



Consultation on the draft legislation to implement the Australian Government's Job-ready Graduates Package

17 August 2020

To the Department of Education, Skills, and Employment,

Thank you for the opportunity to provide feedback on the draft legislation to implement the Government's Job-ready Graduates package.

Science & Technology Australia (STA) is the peak body representing more than 80,000 scientists and technologists. Our member organisations include scientific associations and societies, research institutes, and research strategy bodies such as councils of deans.

The Job-ready Graduates Package is one of the most significant proposed changes to the funding of higher education since the introduction of the Demand Driven System in 2009.

STA wants to see greater numbers of STEM graduates and expanded access to STEM education for the wider population.

However, while STA supports the stated goals of this package, we have some concerns with the proposed legislation and whether it will achieve these goals.

This package also has to be considered in light of the current COVID-19 pandemic which has forced thousands of job losses at universities, and significantly damaged the capacity for universities to fund research from sources beyond Government.

It is regrettable that such a short period of time was provided for consultation. A longer period of time would have enabled stakeholders and analysts to conduct greater in-depth analysis of the legislation, model its effects, identify any unintended consequences, and provide further advice to the Parliament.

To improve the proposed legislation, STA makes the following recommendations. We propose:

- the Government amend the legislation and maintain the current total base funding to universities per student place in STEM degrees. This would avert financial incentives in the legislation for universities to offer fewer STEM places by adjusting the Commonwealth contribution. The financial impact of this change on the overall package could be offset by reducing the quantum of money diverted into the two major new funds;
- Introduce a clause to section 30-27(1) that reflects the protective measure in the current act (section 30-27(3));
- Amend the legislation to index Commonwealth supported places to **both** CPI and national population growth for younger Australians;
- Enshrine funding formulas in the legislation that guarantee a baseline level of continuing funding support for the two proposed new major funds;
- Expand criteria for universities to manage compassionate circumstances for students at risk of losing access to HECS-HELP loan support;
- Include legislation that exempts students in the first year of their study from losing access to HECS-HELP loan support; and
- Amend the legislation to extend the measures for demand-driven student places to Aboriginal and Torres Strait Islander people, irrespective of their location.



Associate Professor Jeremy Brownlie
President
Science & Technology Australia



Misha Schubert
CEO
Science & Technology Australia

Introduction

Amidst a global pandemic and recession, the importance of universities to Australia and the Australian economy is only growing. University research has played a crucial role to save lives during COVID-19 and to gather expert evidence in rapid time to inform decision making by our Governments. The nation's universities are also crucial to the vast and urgent task ahead to create new jobs, new industries, and restart the Australian economy. As a community, we often take pride in how many Australian institutions are ranked in the Top 100 in the world, which is a significant achievement relative to population.

In times of economic downturn, demand for education and training typically rises.¹ With more than a million Australians now unemployed, and a new cohort of high-school students preparing to graduate into one of the toughest job markets in decades, we anticipate growth in demand from Australians for a university education. Some universities are already seeing significant increases in applications with the NSW Universities Admission Centre reporting an 88 per cent increase in applications.¹

Understanding the crucial role of universities as drivers of economic growth and a greater demand for higher education amid a pandemic and recession, Governments in comparable nations including the UK have brought forward funding for both student tuition and research.² They have also granted universities access to the business loan scheme and Coronavirus Retention Scheme to safeguard staff jobs.² The proposed Job-ready Graduates Package would not provide any additional funding to Australian universities.

As noted by the Department of Education, Skills and Employment, the future world of work is rapidly evolving, and “future workers will **spend more than twice as much time** on job tasks requiring science, maths and critical thinking than today.”³ STA supports the stated aims of the Job-ready Graduates Package to produce more STEM graduates here in Australia. We do, however, have some concerns about elements of this legislation. The short consultation period also means the effectiveness of the Package to achieve its desired aims has not been modelled, and potential side-effects of the legislation properly understood.

STA supports elements of the proposed legislation including clauses to:

- introduce demand driven funding for Commonwealth Supported Places for Indigenous Australians from regional and remote areas noting we suggest the legislation be amended to extend this to all Aboriginal and Torres Strait Islander students, irrespective of their location;
- make some Work Experience in Industry units of study eligible for CGS funding;
- reduce the FEE-HELP loan fee for undergraduate students from 25 per cent to 20 per cent; and
- reduce the waiting period for a student to be eligible for the Fares Allowance.

After consultation with the sector and a close analysis of the draft legislation, STA has highlighted five aspects of the package and its implementation where we have some concerns. These include:

- The short timeframe for consultation;
- Implications of the redesigned funding clusters and student contribution bands;
- Aspects of the proposal for a single flexible funding envelope;

- Seeking legislative authority for the NPILF and the IRLSAF without detail on the design of the funds; and
- A lack of safeguards in plans to extend and strengthen student protection and provide integrity measures.

Where possible, STA has offered recommendations to improve the legislation.

Consultation period

The changes proposed in the Job-ready Graduates Package would be the most significant since the Demand Driven System was introduced in 2009.⁴ The broad terms of the package were announced two months ago. The exposure draft of the legislation released for consultation last week contains additional proposals. The legislation also makes changes to the Higher Education Support Act to create two new major funds, the NPILF and the IRLSAF, neither of which have yet been designed.

In evidence to the Senate's COVID-19 inquiry, DESE officials gave evidence that no modelling had been done by the Government on the impact of the proposed changes.⁵ Without the confidence of modelling, potential side effects may not be clear until the package is already implemented.

Proposed changes to funding clusters, student contribution bands

STA supports the desire to produce more STEM graduates for Australia. This is the Government's stated rationale for its proposed changes to funding clusters. However, it is unclear whether the proposed legislation will achieve this goal - especially if it is not accompanied by a major push to drive stronger student demand for STEM degrees, and by measures to strengthen STEM job creation.

STA sees a role for a major initiative to communicate the value and excitement of STEM degrees to young Australians in high school. We also see a role for a new Research Translation Fund to boost funding for exciting translational research projects in STEM that can lead rapidly to breakthroughs or research applications that can create new STEM jobs in our economy.

The proposed changes would reduce the overall base funding universities receive to teach each STEM student and boost base funding to teach a student in a HASS degree. This combination has the potential to create a perverse incentive for universities to offer fewer places in STEM degrees.

Recommendation: STA proposes the Government amend the legislation and maintain the current total base funding to universities per student place in STEM degrees. This would avert financial incentives in the legislation for universities to offer fewer STEM places by adjusting the Commonwealth contribution. The financial impact of this change on the overall package could be offset by reducing the quantum of money diverted into the two major new funds.

The HELP system limits the effect of fees as a price signal

The world-class HECS-HELP loan system is one of the most important equity features of Australia's higher education system. This deferred, income-contingent loans system ensures no student is denied a university education because of an inability to pay upfront fees. It is designed only to be repaid once students start earning wages above a designated threshold.

Higher education analysts have noted the nature of the scheme can blunt attempts to direct students through price signals. Professor Bruce Chapman, the architect of the HECS-HELP system,

suggests these changes are unlikely to affect student study choices.⁶ He observes students are more likely to make choices based on their interests and the earning potential of that discipline.

In 2011, the base funding review highlighted that price signals do not affect student enrolments in degrees that were considered “national priorities”.⁷ These national priorities included nursing, science and mathematics, all of which have been highlighted as national priority areas in this package. The review recommended that:

“The Australian Government should phase out existing measures that aim to increase student demand in areas of skill shortages using student contribution reductions and should consider more targeted measures to address skill shortages. In some cases, this could be in partnership with employers and State Governments to provide information and incentives for students to undertake courses in priority areas and seek employment in relevant industries on graduation.”

As a result of this recommendation, the national priorities fee discount was ended.⁸ The review did suggest, however, that labour market shortages could be addressed through targeted programs such as scholarships. Another option would be to provide incentives for graduates to take jobs in specific fields and reduce/waive HELP debt repayments.

As students are more likely to enrol in degrees based on interests and employment prospects, an approach that includes targeting Year 9-12 students - and ideally from the very start of high school - may be more effective at increasing STEM student enrolments.⁷

Falling support for STEM degrees

STA is very concerned that the redesigned funding clusters will result in a drop in per student funding for STEM degrees. This is particularly challenging in STEM fields that require expensive equipment and consumables for teaching, which is the majority of STEM fields overall.

The Government has proposed this element of its changes drawing on the average costs of teaching reported by universities to a Deloitte study commissioned by Government. The Deloitte study notes there are complex challenges in establishing ‘reasonable costs’ of delivery, including variation of costs due to local circumstances and varying staff-student ratios. It caveats its own work with the observation: “there is no single reasonable cost of delivery that can be estimated through analysis of the data alone.”⁹

Most significantly, the report uses average costs of education for each field and assumes little variation. The data collection exercise considered the teaching time of an academic salary - around 40 per cent of an academic’s time on the traditional 40/40/20 model - potentially leaving up to 60 per cent of the salary costs. These proposed changes assume universities will be able to cover that cost from other funding streams.

However a closer look at the data shows the cost of teaching can vary significantly between institutions. This variability is based on the following factors:

1. Regional vs metropolitan universities;
2. State variations; and
3. University size

Based on the proposed funding, some universities will not receive enough to fund the teaching of their STEM degrees. A quick analysis of the data used for the Deloitte study shows reported teaching

costs for mathematics, engineering, and environmental studies are higher than the new funding model will provide. A closer examination of figures from Victoria and New South Wales show agricultural studies and environmental studies respectively will be underfunded. University size can also affect teaching cost. Among the smaller universities (fewer than 15,000 domestic bachelor students) agricultural studies will be underfunded and in medium-sized universities (between 15,000 and 25,000) environmental studies will be underfunded.⁹

The use of average cost of education assumes that the hours spent delivering teaching is done so in isolation. Data from 2019 shows that only 4.4 per cent of FTE in universities were teaching-only staff whereas 24.4 per cent were teaching and research staff.¹⁰ The link between teaching quality and research in universities is well established.¹⁰ There is also a need to recognise the significant professional development and service to the university and community both of which enhance teaching quality.

Incentive signals to universities

As noted earlier, the proposed rise in base funding for student places in HASS and the fall in per-student base funding for STEM places creates a potential perverse financial incentive. There is a possibility universities may offer more humanities places and fewer places in STEM to minimise the overall financial setback. To cross-subsidise expensive STEM courses, universities may implement policies designed to increase HASS enrolments.

If price signals do not boost student applications in STEM (as higher education analysts suggest) then this mix of incentives would have - at best - no effect on demand for STEM degrees, and - at worst - would see universities reduce the number of STEM student places.

Creating balanced and job ready graduates

STA agrees many of the jobs of the future will be created by - and require - STEM skills. STA has previously recommended making STEM degrees demand-driven to encourage more STEM graduates. It is also important to recognise that employers do not necessarily want people with single areas of expertise. Along with strong STEM training, employers have repeatedly mentioned that transferable skills are equally essential in their employees.

To create a truly job-ready STEM graduate, there needs to be some incentive to take on HASS electives as well as their STEM degree.^{3,11} A chemistry graduate, for example, is far more employable if they have some business or marketing knowledge. A software engineering student developing next-generation artificial intelligence algorithms needs an in-depth understanding of ethics and law.

Introduce funding envelope

The introduction of a funding envelope for the Commonwealth Grant Scheme will provide universities with the capacity to be more flexible in their support and enrolments of students. Such flexibility will ensure that universities can enrol students in courses relevant to their local requirements and at levels best suited to their strategy. This flexibility is supported by STA in principle however there is one concern.

Section 30-27(3) of the Act ensured that even under the demand driven system universities were protected from funding decreases unless they enrolled fewer students. This section of the act ensures that universities can plan in advance for future student intake. Such certainty will be needed to prepare for the increased enrolments expected from the COVID-19 related economic downturn and the increased cohort of school leavers that will enter the system in the coming years.

To protect university funding and enable long-term planning STA supports the recommendation proposed by respected long-term higher education analyst and policy adviser Andrew Norton.¹² Professor Norton recommends a clause be added to section 30-27(1) that reflects the protection in 30-27(3).¹² This would require that the funding amount provided to universities could not be less than previous years unless the university enrolled too few students.

Recommendation: Introduce a clause to section 30-27(1) that reflects the protective measure in the current act (section 30-27(3)).

Indexation of the number of Commonwealth Supported Places (CSPs)

Under the proposed legislation, both Commonwealth contributions and students' contributions would be indexed in line with the consumer price index (CPI). This is a welcome measure given the impact of inflation applies to universities just as it does to every other enterprise across our economy. Without CPI adjustments, the real value of each dollar in funding erodes every year.

That said, indexing only by CPI does not address the need for Commonwealth Supported Places to rise with population growth. Without such a measure, the overall proportion of our population with a higher education qualification would start to decline over time.

The Job-ready Graduates Package allows for some growth in supported places as a measure to manage increased demand in a recession economy, but longer-term solutions are required. One such solution is to index the Commonwealth Grant Scheme by **both** CPI and national population growth for the age cohorts most likely to seek to access a university education (specifically noting the approaching 'Costello baby boom' larger cohort of school leavers in the next few years). This measure will ensure support grows as it is needed - and would enable universities to plan in advance based on population growth predictions.

Recommendation: Amend the legislation to index Commonwealth supported places to both CPI and national population growth for younger Australians.

Provide legislative authority for the NPILF and the IRLSAF

STA approves in principle the proposed legislative changes to establish the National Priorities and Industry Linkage Fund (NPILF) and the Indigenous, Regional and Low Socio-Economic Status Attainment Fund (IRLSAF). Without a clear indication of how these funds will be structured, it is not possible to endorse the changes beyond the principle.

NPILF

In principle, STA supports the formation of this fund. Previously, STA has highlighted the need for a collaboration premium for the Research & Development Tax Incentive. We have especially seen merit in a proposal in the Government's 2016 review of the RDTI to suggest such a collaboration premium could be applied to enable industry to offset the wage costs of hiring STEM PhD graduates for their first three years of employment.¹³

While the proposed NPILF would have a different role and remit to an RDTI collaboration premium, it could be designed cleverly to drive deeper industry linkages to universities. STA recognises the work of designing the NPILF has only recently commenced.

STA strongly urges those designing the proposed framework for funding under the NPILF to give strong weight to the recommendations of the 2016 review of the Research & Development Tax Incentive to guide the design thinking for this fund.¹³ In particular, we note recommendation 2:

“Introduce a collaboration premium of up to 20 percent for the non-refundable tax offset to provide additional support for the collaborative element of R&D expenditures undertaken with publicly-funded research organisations. The premium would also apply to the cost of employing new STEM PhD or equivalent graduates in their first three years of employment.”¹³

Further detailed consultation is needed on the design of the NPILF. Without the recommendations of the working group, the potential impact of such a fund is hard to assess.

IRLSAF

STA strongly supports equity, diversity and measures to drive participation of traditionally under-represented groups in higher education.

With the design of the IRLSAF not having yet been developed, it is not possible to assess precisely the impact it would have to achieve the Government's stated equity and participation goals. This change removes the protective legislative calculations for Enabling loading and Regional loading. These two provisions provide a substantial proportion of funds that will be included in the IRLSAF, with enabling loading allowing for nearly 10,000 student enrolments and regional loading providing over \$74 million in 2019-20 to offset extra costs that regional universities face.^{14,15}

Equity programs like the Higher Education Participation and Partnerships Program have, in the past, been targeted for funding cuts to find budget savings. The legislative protection of these funds has ensured that these programs are protected and the associated students are supported.

Recommendation

Science & Technology Australia approves in principle the proposed legislative changes to establish the National Priorities and Industry Linkage Fund (NPILF) and the Indigenous, Regional and Low Socio-Economic Status Attainment Fund (IRLSAF). Without a clear indication of how these funds will be structured, it is not possible to endorse the changes beyond the principle.

There is risk in removing funding from areas protected by legislation - which would mean Parliamentary approval would no longer be required for proposed future changes. STA does recognise however that the NPILF will be created from savings made under the redesigned funding clusters and therefore considers this part of the legislation to be implemented as part of the package.

Recommendation: Enshrine funding formulas in the legislation that guarantee a baseline level of continuing funding support for the proposed two major funds.

Extend student protection and integrity measures

These proposed changes set out to ensure higher education providers advise students in good faith and maintain integrity in selection, enrolment, assessments, and completion. The aim is that students who might be unsuited for a chosen discipline are either supported or prevented from accruing a crippling HELP debt.

There are, however, a few potential unintended consequences of the broad measure:

- Limits on HELP loans already exist through the “Combined HELP loan limit”, which is indexed and limited in 2020 to \$106,319 (or \$152,700 for medicine, dentistry and veterinary science courses).¹⁶

- First-year students can have challenges in adjusting to higher education after an extended period of schooling, with many entry-level programs covering broad topics. It might be prudent for any legislation (which might be redundant due to current legislation) to exclude performance in the first year of higher education study.¹⁷
- Special considerations need to be enshrined with allowances for carer responsibilities, health conditions (including mental health), relocation, domestic and family violence, and other complex or traumatic circumstances.
- Universities have invested significantly in providing students access to recorded lectures, online content, consult teachers and academics, and support progression. Any additional expectations under the current funding climate would require additional funding support from the Government.

This measure would mean students who do not maintain a pass rate would lose access to HECS-HELP funding. Great care would need to be taken to enable universities to consider and manage exceptions and compassionate circumstances. Research shows many students who consider dropping out of university do so because of circumstances that are often beyond the control of either the student or the university. These include such as health or stress (46 per cent), study/life balance (30 per cent), the need to do paid work (27 per cent), difficulties relating to workload (25 per cent), unspecified personal reasons (25 per cent) and financial difficulties (23 per cent).¹⁸ The adequacy of student income support, which is beyond the purview of the HESA, is something to consider.

Great care would need to be taken to enable universities to consider and manage exceptions and compassionate circumstances where students do not maintain a pass rate would lose access to HECS-HELP funding. Research shows many students who consider dropping out of university do so because of circumstances that are often beyond the control of either the student or the university.

Recommendation: Expand criteria for universities to manage compassionate circumstances for students at risk of losing access to HECS-HELP loan support.

Recommendation: Include legislation that exempts students in the first year of their study from losing access to HECS-HELP loan support.

Indigenous participation

STA strongly supports the Government's proposal to make student places demand-driven for Indigenous people from regional and remote locations. We advocate this proposal should be extended to all Aboriginal and Torres Strait Islander people, irrespective of their location.

This is important in the context of the nation's work to Close the Gap. Extending this measure would enable the Australian Government to deliver on its own commitment in its recent refresh of the CTG strategy to lift participation of Aboriginal and Torres Strait Islander people in tertiary education and to boost the proportion of Indigenous young people who are either studying or working.

Close the Gap data from recent years highlights that when Indigenous people attain a university education, it eliminates the employment gap between Indigenous and non-Indigenous people.

Indigenous students can face particular challenges with retention and completion at university due to complex factors including family and personal circumstances. This is especially the case for Indigenous students who are first in the family to go to university. And it is even more acute for

Indigenous students who need to move and live away from cultural and family support to pursue their studies at university.

The Government's goal to boost the number of Indigenous students from regional and remote areas studying at university is one we strongly support. Yet the proposed measures to deny students HECS-HELP loan support if they fall below a pass rate – if it applied to the first year of study at university – would risk undermining progress towards this goal. This is particularly true for Indigenous students from remote and regional areas who move to the city to study and are the first in family to go to university.

Aboriginal and Torres Strait Islander people, universities and Government have made big gains over the past decade to lift the participation of Indigenous people in university education. Any move to remove a person's eligibility for HECS-HELP loans should pay particular attention to these complex factors for Indigenous students – and be adjusted accordingly.

The nine-year completion rate for Aboriginal and Torres Strait Islander students is 47 per cent (compared to 74 per cent for non-Indigenous students) and the 4-year completion rate has never risen above 30 per cent. The Indigenous student population includes a significant portion of mature-age students who are juggling study with work and caring responsibilities.

STA strongly supports measures to Introduce demand driven funding for Commonwealth Support Places for Indigenous people from regional and remote areas.

Recommendation: Amend the legislation to extend the measures for demand-driven student places to Aboriginal and Torres Strait Islander people, irrespective of their location.

Measures supported by Science & Technology Australia without amendment

Science & Technology Australia supports the following measures without amendments:

- Make certain WEI units of study are eligible for CGS funding;
- Reduce the FEE-HELP loan fee for undergraduate students from 25 per cent to 20 per cent; and
- Reduce the waiting period for a student to be eligible for the Fares Allowance.

References

1. Bolton, R. *Universities set to turn away hundreds of thousands of students*. <https://www.afr.com/work-and-careers/education/universities-deluged-with-demand-from-local-students-20200612-p551xn> (2020).
2. *From: Department for Education* (<https://www.gov.uk/government/organisations/department-for-education>. <https://www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy> (2020).
3. Cunningham, S. *et al. Skills and capabilities for Australian enterprise innovation : final report*.
4. Field, C. *Claire Field on, "the most significant reforms since Dawkins"*. <https://www.linkedin.com/in/stephen-matchett-a63b6a79/> (2017).
5. *Commonwealth of Australia Proof Committee Hansard Senate Select Committee On COVID-19*. <http://parlinfo.aph.gov.au>.
6. Hunter, F. Uni fee overhaul won't change demand or affordability HECS architect. *The Sydney Morning Herald* (2020).
7. Australia. Department of Education, E. *Higher education base funding review : Final Report*. ([Dept. of Education, Employment and Workplace Relations], 2011).
8. Macdonald, E. Govt told 'offer cash carrot to graduates'. *The Canberra Times* (2012).
9. *Transparency in Higher Education Expenditure Transparency in Higher Education Expenditure Australian Government Department of Education*. www.deloitte.com/au/about (2019).
10. Department of Education, S. and E. *Selected Higher Education Statistics – 2019 Staff data*. <https://www.education.gov.au/selected-higher-education-statistics-2019-staff-data> (2019).
11. *THE AUSTRALIAN*. <https://www.theaustralian.com.au/nation/employers-welcome-education-reform-but-want-more-focus-on-diverse-skills/news-story/8caf2d0d2d78af>.
12. Norton, A. Universities should have a Commonwealth funding floor – Andrew Norton. <https://andrewnorton.net.au/2020/08/15/universities-should-have-a-commonwealth-funding-floor/> (2020).
13. Tax Incentive Review Panel, D. *Review of the R&D Tax Incentive Review Panel Report*. (2016).
14. Portfolio, T. *Education and Training Portfolio Budget Initiatives and Explanations of Appropriations Specified by Outcomes and Programs by Entity*. www.pmc.gov.au/government/commonwealth-coat-arms (2019).
15. Harvey, A. *Translating academic research to higher education policy reform: The case of enabling programs*. vol. 4 <http://wp.senatorbirmingham> (2017).
16. Australian Government. 2018 Sustainability Bill. <https://www.studyassist.gov.au/news/2018-sustainability-bill> (2018).
17. Universities Australia. *Universities Australia Indigenous Strategy First Annual Report*.
18. Compton, L. *et al. 2019 Student Experience Survey*. www.qilt.edu.au.TheQILTteamcanbecontactedby (2020).

