ACGR Response to the Australian Universities Accord Discussion Paper

April 10, 2023

The Australian Council of Graduate Research (ACGR) welcomes the opportunity to provide feedback on the Australian Universities Accord Panel Discussion Paper and anticipates positive benefits for the sector as a whole from the results of the Review.

ACGR was established in 1995 and is Australia's peak body for graduate research education. Our purpose is to promote and support excellence in graduate research education through establishing best practice standards, providing a forum for networking and practice sharing amongst graduate research leaders. As a group we aim to contribute to the development of effective graduate research policy as well as promote the benefits of graduate research within academia and beyond into industries and communities. Favouring a collegial and collaborative approach, ACGR has developed a set of Good Practice Principles for Graduate Research, along with a suite of accompanying Good Practice Guidelines.

All higher degree by research (HDR) awarding HE institutions in Australia are members of ACGR, each represented by a senior academic leader, typically a Graduate School Dean or Pro Vice-Chancellor of Graduate Research. Additionally, professional leaders in researcher development and management participate in working groups, annual conferences and webinars, contributing important insights into operational and regulatory challenges in the recruitment and management of HDR candidates. ACGR is uniquely qualified to comment on the Australian research training environment in some detail and is pleased to provide the following responses and recommendations for consideration by the Australian Universities Accord Panel.

This submission is structured around nine core themes selected by ACGR as discussion points:

1 The significance of graduate research in the higher education ecosystem
2. Attracting and funding HDR candidates in the future
3. Pathways to PhD and HDR exit points
4. The RTP funding model and levels of HDR student support
5. Work integrated learning and embedding employment skills in HDR training
6. Clarifying the purpose, structure, and delivery of the PhD into the future
7. Valuing our HDR students and ensuring the quality of Australia's research training system
8. Equitable access to research training opportunities and support – adapting to needs of candidates
9. The over-regulation of HDR programs and under analysis of HDR data

AUSTRALIAN COUNCIL OF GRADUATE RESEARCH

The Significance of Graduate Research in the Higher Education Ecosystem

Australia's research training system punches above its weight in a global context, producing graduates who are in high demand across the professions. While around 50% of HDR graduates will progress to tertiary education and research [1], HDRs' contribution to the research, learning and teaching activities of a university while enrolled is significant. HDRs are the engine room of university research activity and impact, perhaps accounting for as much as 30-40% of research output, though without reliable national measures it is impossible to be accurate. Many of Australia's top-quality publications include HDR candidates as co-authors; additionally, they contribute to grant writing, data preparation and analysis, work as research assistants or co-investigators, attract philanthropic research investment, represent their institution and academic discipline at international conferences, communicate with non-specialist audiences and to the media about their areas of expertise. **They comprise a significant proportion of the casual teaching population of universities, not to mention performing other related professional roles to support their candidature. HDR candidates are part of a flexible academic workforce that contributes to the capacity of the HE sector to educate 1.6 million students per year and carry out over one third of the nation's research.[2]**

Any discussion of what Australia's HE sector needs to look like in 10, 20 or 30 years' time should include a focus on the recruitment, development and support of HDRs, many of whom will comprise future academic generations, driving innovation in the HE sector and its systems. In recent years much focus has been on the significance of increasing the commercialisation of research and the role of HDR candidates in brokering sustainable industry-university collaboration. While this focus has yielded important results and expanded opportunities for HDRs, particularly PhD candidates, attention to the contribution of HDRs to the research health of universities and the value of the academic profession has been correspondingly diminished. The wide-ranging discussions and perspectives invited by this Accord process suggest an opportunity to **review the comprehensive contribution of HDR graduates to academia, to the professions, to innovation and translation of new knowledge and to the health of our nation's knowledge systems.**

The government definition of eligible industry partners for RTP internships excludes HEPs and related affiliates; there are compelling reasons why such an approach was taken when the emphasis was on promoting industry-university collaboration, with increased completion funding a key lever. In the longer term positioning universities as 'end-users' in their own right will have important benefits to the health of Australia's higher education system. As the Accord discussion document makes clear, Australian universities need to maintain the capacity for a top-quality learning and research environment and be agile enough to respond to changing jobs, environments, national priorities and shifting economic contexts. These institutions are best placed to remain agile by recruiting a steady stream of top talent from this pool of emerging leaders and innovators.

[1] https://amsi.org.au/wp-content/uploads/2019/04/advancing_australias_knowledge_economy.pdf, p. 4
[2] *Australian Universities Accord Discussion Paper*, February 2023, p.7.

Attracting and funding HDR candidates in the future

After more than a decade of growth, HDR numbers during the Covid years have levelled off, with domestic enrolments showing a decline in many universities[3]. Post-Covid international demand for graduate research remains buoyant. Anecdotally, it appears that most Australian universities are committed to increasing their current HDR numbers and continuing to support their research endeavours in a cost-effective way. Those with less research income to redeploy may be limited in their aspirations for growth by the limit to a 10% share of RTP income that HEPs can invest in attracting high-quality international applicants through fee and stipend scholarships. Given that one source of immediate growth is increasing the international cohort, it seems timely to ask several questions that require a high-level national answer:

(1) If we start with 60-65k HDRs as a recent ballpark figure, what is the optimal number of HDR candidates to sustain Australia's research and meet the needs of diverse research graduate employers?

(2) Is there an appetite to expand international numbers by using a larger proportion of RTP? - the international HDR student market presents rich opportunities to increase enrolments from a highly competitive pool.

International HDR candidates come to Australia for various reasons, from the attractiveness of Australia as a safe and liveable destination, to developing research capacity and expertise for graduates to take back and train the next generation of their country's academic workforce, to attracting a future pool of skilled migrants to fill Australia's skills requirements.

(3) if there is an optimal ceiling for total HDR enrolments in any one year is there a preferred domestic/international HDR candidate ratio?

(4) should there be further research into the reasons for a decline in domestic HDR enrolments and steps taken to reverse this trend?

Factors to consider include levels of industry demand (including academia) for HDR graduates, the value of international HDRs to Australia's HE system and a requirement for a broader understanding of the value and function of research degrees in the global marketplace, not to mention Australia's position as a trusted provider of quality assured research degrees.

Data from QILT's longitudinal figures suggest HDRs have no problem finding employment and are on a par with taught masters graduates.[4] The generic skills associated with PhDs and research masters – critical thinking, high-level problem solving, project management,

[3] https://www.universitiesaustralia.edu.au/wp-content/uploads/2022/09/220207-HE-Facts-and-Figures-2022_2.0.pdf, p.35.

[4] https://www.qilt.edu.au/docs/default-source/default-document-library/2022-gos-l-national-report.pdf?sfvrsn=a3a778dc_8, p.7.

teamwork, research and planning - are readily transferable to numerous professional roles across all sectors. It is now more common for mid-career individuals to combine work with research and enrol part-time to explore a research question related to their employment domain - a pathway also supported by the new Industry PhD initiative (2023).[5] There may be complex reasons why higher degrees by research are less popular choices for domestic applicants than they once were – such as a buoyant graduate employment market, the low value of the average RTP stipend, the assumption (still common in universities) that a HDR degree destines the holder to seek work in academia and not much else, and recent reports charting the heavy mental toll placed on a high proportion of graduate researchers.

The ACGR urge a review of government and sector strategic thinking in relation to the purpose and value of HDR research to the nation's social and economic health. Such a discussion, while provocative and potentially divisive, enables further productive interrogation of current funding arrangements, including the rationale for the 10% ceiling on investment in international candidates, through government support. This affords the opportunity to consider whether more flexibility enables each university to recruit to meet their strategic requirements with few other sectoral risks. Other forms of international HDR candidature, such as Joint PhD programs, may warrant further consideration as a part of this discussion as they serve the dual purpose of offering student flexibility while enhancing and strengthening international research collaborations which can be nourished and extended beyond a single student cohort.

Duration of PhD programs varies across Australian institutions with some incentivising 3 - 3.5-year (FTE) completions while others are satisfied if candidates submit their thesis at the end of their fourth year. It is timely for the government to review the utility of reporting 4-year completions when Commonwealth Scholarship Guidelines permit candidature to be supported by both fee and stipend scholarships for up to 4 years (FTE). If 4-year completions are the ambition, it is crucial to explore national and global trends, understand university targets and course structures and consider maximum current funding periods and the relative benefits and challenges of the normal period of permitted candidature. Published completion figures[6] offer only broad-brush accuracy - they do not take into account part-time enrolments or periods of suspension, and the 4-year threshold assumes that both examinations and final corrections are carried out within the RTP funded period.

For the cohort of 2017 the average completion percentage in 4 years was 14.60%[7]; the 2018 cohort, more profoundly affected by the disruptions caused by the pandemic, has an average completion percentage of 10.38%. Additional RTP Covid stipend extensions were permitted during this time, but this much-needed investment in the health, wellbeing,

[5] https://www.education.gov.au/university-research-commercialisation-package/national-industry-phd-program

[6]https://app.powerbi.com/view?r=eyJrIjoiMDkwODU2NTctYTMzYS00MWY3LWFmYzktMTM2Y2ZhNzA5NmNmIiwidCI6ImRkMGNmZDE1LTQ1NTgtNGIxMi04YmFkLWVhMjY5ODRmYzQxNyJ9

[7]https://app.powerbi.com/view?r=eyJrIjoiMDkwODU2NTctYTMzYS00MWY3LWFmYzktMTM2Y2ZhNzA5NmNmIiwidCI6ImRkMGNmZDE1LTQ1NTgtNGIxMi04YmFkLWVhMjY5ODRmYzQxNyJ9 As per notes this cohort analysis does not take into account part-time registration or periods of suspension.

retention and success of current students may itself depress domestic enrolment numbers in the immediate future as these extended stipends were drawn from finite RTP funds. It is important to determine whether a four-year completion (in other words a submission of thesis before 3.5 years to allow for examination and corrections) is desirable or whether a five-year completion (e.g., 4 years PhD candidature plus examination and corrections) produces better quality examination and graduate outcomes. The Department of Education's 6-year statistics are far more promising showing for the cohort of 2015 and 2016 59.71% and 57.28% average completion rates respectively. 2021 revisions to the Commonwealth Scholarship Guidelines offering incentives for completion of PhD candidates with eligible reportable industry internships may also have an impact on average completion times, given the requirement that such internships must be a minimum of 3 months' duration. **ACGR recommends that there is a review, aided by global benchmarking, of the optimal duration, structure and content (including internships or other work integrated learning initiatives) of highly-quality PhD and research masters programs**.

Pathways to PhD and HDR exit points

A possible additional reason for declining domestic HDR enrolments might be declining interest in and/or availability of the traditional honours-PhD pathway. Our HE regulatory and funding systems are arguably structured with a full-time post-honours student in mind, one who lacks industry or employment experience and skills. However, as was noted in the 2016 ACOLA Report 60% of HDR candidates were over 30 and a further 27% over 40[8]: this pattern of enrolment has not changed substantially,[9] and many universities attract good numbers of part-time mature students who are fitting research around employment and/or caring requirements.

For some applicants with aging qualifications, proving research readiness is difficult and in-program skilling is preferable for early diagnosis of current and required research skills. Research degrees offer challenges not always anticipated even by those who have recently completed an honours or masters program, and challenges to those balancing other professional and personal commitments can be even more acute. **ACGR recommends that full consideration be given to the implementation of more HDR exit pathways – such as Graduate Certificates, Graduate Diplomas and stackable micro credentials – including possible funding sources. A range of pathways from 6 months to 1 year (FTE) in duration would encourage more HDR enrolments to succeed in programs when continuation to the original endpoint of masters or PhD is no longer feasible.** Some institutions already offer Graduate Certificates as an entry pathway for non-standard applicants to ensure front-end research skills training. The current requirement for Graduate Certificates or Diplomas to be funded either through CGS or full student contribution makes them impractical in some institutions and unattractive to applicants who may already be carrying a considerable historical HECs debt. If RTP funding could be used to support such exit pathways this would

[8] https://acola.org/wp-content/uploads/2018/08/saf13-review-research-training-system-report.pdf, p.5.
[9] Recent data suggest that over 60% of candidates are 30 or older - https://www.education.gov.au/higher-education-statistics/resources/2021-student-summary-tables, (2.2).

provide recognition for students who have invested considerable time in initiating a research project which might still yield valuable outcomes for both the candidate and the supervisory team. **Funding for such programs as both entry and possible exit pathways** may help with candidate retention and development and bolster domestic recruitment.

The RTP funding model and levels of HDR student support

The Research Training Program, in place since 2017, provides flexibility in terms of stipend rate (with minimum and maximum thresholds), duration of stipend support and proportion of allocation of funds committed to stipends, fee scholarships and allowances. The stipend rate has not kept pace with cost of living rises and may explain flatlining in domestic enrolments and increases in completion delays as candidates switch to part-time mode to work and make ends meet. The flexible model allows HEPs to allocate the maximum stipend amount of around $46k for the maximum period of support (4 years FTE for PhD), but results in scholarships to fewer candidates. The recent stipend 'arms race' where competing institutions have raised rates substantially might further widen the gap between research intensive and other universities with less research income to commit.

RTP stipends must be awarded competitively and while the explanatory statement of the Commonwealth Guidelines (Research) 2017, states that such scholarship levels 'ensures that RTP Stipends are provided to students that do not have other sources of income sufficient to support general living costs'[10], applicants with strong academic performances and publications are most likely to receive support regardless of need. While the Guidelines allow HEPs to grant priority to a subgroup of students, such as Indigenous, low SES or students working in a particular discipline, selection rules do not give priority to those whose income status and background make it difficult to undertake full-time research without support. In these straitened times RTP scholarships might be seen to favour those who have wider support networks to allow them to focus on their project and achieve a timely completion, such as industry partnerships and internship bonuses.

Other international models of PhD and research masters funding can be usefully reviewed to ascertain whether there are better ways to ensure stipend students receive remuneration in line with the cost of living rather than having to expend valuable research time undertaking paid casual work in order to survive financially. Some Danish universities pay scholarships as a salary, meaning that PhD candidates are employed by their institution until they submit their thesis (usually a three-year period) during which time they are offered about six months equivalent work; Denmark also offers Industrial Researcher PhD pathways, where students are employed by the industry partner and work in collaboration with industry and university in devising their project. The grant covers a contribution to the candidate's salary, travel, and the university receive funds for supervision, facilities and assessment. Norway also offers PhD students salaried status as research fellows for around three years, as well as supporting industrial PhD pathways similar to the Danish model. **ACGR recommends that alternative PhD and masters international funding models are**

[10] https://www.legislation.gov.au/Details/F2016L01602/Explanatory%20Statement/Text

reviewed with a view to considering how other countries support students for a fixed term at cost-of-living level. A version of such a system adapted to meet national needs and regulatory requirements, would provide candidates with work experience and skills development, thus adding a structure not currently available to the many HDR candidates who comprise a significant proportion of the casual teaching academic workforce.

Work Integrated Learning and embedding employment skills in HDR training.

Since the 2015 *Review of Research Policy and Funding Arrangements* (The Watt Review) there has been concern about the rate of translation of publicly-funded research into commercial outcomes. This was echoed in the ACOLA *Review of Australia's Research system* (2016) and industry collaboration was first incentivised by the requirement for reporting of HDR end-user engagement and the launch of APRIntern. Latterly a change to RTP guidelines (Dec 2021) increased completion weightings for eligible PhD students undertaking 60-day (FTE) internships in an industry setting on a topic related to their area of research. The 2023 launch of the National Industry PhD is reminiscent of similar schemes in northern Europe and allows for candidates to pursue research co-designed by university and industry while remaining employed. The CSIRO IPhd scheme offers tripartite collaboration between university, industry partner and CSIRO, with additional training and mentorship. Such schemes typically provide top-ups and other financial and infrastructural incentives to applicants, but might threaten to widen the gulf between the haves and have nots in relation to what is permitted in current Commonwealth guidelines regarding top-rate stipends and additional income worth up to 75% of stipend value.

There has been broad agreement about the importance of commercialisation outcomes for government funded research, but less consistent buy-in, on the side of industry and universities, to how these initiatives are being rolled out. The rigid requirements for eligible PhD research internships appear contrary to what employers value and recognize in the research graduates they employ – more often their generic transferable high-level research skills. There is a possible risk that in the race to win internships and completion weighting, research internships become more frequently confused with 'work': while such experiences provide a valuable enhancement to candidate skills and experience, unless carefully managed they may further delay overall PhD completions. **Now that the value of academic-industry engagement is better understood ACGR recommends that the multiple industry internship opportunities supported by government be reviewed to provide a simpler and consistent national model**, **structured to minimise regulatory and administrative burdens to student, supervisors and institutions. Additionally, ACGR recommends that the current definitions of eligible RTP internships be reviewed to consider whether the focus on early-stage commitment and projects related to area of research be reviewed for fitness for purpose in relation to industry as well as education requirements of HDRs programs**. ACGR also recommends that consideration be given to the inclusion of research masters students as eligible for RTP internships guidelines, given the compatibility of shorter research projects for some industry needs. It is possible that in the future the Australian research training system could accommodate **both industry PhD programs and a more flexible work**

integrated learning (WiL) solution for PhD and research masters students, including university-based placements. Such candidates for the latter scheme may be post-thesis submission and work ready (schemes such as the WA based iPrep operated with shorter 6–7-week group placements for students at the final stages of candidature for a number of years). Creation of national frameworks and policies which reduce the managerial and bureaucratic burden of multiple and relatively small-scale schemes would be a welcome sustainable investment in both research innovation and commercialisation.

Clarifying the purpose, structure, and delivery of the PhD into the future

A key finding of the ACOLA Report was that 'Broader transferable skills development is a necessary aspect of HDR training… transferable skills development is not as strongly embedded in our research training system as it is in some other comparable research training systems around the world'.[11] While acknowledging that one size does not fit all candidature needs and experiences, it was noted that the UK Vitae Researcher Development Framework provides a potential useful model for adaptation to Australian needs. The ACGR supported the implementation of this key finding by developing Good Practice Guidelines for Transferable Skills Development which recommended that institutions 'put in place a strategy and the necessary infrastructure for skills planning, delivery and recording, so as to incentivise engagement by candidates, supervisors, end users/employers and training providers.'[12] How do we weigh the value of transferable skills development delivered as a structured part of HDR programs versus the skills that may be learnt 'on the job' as part of an internship? **ACGR recommends that the development of a National Researcher Development Framework be considered accompanied by a review of how transferable skills are resourced, delivered and structured in HDR programs today.** Such a framework would also be of benefit to early- and mid-career researchers.

Valuing our HDR students and ensuring the quality of Australia's research training System

A: Health and Wellbeing

Although national surveys show high levels of overall student satisfaction, we know that mental health issues are more common among research students than any other student group or the population in general.[13] While there are many factors that have contributed to this increased reporting of mental health issues - ranging from anxiety to high levels of depression and even suicidal ideation - the pressures of research work, including increasing pressure to produce publications and citations, difficult relationships with supervisors or even experiences of bullying and other forms of harassment have a profound impact on candidate experiences. The focus on completion as the critical point at which the institution

[11] https://acola.org/wp-content/uploads/2018/08/saf13-review-research-training-system-report.pdf, p. 45
[12] https://www.acgr.edu.au/wp-content/uploads/2021/08/ACGR-Guidelines-for-Skill-Development-August-2021.pdf
[13] https://theconversation.com/you-have-to-suffer-for-your-phd-poor-mental-health-among-doctoral-researchers-new-research-174096; https://www.nature.com/articles/d41586-019-03489-1

realises a financial return on investment through RTP income can make a HDR candidate feel like a future 'output', rather than an early career researcher given time to hone essential skills and develop deep expertise in their chosen topic.

B: Supervisor Development and Recognition

While all universities are implementing further measures to support general student health and wellbeing, it may be that the *culture* of research training in the high-pressure performance-oriented environment of modern universities has been eroded over time. The pressure to perform that candidates feel keenly is mirrored in the experience of their academic supervisors who may feel torn between providing the mentoring time and support they experienced as graduate students and meeting their own performance KPIs - volume of publications, grant applications, teaching excellence and research impact. High-quality HDR supervision is recognised as an important part of academic activities and leadership and breakdowns in supervisory-student relationships are the chief cause of student withdrawals and serious complaints. Yet professional development and training for supervisors is often underfunded and light touch. Supervision as a professional activity and obligation is caught in the gap between teaching and research and can be overlooked in academic workload models. The League of European Universities' (LERU) recent advice paper on holistic doctoral supervision notes that HDR supervision is a privilege and calls for an 'improved culture of appreciation' which 'includes treasuring diversity, assessing both the strengths and short comings of the individual for targeted training, and investing in doctoral researchers for the future of societal development,'[14] the UK Council for Graduate Education (UKCGE) has worked with UK Research and Innovation (UKRI) to explore how research supervisors could be better supported, recommending that 'UKRI should lead the sector in championing doctoral education as vital to the future of academic research and the UK's standing as a leading knowledge-based economy'[15] The UKCGE has created a resource library on supervision which sits under their good supervisory practice framework. The Framework enables supervisors to seek UKCGE recognition for their experience. **ACGR recommends that consideration be given to the scoping and development of a national supervisory practice framework with the capacity to offer recognition or even accreditation status.**[16]

Equitable access to research training opportunities and support- adapting to needs of candidates.

A: Indigenous HDRs

As is noted in the Accord Discussion paper, ensuring that all Australians gain equal access to educational opportunities and lifelong learning is an ongoing challenge. The RTP has within

[14] https://www.leru.org/publications/lerus-view-on-holistic-doctoral-supervision, p.4.
[15] https://www.ukri.org/wp-content/uploads/2023/01/ESRC-260123-UKRI-ReportonSupportingSupervisoryPractice-UKCGE.pdf, p.5
[16] See for example Advance HE's Professional standards framework for teaching and learning which is utilised in a number of Australia HEPS - https://www.advance-he.ac.uk/fellowship

it structured rewards for Indigenous HDR participation in terms of double-weighted completions, but such an initiative assumes a pool of research-ready Aboriginal and Torres Strait Islander applicants and does not take into account pipeline and wider cultural concerns. **ACGR recommends that greater consideration be given to the creation of well-funded and structured undergraduate-PhD pipelines for Indigenous students**. This requires greater understanding of the support and incentives required to keep highly educated Indigenous candidates in the education system when their skills and expertise are in high demand in other professions. It is important to recognize, too, that cultural safety is of paramount concern and that many Indigenous students find themselves isolated in large programs. There is another pipeline issue – that of relative scarcity of Indigenous academic supervisors, individuals who are often in high demand for other university leadership roles. **The current RTP guidelines encourage individual university solutions to complex national problems. Enabling joint or collaborative enrolments and shared recognition of supervision and completion will help develop the expertise required to deliver a successful pipeline of Indigenous researchers into academia and the wider professions.** Universities need to explore how to attract and acknowledge first nations innovators that may not have followed a traditional pathway.

B: Equity and Access

Increased flexibility in RTP leave provisions would better serve a number of groups less likely to have equal access to HDR programs – examples include cultural leave for Indigenous candidates, and domestic violence and carer's leave (broadly defined) for all candidates. Currently RTP stipends are awarded based on 'excellence' and if an institution wants to create support programs for PhD students based on equity and inclusion criteria this must be funded internally. Expanding selection criteria based on equity categories and reviewing definitions of diversity groups e.g., **an expanded understanding and definition of 'carer'** encompassing older individuals caring for aging parents and younger people with disabilities would more effectively support equity-based enrolments.

The over-regulation of HDR programs and under analysis of HDR data

While the RTP as currently formulated allows flexibility in the distribution and allocation of funds for research training, certain schemes and initiatives consume a disproportionate amount of administration and academic time for relatively small rewards. **It is important to direct the majority of RTP funds to the support of research training**. The steps needed to report eligible RTP internships for PhD students are a case in point, where early-stage candidates are being asked to secure lengthy internships at a point where their individual value to those end-users may be unproven; additionally and as noted earlier the requirement of internships related to the area of research undervalues the wider attributes and transferable skills or Australia research graduates. Schemes such as the National Industry PhD program funds third-party providers to deliver administrative and training support and yet still requires significant administrative support at university level, with named key contacts at each HEP. Such programs expect institutions to adapt their practices to each bespoke scheme in ways which are less than cost effective.

The data currently provided by the Commonwealth is either flawed in its methodology (HDR completions reporting) or extremely tardy – usually involving a two-year time lag. Real-time data on HDR commencement, completions and drawing other data collected by the Commonwealth would be of immense benefit to the sector. **ACGR recommends that Departments involved seek feedback from relevant stakeholders (such as Deans/PVCs of Graduate Research) on the quality of data currently publicised and seek ways to improve its utility and integrity.**