 2017 (Australian Government 2016d)

All HELP loans provided by the Australian Government are income-contingent — that is, the loans are not repaid until the debtor has an annual income above a minimum threshold. In 2017-18, the threshold is \$55 874, above which the debtor was required to repay a proportion of their total income, starting at 4 per cent and increasing to a maximum of 8 per cent for incomes above \$103 766 (ATO 2017a). The repayment thresholds have historically been indexed to economy-wide changes in average weekly earnings (AWE).

The Department of Education and Training (DET) estimated that students with HELP debts in 2016-17 would take an average of 8.9 years to repay their debt (which has an average value of \$20 700) (DET 2017d). However, many debtors have substantially larger debts (in 2016 over 125 000 debtors had a loan balance of over \$50 000, including nearly 11 000 with debts greater than \$100 000) and take significantly longer to repay them (ATO 2017b).

Growing HELP liabilities and doubtful debts

Nearly four million Australians have taken out a HELP loan since 1989 (Norton and Cherastidham 2016a). Over half of these beneficiaries (2.5 million) still have an outstanding loan balance (are current debtors) (ATO 2017b, table 21).

The amount of loans and overall HELP debt increased significantly following the expansion of the higher education sector after the phase-in of the demand-driven system in 2008. As a result, the number of domestic students who access HELP loans each year has grown by 77 per cent and total outstanding HELP debt was about \$47.8 billion in June 2016 — up from \$16.1 billion in 2007-08 (figure 1.3) (ATO 2017b; DET 2013b, 2015, 2016b).

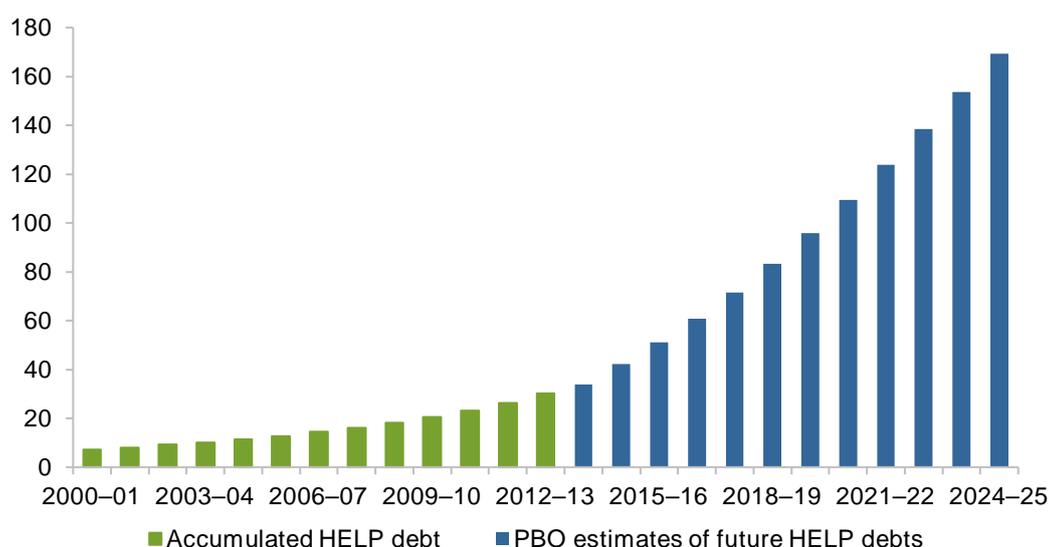
The DET forecasts that outstanding HELP debt will reach approximately \$193 billion by June 2025, while the Parliamentary Budget Office (PBO) forecasts a more conservative (but still substantive) estimate of about \$170 billion (ANAO 2016; PBO 2016).

Like all other forms of debt, some default of HELP debt is inevitable. Although HELP debts are not ‘provable’ under bankruptcy law (they do not get discharged on bankruptcy), any remaining balances are written off on the debtor’s death (ATO 2016c).

The Australian Government makes provisions each year for likely default of HELP debt. In 2016-17, the DET expected doubtful debt to comprise 23 per cent of new HELP debt (DET 2017d). However, doubtful debt provisions are only estimates, as the timing of debtors’ deaths are uncertain. For example, students who first accessed the HECS scheme

in 1989 are generally about 50 years old now, and so are likely to have many more years available to make repayments.

Figure 1.3 The mountain that rises
Accumulated HELP debts and projected growth, \$ billions



Sources: DET (2015), PBO (2016).

1.3 Subsidies, grants and direct funding

Commonwealth grants

In addition to the student contributions that universities charge Commonwealth-supported students, the Government also directly subsidises CSPs through the Commonwealth Grant Scheme (CGS). As these payments are grants (not loans), neither students nor universities are required to repay the Government at any stage. The CGS grants are not available to international or full-fee paying domestic students.

The size of the annual grant varies between different streams of study. In 2017, there are eight different grant funding clusters (figure 1.1 above), ranging from \$2089 per EFTSL for the lowest cluster, to \$22 809 for the highest (DET 2016c). Combined with the three different clusters of student contributions, this creates 11 different resourcing levels per EFTSL across different disciplines. In addition to the basic grants, regional universities also receive a regional loading of between 5 and 20 per cent on their total CGS funding (depending on their remoteness), in acknowledgment of the higher cost of education delivery in most regional areas. In 2016-17, total spending on the CGS was expected to reach almost \$7 billion (DET 2017d).

The history and rationale for total CSP resources

Total resourcing amounts for each CSP are broadly associated with the cost of delivering courses in that discipline. As such, high-cost disciplines like medicine and dentistry have the highest resourcing rates, while low-cost disciplines like commerce and law have the lowest. However, these total resources are not subject to regular review, with the current relative levels having been mostly set around the same time that HECS was introduced in 1989 (Lomax-Smith, Watson and Webster 2011; Norton 2012).

Within the total resourcing amounts, variations in student contributions between disciplines reflect not just the different costs of course delivery, but also the future private benefits that students can generally expect to gain from their degree. Those disciplines with the highest expected private benefits are in the highest band of student contributions for CSPs. This includes law, commerce, medicine, dentistry, economics and accounting, which all have sizable expected private benefits compared to other disciplines. The link between student contributions and expected private benefits was explicitly acknowledged at the time contributions for CSPs were split into the existing three bands in 1997. A Senate inquiry report at the time noted that the ‘three tiers of HECS charges reflect different average likely earnings for different careers, in addition to different course costs’ (SEELC 1996). Similarly, Chapman (1997) noted that ‘the new differential charges do not just reflect teaching costs, [but] ... in essence the new charge arrangements are a hybrid model, with both costs and the presumed benefits from studying in a particular course being given weight.’

These differing resourcing and cost-allocation formulas lead to considerable variation in the proportion of total resources provided by student contributions for each CSP. Students currently contribute approximately 84 per cent of total resources for commerce or law courses (which generally have a low cost of delivery, but high expected private benefits), compared to approximately 28 per cent for agriculture courses (which have high costs but more limited private benefits) (Lomax-Smith, Watson and Webster 2011; Norton and Cherastidtham 2015a).

Research funding

Australian universities also help to develop knowledge and new ideas that are critical to Australia’s growth and its preparedness for emerging economic, social and environmental challenges (PC 2007). The universities generally perform well in research by global standards, although there are some areas for improvement, such as in research into business and management, and education (ARC 2015).

Total expenditure on university research accounted for about 30 per cent of all research and development (R&D) expenditure across the Australian economy in 2013-14 (equating to approximately \$10 billion). This was an increase of 129 per cent from the \$4.3 billion spent on university R&D in 2004-05 (ABS 2015; Watt et al. 2015).

The Australian Government provides direct funding for less than half of this expenditure (funding mechanisms outlined in box 1.2) — in 2013-14, total direct Commonwealth funding for higher education research was only about \$3.5 billion, or about a third of total research expenditure by universities (DIIS 2016).

Box 1.2 Research funding arrangements

Most direct public funding of higher education research is provided through a 'dual funding system', consisting of competitive grants for specific research projects and untied block grants.

Research block grants (RBGs) are not linked to specific research projects and are instead designed to cover the indirect (or fixed) costs of research and research training. For 2017, the Commonwealth has allocated nearly \$1.9 billion to RBGs. This funding is split between two programs, with over \$1 billion for the Research Training Program (supporting students undertaking higher degrees by research) and nearly \$900 million for the Research Support Program (provides block grants for the fixed, indirect costs of research).

Competitive grants fund only the direct costs of individual research projects and are peer-reviewed to ensure projects are selected on a merit basis. The Australian Research Council (ARC) and the National Health and Medical Research Council (NHMRC) administer most competitive grants. Competitive grants to universities are estimated to total nearly \$1.4 billion in 2016-17, including \$740 million from ARC and \$630 million from NHMRC.

Sources: DET (2016g, 2016h, 2017b), DIIS (2016).

2 Research and teaching

2.1 The golden child and the forgotten progeny

Australian universities have two core functions: teaching their students and conducting high-quality research into a broad range of areas. These dual roles are not only historical, but are also a regulatory requirement (see section 4.1 below). Despite the institutional support for their dual teaching-research role, however, universities do not always undertake both with the same enthusiasm and energy.

The focus on research

Notwithstanding the critical role of their teaching function, universities tend to give pre-eminence and prestige to their research functions. Most academics are hired for their research capabilities and have less intrinsic interest in teaching. The poor reputation of teaching-focused roles has been noted, with an Australian Government report into teaching-only positions in universities observing wryly that:

There are a number of different titles being used to describe these new types of appointments including the charming title of ‘teaching scholar’ and the less charming ‘not research-active’. (Probert 2013, p. 4)

As Probert then remarked a few years later:

Evidence suggests that research performance continues to be seen as the primary source of job satisfaction, status and reward in Australian universities (2015, p. 2)

Despite many Australian academic staff being employed on a balanced ‘40/40/20’ workload basis (for the percentage of time split between research, teaching and administration), a 2011 survey found that 67 per cent wanted more research time, while only 15 per cent wanted more teaching time (Strachan et al. 2012). Similarly, Bexley, James and Arkoudis (2011) found that about 80 per cent of surveyed staff wanted to ‘raise their publication profile’ or ‘find more time for research’, while fewer than 30 per cent wanted to focus more on teaching. The authors also found that about 25 per cent of teaching-focused staff would like to incorporate more research into their role, compared to only about 5 per cent of research-focused staff who would like to do more teaching. Bentley, Goedegebuure and Meek (2014) found similar results, with 38 per cent of teaching-focused staff having a greater interest in research, compared to 8 per cent of research-focused staff for teaching.

Even where academic staff do have an interest in teaching excellence, they have few incentives to focus on it. Teaching-focused positions have a poor reputation, with many academics viewing it as a low-pay, low-progression and low-value career pathway (Bennett, Roberts and Ananthram 2017; Bentley, Goedegebuure and Meek 2014). Indeed, staff surveys indicate that while over 80 per cent of academics think that ‘effectiveness as a teacher’ should be highly rewarded in promotions, less than 30 per cent think it actually *is* rewarded (Bexley, James and Arkoudis 2011).

Decisions about *who* undertakes teaching also reflects the weight given to the function. Approximately 80 per cent of teaching-only staff were in casual roles in 2015, compared to less than 8 per cent for research-only positions.⁵ The majority of casual academic roles (75 per cent in 2015) are for staff with an academic classification below ‘lecturer’ (Level A staff, including associate lecturers and tutors; DET 2016j). These roles, particularly for teaching, are normally performed by part-time staff who are themselves students (generally studying towards a Doctorate). They often do not have teaching-focused career progression as a goal, likely do not have much experience in teaching, and may not be equipped with the teaching skills to perform the function well. It seems likely that a system where a significant share of the teaching is provided by junior staff with limited long-term teaching interest will *not* generate the best educational outcomes for students.

Although awards are given out annually for teaching excellence,⁶ these are often not valued by staff. More than 40 per cent of all staff did not rate such awards as ‘important’, including nearly 30 per cent of teaching-only staff (Bexley, James and Arkoudis 2011). In contrast, the comparable rate for research excellence awards was 26 per cent of all staff.

As international university rankings are based largely on research capabilities (box 2.1), this further encourages a focus on research. In particular, universities rely on their international rankings to attract footloose international students with limited first-hand knowledge of the Australian market. With these rankings focused primarily on research output, the universities have limited incentive to hire non-research academics with valuable teaching skills.

⁵ Indeed, 57 per cent of the growth in casual places between 2006 and 2015 was driven by the increasing proportion of teaching-only staff in casual roles (DET 2016j).

⁶ Particularly the Australian Awards for University Teaching, currently administered by the DET.

Box 2.1 International university rankings are a questionable indicator of teaching quality

The most prominent global university ranking systems (the *QS World University Rankings*, the *Times Higher Education World University Rankings* and the *Academic Ranking of World Universities*) are all heavily weighted towards measures of research performance. Staff research quality and publication and citation numbers receive between 60 to 80 per cent weightings.

Meanwhile, only between 10 to 30 per cent of the ranking weight come from teaching metrics, limiting the incentive to focus on improvements.

Sources: Dawkins (2014), QS (2016), Shanghai Ranking Consultancy (2016), THE (2016).

2.2 Student outcomes are often poor

Universities do not always produce good outcomes for students. While, *on average*, students obtain significant benefits from a university education,⁷ averages can be deceiving. Although measuring the quality of university teaching is difficult, several indicators, when considered together, point to significant room for improvements.

Graduate employment outcomes

On face value, employers tend to rate Australian graduate qualifications well. Over 92 per cent of employers rate the foundational and technical skills of recent graduates well. Nearly 93 per cent of supervisors found that the university qualification prepared recent graduates well for their current job (SRC 2017). At 3.1 per cent (in May 2016 for those with bachelor degrees), long-run graduate unemployment rates also remain low (ABS 2016).

However, these figures hide serious issues. The unemployment rate for younger cohorts is much higher (at 6.5 per cent for 24 year olds) (ABS 2016). The full-time employment rate among recent university graduates has been consistently falling for several decades (figure 2.1), and therefore cannot be ascribed to cyclical downturns such as the Global Financial Crisis. More recently, full-time employment for undergraduates has continued to fall even as the Australian economy has grown, declining from 85.2 per cent in 2008 to 70.9 per cent in 2016. Over the same period, parallel declines have been experienced by postgraduate coursework graduates (90.1 per cent to 85.1 per cent) and postgraduate research graduates (87.6 per cent to 80.1 per cent) (QILT 2016).

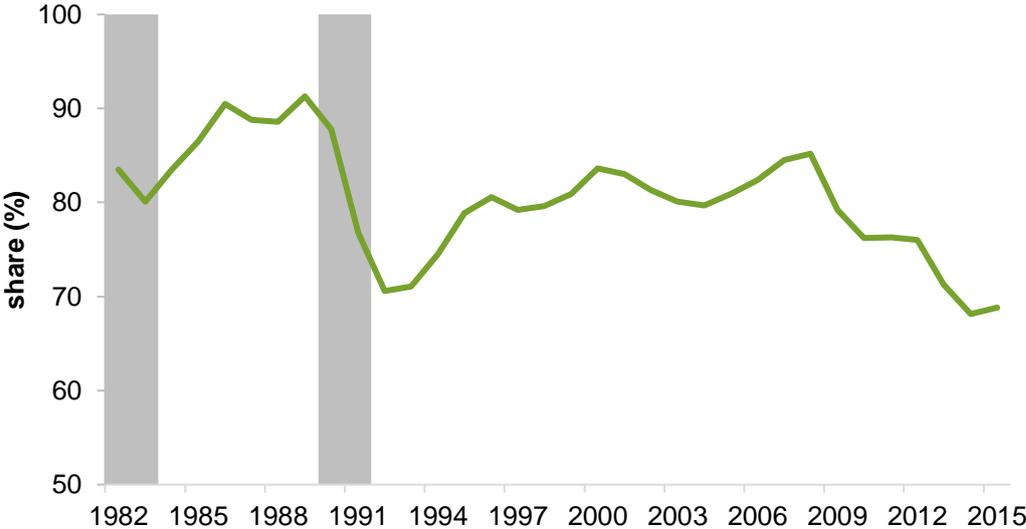
⁷ Aside from higher lifetime earnings (often in the order of several million dollars over a lifetime), university graduates also have, on average, lower rates of unemployment and less welfare dependency. Most university students also intrinsically enjoy studying and learning in their chosen field. There is also evidence that some graduates enjoy better health, are more satisfied with their careers and rate their social status higher than others (Norton 2012).

Many of those who do not work full-time are not in that position by choice, with an underemployment ratio⁸ for graduates of 20.5 per cent in 2016, compared to about 9 per cent across the economy (ABS 2017, table 22; QILT 2016). The underemployment ratio for graduates has increased strongly in recent years, from 8.9 per cent in 2008 to 14.1 per cent in 2010 (GCA 2011).

Based on their assessment of given graduates from given tertiary institutions, around one in six supervisors said that they were unlikely to consider or would be indifferent to hiring another graduate from the same university (SRC 2017). These results are likely, if anything, to underestimate the degree of employer dissatisfaction with tertiary training because opinions are only elicited for those graduates who have already gone through the ‘fiery hoop’ of successful job selection.

Figure 2.1 Undergraduate full-time employment

As a proportion of those available for full-time employment, four months after completion^a



^a Grey areas indicate recessions.

Source: GCA (2016a).

Further, many graduates are employed in roles unrelated to their studies, to which their degree may add little value. Nearly 28 per cent of recent graduates employed full-time in 2015 believed that their qualification was neither a ‘formal requirement’ of their job, nor even ‘important’ to it. Twenty nine per cent felt similarly about the importance of their skills and knowledge. These figures were near or above 50 per cent for graduates from certain fields, including humanities, languages, visual/performing arts, social sciences,

⁸ The share of employed persons who would like to work more hours.

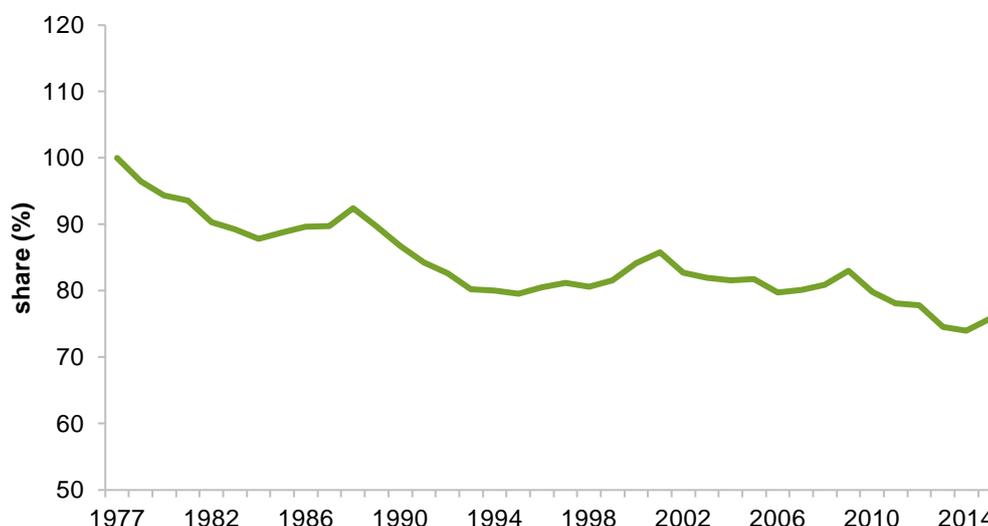
psychology, aeronautical engineering, law, and life sciences (GCA 2016a). Around one in six supervisors also agreed, believing that the graduate’s qualification was not important for the graduate’s current employment (SRC 2017).

To the extent that someone without a costly university education could have undertaken these roles instead, this can then have cascading employment and income effects down the skills ladder. For example, if oversupplied graduates displace retail sales assistants without a university degree, then the displaced sales assistants may have poor labour market prospects, and struggle to be fully employed — a loss for them *and* the economy.

For those graduates who do get a full-time job, initial earnings have also grown modestly in recent years, with some evidence that graduate *starting* salaries have not increased as fast as wages elsewhere in the economy (figures 2.2 and 2.3). However, this could also reflect a more general widening of the relative wage gap between younger and older full-time employees, or the ongoing automation of many entry-level graduate positions (discussed in section 6.2 below).

Figure 2.2 **Declining relative returns ...**

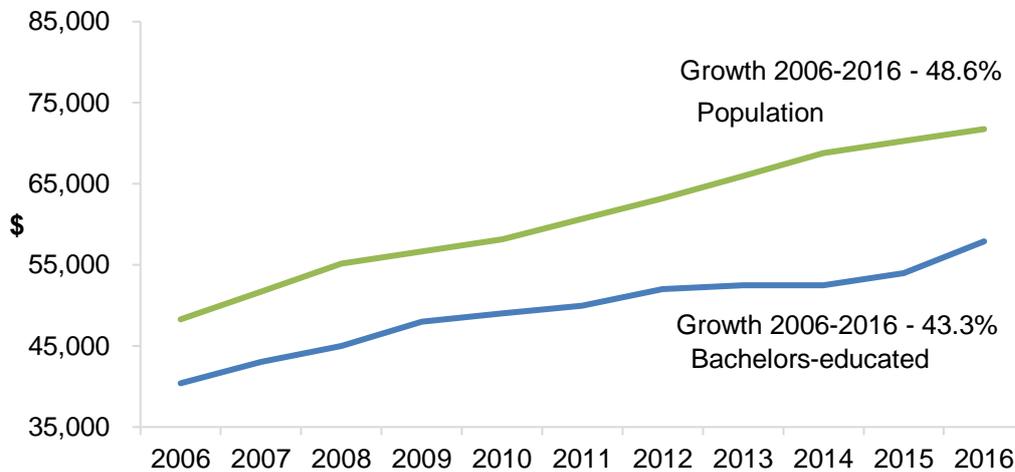
Graduate starting salaries as proportion of male average weekly earnings (MAWE)^a, 1977–2015



^a Annual rate of MAWE is derived by averaging the May quarter in a given year and multiplying by 52.

Source: GCA (2016b), using data from ABS, *Average Weekly Earnings*, various years, Cat. no. 6302.0.

Figure 2.3 ... from slower growth
2006–2016 full-time median wages of recent graduates and all employees^a



^a The median salaries for bachelor graduates are for people employed full-time aged 25 years or less and in their first year of full-time employment, while the median salaries for the population are for full-time non-managerial adult employees (of all ages and experiences).

Sources: ABS, *Employee Earnings and Hours, Australia*, various years, Cat. no. 6306.0 and QILT (2016).

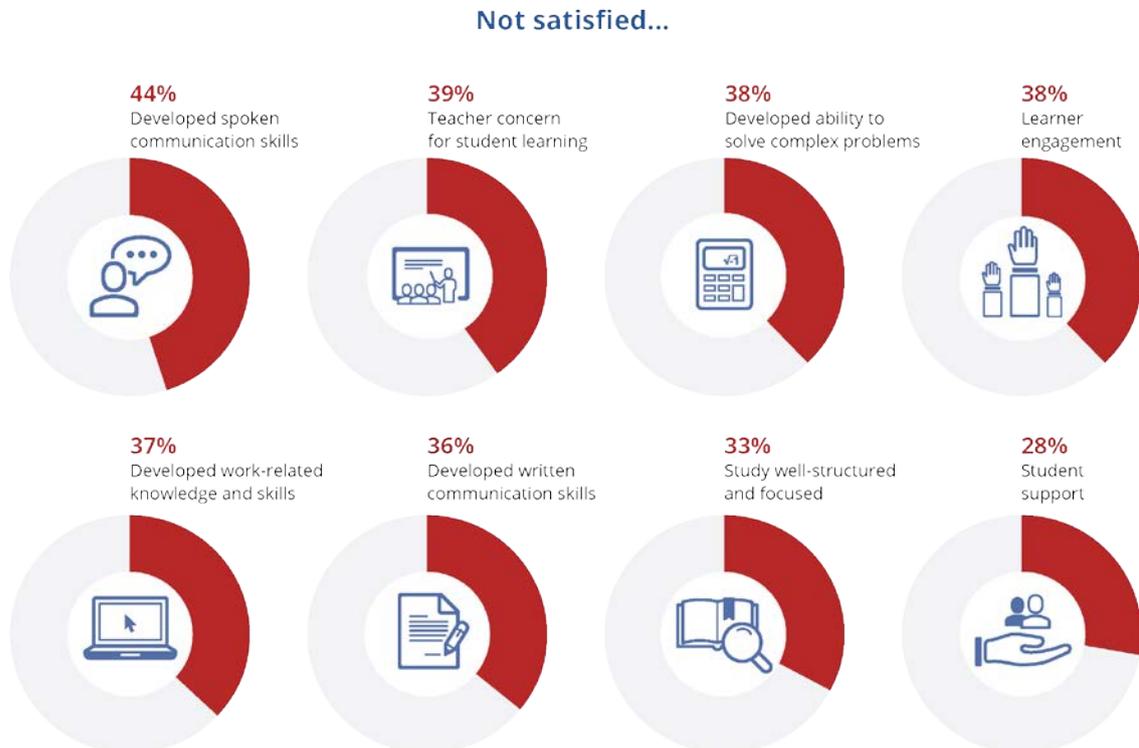
Student satisfaction

Australian student surveys suggest while most students are satisfied with overall teaching quality, a more forensic examination of student attitudes makes this overall finding somewhat inexplicable. Substantial shares are not satisfied with key aspects of their university experience, leaving significant room for improvement by the universities (figure 2.4). Issues in the 2016 survey results include:

- 38 per cent of students did not rate their acquisition of problem solving skills positively
- 45 per cent of students did not rate their acquisition of communication skills positively
- teacher concern for student learning was not rated positively by 40 per cent of students
- commenting on work in ways that helps students learn (a basic teaching outcome) was not rated positively by nearly half of university students (47 per cent)
- academic or learning advisors were not rated as ‘available’ by 39 per cent of surveyed students (QILT 2017).

Figure 2.4 **Students are often not satisfied with their courses**

Percentage of students who did not give a positive rating, 2016



Source: QILT (2017).

Further, in spite of the ongoing shift to a demand-driven (also referred to as ‘student-centred’) system, these numbers have largely not improved since they were first collected in the University Experience Survey in 2012 (ACER 2012).

Tellingly, 37 per cent of recent graduates in 2016 also did not classify their university’s undergraduate teaching as at least ‘good’, with this proportion reaching over 50 per cent for those who studied engineering or medicine. There are significant differences between universities too, as overall student satisfaction with the quality of the entire educational experience varied between 71.5 and 91.1 per cent across universities in 2016 (QILT 2016).

Rates of attrition and non-completion

Non-completion of a degree is an obviously poor outcome. It results in students wasting considerable resources (in time and effort, as well as money), while taxpayer funding for such students is also squandered.

Students who do not complete their degrees also receive minimal financial benefit from the courses that they *have* completed. Research shows that higher education generally does not provide cumulative additional earnings as courses are completed, but instead provides a

‘jump’ in additional expected earnings after the final completion and accreditation of the degree — this is known as the ‘sheepskin’ effect (Herauld and Zakirova 2015; Hungerford and Solon 1987; Jaeger and Page 1996).

Despite legal requirements for universities to ensure that their student intake is capable of undertaking study and to support them during the process, non-completion rates remain substantial. In 2014, more than 26 per cent of students had not completed their degree program within nine years of commencing (DET 2017c). Recently, rates of attrition and non-completion have been trending upwards, with short-term attrition rates rising from 12.5 per cent in 2009, to 15.2 per cent in 2014 (HESP 2017).

Although these rates remain within their historically normal ranges (following a period of decline from 2005 to 2009) and a few outlying providers have driven much of the increase, the upward trend may continue. In particular, the measures of long-term non-completion do not yet include any effect of the shift to a demand-driven system (which, using nine-year cohort analysis, would only become apparent in the mid-2020s). There is a risk that, given burgeoning demand, there may be a greater proportion of students who are not academically prepared for university, and who subsequently struggle (box 2.2). This not only includes students who may have performed poorly in senior secondary school (as measured by their Australian Tertiary Admission Rank, or ATAR), but also students with marginal attachment to the university or engagement with their learning (such as some mature-age or part-time students). Indeed, research suggests that these three factors — age, part-time attendance and ATAR — are among the strongest observable predictors of student attrition (HESP 2017).

Box 2.2 Low ATARs are important to outcomes, but not decisive

Attrition and completion rates are strongly correlated with the academic preparedness of commencing students (or, as an imperfect proxy measure, a student's Australian Tertiary Admission Rank — their ATAR):

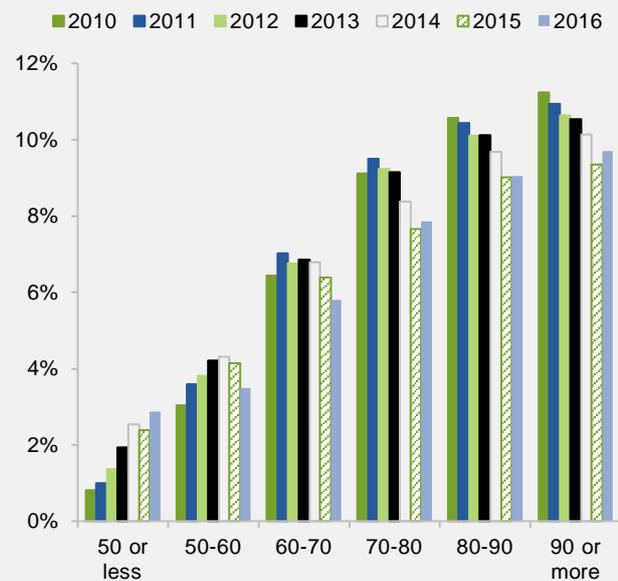
- Although the annual attrition rate of students with an ATAR above 95 was less than 5 per cent in 2014, it was about 20 per cent for students with an ATAR of between 50 and 59 (HESP 2017, p. 31).
- Similarly, while less than 4 per cent of students with an ATAR above 95 had left university without a degree after nine years, nearly 40 per cent of those with an ATAR of 50 to 59 had done so (DET 2017c, p. 22).

The number of students with lower ATARs who are attending university has also been growing over recent years, particularly after the introduction of the demand-driven model. Between 2010 and 2016, average ATARs for undergraduate university offers fell from almost 80 to 76.4 per cent, while the share of applicants receiving an offer with an ATAR of less than 50 increased from 0.8 per cent to 2.9 per cent (DET 2016k; see figures below).

However, the link between poor academic preparation and attrition is not permanent. In particular, students who undertake pathway programs and enabling courses prior to commencing a degree often outperform their higher ATAR peers (Kemp and Norton 2014; Pitman et al. 2016).



Average ATAR of undergraduate offers



Share of undergraduate offers by ATAR band^a

^a Nearly 60 per cent of undergraduate applicants do not apply with an ATAR, largely because they are not Year 12 students and have previously undertaken university or VET study, although may not have completed their previous course (DET 2016k).

However, these factors still explain only a small portion of the observed attrition rates. For instance, each decile of an ATAR score only explains about 2 to 4 per cent of the variation in student attrition or completion rates (DET 2017c, p. 8; HESP 2017, p. 39).

The overwhelming majority of variation in student attrition rates reflects unexplained individual factors. These factors, while possibly observable, are not recorded in the data, and can include the motivation of a student, their financial security and personal or health-related factors. Of the explained variation, much of it also comes from university-specific factors, with attrition higher for universities when:

- the university is smaller
- the university has a larger proportion of external enrolments
- the university admits a greater proportion of students on the basis of prior VET qualifications
- the proportion of postgraduate enrolments is lower
- the proportion of senior academic staff is lower (HESP 2017).

Further, the extent to which the introduction of the demand-driven system has contributed to rising attrition rates depends on how universities respond to this burgeoning demand. Adjustments to admissions criteria, student support systems and access to pathway courses can offset the risks of student attrition. Some initial analysis in the period leading up to the formal start of the demand-driven system (2009–11) suggests that there are not yet any major problems, although more data and continued monitoring is needed (Pitman, Koshy and Phillimore 2015).

International comparisons

Although Australian employment outcomes for university graduates are good compared to some countries (such as Italy or Greece), they are more mixed when compared across the Organisation for Economic Cooperation and Development (OECD). In particular, Australia's employment rate in 2015 for 25-64 year olds with a bachelor degree or equivalent was only slightly above the OECD average (which itself was dragged down by the dismal performance of some countries; figure 2.5). On unemployment rates for the same group, Australia does comparatively well, although still ranking below Germany, the US, the UK and New Zealand (OECD 2016).

The limited information available also indicates that Australian students are less satisfied with their higher educational experience than counterparts in the United States (measured by the National Survey of Student Engagement or NSSE) and the United Kingdom (measured by the National Student Survey or NSS) (figure 2.6).

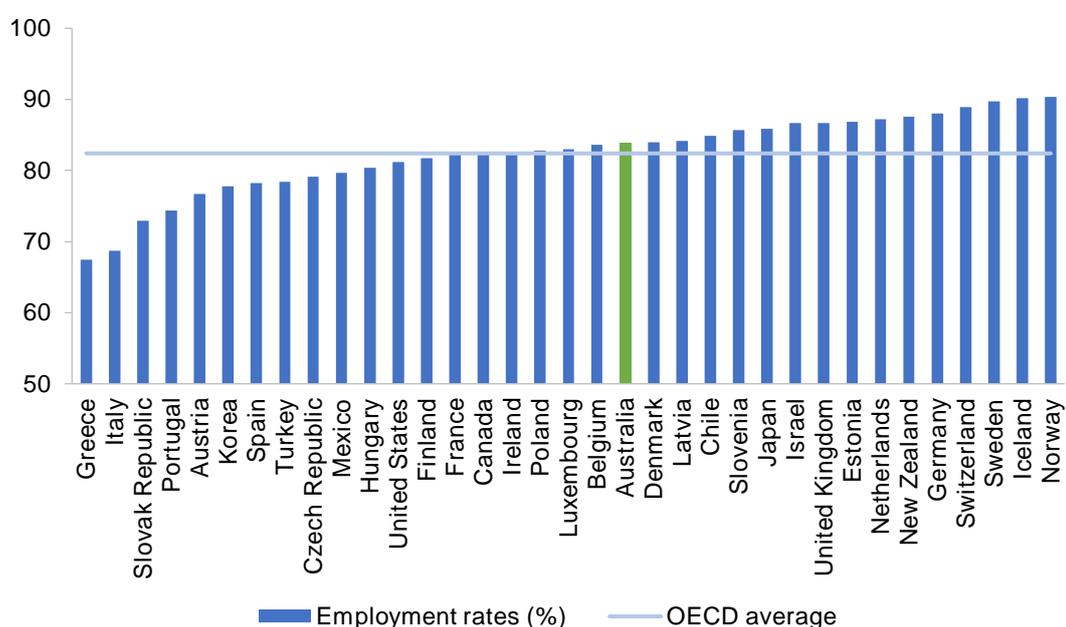
2.3 Are universities responsible for student outcomes?

Universities are only partly responsible for student outcomes. Much of this reflects students' inherent capabilities, which can limit the value of a university education. Other students make choices (both at university and once they have graduated) that can limit their

long-term benefits from university, while still others have individual preferences that, while good for the individual, may not show up as a ‘successful’ outcome in the data (such as a focus on the non-monetary benefits of some jobs).

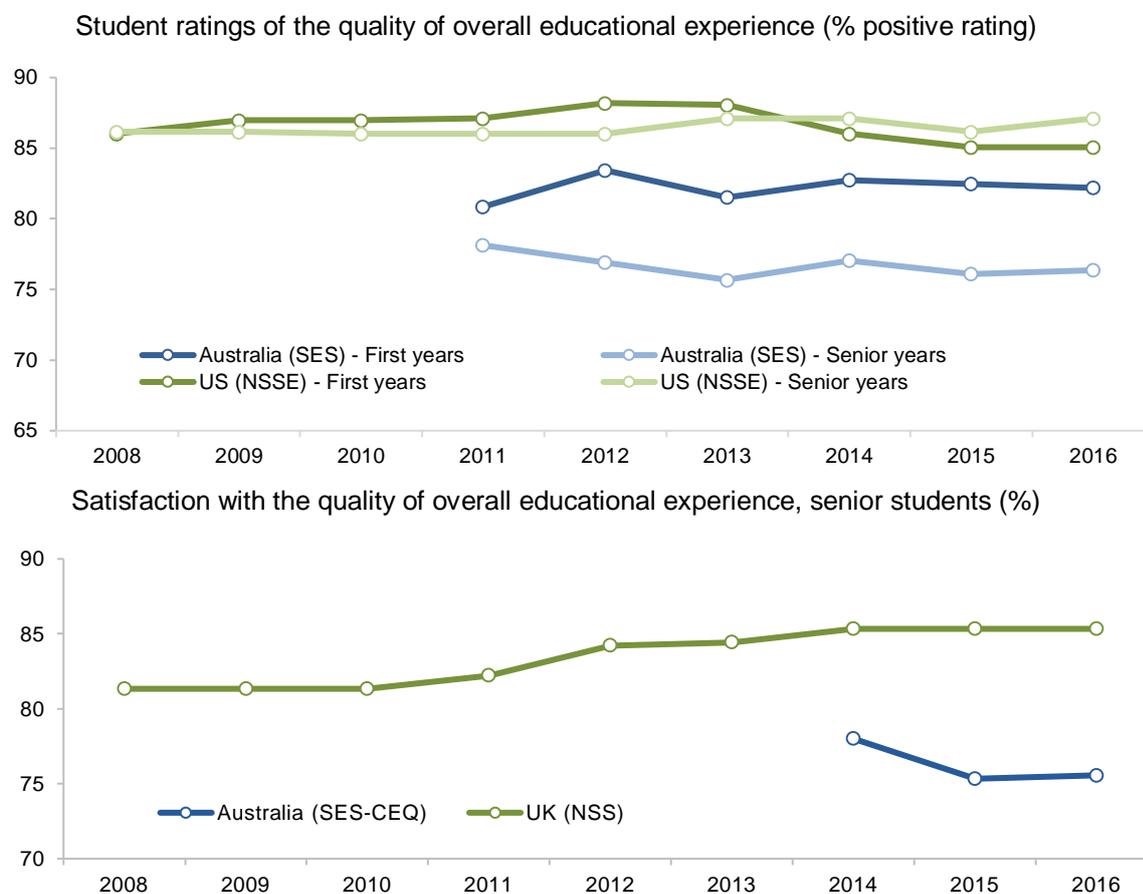
Many other poor outcomes are a result of the broader context in which university education is provided. For instance, difficult labour market conditions and sheer luck play a decisive role in the value that a given individual gets from their education.

Figure 2.5 Middle of the pack
OECD employment rates for bachelor degree holders, 25-64 year olds, 2015^a



^a Employment rates measured as percentage of employed persons among all 25-64 year olds.
Source: OECD (2016, table A5.1).

Figure 2.6 International comparisons of student satisfaction and rating



Source: QILT (2017).

Nevertheless, universities still have considerable control over a range of factors that can influence the outcomes for their students. For instance, universities can control:

- teaching quality (through teaching proficiency and innovation, pedagogic methods, curriculum, links to employers and flexibility of access), which affects eventual human capital development and the relevance of graduate skills
- the pre-commencement information provided to prospective students, as well as the process of screening them prior to offering a place, to better match students to appropriate courses and maximise the likelihood that they will benefit from their university education
- student support mechanisms, both inside and outside the classroom (including course guidance, onsite childcare facilities, personal and health services, student counselling, financial hardship assistance, and academic support workshops) so that students have the necessary support to achieve high quality outcomes
- helping students match their qualifications with job outcomes, through high quality career advice and the involvement of employers in universities.

As such, many of the services that universities provide can be crucial to ensuring that the student's full potential is met.

Universities can play a significant role in preventing attrition

Universities can also strongly influence student attrition and completion rates by:

- ensuring that admissions criteria increase the prospects of students successfully completing their degree program
 - This might be achieved by giving more weight to ATARs, as low ATARs are strongly correlated with future non-completion (HESP 2017). However, it would be in universities' interests to identify individuals within lower ATAR bands that have good prospects, as ATAR only explains a small amount of variation (discussed in section 2.2). Accordingly, universities would likely move towards more sophisticated entry assessment, including using aptitude tests, considering extra-curricular activities, conducting interviews, and assessing motivation to study (which appears to be a major determinant of completion rates; see McMillan 2011).
- providing (and advertising) a wide range of support services for students during their degrees, to aid their capacity to fully engage in their studies (HESP 2017)
 - Even when student attrition might be viewed as either 'unpredictable or inevitable' (such as because of financial pressures or mental health issues; see Harvey, Szalkowicz and Luckman 2017), universities can still affect the outcome by providing ongoing student support and presenting more flexible pathway options.
- encouraging students to undertake pathway or enabling courses prior to university commencement
 - These courses can help to improve academic preparedness by assisting students to develop essential academic skills in smaller, more intensive classes, and generally have the option of obtaining a diploma-equivalent qualification, instead of proceeding to a full degree. Kemp and Norton (2014) found that enabling courses largely negate the effects of low ATAR on completion and success rates.
- presenting and promoting alternatives to complete withdrawal from university, such as temporary deferment, program or campus transfer, and more flexible degree pathways (including external or part-time study) that may better suit the student's circumstances (Harvey, Szalkowicz and Luckman 2017)
- re-engaging students who have dropped out and offering support and flexibility for a return to study, should their circumstances have changed (Harvey, Szalkowicz and Luckman 2017)
- providing more information to prospective students about the content of course programmes and the expectations of universities (HESP 2017)
 - Empirical evidence in both Australia and the UK suggests that the primary reason for non-completion was that the student found that the course was different from

what they had expected — a costly informational deficit (McMillan 2011; Yorke and Longden 2008).⁹ While universities could play the major role in providing such information, there are also strong grounds for cooperative approaches involving schools. The recommendations of the Government’s Higher Education Standards Panel (HESP) to improve admissions transparency (discussed in section 3.2 below) should also go some way to addressing this information deficit.

Some universities are already undertaking many of these activities in an effort to reduce attrition rates and appeal to a broader and less traditional range of students, who may nonetheless have an aptitude and motivation for university-level education (see box 2.3 for one example).

Box 2.3 You are more than just your score

The University of Notre Dame’s (UND’s) admissions process only accepts direct applications to the university and considers features of a prospective student’s performance beyond their ATAR. Indeed, applicants are not even required to have an ATAR to apply, as other academic results can also be considered (which means a number of early offers are made to students who are still in Year 12).

Applicants to UND are required to submit a personal statement on why they want to study at UND and what motivates their course choice, as well as sit for an interview with university staff. There is also a strong emphasis placed on extracurricular activities, including leadership roles.

The result is a student body that has a relatively low rate of attrition (9.5 per cent) when compared to the national average (15.2 per cent) in 2014. Further, once other characteristics of the student body are accounted for, UND’s relative performance on attrition measures is even better, becoming one of the top performing university in Australia, comparable to the highly-ranked Group of Eight (HESP 2017, p. 38).

Sources: The University of Notre Dame (2017) and Singhal (2017).

⁹ Similarly, emerging results from a large-scale survey of year 12 students in SA found that 35 per cent say they find it difficult to understand university program options and information (Nardelli 2017).

3 University incentives

3.1 Poor incentives create poor outcomes

The university sector is not the sole architect of the issues in its teaching functions and its focus on research. The structure and behaviours of the universities have been conditioned by the ‘market’ design limitations, regulatory restrictions, and funding and institutional incentives imposed on them by successive Australian Governments. Universities, much like other economic agents, respond to the incentives that they face.

Part of the reason why universities focus more on research prestige and less on teaching outcomes may be because they do not face sufficient incentives to improve the latter. This includes not just financial incentives (such as those created by the Government-controlled subsidies, funding and student contribution caps), but also the institutional and regulatory incentives (particularly ‘market’ design issues and regulatory controls imposed by the Government, which can limit competition between providers).

More closely aligning the interests of universities with those of the people they serve — students and taxpayers — could be one mechanism to drive improvements in student outcomes. The objective would be for universities to respond by improving their teaching quality and effect on human capital development (including through improved career prospects for teaching-focused staff, increased teaching innovation, enhanced pedagogical methods, greater links to employers or strengthened student flexibility). Further, improved incentives would encourage universities to consider the effect of their admissions criteria, pre-commencement information and ongoing student support services on student outcomes.

Improvements to the value of university teaching functions would also have productivity benefits in the broader economy. This would occur though:

- greater human capital development — by improving the value and relevance of the skills and knowledge that students are taught during their degree
- better matching of students to the universities and courses that suit students’ long-run interests (reducing the costs associated with wasted education investments)¹⁰

¹⁰ An ancillary benefit may also be that doubtful HELP debts are reduced, incidentally reducing costs for taxpayers. This would occur through improved student outcomes that increased their capacity to repay the HELP loans, although this is not the explicit goal of such reforms.

However, creating, designing and implementing new incentive structures for institutions as complex as universities is not easy. There is considerable risk that, in realigning the incentives of universities, other, unexpected new incentives may also be created. This could lead to universities altering their behaviour in unanticipated ways, with undesirable consequences. One example of this would be the risk that performance-contingent funding (discussed in section 3.4 below) encourages universities to focus on only the relevant metrics, rather than achieving the broader objective that the metrics are supposed to create (that is, ‘gaming’ the system).

As a result, the policy options presented below are generally only discussed as *potential* changes, rather than recommendations, as further work would be needed on development and testing, as well as the full range of impacts, prior to implementation.

The VET sector could also benefit from many of the potential options for universities

Realigning the incentives of education providers closer towards the interests of students and taxpayers applies equally to the VET sector, which shares many similarities with the university sector, as well as many of the same weaknesses and shortcomings.

As such, most of the ideas discussed in this paper could also be transplanted to the VET sector, with only modest changes or modifications. This includes: improving information availability for student outcomes (section 3.2); enhancing the consumer rights of students (section 3.3); and making public funding for providers contingent on their ability to deliver valuable student outcomes (section 3.4). As with the university sector, however, further consideration of the policy changes and consultation with affected parties would be needed.

3.2 Better information on outcomes

A first step towards improved incentives for universities is to expand the range, depth and availability of information about university teaching quality and student outcomes. Despite the range of indicators highlighted above (section 2.2), the full extent of the problem in teaching outcomes remains opaque. Partly, this is because measures of ‘good’ teaching quality and ‘satisfactory’ student outcomes remain elusive and difficult to define. Teaching quality also has several dimensions, aside from being difficult to measure. It is not all about the theatrical or performance capacities of teachers, but consists of their skills in converting knowledge into learning. It also encompasses the breadth, depth and relevance of the syllabus.

But, even given those difficulties, the existing sources of information remain insufficient and will need to be improved if better outcomes are to be achieved (and measured).

For one, improved information on teaching and learning outcomes in Australian universities would help universities to shift their focus away from existing metrics (such as international rankings) that are biased towards research capability. This would create incentives for them to focus more on the quality of their teaching and enhancing student outcomes. Indeed, as put by an Australian Government Minister: ‘nobody wants to be on the front page of the newspaper as having a lot of un- or under-employed graduates’ (Birmingham 2016b).

Further, better sources of information on relative teaching quality and student outcomes of different universities would enable students to make better-informed decisions between universities and subject areas (see Supporting Paper 3 for a discussion of comparative performance indicators). This would help to overcome the information asymmetry and result in lower costs, as insufficient information in the market can lead to poorly informed choices by students, wasting resources for them and taxpayers (IC 1997). It would also better enable universities to determine what student support mechanisms or teaching methods actually contribute towards improving student outcomes.

Given the considerable time, effort and money that is poured into higher education by students and taxpayers alike, the Australian Government has already acknowledged that information about university quality needs to be improved, with a range of measures currently being implemented (box 3.1). However, further work will be needed, after the current improvements are completed, in order to plug the remaining gaps in university information provision.

In particular, **over the long-term, QILT will also need to be expanded to include value-added measures that account for the innate abilities of the graduates and measure the additional benefit that students obtain from each university.** Unadjusted measures of student outcomes can disguise better teaching outcomes at institutions that lack the same prestige and reputation, but which can provide a better value-add to their students (Kim and Lalancette 2013). As noted by the OECD:

Top universities that attract A+ students and turn out A+ graduate[s] surprise no one. But what about universities that accept B+ students and produce A+ graduates? Which is doing the better job? (OECD 2013)

Producing measures of the actual value that universities have provided to students would help to level the playing field between the high-prestige Group of Eight (Go8) universities and newer or regional universities. As university qualifications can be a noisy signal of the skills and capabilities of graduates, employers often give considerable weight to a university’s reputation for delivering quality graduates (their ‘prestige’). This can become self-reinforcing, as many of the most academically prepared students self-select into more prestigious universities (Baldwin and James 2000; Harvey 2017).

Further, **there is a pressing need to develop good data and open it up to researchers in order to conduct and publicly report research on the genuine impacts of universities.**

Box 3.1 **Let there be light: Existing measures to improve information availability**

QILT data and website

The 2014-15 Budget announced a new Quality Indicators for Learning and Teaching (QILT) website (replacing the previous MyUniversity website) to present and compare survey outcome data on university experience, graduate outcomes and employer satisfaction between universities (Australian Government 2014a, 2014b).

Further developments of the QILT website and underlying data were announced in the 2016-17 Budget, including additional data on labour graduate market outcomes, employer satisfaction with graduate skills and work readiness (including a breakdown by different subject areas) and information about courses, fees and admissions (Australian Government 2016a).

Improved admissions transparency

In October 2016, the Higher Education Standards Panel (HESP) recommended 14 different reforms to improve the transparency of higher education admissions, including publishing information on admissions processes in agreed templates to facilitate comparisons and using common and consistent language to describe ATAR thresholds and other admissions requirements (HESP 2016).

The Government announced that it accepted all of HESP's recommendations in December 2016, with additional funding to implement the changes allocated in the 2017-18 Budget. Implementation of the recommended changes began in July 2017, with the full range of reforms anticipated to be in place by 2019 (Australian Government 2016c, 2017b; Birmingham 2017b).

One low-cost way to do this is to enable trusted users to access linked existing datasets, particularly administrative datasets. For instance, combining the administrative data on student enrolment and achievement (already collected by universities) with administrative data from other government agencies (particularly from the Department of Human Services and the Australian Taxation Office) would enable the outcomes of individual students to be tracked over time. This could shed light on a range of different policy-related questions, including:

- the effect of student attrition on HELP repayments
- the links between ATAR and long-run student outcomes
- the relative value-add provided by different degrees within different universities.

Although such research would have to be treated carefully in order to protect the privacy of students, publishing de-identified results would not only be informative to students, but could also provide information to universities about what works in different contexts to create the best possible student outcomes.

The key point is that, as in so many other policy areas, good data and its availability to trusted parties are going to play a large role in establishing the genuine impacts of universities on student outcomes.

3.3 Consumer rights and restitution for inadequate educational quality

Competitive markets for normal goods (such as consumer electronics) are generally covered by an implied warranty under the Australian Consumer Law (ACL) for faulty or inadequate products. These kind of warranties reinforce the rights of consumers to expect decent quality products and create strong incentives for the provider to ensure high-quality provision. Equally, providers that make misleading or false claims about the nature and quality of their products would also be liable under the ACL, as this would constitute misleading conduct.

Although the nature of the products provided by the higher education sector (both universities and non-university providers) is different to those in other markets, the basic principle of protecting consumer (student) rights in a competitive market and enabling them to seek restitution for inadequate product quality is sound.

The main barrier to the use of the ACL for educational services has historically been whether, for a Commonwealth-supported student, universities passed the test of being engaged in ‘trade or commerce’ — a necessary prerequisite for action under the statute. That barrier appears to have weakened with the adoption of a demand-driven system, which more clearly recasts universities as commercial agencies engaged in trade or commerce (Corones 2012; Fletcher and Coyne 2016; Nguyen and Oliver 2013). That has not only opened up the possibility of legal action for misleading conduct (for example, a university that marketed a course as led by an internationally renowned academic when it was not), but also for provision of inadequate services.

Equally, the requirement under the ACL for suppliers to exercise ‘due skill and care’ could, in principle, relate to setting admission standards, curriculum design, course delivery, support for students, supervision quality and ‘fitness for purpose’ of a qualification (Corones 2012, pp. 11–12). The development of standards monitored by the Tertiary Education Quality and Standards Agency (TEQSA) would provide a possible benchmark for legal action by students. The addition of the unfair contracts regime into the ACL may also expand the scope for student legal action (Goldacre 2013).

There nevertheless remains uncertainty about whether a student could, under the existing legislation and associated instruments, successfully pursue a case against a university for a low quality course (Cohen 2016 versus Fletcher and Coyne 2016). Although universities appear to be covered by the existing ACL provisions, there seems to be no successfully prosecuted case in Australia, nor a flood of claims yet to be decided.

Part of the difficulty under the existing provisions may arise because a party making a complaint would need to show how the university had provided a sub-standard service. A poor labour market outcome would not (in isolation) trigger any restitution unless the university had provided a guarantee that successful completion of a qualification would lead to good job outcomes.

Although a lack of successful cases has also been present in the United Kingdom and the United States, recent developments suggest that the global landscape for litigation may similarly be changing (box 3.2).

A legal commentator has recently concluded that: ‘In Australia, a successful claim by a student for compensation for careless or incompetent teaching practices may well be just a matter of time’ (Cohen 2016). With virtually no jurisprudence, it is impossible to determine the likely number of future claims, let alone their possible effects on university conduct. However, it is notable that law firms are warning universities to undertake strategies to avoid liability, such as having good quality control procedures in place for staff, random supervision of lectures and solicitation of student feedback.

Box 3.2 International changes — making consumer law great again?

- In March 2017, a US federal judge approved an agreement under which President Trump will pay US\$25 million to settle three class-action lawsuits relating to alleged problems in the quality of particular educational programs at Trump University (Eder and Medina 2017). Settlements have no precedent value because a party may decide to settle even if they expect to win in court (a point emphasised by President Trump). Regardless, the mere existence of settlements provides an avenue for claims by students. Settlements usually occur where there is at least some prospect of success by the plaintiffs, whatever the particular merits of a given case.
- In the United Kingdom, the Competition and Markets Authority (the UK equivalent to the Australian Competition and Consumer Commission) has clarified that the newly enacted *Consumer Rights Act 2015* applies fully to higher education providers (CMA 2015). The result is that, among other things, universities must provide services with ‘reasonable skill and care’, must not include unfair contract terms, and must not misrepresent the nature of their courses. A new feature of the Act is that a student would have a ‘right to require repeat performance’ (s. 55) — a right to return — if the university’s performance was below that implicit in its contract. That might arise because of the poor quality, organisation or supervision — all of which would breach the requirement for reasonable skill and care. The right to return may only relate to a part of the course. A student could alternatively seek damages or a refund.

Policy options in Australia

The Australian Government has a range of different approaches open to it, given domestic and international legal developments:

- do nothing further, letting parties and courts determine the extent to which the current ACL provides remedies for students who have been given poor quality educational services
- change the ACL to include some of the features of the UK *Consumer Rights Act 2015* (particularly some provision that emulates section 55)

-
- develop *complementary* approaches to provide restitution outside the ACL, such as through alternative dispute resolution arrangements activated by a formal complaints mechanism.

Given the relevance of the existing ACL provisions and an apparent lack of pressing need for change, **the most prudent short-term option would be to allow the current law to stand and for the courts to develop legal precedents over time.**

However, continued monitoring of the outcomes of the UK experience should also be undertaken. **If, after several years, the new UK arrangements have had significant positive effects on universities' conduct, it would then be worth considering adoption of similar provisions in Australia. In particular, this would involve making it clear that the ACL *does* relate to higher education and giving the student the right to a refund, other compensation or the 'right to a repeat performance'¹¹ in the event of unacceptable teaching quality.**

3.4 Introducing 'skin in the game'

Another way to increase universities' incentives towards improving student outcomes is for the Government to create a financial liability — so-called 'skin in the game' — in the event that students obtain a poor outcome. It is not a new concept here or overseas. A variety of proposals have been suggested, including in Sharrock (2015), Tourky and Pitchford (2014), Knott (2015), Harvey (2017) and Goedegebuure and Marshman (2017). Some of the participants in the Commission's Productivity Conference in December 2016 also raised the importance of incentives for universities to provide a quality education.

Performance-contingent funding

One model of 'skin in the game' is to impose a penalty on (or provide a bonus for) a university that achieves poor (good) outcomes for its students as a group. This could be targeted at the extent to which a university added value to the labour market outcomes of students or achieved broader, non-labour market social objectives. Sophisticated statistical analysis across universities could, in principle, identify the extent to which universities' actions affect outcomes, which could be the basis for rewards for good (or penalties on poor) performers.

¹¹ Restitution through a 'right to repeat performance' would be distinct from the wider 'right to return' or 'right of access' at the individual's own expense that is already broadly available in Australia. For example, there are no age or time limits on who can access a CSP and no monetary limit on the amount of HECS-HELP debt that CSP students can take out over their lifetimes (although there is a non-renewable lifetime cap on combined FEE-HELP and VET Student Loans; see section 1.2 above).

However, the in-principle attractiveness of such arrangements may be less alluring on closer inspection (SP 3). In particular, there are challenges to implementation that may frustrate the goals of performance-contingent funding. On the other hand, these challenges are unlikely to be any more significant than those faced by the continued rollout of incentive-based funding in healthcare systems around the world. As such, although they require careful consideration, the challenges should not be used to justify abandoning any attempt to measure the quality of higher education teaching.

Performance-contingent funding is not new to Australia. Between 2006 and 2008, the Learning and Teaching Performance Fund (LTPF) provided \$220 million of performance-contingent funding, based on a range of measures (including student retention and progression, student satisfaction scores and graduate outcomes). However, the program was heavily criticised and eventually abandoned as the majority of funding was consistently awarded to the Group of Eight universities, despite an intention to highlight the merits of less research-focused universities (Probert 2015, p. 28). Further, in the absence of simple methods of measuring teaching performance, the LTPF metrics instead relied on proxies, which the universities disputed and criticised (Chalmers 2007; Probert 2015).

As part of the 2017-18 Budget, the Australian Government announced plans to introduce a variant of performance-contingent funding. From 2019 onwards, 7.5 per cent of total CGS funding to each university will be contingent on the university's teaching performance, with any withheld funds to be reinvested into high-performing universities, measures to improve equitable access, or additional research funding (Birmingham 2017a).¹² The exact design is still to be developed and could change following consultation.

Accordingly, there is value in identifying the multiple requirements for a good model of performance-contingent funding (summarised in box 3.3).

Reliable measures of the right outcomes

Performance-contingent funding needs objective measures of success or failure that are comparable across universities. Initial indications suggest that the Australian Government's recently announced metrics are likely to cover student satisfaction, data transparency, adequate financial management, student retention and completion rates, and employment and student outcomes (Birmingham 2017a). However, post-graduation employment and labour market outcomes are likely to be hard to equitably measure and

¹² In 2018, the funding will be dependent on participation in admissions transparency reform, cost of education and research transparency initiatives, while the Government works with the sector on developing 'robust' metrics for introduction in 2019 (Australian Government 2017b, p. 27).

will be subject to contention, as universities have very limited control over student choices once they graduate (as discussed in section 2.3 above).¹³

Box 3.3 The design of performance-contingent funding

Introducing adequate performance-contingent funding measures for universities would involve:

- development of Student Reported Experience Measures (SREMs) and Student Reported Outcome Measures (SROMs) for universities, drawing on lessons from PREMs and PROMs in health care
- the use of different SREMs and SROMs between domestic and international students, by discipline and degree level
- risk adjustment of performance measures to derive the value-add of universities
- testing the reliability of year to year performance measures, and if volatile, use rolling averages as performance measures for incentive payments
- setting a minimum acceptable performance level, such that universities falling below that level would lose access to CGS funding and their ‘university’ status
- withholding a share of CGS funding up to a maximum share for any given university that is performing poorly, with the withdrawal share proportional to the deviation from a defined threshold (with that threshold set higher than the minimum required standard)
- rewarding improvements beyond the desired teaching standard with additional payments, which should be known by universities ex ante
- commencing with a low share of funds at risk (less than 7.5%) during the implementation of performance incentives, moving this up incrementally based on observed effects on the conduct of universities and their financial viability.

In designing the scheme, it would also be desirable to consider:

- sharing some of any withdrawn money with students affected by poor quality
- contingently holding back funding from universities falling below a given threshold performance, with requirements for an improvement plan, which if successful, restores funding
- using measures of cost-effectiveness, not just overall quality.

Measures of student satisfaction could also be made more robust by creating an equivalent to patient-reported experience measures (PREMs) and outcome measures (PROMs) for higher education. These healthcare measures capture a person’s perception of their clinical health (plus any improvements since treatment) and their customer service experience in a quantifiable and comparable format (for more details see chapter 2 in the main report and SP 5).

There are also grounds for differently structured incentive payments and performance measures for international students compared with domestic students, taking into account

¹³ The introduction of independent assessment would provide a more concrete, less subjective measure of relative teaching performance between universities (as discussed in chapter 3 in the main report).

the different needs and preferences of these two distinct student populations. For example, process measures of teaching quality (such as the availability of pathway courses and support for students with less high standards in English proficiency) might be given higher weight for foreign students.

Sensible adjustment choices for confounding factors

As noted by Gardner (2017), it can be unfair (and inefficient) to compare universities with different mixes of subjects and students. A university should be rewarded for adding value, not for their prowess in selecting demographic groups with traits that are associated with good outcomes, regardless of the teaching quality of the university.

Addressing this requires risk-adjustment for the nature of the student body. In particular, the demographics of the student body at each university should be standardised, so that universities are not encouraged to discriminate against demographic groups that have typically poorer outcomes. For example, adjustment could reflect low socioeconomic status, student gender ratios, Indigenous student proportions, student discipline choices, and regional or remoteness factors. Other factors correlated with poor performance could also be added where discrimination against those students would be undesirable. However, risk adjustment should not include ATARs, as one of the goals of performance measures is to encourage universities to set entry criteria that lead to good outcomes.¹⁴

Setting the 'right' penalty (or bonus) levels

The Government has announced that 7.5 per cent of total CGS funding will be performance-contingent. As this proportion appears to be somewhat arbitrarily chosen, it is important to consider further. If the proportion of funding that is performance-contingent is too high, universities can bear disproportionate responsibility for risks that are not wholly under their control. Further, universities can also face short-term funding uncertainty if the proportion is too high, inhibiting their ability to plan and invest for the long-term (Gardner 2017).

However, if performance-contingent funding is too low, there will also be minimal incentives to change behaviour. Given uncertainty about the reliability of performance metrics and the behaviour of universities, a prudent approach would be to proceed incrementally, with the proportion of funding that is performance-contingent increasing each year.

¹⁴ The implication is that risk adjustment would take account of unchangeable traits (like ethnicity, gender, family income, and region) for any given ATAR.

Determining the ‘right’ period over which outcomes should be assessed

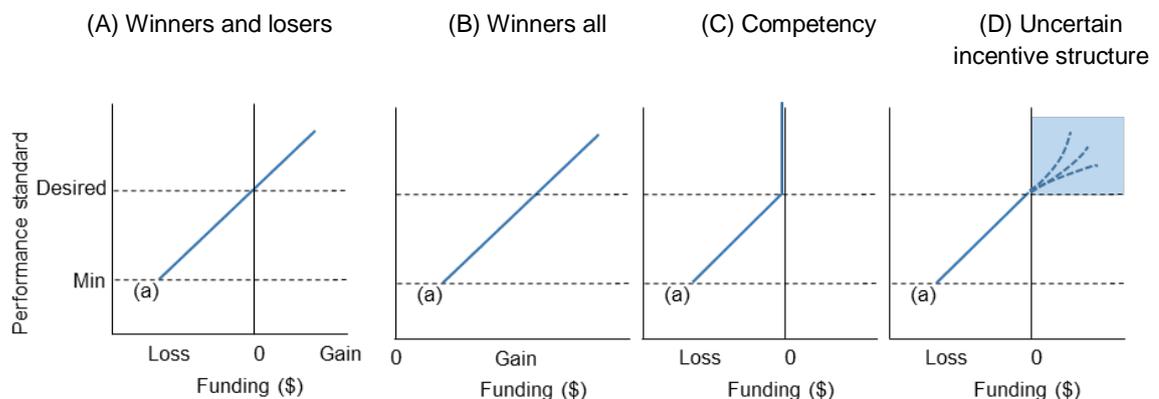
Many performance measures exhibit ‘regression to the mean’ so that good performance at one time is often followed by a worse outcome. The extent to which this occurs is an empirical issue that should be tested with performance data. If there is year-to-year volatility, moving averages of performance measures (such as performance over the past three years) may be preferred to a measure relating only to a single year.

The form and choice of any penalties and bonuses is important

Deciding whether the incentive relates to competency or proficiency

Under a competency-based system (depicted by the incentive structure shown in panel C in figure 3.1), a university is penalised if it is below some standard, and receives no benefit for exceeding it. This creates strong incentives to avoid falling below the desired standard, but few incentives to go beyond it. It effectively means that the incentive to improve only relates to poorer-performing universities.

Figure 3.1 Alternative incentive arrangements



Under a proficiency-based system, the more a university improves its standard, the more funding it receives. This creates uniformly strong incentives to improve teaching quality. There are several ways of designing a proficiency-based system.

- (i) Under a ‘winners and losers’ system, universities that fall below the desired standard are penalised, while those who rise above it are rewarded (panel A in figure 3.1)
- (ii) Under a ‘winners all’ model, any university that performs better than the minimum standard required for accreditation as a university (point (a) in in figure 3.1) receives some rewards, with those rewards rising as they increase their performance (panel B). No university loses any of its initial entitlement.

Both proficiency measures provide similar incentives for universities. Their biggest effect is on funding pressures for the Government. For example, if the proportion of funding that is performance-contingent is 5 per cent, then under a ‘winners and losers’ scheme a university at the minimum acceptable standard (a) would lose 5 per cent of its funding. However, if it reaches the desired level it receives all of its current funding and gains up to 5 per cent if it exceeds that level. Accordingly, if a sufficient number of universities performed better than the desired level, total Government funding for universities would exceed the current level.

Under a ‘winners all’ model, universities receive all of their current funding, and the more they exceed the minimum acceptable level (a), the greater their additional funding. This would increase budgetary outlays by an even greater extent than the ‘winners and losers’ system.¹⁵

Both systems involve *ex ante* certainty about the incentive *structure* for universities (the funds gained for any given improvement in performance), but entail uncertain *ex ante* budget outlays for the Australian Government. However, any higher than expected budgetary outlays that may occur under the systems may be desirable if they help stimulate (and fund) high levels of teaching performance. In any case, if the incentive payment is initially modest, the budget risks are also small. As the Government learns more about the actual performance of universities, it can re-calibrate funding and incentive payments to levels that match its appetite for budgetary risk.

Further, both incentive payment models also involve uncertain *total* funding for each university, as the levels of achievement are only known *ex post*. However, any performance-contingent funding system must have this effect, as performance cannot be known beforehand.

The Australian Government’s May 2017 announcement is a variant of the ‘winners and losers’ model. It also provides for the possibility of well-performing universities obtaining a bonus if *ex post* they exceed some standard. However, as the proposal appears to cap the total size of the bonus to be no larger than the penalties on poorer performing universities, it does not provide any *ex ante* clarity about the incentive structure. For example, a high-performing university might receive \$100 for every percentage point increase in its performance or \$1 million. (Imagine tax rates on personal income that taxpayers did not know about until they had filed their tax returns.) Panel D (of figure 3.1) provides a graphical representation of the proposed structure, with the shaded area indicating the full range of possible rewards that a high-performing university might obtain (from nothing, if all universities perform above the standard, to a great deal if only one university shines).

¹⁵ Of course, the Australian Government could respond to cost pressures by simply reducing overall university funding, such that the expected total funding after the payments from the incentives scheme were taken into account would be the same as without. In that instance, models (i) and (ii) are effectively the same.

The uncertainty associated with the incentive structure is likely to reduce university incentives to raise standards.

The advantage of the Government's chosen model is that it provides budgetary certainty. However, there is arguably a trade-off between budgetary certainty and the incentives for higher-performing universities. For the sake of simplicity, if the Government wants fiscal certainty, it might be better for it to adopt a competency-based system (panel C), and simply reinvest any withheld funds into additional university research or measures to improve equitable access (also options for allocating funds flagged by Birmingham 2017a).

Encouraging poor performers with the scope for a second chance?

An incentive structure could instead concentrate on raising the performance of the most poorly performing universities by giving them a second chance (a variant of a competency-based model). This would entail identification of universities that are below some standard, require them to create a remedial plan as a pre-condition for avoiding withdrawal of a share of their funding, and then allow them to keep such funding if they achieved a desired performance target over some agreed period. This would leave all well-performing universities outside the incentive arrangement, would encourage genuine strategies for improvement by poorer-performing universities, and would provide lessons about how to make improvements (given that the outcomes of different kinds of remedial plans could be tested over time). Although it has merit, such an approach also clearly lacks the capacity to encourage improvements in teaching quality above the desired threshold for well-performing universities, in contrast with a 'winners and losers' model.

Recognition of trade-offs between quality and cost?

All of the above incentive structures only operate along one dimension — teaching performance standards. There may also be grounds to recognise that there is always some trade-off between quality and price.

While currently universities tend to adopt common student fee contributions for CSPs, this may not always be true in the future. Depending on its design, performance-contingent funding runs the risk of penalising universities that offer students lower quality courses (that were nevertheless above a critical regulated threshold) at a much lower cost. Were this penalty deemed undesirable, then contingent funding should take into account the *cost-effectiveness* of quality, not just quality per se.

Compensation for students?

Under any of the above models, withheld funding from poorer universities either goes to the Government or better-performing universities. As an alternative, funds held back from poorly performing universities could instead be partly distributed to the students badly served by those universities. This would require identification of the courses where

university performance was deficient and monetary measures of the degree of inadequacy across different courses — a complex, but not insurmountable task.

4 Teaching and research roles

4.1 The teaching-research nexus

Much of the rationale for universities' joint role in research and teaching functions rests on the premise that a university's research function improves the quality of its teaching. Some claim that access to world-class researchers makes students more engaged, develops their critical thinking, aids their research skills and keeps them up to date with the latest research findings (Cherastidtham, Sonnemann and Norton 2013).

However, there is no compelling reason why these skills and attributes cannot be nurtured by non-research academics and teachers. For instance, researchers do not have an exclusive capacity to keep up to date with the latest research findings. Further, the skills and attributes that make an academic a good researcher will not necessarily also make them a good teacher. In trying to do both functions, universities (and their staff) may lose focus and do neither teaching nor research as well as they could.

In line with this, various empirical studies in Australia and elsewhere have found little evidence to support a positive relationship between teaching outcomes and research capabilities (Feldman 1987; Hattie and Marsh 1996). Other studies have even suggested that a focus on both functions can do harm, resulting in some negative teaching outcomes for students (Barrett and Milbourne 2012; Ramsden and Moses 1992; Sample 1972).

There are, however, strong grounds to suspect that students undertaking *research* degrees (such as a doctorate) or postgraduate coursework degrees benefit more from close proximity to seasoned researchers than undergraduate coursework students. This is largely due to the stronger research focus of these courses and their smaller class sizes (Jenkins 2004; Lindsay, Breen and Jenkins 2002).

Evidence that finds no reliable link between research and teaching quality does not mean that universities should forgo trying to nurture a link, however. If a university can succeed in raising teaching quality through synergies with research, then it increases its attractiveness to students (including footloose international students). With better measures of teaching performance (section 2.2 above), different universities would also be able to develop different strategies for strengthening the links between research and teaching, doing so in courses and disciplines where that nexus was easiest and most cost-effectively achievable (Prince, Felder and Brent 2007).

In addition, although there is limited evidence of any *direct* benefit to students from universities conducting research alongside teaching, there is some evidence of *indirect*

benefits from research. In particular, as the prestige of a university is closely tied to the value of their research output (given the importance of international rankings), students can benefit indirectly from attending a research-focused institution through enhanced social-standing and improved employment outcomes (Norton and Cherastidtham 2015a).

However, given the lack of any direct link between teaching ability and research output, the research-based prestige of a university is largely irrelevant to whether the student was taught well. Instead, much of the enhanced social-standing and improved employment outcomes more probably reflect the academic preparation of the students attending (the ‘self-reinforcing prestige’ discussed in section 3.2 above).

Despite the lack of evidence that it exists, the research-teaching nexus is used to justify several aspects of the existing university regulatory and funding regime.

Restrictions on the title of ‘university’

One such regulatory restriction is on the use of the title ‘university’ by higher education providers.

Currently, all higher education providers using the title of ‘university’ in Australia must be both teaching and research institutions, as per the higher education provider category standards, in the *Higher Education Standards Framework (Threshold Standards) 2015*, enforced by the industry regulator, the Tertiary Education Quality and Standards Agency (TEQSA). These standards require that an ‘Australian university’ must conduct both research and teaching (at an undergraduate and postgraduate level, including Doctoral degrees by research) in at least three broad fields of study. An ‘Australian university of specialisation’ is required to do the same, but in only two broad fields of study. Consequently, Australia has only 41 different universities¹⁶ operating in a market of about one million domestic university students. By contrast, only about 60 000 domestic students are enrolled directly with non-university higher education providers.

The research and teaching requirement is largely an historical quirk of the Australian market. Elsewhere around the world, ‘universities’ are not required to conduct research — including in England and British Columbia (Canada). Similarly, in the United States there is broad recognition that a university can undertake excellent teaching without conducting research (Moodie 2014).

Indeed, just as research is not a prerequisite for good teaching, nor is teaching required for good research — numerous institutions excel at research while conducting no teaching, such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO),

¹⁶ Including 37 public universities, three private universities and one university of specialisation, but not including two overseas universities with operations in Australia (Carnegie Mellon University and University College London).

Germany's Max Planck institutes, France's Centre National de la Recherche Scientifique and many medical research institutes (Moodie 2014).

As such, there is not a persuasive case for requiring high-quality institutions to conduct research alongside teaching in order to use the title of 'university'.

As part of the 2017-18 Budget, the Government announced the Review of Higher Education Provider Category Standards. This Review will examine the current criteria for different provider categories (including the requirement for 'universities' to undertake research) and consider the possibility of removing the research requirement for universities. The Government will deliberate on the outcomes as part of the 2018-19 Budget process (Australian Government 2017b).

Removing the research requirement for universities would allow some institutions to compete on teaching quality with established research-teaching universities, without being disadvantaged in Australia's university-centric market. Further, the 41 institutions currently using the title of 'university' would also be able to abandon some or all of their research functions without the need to cease using the 'university' title. This would allow universities that struggle to compete on international research rankings to reduce their costs (particularly the indirect fixed costs of research) and focus on providing high-quality, specialised teaching to their students. Although few are likely to entirely abandon research, some may choose to focus their research on fewer areas, particularly where they have comparative advantage (Moodie 2014).

However, given the prospects of significant new entry under such a change, there would be an imperative to ensure quality in the higher education sector and avoid creating a free-for-all on the use of the 'university' title by higher education providers. Failure to do this could repeat the mistakes of the VET sector during the VET FEE-HELP debacle, when barriers to entry and quality standards were too low (see PC 2016b, p. 37 for a summary). As such, the industry regulator, TEQSA, would have to play a crucial role, providing accreditation for the use of the title on a case-by-case basis, based on the institution's size, history, governance arrangements, risk, teaching quality and commitment to scholarship.

4.2 The cross-subsidisation of research by teaching

The apparent link between teaching and-research is also used to justify cross-subsidies from tuition fees to research costs. While longstanding, this arrangement has a range of negative consequences and can result in poor outcomes for both the students and taxpayers.

Teaching surpluses and research funding

The total expenditure by universities on current research activities was about \$10 billion in 2013-14 (ABS 2015). However, direct funding from the Australian Government for their

research functions (through the dual system of block and competitive research grants) was only worth about \$3.5 billion in 2013-14 (DIIS 2016).

The sizable gap between direct funding and total expenditure was filled through other sources of funding, including State and Territory governments, philanthropy, business income and investment income. Despite the contribution of these sources, most of the additional funding came from teaching revenues paid by domestic and international students for their education (through tuition fees, student contributions or Commonwealth grants). In particular, universities use the portion of teaching revenues that is in excess of the actual cost to educate the student (the ‘teaching surplus’) to cross-subsidise their research functions.

Although publicly available data are limited, most teaching surpluses appear to be generated from Commonwealth-supported students or full-fee paying international students. For instance, a recent Deloitte Access Economics report (2016) found that the teaching cost to CSP funding ratio was 0.85 for bachelor programs in 2015 — meaning 15 per cent of CSP funding was not used for teaching. This equates to a teaching surplus of nearly \$1.7 billion for CSPs, if replicated across all CGS grants and HECS-HELP payments in 2015 (DET 2016f).

That figure aligns with independent analysis conducted by the Grattan Institute, which estimated that CSP teaching surpluses were worth approximately \$1.5 billion in 2013. The authors also found that a similar-sized surplus is generated by full-fee paying international students (box 4.1). In total, the Grattan Institute estimated that the cross-subsidy from all teaching surpluses to research functions was likely to be approximately \$3.2 billion in 2013 (Norton and Cherastidtham 2015a).¹⁷ This amount is almost equal to the total direct funding the Government provides for research (\$3.5 billion).

However, poor information on actual course costs makes it difficult to determine the size of the teaching surpluses used for research (and their distribution between courses and universities). This data gap occurs because universities currently only differentiate between expense *type* (such as payroll or capital expenditure), rather than expense *purpose* (particularly, research or teaching expenditure by discipline), making it hard to determine teaching costs (DET 2016f). As part of the 2017-18 Budget, the Australian Government announced measures to address this gap in the data, stating that it:

... will work with the higher education sector to establish a more transparent framework for the collection of financial data from higher education providers in order to regularly report on the cost of teaching and research by field of education (Australian Government 2017b).

¹⁷ The 2015 Watt Review of Research Policy and Funding Arrangements put the use of ‘general university funds’ for research purposes at over \$5.3 billion in 2012, although this also includes other sources of discretionary funds, such as general donations, bequests and investment income (Watt et al. 2015)

Box 4.1 Sources of teaching surpluses

Due to their sheer number (at nearly 60 per cent of all students), Commonwealth-supported domestic students tend to generate the greatest value of teaching surpluses. In particular, courses in the commerce, arts and law disciplines can have substantial teaching surpluses, as they are relatively low-cost disciplines to deliver, with significant economies of scale.

However, the surplus generated by any given CSP student can be relatively small, given the strict limits on CSP resources per student (both in student contributions and Commonwealth grants). Some disciplines may even be underfunded, requiring that teaching surpluses from elsewhere be used to support their costs. There are varying suggestions about the affected courses. Some suggest veterinary science and dentistry (Deloitte Access Economics 2016), while others claim the relevant disciplines are health sciences and engineering (Lomax-Smith, Watson and Webster 2011) (this uncertainty itself reveals inadequate information about costs in universities). The Government announced the extension of clinical loading to veterinary science and dentistry as part of the 2017-18 Budget, in order to fix some of the underfunding issues (Australian Government 2017b).

Overall, however, the Grattan Institute estimates that the net teaching surplus from domestic Commonwealth-supported students is likely to have been about \$1.5 billion in 2013.

By contrast, international students pay full tuition fees, unregulated and unsubsidised by any level of government. As both domestic and international students attend the same classes, the cost of teaching them is generally the same. Accordingly, international students contribute a disproportionate amount to the cross-subsidisation of a university's research capability. The Grattan Institute estimating their total contribution at over \$1.4 billion in 2013, despite numbering fewer than half as many as domestic CSP students.

Although some full-fee paying domestic students (particularly for postgraduate coursework) pay tuition fees that are likely to be higher than course costs, the Grattan Institute also found that other full-fee paying students might be paying significantly less than delivery costs (including nursing and science students), in part due to the university's social obligations. Overall, the net teaching surplus from domestic full-fee paying students was estimated at \$220 million in 2013.

Source: Norton and Cherastidtham (2015a).

Cross-subsidies create poor incentives and can lead to adverse outcomes

The cross-subsidisation of research by teaching is not new, with previous higher education sector reviews highlighting the practice as a 'long-standing', 'historical' and an 'accepted' part of the research funding system (Lomax-Smith, Watson and Webster 2011; Watt et al. 2015). Nor is cross-subsidisation hidden, with references in the media (see Chang 2015; or Featherstone 2016) and informal acknowledgment by the Commonwealth Government.¹⁸ The 2017-18 Budget suggested that teaching surpluses have been growing

¹⁸ In August 2016, the Minister for Education and Training noted that 'the way current funding structures are set... [courses such as] law can basically be a profit centre for a university', as they 'need those profit centres to in some instances cross subsidise ... research undertakings' (Birmingham 2016).

in recent years, noting that ‘universities have become more efficient over time, especially as they have achieved greater economies of scale’ following the move to a demand-driven system (Australian Government 2017b).

Despite this widespread acknowledgment, cross-subsidisation is not necessarily positive. For one, cross-subsidies can create incentive structures that undermine student outcomes and university teaching quality, ultimately affecting Australia’s productivity and economic growth.

Further, such cross-subsidies are invisible to students and, given the standard accounting methods used by universities, are not disclosed accurately to the Australian Government either (hence the range of *estimates*, not actual figures, discussed above). To the extent that these teaching surpluses are also partly funded by taxpayers (either directly through CGS subsidies or indirectly through subsidised student HELP loans), this represents a less transparent and accountable means of publicly funding research. And without a clear benefit to students from university research (through a teaching-research nexus), the use of teaching surpluses for research is difficult to justify as a form of cost-recovery, so more closely resembles a form of rent extraction.

The Commission is not the first to acknowledge these issues. In particular, the expert panel of the 2008 Review of Australian Higher Education was ‘concerned about the possible effects of excessive use of cross-subsidies on the quality of teaching and learning provided to students and on Australia’s education export industry’ (Bradley et al. 2008, p. 11).

Oversupplied and undersupplied students in high-margin and low-margin courses

With cross-subsidisation, universities have strong incentives to churn out domestic and international students undertaking high-margin courses to maximise the revenue available for research. This is exacerbated by the cost structure of university teaching, as many courses have high fixed costs, whose impact on average costs can be minimised by increasing student numbers.

Increasing student numbers in high-margin courses risks creating an oversupply of those graduates in the labour market, based solely on arbitrary Government funding levels and student contribution caps, rather than any signals from the labour market. In turn, this can lead to wasted education investments for students and taxpayers (misallocated human capital development) and, for the graduates concerned, poorer labour market outcomes and costly transitions to other occupations. There is some evidence that this oversupply may be occurring in some disciplines (box 4.2).

Box 4.2 **A case study of law graduates**

Using law as an example (given that law has been frequently identified as a high-margin degree; see Birmingham 2016b; Carrigan 2016; Featherstone 2016), data that might support the conclusion that the field is oversupplied with students include:

- the nearly 45 per cent of recent law graduates in full-time employment who are employed in clerical, sales and service occupations (compared to an average of 22 per cent for other disciplines), rather than in professional or managerial roles (GCA 2016a)
- that the total equivalent full-time study load (EFTSL) of commencing law students in 2015 (nearly 18 000, including postgraduate students) is equivalent to almost 25 per cent of all barristers and solicitors in the labour market (76 000), such that it seems likely that most of those students will not be employed as lawyers (Australian Government 2017c; DET 2016a)
- that, prior to the phase-in of the demand-driven system in 2008, over 87 per cent of law graduates consistently found full-time employment, while by 2015 the rate had declined to less than 75 per cent (GCA 2016a).

On the other hand, however, law graduates were no more likely than other graduates to say that their qualification was neither a 'formal requirement' nor 'important' to their job (27 per cent) in 2015 (although this could still be considered unreasonably high; GCA 2016a).

At the same time, universities also face strong incentives to avoid providing student places that are in low-margin or even loss-making areas, creating potential undersupplies of graduates in some fields.

Courses that have been estimated to be low-margin or loss-making are often in disciplines that are vitally important to the Australian economy and community, including dentistry, veterinary science (Deloitte Access Economics 2016), health sciences (including medicine; Norton and Cherastidtham 2015a) and engineering (Lomax-Smith, Watson and Webster 2011). Tellingly, the Australian Government lists some of these fields as suffering from national skills shortages or recruitment difficulties in 2016, including veterinarians, health professionals (such as sonographers and audiologists), and civil engineers (Department of Employment 2017).

However, adequate data that can be linked to potentially oversupplied or undersupplied fields is difficult to come by. For instance, the lack of adequate data for oversupplied fields is primarily because it is difficult to observe 'poor' outcomes that can be *causally* linked to graduate oversupplies. For instance, as graduates with degrees in oversupplied fields remain highly educated, they are unlikely to be unemployed for long periods. Instead, these graduates will more probably be employed in a role that is unrelated to their studies, to which their degree adds no direct value.¹⁹ As there is no systematic reporting of graduates working outside their field of study, it is difficult to determine the extent of any human capital misallocation.

¹⁹ As noted in section 2.2 above, this can have cascading employment and income effects down the skills ladder if someone without a costly university education could have done this role.

Complicating matters even further, individual choices and preferences also need to be accounted for when identifying any issues, as does identifying the disciplines that are high-margin or low-margin.

Regardless of these complications, and even if there is only circumstantial evidence that universities' behaviour may lead to under or oversupplies in some occupations, it is inherently undesirable to give universities an incentive to do something not in students' best interests.

Arguments that these supply problems cannot be ascribed to universities are, on closer examination, not sufficient to ignore the risks posed by the current incentives.

- Some argue that oversupplied or undersupplied disciplines reflect student demand, rather than universities' responses to funding incentives. However, given the high expected benefits of university education (section 2.2), almost all university degrees have unmet student demand. It is ultimately up to the universities how many places they supply to meet that demand. Almost all degrees have ATAR cut-offs or other minimum entrance requirements to match nearly unlimited potential students with limited available places. Higher ATAR cut-offs for many low-margin or loss-making degrees (such as veterinary science or dentistry) imply that they have significant unmet demand.
- Those supporting cross-subsidisation point out that many of those who do not *directly* work in an oversupplied field of study (such as law) can still benefit *indirectly* from their degree through the acquisition of a range of different 'soft' skills (such as research capabilities or critical thinking) that make them valuable employees in a broad range of roles. While this is likely true, it is also true for nearly all university degrees, which (by their academic nature) require the use of these basic 'soft' skills to at least some extent.

Supply distortions could be reduced if students had the information to make decisions based on the long-run prospects of their qualifications. But (as noted in section 3.2), students face significant information asymmetries when choosing their courses. Even if better information were available, it would still take several years before it was evident that an oversupply had caused poor labour market outcomes, potentially resulting in a wasteful time lag for students making education and career decisions in the meantime. In any case, estimates of even medium-term labour market imbalances are often unreliable.

Indirect taxpayer funding for research that is not transparent or accountable

Despite the fact that some teaching surpluses are paid for by taxpayers — either directly (through surplus CGS grants) or indirectly (through subsidised student HELP loans) — research funded through these surpluses is not subject to the same degree of transparency and accountability as research funded directly by the Australian Government (through competitive or block grants).

Further, direct Commonwealth funding is also generally provided based on the prospective value of research outcomes ('merit'). Notwithstanding the difficulties of measuring merit *ex ante*, if designed well, merit-based grants have the potential to deliver the greatest possible benefits to Australian taxpayers and maximise knowledge spillovers (Watt et al. 2015). It is less clear that universities' internal processes to allocate research funding collected through cross-subsidies support the most beneficial research (an important line for investigation).

Extraction of rents from students

As there is limited evidence of a teaching-research nexus, a system that results in students paying for research that is of little benefit to them more closely resembles rent extraction by universities. This is because the universities obtain some of the future private benefits that students expect to gain without providing much to those students in return. Although students will continue to demand degrees as long as their expected additional earnings are greater than the tuition fees (especially given the provision of income-contingent HELP loans), there are several reasons why extracting some of the students' future private benefits may be undesirable.

- There are many possible sources of funding for university research. It is not clear why the students in particularly profitable courses are the most equitable and efficient source of funding, especially given that graduates earning higher incomes already pay higher taxes under Australia's progressive tax and transfer system.
- Given that taxpayers ultimately bear much of the risk through the income-contingent HELP debt system if students' expected future earnings fail to materialise, it is also not clear why additional costs should be placed on taxpayers to provide indirect benefits to universities (Chapman 1997; IC 1997).

Even if there was good evidence for a teaching-research nexus, the size of the cross-subsidies for any *given* discipline should relate to the magnitude of the associated benefits for that discipline's nexus. There is no evidence that this is how cross-subsidies are determined. Indeed, the teaching surpluses from one discipline are regularly used to fund research in other, unrelated disciplines. For example, the Grattan Institute found that commerce disciplines contributed nearly \$900 million to teaching surpluses in 2013, but only \$400 million was spent on commerce-related research (including funding from block and competitive Commonwealth grants). This means that at least \$500 million of teaching revenue from commerce students was being used for research by other faculties (Norton and Cherastidtham 2015a).²⁰

²⁰ Barlow (2008, p. 12) also acknowledged that 'there is anecdotal evidence that institutions are being conditioned by the present funding model to channel surplus revenues from business schools in order to support research in other faculties that earn higher research income.'

4.3 Reducing the reliance on cross-subsidisation

The Australian Government has several options for addressing cross-subsidies, some of which are discussed below.

In discussing these options, the Commission is strongly aware that the university system is complex, and that altering one aspect of it could lead to unintended outcomes. In particular, any policy changes that reduce the size of cross-subsidisation would, *without offsetting policies*, affect university research funding. This would strain university budgets in the short term and could put at jeopardy Australia's long-term productivity growth through reduced knowledge creation at universities.

There are a range of options available that would ensure adequate research funding, while still reducing the adverse impacts of existing high-margin courses.²¹ However, many of the options to stabilise or increase research funding would raise questions about the best ways to allocate such funding, which the Commission has not investigated in detail. Once that avenue of inquiry was opened, it would logically extend to all university research funding, and indeed, potentially, to the Australian Government's policies for funding research in the wider economy. Consequently, the Commission has only covered potential reforms on the teaching funding side. Before implementation of any of these, the Australian Government would need to develop the alternative research funding measures and consult with the affected parties.

Nevertheless, this critical observation aside, the inherent principle of avoiding cross-subsidies from *domestic* students is a sound one. This would necessitate the Government assessing the costs of universities' teaching functions at a granular level, and then reflecting this in revised subsidies.²²

Given the vastly different market dynamics, funding arrangements and fiscal consequences of cross-subsidies from different student groups in the university sector, each group is considered separately:

- domestic students in CSPs with taxpayer subsidies, where strict pricing caps apply and where there is limited competition between universities
- domestic postgraduate coursework students, who receive concessional student loans (FEE-HELP) for their unregulated tuition fees, but do not get taxpayer subsidies, and where the market is reasonably competitive

²¹ For example, the Australian Government could set cost-reflective prices for CSP courses, saving fiscal outlays and then returning them to universities through increased block grant research funding.

²² Some initial work by the Australian Government on the cost of teaching by discipline has already been undertaken as part of the 2017-18 Budget (Deloitte Access Economics 2016).

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- full-fee paying international students, who are generally not subject to any taxpayer support (including student loans) and where universities fiercely compete for their business.

Cost-reflective resourcing for Commonwealth-supported students

Currently, the Government controls the resources provided to universities for each EFTSL Commonwealth-supported student. This occurs through the setting of maximum student contribution limits (which are normally paid through HECS-HELP loans) and providing a fixed Government grant per student.

Given the lack of price competition that occurs in the CSP market for domestic students (box 4.3), any policy changes that involved deregulating these price controls would be unlikely to result in any reduction of teaching surpluses (in fact, it would probably increase them significantly). As such, an obvious solution to minimise cross-subsidies is to maintain the existing price regulation, but reform the funding arrangements such that CSP resources more closely reflect expected teaching costs (both fixed and variable).

Under a cost-reflective pricing regime, total per-student funding would likely fall for some courses (law and commerce for example), but may rise for others (such as agriculture or health sciences), given the evidence of existing deviations between course revenue and average costs. Further, as different disciplines can have very different costs, this may also necessitate further differentiation between disciplines, beyond the existing 11 total resource amounts. Although this would add some administrative complexity, the principle of different resourcing amounts for different disciplines is well-established. Distinctions between ‘fields of education’ (FOE) are already identified through the Australian Standard Classification of Education (ASCED), which is used by universities to classify courses between disciplines areas (box 4.4).

The Government could also empirically estimate the relative public and private benefits of each discipline to determine the shares of the contributions met by student contributions or by CGS grants. For example, disciplines with a high degree of personal benefits and limited positive spillovers (such as a degree in finance) could require students to pay most (or even all) of the cost of tuition, with only a small CGS subsidy (or possibly none at all). By contrast, other disciplines with smaller private gains and larger community benefits (such as a degree in social work) could be reliant on a greater proportion of CGS subsidies rather than student contributions. Where such empirical evidence is hard to gather, a default split between student contributions and government funding may be appropriate, such as an equal division of the total teaching costs.

Box 4.3 **The lack of competition in the CSP market**

Price competition is difficult to establish in the domestic CSP market due to a range of different distortions, the most prominent of which are outlined below.

- **The low price sensitivity of domestic students** — this is a byproduct of the HELP scheme's design, which was explicitly intended to reduce the price sensitivity of students (particularly students from low socioeconomic backgrounds) in order for university access to be awarded on merit, rather than family wealth (discussed further in section 6.1 below). While this objective is necessary to improve both equity and efficiency, it means that universities face low demand elasticity from students — that is, there are only minor variations in student demand if fees increase (Dawkins 2014; SEERC 2015; Sharrock 2014).
- **Tuition fees frequently act as a signal of quality** — in the absence of adequate information on teaching outcomes (discussed in section 3.2 above), no institution wants to signal that they are inferior to, or less prestigious than, other institutions by charging students significantly less. As such, all universities have strong incentives to maximise tuition fees, rather than compete prices downward (Hemsley-Brown 2011; Lomax-Smith, Watson and Webster 2011; Sharrock 2014; Wolf 2017).
- **The existence of regional oligopolies** — students are often not geographically mobile, implying that many universities often only compete within city-sized or regional markets, rather than across all of Australia. While there is some movement of students from their home state to attend university, in the four biggest states well over 80 per cent of commencing students originate from the same state. For example, nearly 88 per cent of commencing students in Western Australian higher education institutions also had a permanent home residence in Western Australia (DET 2016a). This is likely reflect the cost of students moving out of their parents' home (the dominant accommodation choice for higher education students).

The lack of competitive price pressures in the CSP market is perhaps best exemplified by the fact that all universities currently set student contribution rates at the maximum allowable level, even though they could be lower (especially given the existence of teaching surpluses).

Box 4.4 **Classifications by fields of education**

The Australian Standard Classification of Education (ASCED) classifies courses or programs of study into relevant groupings, with varying levels of detail. There are:

- 12 broad fields of education (2-digit FOE codes), such as health or information technology.
- 71 narrow fields (4-digit FOE codes), such as nursing, public health or veterinary studies within 'health'.
- 356 detailed fields (6-digit FOE codes), such as community nursing, aged care nursing or midwifery within 'nursing'.

Source: ABS (2001).

Cost-reflective pricing for CSPs would align with the principles applied in competition policy, which generally aim to reduce any substantial price-cost deviations. In any workably competitive university market, competition between providers would drive down tuition fees to close to cost. A university would only be able to charge students more if it

could demonstrate to them that the additional cost (for either research or more expensive teaching methods) was of benefit to the student.

By developing coherent long-term principles for all aspects of higher education funding, the Australian Government could bring clarity and consistency to a system that has largely come about through a series of arbitrary changes over the past 25 years and does not reflect the shift to a demand-driven system. The lack of discernible purpose for higher education funding rates has been previously noted in both the 2011 Higher Education Base Funding Review (Lomax-Smith, Watson and Webster 2011) and the 2008 Review of Australian Higher Education (Bradley et al. 2008).

However, eliminating all cross-subsidies for CSPs will be difficult to achieve, for a number of reasons.

- Cross-subsidisation within universities is very common — not just from teaching to research, but also between disciplines, between different types of students, between campuses and more. As with any other large firm, some parts of the university's business are more profitable than others, with loss-making areas supported by profitable ones in the short run (although normal firms would also leave a persistently loss-making market, which social obligations and barriers to entry and exit in the university sector prevent). However, subject to those constraints, there are strong grounds to *minimise* such cross-subsidies.
- The costs faced by universities also continue to evolve over time, with some disciplines becoming cheaper or more expensive to teach as student needs change and technology introduces new methods. As such, funding levels for each CSP discipline would need to be reviewed periodically (such as every three to five years), as recommended in the 2008 Bradley Review of Australian Higher Education (Bradley et al. 2008).
- There are also institutional differences that mean that a system of funding tied to average costs by discipline will still generate teaching surpluses in some universities and circumstances (Deloitte Access Economics 2016). An expansion of the existing 'loading' system could be used to reflect many of these differences, with funding varying where cost differences are identifiable and reasonable (for example, different loading levels may be justifiable for: regional/metropolitan universities; online/campus-based learning; or undergraduate/postgraduate CSP courses).
- Using average costs for each discipline can result in a circular model: current teaching costs are (at least in part) driven by funding levels, which, under the proposed model, would reflect costs (Deloitte Access Economics 2016). However, using average costs also encourages universities to maintain control over expenses and avoid 'gold plating' programs where students do not get benefits.

Some may argue that there are risks to teaching quality under a cost-reflective funding model. In particular, with funding linked to average costs of teaching delivery, individual universities may cut corners in order to continue to generate teaching surpluses for use in research, with detrimental effects on teaching outcomes. However, such a response from universities is also equally possible under the present funding model, as both models

maintain the autonomy of individual universities to choose how to spend (or save) their teaching revenues.

Moreover, any cost-cutting that undermined teaching quality could be averted through maintaining adequate quality regulation. Developing and publishing adequate measures of teaching performance would also help (discussed in section 3.2), as would linking funding to them (discussed in section 3.4). Over time, an efficient pricing model for individual disciplines could also be developed (similar to that developed for activity-based funding in healthcare by the Independent Hospital Pricing Authority), which would enable funding to be based on what teaching *should* cost, rather than what it *does* cost.

Under a cost-reflective pricing solution, it is also likely that the level of student contributions would fall for some disciplines that have a high future earning potential, which some might see as inequitable. However, if the share of the total contributions paid by students were to take account of private benefits, any such reduction would be reasonable. The tax and transfer system is also a less arbitrary and more transparent way of achieving desired distributional outcomes than surcharges on certain qualifications.

Tuition fees for postgraduate coursework programs

In the domestic postgraduate coursework market, courses do not have their tuition fees regulated or limited by the Australian Government. This leaves universities with the ability to set their own tuition fees, while the Government's role is generally restricted to providing FEE-HELP loans to domestic students, enabling them to afford whatever tuition fee the universities charge.

Although these tuition fees vary greatly between different disciplines and universities across the market, there is some evidence that, *on average*, universities have set postgraduate coursework fees above the cost of teaching delivery. As such, a relatively small, but not insignificant teaching surplus is generated. The Grattan Institute estimated it at \$220 million in 2013 (Norton and Cherastidham 2015a).

Although advocates for CSP fee deregulation have pointed to the postgraduate coursework market as proof that deregulated fees can work in the Australian context,²³ the ability to charge tuition fees above the cost of delivery for some courses demonstrates that there are at least some constraints on price competition. This limited price competition in the postgraduate coursework market is likely the result of the same constraints that occur in the CSP market (discussed above).

²³ See, for example, Group of Eight (2014, pp. 31–33) and Senate Education and Employment Legislation Committee (2014, p. 24).

However, the postgraduate coursework market also has some significant differences to the market for CSPs, which suggest that competitive forces may be stronger there than elsewhere.

- The market for postgraduate coursework programs has limited demand and has not been subject to the same large-scale take-up of bachelor degree programs in recent years.
- Postgraduate *coursework* degrees can often be a substitute for postgraduate *research* degrees (such as Doctorates or Masters by Research). As the latter remain largely free of charge for domestic students (through the Research Training Program), this effectively limits the level of postgraduate coursework tuition fees.
- Some postgraduate courses are also offered as CSPs, such that full-fee paying and Commonwealth-supported students can often attend the exact same classes, creating competitive constraints on non-CSP postgraduate tuition fees (Norton and Cherastidtham 2015b).²⁴
- Unlike HECS-HELP for CSPs, the existing FEE-HELP system places lifetime limits on the amount of FEE-HELP debt that can be accrued (at just over \$100,000 for most disciplines in 2017). This can limit tuition fees by increasing opportunity costs (of foregone FEE-HELP-supported education) for students.
- Tuition fees are lower than costs of delivery for a range of different postgraduate courses, particularly where the university has strong social obligations, which reduces the adverse impacts of limited price competition (Norton and Cherastidtham 2015a).

As a result, **the case for the introduction of policy options to limit teaching surpluses in the domestic postgraduate coursework market is mixed.**

While there is a stronger rationale that the comparatively large teaching surpluses in some courses should be addressed — such as in commerce disciplines, as identified by Norton and Cherastidtham (2015a) — the limited scale of the total surpluses and the additional competitive pressures indicate a lower policy priority than teaching surpluses in the CSP market. Further, postgraduate coursework students are also more likely than undergraduate students to obtain positive outcomes from the teaching-research nexus (as discussed in section 4.1 above).

However, while the risks from unregulated tuition fees in the postgraduate coursework market may be limited at present, they are likely to grow over time if postgraduate degrees become increasingly necessary to compete in a labour market crowded with bachelor degrees. There is some evidence this is already occurring, with commencing Master's (Coursework) EFTSL at public universities rising from 22 000 in 2012 to nearly 28 000 in

²⁴ The 2017-18 Budget announced moving postgraduate coursework places towards a 'student-centred' model, with the university-based allocations of postgraduates CSPs becoming a scholarship-style system from 2019, in which students can use their CSP at any university (Australian Government 2017b).

2016 (a 26 per cent increase), compared with about 7 per cent growth for bachelor degrees over the same period (DET 2014, 2017a).

The Government recognised the arguments against deregulated tuition fees in the similar market for diplomas and advanced diplomas during the recent replacement of VET FEE-HELP with VET Student Loans. The new loan scheme now caps annual loan amounts per student in three bands, broadly based on course delivery costs (such as \$5000 per year for a Diploma of Business or \$15 000 for a Diploma of Agriculture). This recognises that uncapped loan amounts, combined with deregulated fees, led to significant fee increases and unscrupulous behaviour by registered training organisations (RTOs) in the VET sector under the VET FEE-HELP scheme. While VET providers can still set fees higher than these amounts, students have to cover the gap between the maximum loan and the remaining course fee out of pocket (Australian Government 2016e; Birmingham 2016a; DET 2016e).

Should action on teaching surpluses in the domestic postgraduate coursework market be deemed necessary in the future, potential policy options that the Government could consider include the following.

- The expansion of CSPs (with their associated student contribution caps) in the postgraduate coursework market.
 - Adjustments could be made to funding rates to reflect higher postgraduate coursework costs (such as through a loading mechanism). For example, Deloitte Access Economics (2016) estimates that the average cost of postgraduate courses is \$20 050 per EFTSL in 2015, compared with \$16 025 of costs for undergraduates.
- The use of loan caps on FEE-HELP loans to limit the exposure of taxpayers, with differing caps reflecting different costs for disciplines and any course fee above the loan cap to be paid upfront by the students (this would not affect loss-making courses where fees are set below costs).
 - Introducing loans caps would be similar to the caps in the new VET Student Loans scheme. However, it is not yet clear how VET providers will respond to these new loan limits and if they will become effective fee caps or act as a price-setting signal for providers (similar to a collusive device). Despite this, loan caps could be a more market-friendly mechanism by avoiding direct fee regulation and hence retaining the autonomy of universities to set their own fees, while also putting downward pressure on prices and limiting the exposure of taxpayers through FEE-HELP loans.

International students are an important source of revenue

As noted above, while Commonwealth-supported students generate the most teaching surpluses of any student group, a sizable surplus is also generated from international students, including significantly greater surpluses generated on a per-student basis.

There is no policy rationale for the Australian Government to set regulatory ceilings on tuition fees for full-fee international students, as Australia is the net beneficiary of any rents obtained from them.²⁵ Indeed, the use of foreign private money to fund research at Australian universities is advantageous to Australia. As noted by the Grattan Institute:

While [international students] could probably get better educational value for money at cheaper universities, it is not contrary to Australia's public policy goals for them to boost Australian university research output. (Norton and Cherastidtham 2015a, p. 34)

The effect of international students on teaching quality

An additional issue is any link between the large numbers of international students attracted to Australia for commercial reasons and the quality of university teaching, which can affect outcomes for domestic students. The link could go several ways.

Some higher education experts and government watchdogs have suggested that universities have responded to their commercial imperatives by admitting and passing students with limited English or academic proficiency (Altbach and Welch 2011; Birrell 2006; Marginson 2015; NSW ICAC 2015; PC 2015; Victorian Ombudsman 2011). Recent changes to migration rules and closer scrutiny of the conduct of the education sector (including intermediaries acting on its behalf) are likely to have reduced such risks, but some perverse incentives still remain. To the extent that standards for international students are relaxed, there is some potential for contagion to teaching quality for domestic students too (such as through making courses easier for all students to pass). One of the few studies relating to Australia finds that there are negative spillover effects for domestic students, but the effect was very small and the data only related to two universities (Foster 2011).

Adverse effects on teaching quality would also risk the international reputation of Australia's higher education sector. Sudden shifts in international sentiment towards Australia's higher education sector could endanger long-run exports of educational services and thus strain university research budgets, to the detriment of the broader economy.

On the other hand, it is possible that Australian universities may attempt to increase their foreign student revenue by ensuring adequate teaching quality, which could have spillover *benefits* for Australian students. Whether there is much of a payoff from this strategy depends on the importance of quality in decisions by international students to select Australia as their study destination compared with other factors, such as access to visas and the presence of the relevant foreign nationals in Australia. The limited empirical evidence

²⁵ Any tuition fee caps on international students would also be inconsistent with the floor price that the Commonwealth Government still sets for international students to avoid taxpayer subsidies to them (Norton and Cherastidtham 2015b).

on this matter is uncertain. Some find that quality acts only as a moderate attractor (Beine, Noël and Ragot 2014), while others find a bigger effect (van Bouwel and Veugelers 2011).

It is not possible to be definitive about the extent to which the above outcomes occur in practice (or in which parts of the diverse university sector). As indicators of university teaching quality are developed (section 3.2 above), micro-level data would enable a much more rigorous assessment of this issue and could take account of variations across disciplines and universities. Moreover, one of the benefits of reliable performance indicators is that they will enable universities that invest in high-quality teaching to provide foreign students with credible verification of their quality. Accordingly, reliable performance indicators jointly improve accountability and marketability of Australian universities.

Overall, given the data limitations, the Commission has not looked at these issues closely.

5 Reforming the income-contingent loan system

5.1 In need of HELP? — Improving the role of HELP in productive skills formation

Australia's HELP loan scheme has been described by Nobel laureate Joseph Stiglitz as 'the envy of the rest of the world' (2014). Since its inception in 1989 (then called HECS), the HELP scheme has been critical for ensuring that a high-quality university education is accessible to all Australians, enabling admission on the basis of merit, not family wealth. Given the growing significance of the sector for skills formation in an evolving economy, it is a vital foundation for Australia's future productivity growth and economic prosperity.

However, as discussed in section 1.2 above, outstanding HELP debts also involve significant and growing costs for taxpayers. In particular, the current design of the HELP scheme poses several problems for economically efficient decisions about skills acquisition (section 5.2).

The willingness of taxpayers (and their agent, the Australian Government) to continue funding the HELP system depends on meeting these challenges. If these problems are not addressed, it may encourage short-term policy changes that undermine access to higher education for many people, and therefore damage the economywide gains from education — ultimately throwing the baby out with the bathwater. Further, short-term adjustments can undermine some of the principles that originally motivated the HELP loan system (outlined in box 5.1). Indeed, as noted by the Group of Eight Universities:

Experience in New Zealand ... suggests that the high and increasing fiscal cost of funding university places means that Governments seek irrational savings at the margins of the system, in order to contain increases in costs. (Group of Eight 2014, p. 27)

Box 5.1 The purposes of the HELP loan system

Traditionally, the structure of the HELP system has included several different principles, although they are by no means fixed.

- **Overcoming liquidity constraints** — the considerable earnings uncertainty for individual students and lack of bankable collateral (discussed in section 1.1) means that the HELP system is needed to overcome the reluctance of private lenders to finance higher education on commercial terms. This not only improves equity outcomes, but also improves economic efficiency, as higher education can now be accessed on a merit basis, rather than on the basis of family wealth (IC 1997; Norton and Cherastidtham 2016a).
 - In theory, this objective can be achieved with almost any form of government-supported student loan, including mortgage-style repayments (as in much of the US), where repayments are a fixed amount each period regardless of the debtor's capacity to pay. However, making the size of repayments dependent on the debtor's income helps to smooth consumption and reduce financial hardship (Higgins and Chapman 2015).
- **Providing social insurance** — although graduates earn substantial private benefits from their qualifications *on average*, averages are deceiving. Many graduates do not obtain large benefits from their degrees, often through misfortune or circumstances beyond their control. As such, the HELP scheme protects debtors from further financial hardship by only requiring repayments when the debtor is earning sufficient income.
 - Under a simple social insurance model, 'financial hardship' could be defined similarly to other social security programs, such as the income thresholds for Newstart Allowance (up to about \$27 000 for singles with no children) or the national minimum wage (approximately \$35 000) (Norton and Cherastidtham 2016a).
- **Guaranteeing returns to higher education** — historically, HELP repayments have also been linked to whether the graduate has obtained a financial benefit from their qualification through earnings that are higher than otherwise expected, making repayments reflect 'a fair contribution to additional earning power gained through the education' (Department of the Parliamentary Library 1988). However, this guarantee can be politically contentious, as it increases the short-term costs of the system and is seen by some as unnecessarily generous (Norton and Cherastidtham 2016a).
 - Although the guarantee is occasionally conflated with the social insurance rationale, they are distinct from one another. Among other things, the guarantee allows graduates who provide substantial public benefits to the community but who receive very limited private benefits in return (such as some social workers) to have their education supported by taxpayers in that community.

5.2 Long-term increases in doubtful HELP debt

The single biggest cost of the HELP debt system is the debt not expected to be repaid. Although the existence of doubtful debt is not itself a problem with the HELP system, both the amount and the proportion of doubtful debts has been growing rapidly in recent years. In 2015-16, the DET expected doubtful debt to comprise 22 per cent of *new* HELP debt created that year (DET 2016d). By comparison, during the late 1990s the proportion of *all* outstanding HELP debt that was not expected to be repaid was generally between 13 and

18 per cent. A recent National Audit Office report into HELP debt administration indicated that the DET expects this proportion to reach nearly 29 per cent (\$55.1 billion) by 2024-25 (ANAO 2016; DET 2015).

Some of the factors leading to higher enrolments and hence greater levels of doubtful HELP debts are expected to be temporary. These include: the rapid increase in enrolments after the demand-driven model was phased in (which is expected to plateau); recent unfavourable labour market conditions (worsening short-term graduate outcomes and incentivising up-skilling to increase labour market competitiveness); and issues with unscrupulous lenders taking advantage of the VET FEE-HELP expansion (which has now been replaced by VET Student Loans) (Norton and Cherastidtham 2016a).

On the other hand, there are several structural issues pushing up doubtful HELP debts, as well as emerging risk factors that may increase long-run doubtful debts, including:

- more retirement-age students with limited expected labour market participation
- the growth of part-time work
- the continued expansion of HELP loans to the VET sector
- automation of many entry-level graduate jobs
- non-completion rates among students.

Retirement-age students

One of the fastest growing demographics entering university are those at or near the age of retirement. The number of students aged 65 years or over accessing HELP loans has grown by 80 per cent between 2010 and 2014 (from 857 to 1543) compared to total growth of 21 per cent for all HELP loan access in the same period (Australian Government 2016b). Similarly, the Australian National Audit Office (ANAO) found that the value of HELP debt incurred each year by students aged over 60 years has grown from about \$10 million in 2009-10 to over \$40 million in 2013-14 (ANAO 2016).

While the total numbers of retirement age students (and hence their costs) are only a small fraction of the one million domestic students enrolled in 2015, there are concerns about whether taxpayers should be providing loans to individuals if there are diminished public benefits (through shorter expected working lives) and a reduced likelihood of repayment (ANAO 2016; Australian Government 2016b). Most retirement age students will have little prospect of repaying their entire HELP debt, as their post-retirement income will be too low. Moreover, the HELP system subsidises the high-cost acquisition of knowledge, discouraging the use of new low-cost alternatives, such as MOOCs, which may be better suited to those with an intrinsic interest in non-vocational learning. And, unlike people who require an accredited university qualification to signal their capabilities to employers, this is not a requirement for people who have exited (or are about to exit) the labour market.

In principle, these difficulties could be resolved in several ways, including basing eligibility on retirement status, tapering subsidies after a certain age or setting an age limit for access to HELP loans. However, these options would forgo some opportunities for people and the economy. Some people who obtain university qualifications later in life may engage in more active job search and postpone retirement. Notably, higher educational attainment is associated with later retirement ages (see PC 2005, although that link may not hold for a qualification acquired later in life). More generally, mature-age workers should not be discouraged from retraining and upskilling, especially given many of the structural changes that the Australian economy is undergoing (SP 8).

As such, an alternative option could be to recover residual HELP debts from the estate of a person (discussed in section 5.3 below), which does not stop access by those who desire further education, but does discourage free-riding.

The growth of part-time employment

The HELP debt repayment schedule is largely based on the assumption that graduates will work full-time. When the system was introduced in 1989, the HELP debt repayment thresholds were targeted to commence at income levels that reflect average *annual* earnings (SEELC 1996). Therefore, HELP debtors only start to repay their income-contingent loans once they are ‘benefiting’ from their education through higher-than-average yearly incomes.

Over the past 30 years though, part-time employment has grown substantially, including among those with university qualifications. In 1990, only 12.6 per cent of the workforce with university qualifications worked part-time, while in 2016 it was about 25 per cent (ABS 1990, 2016). This growth in part-time employment affects HELP repayment rates and thereby increases the costs of the system. In particular, in 2014 more than 70 per cent of part-time workers with bachelor’s degrees were not earning enough to reach the minimum HELP debt repayment threshold, compared with about 16 per cent of graduates working full-time (Norton and Cherastidham 2016a).²⁶

Extending HELP to VET courses

While the driving force behind the original HECS system was to recover the costs of university from students who obtain a significant financial benefit from their university education, HELP loans are increasingly being extended to sub-bachelor courses outside the university sector. Since 2009, VET FEE-HELP loans (now VET Student Loans) have been

²⁶ Some of these graduates working part-time may still be benefiting from their degrees, through higher hourly wages that allow them to reach a given income target with fewer hours of work (the ‘income effect’ of higher wages), allowing them to enjoy more time away from work.

available for students undertaking diplomas and advanced diplomas.²⁷ Initial trials have also been conducted in select states to extend VET FEE-HELP loans to fee-paying Certificate IV students (Australian Government 2017a). Eventual trials and rollout to fee-paying Certificate III students seems likely, although this may take some time.

However, students in many of these VET-level courses have, on average, lower expected earnings than students obtaining a bachelor degree. For example, the OECD (2016, table A6.1) estimates that Australian 25-64 year olds with post-secondary non-tertiary education (roughly equivalent to Certificate IV) earn only 2 per cent more than those with upper secondary education,²⁸ compared with the 39 per cent premium earned by those with bachelor degrees. Similar results are found by Higgins and Chapman (2015), with median male full-time bachelor graduates earning about \$100 000 by age 40 in 2015, compared to \$75 000 for those with a Certificate IV and \$68 000 for Certificate III. These lower expected earnings can result in a higher likelihood that VET students will consistently earn below the initial HELP repayment threshold, increasing doubtful debts.

Robot interns — Automation and graduate employment

Advances in computer science, artificial intelligence and data analysis have led to concerns that increasing numbers of jobs will be automated (SP 8). In particular, while routine task automation has been occurring for many decades, technological advances mean that automation is now being felt among non-routine tasks that have traditionally been more difficult to encode. This includes the automation of many non-routine cognitive tasks, such as document discovery, low-level audit work or basic market research (Durrant-Whyte et al. 2015; Frey and Osborne 2013).

However, the basic office tasks that are being automated are also those undertaken by many new university graduates early in their post-university careers. As Davenport (2016) notes, ‘if you can teach a recent college grad to do a task, you can probably teach a machine to do it’. As such, the recent declines in graduate employment outcomes (with full-time employment four months after graduation falling from 91 per cent in 1989 to 71 per cent in 2016) may in part be due to the automation of entry-level graduate tasks or the capacity for a less trained person to undertake the task with the assistance of software (PC 2016a). Continued poor employment outcomes for graduates would then have flow-on effects for their ability to repay their HELP debts.

²⁷ Following revelations that many unscrupulous registered training organisations were taking advantage of the VET FEE-HELP scheme (see PC 2016b, p. 37 for details), it was replaced with the VET Student Loans scheme starting in 2017 (Birmingham 2016a).

²⁸ However, the OECD’s definition of ‘upper secondary education’ also includes those with Certificate III.

Potentially rising non-completion rates

As discussed in section 2.2 above, recent rises in attrition rates — from 12.5 per cent in 2009 to 15.2 per cent in 2014 (HESP 2017) — could signal the start of an upward trend in non-completion rates, particularly following the introduction of the demand-driven system.

Although the current rates are not yet at concerning levels, further rises could lead to increasing doubtful HELP debts for a greater proportion of non-completing students. This is because research shows that university students who do not complete their qualification often do not obtain the financial benefits associated with their additional education, despite still incurring HELP debts. As such, they may never repay their debts because they do not consistently earn over the minimum repayment threshold (which is still partially linked to the principle of guaranteed returns to university education). More data and continued monitoring are needed.

5.3 Addressing the structural challenges of the HELP debt system

In recent years, commentators and stakeholders have proposed various reforms to Australia's HELP debt system in an attempt to ensure that the system remains fiscally sustainable. The most prominent ideas are discussed in the sections below, but other major ideas not further discussed have included:

- **Higher interest rates on outstanding HELP debt** would decrease the costs of the system by reducing associated interest subsidies, but also increase the time it takes many debtors to repay, thereby increasing doubtful debts, particularly for low-income graduates or people (disproportionately female) who take an extended period out of the workforce (Norton and Cherastidtham 2016b).
- **Introducing uniform loan fees on all HELP loans** allows the Government to cover the costs of the HELP debt system (Norton and Cherastidtham 2016b), but would also require HELP debtors who successfully pay off their loans to bear the costs of debtors who do not.
- **Securitising and selling HELP debts**, which involves giving private investors the rights to the associated streams of HELP repayments, would be expected to be of minimal or negative benefit to taxpayers over the long term (ACIL Allen 2013; Norton and Cherastidtham 2014).

Lower repayment thresholds

One of the most prominent policy options is to reduce the repayment thresholds for HELP debt, which currently start at a 4 per cent repayment rate for incomes above \$55 874. Lowering the repayment thresholds (and the repayment rates) would result in more people

earning incomes that require them to make compulsory repayments. This would reduce the immediate costs of the HELP system and ensure that more of those who benefit from additional time off work or who have secondary incomes in otherwise wealthy households are making repayments (Norton and Cherastidtham 2016a). It could also reflect the extension of HELP loans to VET qualifications and the reduced expected additional lifetime earnings (discussed in section 5.2 above).

Indeed, the Australian Government has announced such a measure as part of the 2017-18 Budget, decreasing the first repayment threshold to \$42 000 in 2018-19, with a starting repayment rate of 1 per cent and subsequent thresholds increasing repayment rates by 0.5 per cent each.²⁹ About 183 000 debtors are anticipated to be brought into the repayment system as a result (Australian Government 2017b).

However, decreases to the repayment thresholds would also disproportionately affect debtors on lower incomes, leading to potential equity concerns. Further, as noted by the Grattan Institute, some students working while studying may unexpectedly have to start repaying before completing their qualification, while others may have made financial commitments based on the higher threshold (Norton and Cherastidtham 2014).

More fundamentally, lower HELP repayment thresholds can undermine two of the objectives of the HELP loan system — guaranteeing returns from higher education and providing social insurance (outlined in box 5.1 above). This is because some debtors in financial hardship or who have not benefited from their additional education (including those who incurred debts but did not complete their qualification) will have to start making repayments under lower repayment thresholds. However, a lower repayment threshold (or no repayment threshold, such that debtors start repaying as soon as they have an income) is still compatible with overcoming liquidity constraints.

While the Government's proposed \$42 000 repayment threshold remains higher than other forms of social insurance in Australia (including Newstart allowance income tests and the national minimum wage), there are concerns that it is too low to guarantee returns to higher education. Analysis by the Commission, using Household, Income and Labour Dynamics in Australia (HILDA) survey data from 2015-16 and a methodology outlined in Higgins and Chapman (2015), indicate that this may be the case, with an optimal threshold *for this objective* estimated at \$54 000 in 2018-19 (box 5.2).

²⁹ Progressive repayment thresholds will also be set 6 per cent higher than the preceding threshold (that is, the 1.5 per cent threshold at \$44 520, the 2 per cent threshold at \$47 191 and so on), up to a repayment rate of 10 per cent for incomes above \$119 882. The proposed \$42 000 threshold appears to have been selected from a Grattan Institute proposal (SEELC 2017, p. 42), although it is unclear how the Grattan Institute arrived at this figure (Norton and Cherastidtham 2016a).

Box 5.2 An ‘optimal’ initial HELP repayment threshold?

Under the ‘guaranteed return’ principle of HELP, graduates are only required to repay their debts if they are benefitting financially from their higher education qualification. As such, the initial repayment threshold should be linked to the expected income for the counterfactual scenario, where the student does not obtain further education. While this is impossible to calculate for individuals, it can be done across the population by comparing the incomes of those *with* additional HELP-supported education to those *without*. The initial repayment threshold can then be set at the expected income of those *without* HELP-supported education, as debtors earning above this level can be assumed to be benefitting from their additional education.

Using this framework and 2011 Census data, Higgins and Chapman (2015) found that median full-time income for 22 year olds without post-secondary education is about \$40 000 (in 2015 dollars). Employing the same assumptions, Commission analysis of HILDA data from 2015-16 suggests a similar threshold (\$41 000). However, some of these assumptions are problematic.

- Comparing the incomes of 22 year olds implicitly assumes that 22 year old HELP debtors should be repaying. This may not be realistic, given that less than half of domestic university students have completed a bachelor degree within four years of commencing (roughly equivalent to a 22 year old, assuming the age of entering university is 18) (DET 2017c). Higher age assumptions would be more plausible, including covering the prime working age population (22 to 54 year olds) given that HELP debts can be repaid at any age and do not expire.
- If an older comparison group were considered, then the repayment threshold should also be linked to the expected annual earnings of full-time *and* part-time workers. This would better reflect the diverse nature of the modern workforce, as many debtors voluntarily work part-time (particularly in double income households), while the proportion of graduates working part-time has increased greatly since HELP was first introduced (discussed in section 5.2). This is less likely to hold for younger comparison groups though, as younger part-time workers may still be studying at university or be involuntarily part-time as they search for graduate positions.
- Using individuals without any post-secondary education as a comparison group does not reflect current policy settings for HELP. Under the current settings, access to HELP loans is available for study towards a diploma or higher qualification. As such, the earnings comparison group should consist of those *without* a diploma or higher qualification, some of whom could still have post-secondary qualifications (such as a Certificate IV or Certificate III).
 - It seems likely, however, that HELP debt will eventually be made available to Certificate IV and Certificate III students (discussed in section 5.2), meaning that the comparison group would need to be adjusted to reflect this once it occurs.

Because of these issues, the Commission has conducted analysis of HILDA survey data using alternative assumptions. The results suggest that an optimal initial repayment threshold under a ‘guaranteed returns’ model for HELP would be approximately \$51 000 in 2015-16 (when the survey was undertaken). This reflects the median annual income of prime working age (22 to 54 year old) full-time and part-time workers without a diploma or higher qualification.^a Adjusting for expected wage inflation (outlined in the 2017-18 Budget), this would be approximately \$54 000 in 2018-19 (the first year of the Government’s proposed new threshold).

^a Excluding those employed persons with zero incomes, as HILDA imputes annual gross wages and salaries from the most recent pay, so zero-income employed individuals are likely misreported.

However, it is unclear whether providing a guarantee for returns is justifiable. It would be relevant if it made a big difference to demand for people uncertain about the returns to

university, but there is no evidence for this (Norton and Cherastidtham 2016a). Equally, it would be justified were the Australian Government to implicitly or explicitly promise that a university qualification would subsequently provide high income. The Government does not do so, nor could it, as evidenced by the limited existing information on graduate outcomes, which already demonstrate that university education does not bestow a guaranteed return (section 2.2 above).

Further, using a high income threshold before repayments become compulsory has fiscal costs — borne by taxpayers. This is especially pertinent given the recent expansion of university student numbers (moving from an ‘elite’ to a ‘mass’ university system through a demand-driven model) and the ongoing extension of HELP loans to sub-bachelor courses (discussed in section 5.2), increasing the number of debtors and their costs.

Nevertheless, recent public debate indicates that much of the electorate still supports the concept of a guarantee. For examples, see Carr (2016) or Senate Education and Employment Legislation Committee (2014), although both refer to this idea as a form of ‘social insurance’. As such, whether the HELP debt system should continue to operate under this principle is a matter for public debate, with the decision (and any associated costs) ultimately up to the electorate.

Repayment threshold indexation

The indexation method for HELP repayment thresholds is another vexed issue. Historically, the repayment thresholds have been indexed to changes in average weekly earnings (AWE). As part of the 2017-18 Budget, the Australian Government proposed that indexation be linked to changes in the consumer price index (CPI) from 2019-20 (Australian Government 2017b). This follows recommendations of both the National Commission of Audit (2014) and the Grattan Institute (Norton and Cherastidtham 2016a).

However, indexing the repayment thresholds to CPI rather than AWE will result in a slow erosion of the repayment thresholds over time, as AWE has traditionally risen faster than CPI (the recent period of weak wage growth notwithstanding). This will effectively result in growing numbers of low-income debtors being brought into the HELP repayment system over time — a fact the Government implicitly acknowledges (see Australian Government 2017b, p. 18) — with repayment thresholds eventually ceasing to fulfil the social insurance principle of HELP and (to the extent it is regarded as valid) the guaranteed returns principle. In much the same way that ‘bracket creep’ is undesirable (although fiscally useful) in the broader income tax system, it is also undesirable for HELP repayments.

As such, **the indexation of the HELP repayment thresholds should remain linked to changes in an index using the same basis (earnings)**. Despite this, consideration could still be given to whether the most appropriate earnings indexation measure is currently being used, as other indexes may more closely align with the unique demographics of

university graduates — examples could include average weekly ordinary time earnings (AWOTE) or the wage price index (WPI).

Repayment cliffs, income bunching and workforce participation

To the extent that HELP repayment rates are considered equivalent to short-term increases in effective marginal tax rates (EMTRs) by debtors, **this can result in reduced incentives for debtors to earn extra income, affecting labour supply and workforce participation decisions across the economy.**

Nowhere is this more obvious than at the ‘repayment cliffs’ created by the design of the HELP repayment schedule, where debtors have to repay higher portions of their total income after crossing each threshold. These repayment cliffs result in debtors facing abnormally high effective marginal tax rates in the short term. This effect is most prominent at the current initial repayment threshold, where an individual who earns exactly \$55 874 would be required to make a HELP repayment of \$2235 (4 per cent), while their compulsory repayment would have been zero had they earned a single dollar less. Smaller repayment cliffs occur at each subsequent threshold as the rates increase from 4 per cent to 8 per cent (ATO 2017a; Norton and Cherastidtham 2016a).

These repayment cliffs can affect marginal participation and income decisions by debtors. In particular, Chapman and Leigh (2009) find that there is statistically significant income bunching by HELP debtors at levels just below the initial repayment threshold. Similar evidence is found by Highfield and Warren (2015). This not only results in lost HELP repayments, but also lost income tax for the Commonwealth (although it is not economically significant), as well as lower labour supply (assuming debtors targeted income by reducing their hours). There is a paradox in identifying higher education as a route for improving skills and productivity in the economy, and then discouraging people from shifting into the (higher paying) jobs that make the most of people’s qualifications.

Despite these challenges, the repayment cliffs have advantages too. In particular, debtors consistently earning just over the current initial threshold will generally repay their HELP debts in full, due to the large repayment cliffs. By comparison, in England and New Zealand, where debt repayments are only made on the portion of income *above* the minimum threshold, very low repayments from incomes near the threshold can prevent debts ever being repaid (Norton and Cherastidtham 2016a). Indeed, the lack of repayment cliffs in the student loan systems of England and New Zealand mean that claims that Australia’s HELP repayment system is ‘more generous’ should be treated sceptically.

The changes to HELP repayment thresholds announced in the 2017-18 Budget — moving to a 1 per cent repayment rate at \$42 000 — would help to minimise the disincentive effects of existing repayment cliffs, as initial repayments will only be \$420, rather than the current \$2235. However, even the continued (reduced) repayment cliff at the new threshold may still induce income bunching, especially given that — as noted by the Grattan Institute — lower repayment thresholds are likely to disproportionately affect part-time workers,

who generally have more control over their hours worked, and so may respond with reduced workforce participation (Norton and Cherastidtham 2016a).

More broadly, subjecting over two million taxpayers to higher marginal taxes (given that nearly all debtors will be paying more under the cascading changes to subsequent income thresholds) is likely to result in reduced labour supply and workforce participation by at least some of these debtors (even if only in the short-term until HELP debts are repaid). By contrast, the collection of HELP debts from deceased estates would not distort labour supply (and so is less likely to reduce economic growth and lower living standards) while still providing a means to equitably reduce doubtful debts in the HELP system (see below).

Collection from deceased estates

Much of the cost to taxpayers from the existing HELP debt system is a result of doubtful debts that have to be written off on the debtor's death, inviting the obvious remedy of collecting any remaining debts from deceased estates. This would bring HELP debts into line with the treatment of other public and private debts, as most debts can be collected from deceased estates, including outstanding tax debts. Further, it does not undermine the roles played by HELP in overcoming liquidity constraints and providing social insurance.

As well as significantly reducing the cost of doubtful debt provisions, this would also make the system more equitable and partly address the excess demand for university education by people who can avoid the lifetime costs of attending. Graduates who have benefited from being able to work part-time in an otherwise wealthy household (through higher hourly wages as a second household income) or who graduated after retirement would no longer be able to free-ride on the existing taxpayer-funded system.

One concern that may be raised is the cost of administering such a system. In particular, collection from deceased estates is unlikely to involve many short-term fiscal gains (given the lifelong timelag), while the Australian Taxation Office (ATO) would need to develop new systems to identify, consider and process collections straight away. However, the cost of the ATO's changes are initial establishment costs — ongoing costs should be minimal, as many deceased estates have to file a final tax return on behalf of the deceased anyway (ATO 2016a).

In return for these outlays, the Grattan Institute estimates that doubtful debt could fall by up to 67 per cent (Norton and Cherastidtham 2014). Given current doubtful HELP debt levels, this could equate to a saving of nearly \$10 billion. Even if that is optimistic, it is very likely that the present value of the stream of future benefits from deceased estates collection would far exceed the costs of ongoing administration. The fact that existing budget rules hide those gains is a problem with the rules, not with the policy.

To have any sizable impacts, collecting from deceased estates would have to apply to existing HELP recipients, not just new ones. Although it could be argued that applying the

collection from deceased estates to existing debts is ‘retrospective’ (in the sense that it changes the terms of an implicit contractual arrangement after agreement), there have been a raft of other changes to the HELP ‘contract’ (particularly changes to repayment thresholds) that have not been considered retrospective (Norton and Cherastidtham 2014). Moreover, collection from all debtors is consistent with intergenerational equity, as otherwise future students would be subject to collection from deceased estates, but their parents with current debts would not.

Another potential issue is the treatment of small estates. As outstanding debts may be several tens of thousands of dollars, small estates may not be sufficiently large enough to repay the debt. In any case, one of the chief goals of collection from estates is to recover funds from people who can afford to pay — a condition that arguably does not hold for people with modest estates. One potential solution is to only collect HELP debts from estates worth above a certain amount. Although Norton and Cherastidtham (2014) suggest a \$100 000 threshold, the chosen threshold would have to consider an appropriate balance between collecting outstanding debts and maintaining the social insurance (or guaranteed returns) principle of the system.

Parallel to this concern is the treatment of debtors who die young. Ethically, it is questionable whether the Government should be chasing significant debt repayments from the estates of young adults or those with new families. Moreover, from an economic perspective, individuals who die at younger ages have likely not obtained the full benefits from their education, and so should not be pursued for the associated costs. As such, a minimum age at death before collection applied would also be appropriate — for example, only collecting from the estates of debtors who died aged 60 years or over (the superannuation preservation age for those born after 30 June 1964).

Providing the ATO with discretionary powers to waive some or all of the debts in extenuating circumstances would also be appropriate. Similar powers to release debtors from other tax liabilities in the event of serious financial hardship already exist (ATO 2016b).

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