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LEARNED ACADEMIES SPECIAL PROJECT

Future Humanities Workforce

Literature Review

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1 About the Project

Australia's humanities sector makes a vital contribution to the prosperity of our nation. Through research and teaching, humanities disciplines drive social and cultural understanding, enable effective international engagement, and contribute to economic and social innovation.

To ensure the continuity of this contribution into the future, we need a deeper understanding of the demographics and capacity of our humanities workforce, the challenges faced by this workforce today, and strategies to secure its ongoing capacity and productivity.

The *Future Humanities Workforce* project approaches this task through an examination of the humanities research workforce, which is comprised of both the university-based academic workforce and the wider postgraduate-trained workforce. This cohort plays a key role in preserving and advancing deep disciplinary knowledge in the humanities; in creating opportunities for knowledge exchange between academia, government and industry; and in training future generations of humanities graduates for working in Australia's largest and most productive industries.

The research underpinning this project builds upon the work that informed the Academy's 2014 report, *Mapping the Humanities, Arts and Social Sciences in Australia*. With that report, the Academy provided a detailed analysis of the research and training capacity across the humanities, arts and social sciences, and the contribution these disciplines make to Australia's higher education sector and beyond. With the *Future Humanities Workforce* project, the emphasis is on the question of how best to future-proof the humanities research workforce, as well as strategies to ensure its ongoing resilience and vitality.

The project consists of three inter-related streams of enquiry:

- support systems for early career researchers in the humanities;
- the skills, capabilities and knowledge that will be needed by the future humanities workforce, including digital and data literacy; and
- workforce diversity and gender equity.

These areas are all critical to the ongoing prosperity of humanities disciplines in Australia.

The project employs a broad framework to investigate the future of the humanities workforce within a wider employment context. Our investigation is informed by current debates regarding the future of work more broadly, and the ways in which the trends that are shaping the future of work will transform academic research and training. The investigation will also focus on researchers beyond academia, recognising the fact that a large portion of humanities PhDs will likely transition into and out of academia over the course of their careers. We draw upon current research on the skills and capabilities that

are developed through humanities training at different degree levels, and on how those skills are applied in specific professional contexts.

A note on terms and definitions

In this literature review, 'humanities' refers to the fields of study and research that investigate human cultures, values and beliefs. This generally includes studies in the creative arts and writing; language, communication and culture; history and archaeology; and philosophy and religious studies. In quantifying humanities research output in Australia, this literature review uses Field of Research (FoR) classification codes. These codes are used by government departments and agencies, universities, the Australian Research Council (ARC), and the Australian Bureau of Statistics (ABS) to evaluate research investment, outcomes and impact. For other terms used in the literature, please refer to the Glossary.

2 The Humanities in Australia

Australia's Humanities is part of a broader Arts and Social Sciences sector (together HASS) that makes a major contribution to the national higher education, research and innovation system, and to preparing citizens for participation in the workforce.[1] HASS disciplines account for 59 per cent of all undergraduate and postgraduate course enrolments across Australia, and there is strong evidence that these students derive great satisfaction from their studies, and enjoy positive employment outcomes. In the domain of research, the HASS sector received 17 per cent of all national research income, contributed 41 per cent of the total number of 'Units of Evaluation' in the 2015 Excellence in Research for Australia (ERA) assessment exercise conducted by the Australian Research Council (ARC), and produced 35 per cent of all research outputs across the entire university sector. The quality of research ranked well against world standards for most HASS fields, with many research fields achieving outstanding results. The ARC has recognised strong performance in terms of quantity too, with numbers of research outputs growing across the sector. HASS researchers have also historically performed well in the national competitive grants scheme.

These figures are in contrast to contemporary debates on the state of the humanities in higher education, which are often shaped by a discourse of crisis. In 2013 Harvard University produced a report on the 'troubled status of the Humanities,' reflected among other things in declining enrolments in these disciplines.[2] Other commentators note that the increased pressure on institutions of higher learning to provide 'more utilitarian, career-oriented' training, structural changes that have produced greater casualisation of academic labour and a rise in staff-student ratios, and reduced investment in humanities teaching and research together spell out a grim future for the humanities.[3] Yet in seeking to develop a more nuanced understanding of the state of the humanities globally, commentators in the United States, Great Britain and Australia insist that the humanities have weathered many storms in the past, and that the situation today is in fact not as dire as some would have us believe.[4] While this optimism is often tempered by the important reminder that 'past returns are no guarantee of future performance,' it is clear that the humanities sector remains resilient.[5]

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[1] Graeme Turner and Kylie Brass, *Mapping the Humanities, Arts and Social Sciences in Australia*, Canberra: Australian Academy of the Humanities, 2014, p. 1.
[2] Harvard University, Arts and Humanities Division, 'The Teaching of the Arts and Humanities at Harvard College: Mapping the Future,' 2013, p. 3.
[3] Peter Mandler, 'Rise of the humanities,' *Aeon* (17 December 2015).
[4] Mandler, 'The rise of the humanities'; Tully Barnett, 'Are the humanities in crisis? In Australia, the sector is thriving,' *The Conversation* (27 April 2015); Mark Garrett Cooper and John Marx, 'Crisis, Crisis, Crisis: Big Media and the Humanities Workforce,' *A Journal of Feminist Cultural Studies* 23, no. 3 (2004), pp. 127-159.
[5] Mandler, 'Rise of the humanities.'

This cautious optimism also underlines the finding from the Academy's 2014 *Mapping the Humanities, Arts and Social Sciences in Australia* (*Mapping HASS*) report. While the report highlighted the strong performance of the HASS sector across teaching and research areas, it also noted that this high level of performance has been maintained despite significant pressures generated by the shift to a more market-oriented university system, systemic impediments, and changing university strategies for the allocation of funding, all of which has had an adverse effect on teaching and research capacity across a number of HASS fields.[6]

In terms of teaching capacity, *Mapping HASS* produced evidence that the range of offerings across HASS disciplines is falling, particularly at regional universities. Teaching across HASS disciplines is also affected by high student-staff ratios, the report citing 22.6 students per full-time equivalent (FTE) academic staff member (against a ratio of 16.8 student per FTE academic staff member in STEM – science, technology, engineering and mathematics – disciplines). The unbalanced profile of the academic workforce is another major area of concern. While an ageing workforce has produced an impending shortage of senior staff, the precariousness of academic labour raises the question of who will assume stewardship of HASS disciplines in the future. In addition, persistent issues regarding diversity and gender equity continue to create asymmetries within the academic workforce, stifling its potential.

The HASS sector is also impacted by changes in the public and private investment commitments. The Government is the largest investor in the HASS sector with 6.5 per cent of the total $3.5 billion expenditure on research and development (R&D) in 2011-12 being allocated to HASS disciplines. Higher education R&D expenditure is critical for the HASS sector, and indeed significantly more important than for other sectors, with HASS receiving $2.3 billion – or 28.5 per cent – of total higher education R&D investments in 2010.[7] Public and university funding for research in the HASS disciplines has not, however, grown at the same rate as scientific research. Furthermore, the available data from the ARC indicates that the portion of funding for the humanities research has diminished over the years, despite the fact that the overall level of funding at ARC's disposal remained the same.

Meanwhile, investment from the private sector remains low, with HASS research receiving just 2.85 per cent of the $17.9 billion in business R&D expenditure in 2010-11. In part this low investment level reflects current tax incentives for R&D, which explicitly excludes HASS research from core R&D activities, limiting opportunities for additional investment from the business, and for building industry partnerships.

While the HASS sector in general (and the humanities in particular) is maintaining its performance and while crisis would be an excessive description of the current state of affairs, there are signs that levels of investment are affecting capacity. Understanding and addressing critical pressure points that impact the current and future capacity of the sector is a task of increasing urgency.

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[6] Turner and Brass, *Mapping the Humanities, Arts, and Social Sciences in Australia*, pp. 1-3.
[7] Ibid., p. 43.

3 The Future Humanities Workforce

In thinking about how to best future-proof the humanities sector, a survey of reports from a number of countries, including the United States, the United Kingdom, Germany and Australia, shows that the university sector and representative disciplinary bodies are beginning to look more systematically at workforce planning, with particular focus on several important issues.

First, the question of the future humanities workforce intersects with a larger debate on the future of work and workers, which has in turn prompted questions as to what skills humanities graduates generally, and humanities researchers specifically, will require to successfully navigate the labour market. In addition, while postgraduate training may have traditionally been a pathway towards academic employment, there is today increasing consensus that a large portion of PhD graduates will work outside academia.[8] Accordingly, PhD training must strike a balance between the advanced training that is required for developing comprehensive specialist knowledge, while also cultivating generalist skills that are fundamental for transitioning between different professional fields.

Second, significant focus in these debates has been placed on the question of how best to support the next generation of humanities researchers as they navigate an insecure and demanding academic labour market. Data underpinning recent reports on higher education highlights an ageing academic workforce, with *Mapping HASS* revealing that almost half of all HASS fields have more than 50 per cent of their staff over the age of 50 (although this data should be revisited in the aftermath of a series of restructuring initiatives across Australian universities).[9] This situation presents some major succession planning challenges, especially in the context of diminishing numbers of ongoing full-time positions, and a growing rate of casualisation of academic labour. Available data indicates that between 2002 and 2012 there was a 43 per cent increase in the proportion of casual staff to full-time staff, and that casual staff now deliver as much as half of all teaching across the system.[10]

A recent report on Australian higher education published by the Grattan Institute noted that in 2017 Australia's universities employed 123,000 people on a permanent or fixed-term contract basis (across both academic and professional roles). Alongside this, mid-2018 data from UniSuper indicated that some 94,500 people were employed on a casual basis, predominantly in teaching-only academic roles and at the most junior academic rank. The Grattan report noted that while casual employment causes difficulties for affected staff (and by extension workforce planning), it will remain common across the university

[8] See The Group of Eight, *The Changing PhD*, Discussion Paper, 2013, pp. 24-26.
[9] Turner and Brass, *Mapping the Humanities, Arts and Social Sciences in Australia*, p. 76.
[10] Ibid., p. 77.

sector.[11] This situation poses the critical questions of how, under these conditions, the sector can preserve and advance disciplinary knowledge; how it can avoid losing talent to other sectors; and what mechanisms need to be put in place to help researchers in the critical early stage of their careers.

Third, debates over future-proofing the humanities sector also raise questions of cultural diversity and gender equity, and the steps that need to be taken to prevent the reproduction of current asymmetries within the future humanities workforce. Information on the HASS workforce included in the *Mapping HASS* report is a strong warning signal regarding gender inequity within academia, a domain in which most casual work is performed by women, and where participation by women is described as a 'leaky pipe,' with only relatively small numbers of women being able to secure sustained career progression and rise to senior positions. In Australia, calls to address gender inequity have been especially pronounced within the fields of science, technology, engineering, mathematics and medicine (STEMM), as gender imbalance across these fields remains severe. While such levels of disparity are not present within the HASS sector, there is nonetheless an ongoing discussion over systematic barriers that prevent participation by women across all levels of employment and mechanisms to address these trends. In a similar vein, studies on diversity in higher education reveal that much remains to be done to achieve equitable representation of minority groups across the academic workforce. An Australian Government review of higher education access and outcomes for Aboriginal and Torres Strait Islander people revealed that Indigenous students made up 1.4 per cent of all enrolments at university in 2010; 1.1 per cent of the higher degree by research (HDR) cohort; and 0.8 per cent of all HDR completions, while Aboriginal or Torres Strait Islander staff constituted 0.8 per cent of all FTE academic staff[12] – figures that were all well below the 2006 national parity rate of 2.2 per cent.[13] While various measures have been taken to increase participation by Aboriginal and Torres Strait Islander people in higher education generally and the academic workforce in particular, achieving parity remains a major challenge.

[11] Andrew Norton and Ittima Cherastidtham, *Mapping Australian higher education 2018*, Grattan Institute Report No. 2018-11, 2018, pp. 35-36.
[12] Larissa Behrendt, Steven Larkin, Robert Griew, Patricia Kelly, *Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Islander People Final Report*, 2012, pp. 6-10.
[13] More recent data suggests a current Indigenous population parity rate of 2.7 per cent, against a 1.6 per cent rate of domestic enrolments. Universities Australia, 'Universities Unveil Indigenous Participation Targets,' (1 March 2017).

4 Skills, Capabilities and Knowledge

4.1 Humanistic Training

Discussion about the future of the humanities generally – and the humanities workforce in particular – is often broached through the question of skills. Humanities scholars point out that humanistic training should not be thought of as preparation for a single, specific career, but rather as a way to develop the skills, knowledge, and modes of reasoning that are beneficial in a wide range of career options. The abilities associated with the humanities – to engage with, evaluate and synthesise an array of sources; to present a coherent argument in either written or spoken form; to appreciate multiple points of view – are the foundational skills of a competent and agile workforce. On a broader level, the critical perspective developed through the study of the humanities has been vital for the development of responsible and self-reflective citizens. Philosopher Martha Nussbaum argues that studying the humanities develops the capacity 'to think critically, to transcend local loyalties [and] imagine sympathetically the predicament of another person.'[14] In this way, the humanities are central in shaping a society that, as media scholar Julianne Schultz highlights in her contribution to *The Conversation*, is capable of having a 'grown up conversation' about difficult subjects.[15] Yet against a background of ongoing economic uncertainty and a rapidly transforming labour market, the concrete benefit and relevance of humanities training is often questioned in both political and broader public discourse.

Seeking to address commonly-articulated concerns over the value of HASS degrees, the British Academy published a report in 2017 entitled ***The Right Skills***.[16] The report aimed to outline in detail the skills and abilities gained through HASS training, and clarify the economic and social contribution of the HASS workforce. This study was part of a larger initiative by the British Academy dedicated to stimulating and facilitating a national debate about the value of HASS skills that will run through to 2020. The first stages of this initiative focused on addressing the areas of acute skills deficit such as the language capacity and quantitative skills. The work conducted as part of ***The Right Skills*** report extended this initiative to look at skills across the range of disciplines and answer the question of what skills HASS graduates possess, what contribution they make to society and the economy, and what skills are sought by employers now, and are likely to be sought in the future.

[14] Martha C. Nussbaum, *Not for Profit, Why Democracy Needs the Humanities*, Princeton: Princeton University Press, 2010, p. 7
[15] Julianne Schultz, 'Friday essay: what do we want to be when we grow up?' *The Conversation* (21 September 2018).
[16] The British Academy for the Humanities and Social Sciences, *The Right Skills: Celebrating Skills in the Arts, Humanities and Social Sciences*, 2017.

In producing the report, the Academy analysed the different skills developed through the study of HASS disciplines at undergraduate level and above, including the early stages of a career in research in these subjects. ***The Right Skills*** identified a core set of skills that are common to all HASS disciplines, and classified each of these skills as belonging to one of three broad categories:

1. communication and collaboration;
2. research and analysis; or
3. behaviours characterised by independence and adaptability.[17]

These three areas were each further broken down into sets of specific skills and proficiencies. For example, communication is defined by the ability to produce clear and coherent explanations and descriptions; to formulate persuasive arguments that are supported by evidence; and to deliver content that is purpose- and audience-appropriate, and uses technology in a manner that supports the key message. In turn, skills associated with collaboration include an ability to listen to and recognise different viewpoints; to understand cultural context; to work with others by using negotiation and diplomacy; to take on different roles; and to lead and motivate others by understanding how to exert influence.

The broad category of research and analysis was divided into sub-categories that include designing research processes and collecting evidence; analysing; and decision-making, with specific skills associated with each of the sub-categories. Similarly, the third broad category is divided into three groups: independence; problem solving; and adaptability and creativity, with each comprised of a set of specific behaviours and characteristics.

This analysis was also applied at the disciplinary level, providing insight into the skills developed within a specific area of study (such as, for example, skills in language; archival retrieval; high-level numeracy; or production, recording and broadcasting, among others) in addition to the common HASS skill set. ***The Right Skills*** argued that skills were developed across all educational stages, with levels of proficiency rising as individuals undertake more advanced study. Furthermore, the report demonstrated that HASS training developed a skill mix that was conducive to interdisciplinary work and collaboration.

Perhaps the most significant aspect of the report is its effort to provide a detailed outline of HASS skills at both a whole-of-sector and a disciplinary level, and present them in the language of the job market (as reflected in job advertisements or selection criteria). In doing so, ***The Right Skills*** sought to demonstrate the alignment between HASS training and the skills, behaviours and knowledge required within the labour market.

Through a series of case studies, the report also highlighted the positive employment prospects of HASS graduates and researchers, demonstrating that training in the humanities, arts and social sciences was a common feature of staff across numerous sectors of the British economy, from the cultural and creative sectors, to the public service, education, media, finance and law. As a predominantly service sector economy with particular expertise in the creative industries, finance and higher education sectors, Britain

[17] The authors of the report use the term 'skills' broadly, going beyond 'what you can do' to include attitudes and behaviours. See ***The Right Skills***, p. 18.

relies significantly on the skills of HASS graduates.[18] In addition to making a direct contribution to the economy, the report demonstrated that HASS training encouraged active citizenship, as graduates from these disciplines are more likely to be socially engaged, to volunteer, and to vote. Though HASS training may be questioned or even unrecognised, the report demonstrated that this training has made – and continues to make – a substantial contribution to the country's economic prosperity, social cohesion and international security. Ultimately ***The Right Skills*** insisted that this impact must be made more visible in order to change the quality of contemporary debate on the HASS sector. In doing so, it invited the HASS community, universities and employers to recognise, promote and signal the distinctiveness of the HASS skills and increase understanding of their role among employers, prospective students and the public.

A number of findings from ***The Right Skills*** report were echoed in a 2018 Deloitte Access Economics study commissioned by Macquarie University entitled ***The Value of the Humanities***.[19] By bringing together a synthesis of current literature on the humanities sector, analysing graduate outcomes and employer satisfaction surveys, and consulting with businesses, public sector agencies and researchers in the humanities disciplines in Australia, the study sought to demonstrate the economic, social and intrinsic value of humanistic training. In investigating the employment outcomes of humanities graduates, the authors argued that the skills developed through training in the humanities are relevant across a variety of business areas, with both 'technical skills' (such as quantitative analysis, policy development, software use, foreign languages) and 'transferable skills' (communication, teamwork, problem solving, innovation, emotional judgement) seen as critical to business success. Importantly, the Deloitte study included the observation that humanistic training stimulates the development of a skills mix required to tackle the so called 'wicked problems' of contemporary life – major challenges that will shape our future, and that will require an interdisciplinary approach if they are to be solved, such as climate change, obesity, and Indigenous disadvantage. Here the ability to operate as part of a team, to engage with people from different cultural, linguistic, and disciplinary backgrounds, and to think in a critical and analytical manner are all identified as relevant skills in the context of tackling 'wicked problems' – and as skills that are developed through the study of the humanities.

In their effort to precisely define the humanities skills set, the authors of the Deloitte study provide a list of technical skills that are developed by students undertaking specific courses in the humanities. For example, training in history develops the ability to interpret and evaluate evidence, conduct research, and manage a project, while the study of languages builds language competency, cultural sensitivity, and diplomatic acumen. The study also offers a typology of transferable skills developed through the pursuit of a humanities degree including, for example, self-management, communication, teamwork, digital literacy, critical thinking, and ethical and emotional judgement among others.[20] Both

[18] Alun Evans, Flagship Skills in the Arts, Humanities and Social Sciences Project Launch at the British Academy (27 January 2017).
[19] Deloitte Access Economics, Macquarie University, *The Value of the Humanities*, 2018. The study uses definition of the humanities outlined by the American Academy of the Arts and Sciences (***The Value of the Humanities***, p. 9).
[20] For the full list see ***The Value of the Humanities***, pp. 12-14.

technical and transferable skills are further linked to particular positive workplace outcomes: critical thinkers and problem solvers are able to identify potential issues early on and implement creative solutions; employees with strong self-management skills are likely to require less oversight and make a greater contribution to team cohesion; people who possess good communication skills are often easier to work with and tend to relate to clients better.[21] In a similar vein to *The Right Skills*, the Deloitte study focuses on translating the humanities skills set into the language of the labour market, and demonstrating the benefits of these skills within a knowledge economy in an effort to move beyond common biases associated with employability of arts and humanities graduates. Indeed, the importance of these efforts is underscored by written submissions made to the Australian Parliament's Select Committee for the Future of Work and Workers in early 2018, which show that while stakeholders habitually identify skills such as problem solving and critical thinking, creativity, negotiation, ethical decision making and abilities such as adaptability and emotional intelligence as being highly sought after employee qualities, these skills are not readily associated with a training in the humanities.[22] In this respect, there is much work to be done in better positioning an arts and humanities education within debates on the current and future workforce.

Efforts to outline the skills developed through the study of the humanities, their value across different professional sectors, and the impact that humanities graduates make within society have also been made by the National Humanities Alliance (NHA) in the United States.[23] This advocacy body, which is dedicated to advancing humanities research, education and preservation, has compiled an array of resources for higher education faculties to use in asserting the value of studying the humanities. The toolkit, available via the NHA website, contains qualitative and quantitative data pertaining to graduate career destinations and earnings, examples of high-achieving humanities graduates, and a selection of articles and videos demonstrating that studying the humanities helps students to succeed in a wide range of careers and provides benefits beyond the marketplace. Conceptualised as a resource that the humanities sector can use to better communicate its role within higher education and broader professional contexts, this project is also envisaged as a starting point for efforts to gather additional data from the humanities community.

[21] *The Value of the Humanities*, p. 18.
[22] Parliament of Australia, Select Committee on the Future of Work and Workers, Submissions Received by the Committee, 2018.
[23] National Humanities Alliance, *Study the Humanities, Make the Case*.

5 Humanities and the Future of Work

Global debate over humanities training and its interaction with the contemporary labour market must be recognised as part of a larger conversation on the future of work and the technological, socio-economic, geopolitical and demographic forces that will shape it. Recent Australian reports on this topic have focused in particular on the impact of technology and looked into a range of possibilities as to how new technologies will change what we do, and where and how we do it. While scientific discoveries and technological developments have produced major shifts in human life and work throughout history, there is a general sense that the shifts that are occurring today as part of what engineer and economist Klaus Schwab has termed the Fourth Industrial Revolution will be somehow more profound, and that there is a greater urgency to prepare our response to phenomena such as the internet of things, big data, machine learning, cloud computing, and others.[24]

A common thread in these reports is the effort to refocus debate about the future of work onto job transformation instead of job destruction. While it is true that many routine-task jobs will disappear in the future, a much greater challenge lies in preparing for the new jobs that will emerge, and the likelihood that current jobs will undergo a series of transformations. Labour market analysts place particular emphasis on the 'hybridisation of jobs' – the emergence of new 'hybrid jobs' that require skills sets from widely different fields.[25] With this in mind, the workforce of the future will need to be equipped with skills and abilities that above all else support intellectual agility and professional mobility – higher-order cognitive skills that will be sought after across a range of different professional contexts and industries. While the definition and description of these skills may vary, they generally encompass the ability to synthesise and articulate complex ideas, form judgements and make (ethical) decisions, solve problems through critical and creative thinking, communicate in an effective manner, teach and train others, and collaborate with people of diverse backgrounds by exercising empathy and emotional intelligence.[26]

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[24] Karl Schwab, ***The Fourth Industrial Revolution***, Geneva: World Economic Forum, 2016; Joshua Healy, Daniel Nicholson, Peter Gahan, *The Future of Work in Australia: Anticipating how new technologies will reshape labour markets, occupations and skills requirements*, NSW Department of Education, 2017; Joshua Healy, Daniel Nicholson and Jane Parker, 'Guest editors' introduction: technological disruption and the future of employment relations,' ***Labour and Industry*** 27, no. 3 (2017), p. 158. See also World Economic Forum, *The Future of Jobs, Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution*, 2016.

[25] Burning Glass Technologies, *The Hybrid Job Economy, How New Skills Are Rewriting the DNA of the Job Market*, 2019, p. 6.

[26] Healy, Nicholson, Gahan, ***The Future of Work in Australia***, p. 42; Innovation and Science Australia, *Australia 2030, Prosperity Through Innovation*, 2017, p. 2; ***The Right Skills***, p. 49; The Foundation for Young Australians, *The New Work Smarts, Thriving in the New Work Order*, 2017, p. 3; PwC and the Australian Higher Education Industrial Association (AHEIA), ***Australian Higher Education Workforce of the Future***, p. 11; World Economic Forum, ***The Future of Jobs***, p. 21; Stuart Cunningham, Max Theilacker, Peter Gahan, Victor Callan and Al Rainnie, *Skills and capabilities for Australian enterprise innovation*, Melbourne: Australian Council of Learned Academies, 2016, p. 6. See also Select Committee on the Future of Work and Workers, *Hope Is Not a Strategy – Our Shared Responsibility for the Future of*

Together these skills underpin what has been termed 'meta-intelligence,' or the ability to develop an understanding of what knowledge is in different contexts. In light of these analyses, humanities training appears fundamental in preparing the future workforce.

Indeed, the fact that humanistic training develops a range of different and transferable skills will be a major advantage in the context of future work. Commentators assert that most people who enter the workforce today can expect to find themselves working in a number of different jobs and experience multiple career shifts over the course of their working life. One study suggests that most current Australian high school students will have 17 different jobs and go through five career changes once they complete their formal education.[27] Transitioning not only within a single 'job cluster' but also across different clusters will be common, as will be what some commentators refer to as a 'portfolio career' which is described as 'the ability for professionals to split their time and skills between two or more part-time positions throughout their careers.'[28] This transformation in the very nature of work, which in many sectors is perceived as a major shift, has in a sense always been intrinsic to the working experience of humanities graduates.

A 2013 University of Oxford report entitled *Humanities Graduates and the British Economy – A Hidden Impact* provides a good illustration of this point.[29] Combining a quantitative study of 11,000 humanities graduates who completed their study at University of Oxford between 1960 and 1989 and a qualitative study of interviews with 50 humanities graduates, this report demonstrated that humanities training develops skills that had kept graduates in good standing throughout their careers, allowing them to successfully transition across multiple careers. The author found that hiring and career advancement was closely tied to evidence of an individual's capacity to continually learn new technical and other skills, communicate well, and quickly adapt in the face of new challenges. The skills at the core of humanities-based higher education were repeatedly cited as the basis of these capacities, and in particular skills commonly developed as part of weekly tutorials, such as the ability to produce persuasive written and verbal communication; to construct, defend and rearticulate an argument; to assimilate and work with large bodies of information; and to identify specific pieces of information and prioritise facts through active listening. Furthermore, humanities graduates proved extremely resilient during the major economic shift that Britain experienced in the 1970s, and were able to find opportunities across wide range of industries. This ability to transition and adapt to new working environments suggests that humanities graduates maintain an affinity for learning throughout their careers, which is repeatedly hailed as a quality that will be increasingly sought by employers in the future. While this study may be limited by its focus on a single institution of higher learning (and moreover an institution whose reputation certainly provides its graduates with a competitive advantage in the labour market), the underlying data nonetheless confirms the great level of professional mobility and adaptability of humanities graduates. Importantly, in revealing that a large proportion of this cohort did

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Work and Workers, 2018 and Project Lead the Way and Burning Glass Technologies, *The Power of Transportable Skills, Assessing the Demand and Value of the Skills of the Future*, 2019.

[27] Department of the Prime Minister and Cabinet, *National Innovation and Science Agenda, Welcome to the Ideas Boom*, 2015, p. 12.

[28] Healy, Nicholson, Gahan, *The Future of Work in Australia,* p. 42; *The Right Skills*, p. 52.

[29] Philip Kreager, *Humanities Graduates and the British Economy, The Hidden Impact*, University of Oxford, 2013.

not begin their careers in the occupational sectors in which they would ultimately work, the report pointed to the value of collecting longitudinal data in understanding career trajectories and destinations.

6 Data Collection

The issue of insufficient data on graduate and researcher career pathways is another major component of the debate on the future humanities workforce. Reports from the United States, Britain, Australia and Germany all highlight the need for greater efforts to collect longitudinal data about career profiles, in order to design better research training programs and provide more effective support to early career researchers. Indeed, the first recommendation to emerge from the 2016 review of Australia's research training system conducted by the Australian Council of Learned Academies specifically addressed the need to obtain better information about the career pathways of higher degree by research (HDR) students. Having a more comprehensive understanding of potential career outcomes at the outset of their training would allow researchers to make more informed decisions about their career development.[30]

Collecting this information is, however, not easy, with a recent article in the *Chronicle of Higher Education* outlining some of the challenges associated with collecting data on PhD recipients and their employment track records within the United States.[31] Universities and colleges, the author argued, still tend to focus exclusively on those PhD graduates who secure tenure-track positions, rendering the career pathways of others largely invisible and perpetuating the notion that not securing a professorship represents a 'failure of both student and program.'[32] At the same time, there are often logistical difficulties in tracking alumni and collating, processing and publishing the relevant information. Gathering data is a challenge not only in tracing the career pathways of those who earn PhDs, but also doctoral candidates who withdraw from their programs.[33] PhD programs generally (and within the humanities specifically) are, however, under increased pressure to raise transparency (and by extension accountability) in relation to job prospects for their graduates, particularly in light of the effort that goes into completing these degrees, and the reality of an academic job market that cannot absorb current PhD numbers.

A notable example of this increased effort in collecting data can be seen in a project by the American Historical Association (AHA) entitled ***Where Historians Work: An Interactive Database of History PhD Career Outcomes***.[34] Emerging as part of the AHA's Career

[30] John McGagh, Helene Marsh, Mark Western, Peter Thomas, Milla Mihailova, Matt Wenham, *Review of Australia's Research Training System*, Melbourne: Australian Council of Learned Academies, 2016, pp. xi-xii.
[31] Vimal Patel, 'Colleges Can't – or Won't – Track Where Ph.D.s Land Jobs. Should Disciplinary Associations?' *The Chronicle of Higher Education* (17 July 2018).
[32] Ibid.
[33] For information on the challenge of collecting data on PhD candidates who do not complete their course of study see Emma Pettit, 'What Numbers Can Tell Us About Humanities Ph.D. Careers,' *The Chronicle of Higher Education*, 6 January 2019.
[34] American Historical Association, *Where Historians Work: An Interactive Database of History PhD Career Outcomes*. See also Emily Swafford and Dylan Ruediger, 'Every Historian Counts, A New AHA Database Analyzes Careers for PhDs,' *Perspectives on History* (9 July 2018).

Diversity for Historians initiative and attracting funding from the Andrew W. Mellon Foundation, this project created an interactive online database to catalogue career outcomes of the 8,523 historians who earned PhDs at US universities between 2004 and 2013. Rather than using traditional alumni surveys, the data was collected through a study of university, organisation, and company websites; LinkedIn; personal blogs and websites; newspaper announcements; biographies on publisher websites and conference programs; and various social media outlets.

The researchers began with a list of names and dissertation titles that were collected from the AHA's Directory of History Dissertations. History departments in the US report completed dissertations to the AHA, and while this reporting occurs on a voluntary basis, the Directory is largely complete, including information on 95 per cent of all dissertations. The Directory allowed researchers to compile a list of names, graduation years, departments and specialisations based on dissertation titles. Using this information as the starting point, the research team tracked the current employment of history PhDs using publicly available online sources. Without making any direct approach, the team was able to identify the employment of 93 per cent of PhDs, and present the results using sophisticated data visualisation software.

This database allows users to see the number of awarded PhDs annually, the broad sectors of employment of these graduates (including the number of historians employed at universities, and the number of those employed elsewhere), career outcomes by department and specialisation, and the geographic distribution of historians both across the US and globally. This data can also be broken down by gender and other relevant categories. With this project, the AHA signalled its commitment to transparency in discussions of history PhD career paths, in order to push the debate beyond best-case scenario stories that are commonly brandished on faculty websites for promotional purposes. ***Where Historians Work*** allows current and potential graduate students to understand the full scope of career options open to history PhDs, and to research which departments best fit their values and goals. The database also enables departments to better meet the professional development needs of their doctoral students, while also documenting the broad impact of doctoral training in history.

Notably, this database revealed that a large portion of history PhDs graduating from US institutions found employment within academia. Of the entire cohort, the largest portion of history PhDs (47.4 per cent) were in a four-year tenure-track position, with an additional 20.8 per cent employed across different academic roles (either in two-year tenure track, four- and two-year non-tenure track, or postdoctoral/research positions). This finding runs contrary to the prevailing narrative about PhD career pathways in the US (and which is also present in Australia and the UK) that most PhD graduates (regardless of discipline) will ultimately find employment outside the university sector. In Australia this point has been repeated in numerous studies and reports produced by different government agencies and university sector peak bodies. The Group of Eight (Go8) 2013 discussion paper on the changing nature of PhDs highlights, for example, a study by the Royal Society in the UK that showed that just 3.5 per cent of science PhDs under consideration went on to become permanent research staff at universities, and only 0.45 per cent went on to become

professors – as almost 80 per cent of this cohort moved on to careers outside science.[35] The author of the Go8 discussion paper suggests that it would be reasonable to imagine that this situation would be similar across the social sciences, humanities and creative arts in the UK and other developed countries. While the results from the AHA survey need to be considered in a context of American academic job market (which is substantially different to that in the UK or Australia), and while it will likely always be the case that the majority of UK and Australian PhDs will find work outside academia, this survey and its results should draw attention to the need for discussions around this topic to be informed by better data on PhD career pathways.

In a conversation with the Academy, project manager Dylan Ruediger pointed out that while *Where Historians Work* had been published on 9 July 2018, a preliminary version of the project (containing information from more than 30 departments) was made available in early 2017. Since the publication of the full version, 11,000 users have registered to access the project database. As noted, *Where Historians Work* was part of the AHA's Career Diversity for Historians Initiative, founded in 2012 and currently being executed in partnership with 20 history departments across the United States, each of which has received funding to implement cultural and curricular changes designed to broaden the career preparation of their PhD candidates. To varying degrees, each of these departments are making active use of the data as they develop plans for curricular intervention. Most have presented the data to incoming PhD students as part of an orientation campaign, with the project used to frame conversations about the career outcomes of PhDs nationally. Feedback from these departments indicates that the database has been a powerful method for managing expectations among students, and encouraging incoming students to proactively seek diverse professional experiences during their PhD candidacy. Some departments have used the data to frame conversations on how their own institutional vision of training matches with the actual career paths of their students. While these conversations are in their infancy, Ruediger characterised them as being quite promising. One area in which the project has already produced concrete results has been pedagogical preparation. A number of departments have recognised that while their programs have emphasised the need to prepare students to become faculty members of major research universities, most of their graduates will work at teaching-focused colleges. This has invigorated conversations about preparing students to be effective teachers, especially at institutions with student populations unlike those at major research universities.

A similar methodology has been used by the University of Toronto and Stanford University to track the current and initial employment of their PhDs. The University of Toronto looked at the employment status of 10,886 people who had completed their PhD between 2000 and 2015 across all disciplines, and succeeded in locating 88 per cent of the cohort with this approach.

In Australia, the main source of information about researchers and their employment outcomes include the Graduate Outcomes Survey (GOS), employment data from the Australian Bureau of Statistics (ABS), and higher education statistics provided by the

[35] The Group of Eight, *The Changing PhD*, pp. 24-25. See also The Royal Society, *The Scientific Century: Securing Our Future Prosperity*, 2010.

Department of Education. GOS analysis provides, among other things, insight into full-time and overall employment among postgraduates by study area and salary. Importantly, unlike the previously-discussed projects, the GOS only captures employment outcomes for the immediate period after graduation (four months after completion), and does not provide detailed insight into the types of careers that researchers from different disciplines pursue over the course of their working lives. There is also a longitudinal version of this survey (GOS-L), which takes into account the employment outcomes of higher education graduates approximately three years after course completion. This timeframe does not, however, provide a particularly detailed insight into research career trajectories. It is also worth noting that while the GOS covers a larger group of respondents, it captures information from a smaller percentage of the overall cohort than studies that use the AHA model (in 2017 the GOS received 120,747 valid survey responses across all study levels, representing a response rate of 45 per cent).[36]

Australian Bureau of Statistics data provides some insight into career trajectories for humanities discipline graduates, capturing their destinations at broad industry level. Information from the 2016 Census indicates that creative arts graduates (at all levels of tertiary degree) predominantly work in Retail Trade, Education and Training, and Information Media and Communications. The top three categories of employment for graduates in society and culture fields include Healthcare and Social Assistance, Public Administration and Safety, and Education and Training. Narrowing down on selected humanities disciplines within the broad category of society and culture reveals following top three categories of employment:

Language and Literature	Philosophy and Religious Studies	Studies in Human Society
Education and Training 11,000 graduates	Other services (unspecified) 9,035 graduates	Education and Training 10,409 graduates
Healthcare and Social Assistance 4,751 graduates	Education and Training 4,081 graduates	Public Administration and Safety 7,173
Professional Scientific and Technical Services 4,506 graduates	Healthcare and Social Assistance 3,208 graduates	Healthcare and Social Assistance 4,688 graduates

Table 1: Industry of Employment by Tertiary Qualification: Level of Education (by field of study)[37]

Information regarding postgraduates specifically reveals that industries that employ the highest numbers of postgraduates include Education and Training, Healthcare and Social Assistance and Professional and Scientific Technical Services. It is also possible to specify employment destinations (in these broad industry categories) for the humanities postgraduate cohort. Complementing this data is information regarding the size of the humanities cohort working within the higher education sector. These data sets, however, exist at very broad levels, and lack the detail obtained through projects such *Where Historians Work.*

[36] 2017 Graduate Outcomes Survey, National Report, 2018, p. ii.
[37] Australian Bureau of Statistics, 2016 Census.

In seeking to develop a more comprehensive and detailed understanding of PhD graduate outcomes, in April 2018 the Go8 launched a three-year project entitled *Understanding PhD Career Pathways*.[38] The project will contact 20,000 PhD graduates from Go8 universities, asking them to provide information on their employment experience at three, eight and 15 years after degree completion. Modelled on a study that was designed by the Council of Graduate Schools in the United States, this 'first-in-Australia survey' will illustrate the economic and societal contribution made by Go8 PhDs, and provide answers to three key questions:

1. What have been the short, mid and long-term employment and occupational outcomes of PhD graduates?
2. What transitions have PhD graduates made in their careers?
3. How satisfied are Go8 graduates with their degree and the skills that they developed?

It is worth noting that in Australia effort has been made to understand employment outcomes within specific disciplines, although these tend to be isolated and relatively small-scale studies. Of note is the work conducted in respect of employment trajectories, experiences and destinations of performing arts graduates, which used a web-based survey to capture the experiences of over 900 graduates from ten different Australian universities who completed their studies in the period between 2007 and 2013. Increased focus on this field has been prompted by the fact that national graduate destination surveys have consistently associated creative degrees with poor employment outcomes – a trend that, in light of contemporary efforts to promote innovation and boost creative industries, is particularly concerning.[39]

The quest for methods of collecting data that could provide high-resolution information on career pathways for graduates, and researchers more specifically, at disciplinary level remains a common thread of all reports considered in this review.

[38] The Group of Eight, 'Go8 to Conduct Ground Breaking Survey of PhD Outcomes' (9 April 2018).
[39] Ruth Bridgstock and Stuart Cunningham, 'Creative labour and graduate outcomes: implications for higher education and cultural policy,' *International Journal of Cultural Policy* 22, no. 1 (2016), pp. 10-26. See also Dawn Bennett and Sarah Richardson, 'What Do We Know About the Work Of Performing Arts Graduates?' See also Select Committee on the Future of Work and Workers, Australia Council for the Arts (submission 89).

7 Future Skills and Capabilities

While current research on humanities skills, capabilities and knowledge suggests that humanities graduates and researchers have skills that are (and will be) in demand across different professional contexts and the agility to adapt within a rapidly evolving employment market, there is also active debate over what 'future skills' will need to be developed by humanities training. In this domain, studies from Britain and the United States tend to place specific emphasis on language capacity building and 'entrepreneurial skills' defined as the 'ability to generate new ideas and turn them into a new venture or business.'[40] Beyond these areas, recent reports and studies tend to focus the discussion of future skills on two critical areas: digital and data skills, and creativity.

In the context of research training and the future academic workforce, the issue of digital literacy is raised across a variety of research and teaching contexts, triggering questions about how technology can (and will) be integrated into teaching practices, scholarly discourses, investigative methods and research dissemination. The ability to understand the technical and ethical challenges of working with 'big data' is a strong area of focus in discussion of digital literacy. Skills associated with the digitisation of course design and delivery will also be vital to the future of the academic work, particularly with massive open online course platforms (MOOC) emerging as a significant and disruptive innovation in the field of higher education.[41] In addition, an understanding of modular learning, which requires unbundling of educational content into smaller components, is emerging as an increasingly important area of expertise for working across these platforms. This format is particularly relevant in the context of growing demand for training that has the quality and intensity of a university course, but is focused on a specific skill, delivered in a short and intensive manner, and for which participants receive 'microcredentials' upon completion.[42]

A recent report produced for the University of Queensland outlines how technology is used in humanities and social sciences research for knowledge gathering, creation and dissemination.[43] Knowledge gathering draws on digital tools in a variety of ways, and can include running surveys, social media data mining, and searching data repositories. Digital tools that transform, combine, analyse, summarise, interpret and represent structured data are becoming central to the process of knowledge creation; meanwhile, the online publication of research outputs (whether through websites, mobile applications – or even games) today often complements traditional forms of knowledge dissemination. While

[40] *The Right Skills*, p. 13.
[41] See Clayton M. Christensen, Michael E. Raynor and Rory McDonald, 'What Is Disruptive Innovation?' *Harvard Business Review* (December 2015).
[42] 'Learning and earning,' Special report: Lifelong Education, *The Economist* (14 January 2017), pp. 5-7.
[43] Marco Fahmi, *Digital Humanities and Social Sciences at the University of Queensland, A report to the Faculty of Humanities and Social Sciences on Digital Research Activities*, internal document (2 May 2017). Shared with the project.

researchers might engage with these tools in different ways, the report indicates that there is nevertheless a need for the development of a common digital literacy framework, which will inform and train future humanities and social sciences researchers to operate within an increasingly digital working environment. Discussion within the report of digital research infrastructure – being the suite of tools that communities of researchers rely on to conduct their work – also merits further reflection. For example, the National Library of Australia's Trove platform stands as a critical piece of national research infrastructure, bringing together freely available content from libraries, museums and archives and facilitating rapid and easy inspection of Australia's documentary heritage.[44] As an aggregator that collects, formats and manages metadata from multiple providers and offers federated access to this data via platforms and websites, Trove is more than simply a search engine – and understanding how it operates and how best to make use of it (and other similar platforms) is increasingly recognised as a fundamental research skill.

Reflecting these developments are various Australian initiatives aimed at supporting researchers to develop knowledge and proficiency in tools, methods and best practices for digital research. The Graduate Digital Research Fellowship Program at the University of Queensland, for example, has been designed to help prepare research students for academic and non-academic careers in digital scholarship.[45] Modelled on an initiative that was developed by Stanford University, the Program draws upon international efforts to design innovative training in this field. By undertaking this one-year program, HDR students hone their digital skills by producing a piece of scholarly work (a digital publication, software package or data set) that draws upon a specific digital research method. Fellows work in areas such as data analysis (analysing qualitative or quantitative data with the aid of computational methods); research visualisation; or the development of new modes of scholarly communication that rely on digital tools for audience engagement.

The rise of data- and technology-intensive research in the humanities, sciences and social sciences raises questions about how well the research workforce is equipped to take advantage of these changes, and the types and scale of research infrastructure that is and will be required to support these modes of research.

An interesting aspect of the debate on the humanities and digital literacy is the production of software packages designed to support the development of core humanistic skills such as writing, forming an argument, and evidence-based decision-making. As an example, Sydney-based company Magneto has developed the business writing software Credosity, which aims to help its users identify and address common writing problems to make their writing more professional and reader-friendly. The software provides immediate feedback on a piece of writing, advising on the use of language, as well as the structure of paragraphs, punctuation and other elements of style. Another interesting example is argument mapping software bCisive, developed by a cognitive scientist from the University of Melbourne, which is used for structuring thinking and writing by providing a visual representation of the analytical process. These developments demonstrate an emerging intersection between core humanistic skills and new technologies, and

[44] Liz Stainforth, 'Treasuring Trove: Why Australia's Digital Heritage Is So Special,' *Pursuit* (26 October 2018).
[45] The University of Queensland, Graduate School, Graduate Digital Research Fellowship.

potentially open up a line of enquiry on what digital literacy might mean for the future of humanities research, teaching, and industry partnerships. It is worth noting that Western Australia's iPREP program, which provides internship placements for PhD students, includes among its partners educational software companies such as Cinglevue, who recruit humanities researchers to work on product development in collaboration with engineers, computer scientists and business analysts.[46]

In addition to digital literacy, the concepts of 'creativity' and 'creative skills' are a standard feature of the debate on future skills. Interest in creative skills – and the role of the humanities in cultivating creativity – has been foregrounded by recent discussion on the role that creative thinking will play in advancing Australia's future intellectual and economic capacity. A number of initiatives aimed at boosting creative partnerships between universities and other stakeholders have already been implemented in the United Kingdom (including the Creative Industries Cluster Programme and the Arts and Humanities Research Council Doctoral Training Partnerships), in the understanding that creative industries make a significant contribution to the British economy, and hold great capacity for growth.[47] The British Government defines creative industries as 'those industries which have their origin in individual creativity, skill and talent, and which have a potential for wealth and job creation through the generation and exploitation of intellectual property.'[48] Nesta, the UK innovation foundation, defines a creative occupation as a role that involves a novel process (solving a problem or achieving a goal in a novel way) that is resistant to mechanisation, is non-repetitive, introduces creativity into the value chain irrespective of context, and is fundamentally about interpretation rather than mere transformation.[49] While these criteria are not prescriptive rules for determining whether or not an occupation is creative, they do provide a framework for understanding how governments think about creative industries and creative occupations, and identifying the points of intersection with the humanities sector.

In Australia too there have been calls to take the issue of building creative capacity more seriously by establishing a 'Creativity Commission,' which would support this effort in a meaningful way. [50] Elsewhere recommendations have been made for cultivating a skill mix that would cut across the HASS and STEM disciplines, and provide a basis for developing more creative and innovative thinking within Australian industry.[51] Submissions to the Select Committee on the Future of Work and Workers, however, reveal the difficulties faced by government, business and universities in specifying what is meant by creative skills, how they are developed, and how, when and why they are employed.[52]

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[46] Parisa Shams, iPREP intern, Email correspondence with the project, 2 October 2018.
[47] Creative Industries Clusters Programme, 'Creative Research and Development (R&D) Partnerships,' 2017; Juan Mateos-Garcia and Hasan Bakhshi, *The Geography of Creativity in the UK, Creative Clusters, Creative People and Creative Networks* (Nesta), 2016; Arts and Humanities Research Council, 'Doctoral Training Partnerships,' 2018.
[48] British Government, *Creative Industries Mapping Documents*, 2001, p. 5.
[49] Hasan Bakhshi, Alan Freeman and Peter Higgs, *A Dynamic Mapping of the UK's Creative Industries*, Nesta, 2013, pp. 24-25.
[50] Russel Howcroft, National Press Club of Australia Address, 'The Creative Economy Deficit,' 15 August 2018.
[51] Cunningham, Theilacker, Gahan, Callan and Rainnie, ***Skills and capabilities for Australian enterprise innovation***.
[52] Select Committee on the Future of Work and Workers, Submissions; On the effort to define and measure Australia's creative industries workforce see 'Mining a Rich Seam of Creativity,' *The Power of the Humanities, Case Studies from Leading Australian Researchers*, Canberra: Australian Academy of the Humanities, 2015, p. 23.

7.1 Generalist versus Specialist Training

Debate about current and future humanities skills has already had a significant impact on thinking about how contemporary PhD training and support for the early career researchers might be reconfigured. It is now commonly accepted that PhD training is no longer the passport for a career in academia, and that researchers will need to be prepared for careers both inside the university sector and beyond. There is also greater awareness that research training needs to be defined between three major coordinates: disciplinary training; professional development; and, where possible, direct engagement with industry (broadly defined). The dynamic between these three elements is framed by the important question of how to strike the right balance 'between breadth (general education) and depth (disciplinary concentration),' preserving and advancing disciplinary expertise while equipping PhD graduates with skills and knowledge to move outside academia with greater ease.[53]

In 2016 the Australian Council of Learned Academies (ACOLA) completed a review of the Australian research system, and offered a series of recommendations aimed at strengthening disciplinary training and ensuring that Australian PhD programs are able to attract and retain the best research talent. These recommendations included:

- establishing the Masters degree as a pathway to a PhD, such that the former would become purpose-built for HDR training and provide more robust preparation for PhD training than honours courses do at present;
- devising mechanisms to ensure that PhD candidates receive adequate supervision and that this supervision is properly recognised and rewarded;
- introducing a viva voce (oral thesis defence);
- ensuring regular benchmarking of programs against top courses around the world at a four-digit level of research; and
- ensuring that the value of PhD scholarships is competitive and attractive, including adjusting the length of fellowships so that candidates do not face financial stress during the final and critical stage of their studies.

Postgraduate research programs around Australia have already made efforts to strengthen their training, although there is presently no overarching strategy or initiative that would streamline these efforts at a national level due to various regulatory and funding hurdles.[54] The University of Melbourne has, for example, introduced a coursework component into their PhD training, which requires candidates to complete a yearlong discipline-based research workshop and two electives chosen from student's own or cognate disciplines at the end of the first year of full-time graduate study. This coursework is designed to aid

[53] Donna Heiland and Mary Taylor Huber, 'Calls to action for the Arts and Humanities in the US,' *Arts & Humanities in Higher Education* 13, no. 1-2 (2014), p. 10.

[54] In 2014, the Australian Federal Department of Education published a survey of existing initiatives that aimed to enhance the professional development of research students. Of 15 case studies of university-industry partnerships that included PhD candidates, 11 were STEMM focused, three involved HASS PhD candidates, and two did not specify the disciplines that were involved in the program. See Australian Government, Department of Education, *Initiatives to enhance the professional development of research students*, 2014. See also Universities Australia, *Career Ready Graduates*, 2019.

student understanding of contemporary scholarship in their chosen discipline, as well as offer intellectual enrichment through the study of electives. A different strategy has been implemented by Macquarie University, which has chosen to introduce a two-year Masters of Research Degree as its standard pathway for admission into HDR training.

ACOLA's recommendations aimed at strengthening the professional development of researchers and supporting their transition into employment across different sectors include:

- providing prospective candidates with information on career outcomes of past HDR graduates, as well as comparative information on the quality, performance and components of HDR training provided by each university;
- collecting longitudinal data on HDR course satisfaction in a consistent and statistically robust fashion;
- investing in broader transferable skills development as a necessary component of HDR training;
- developing stronger industry-university collaborative ties, including via industry placements that would expose HDR students to different sectors; and
- implementing the development of a skills portfolio, which would record activities such as seminar or conference presentations, teaching experiences, industry or international placements and exchanges.

Similar to those associated with research training, initiatives in the skill-building domain have also generally been confined to an institutional level. Some universities have placed great emphasis on acknowledging the diversity of career pathways and supporting their graduates in transitioning to different careers. Monash University, for example, launched a revised doctoral program within selected faculties in 2013 based on the concept of a PhD structure with career enhancement built into the doctorate. The 'Monash PhD' is designed to provide students with disciplinary-specific training, along with a range of transferable skill development opportunities desired by academia, industry, government and the community, with faculties given the flexibility to develop programs that best fit their disciplines. The Australian Technology Network of Universities (ATN) e-Grad School stands as an example of a cross-institutional initiative aimed at increasing graduate employability. As a group of four universities with close links to industry, the ATN has established the e-Grad School as a virtual postgraduate training platform, with the aim of supporting the development of 'generic professional skills' among its research degree students. The e-Grad School enables HDR students enrolled at ATN institutions to access short, fully online modules designed to improve transferable skills, promote cohort interaction and raise awareness of issues relevant to researchers.

The rise of the 'professional doctorate' and 'industry partnership doctorate' is also an emerging phenomenon in this context, standing as another model for bringing together academic and professional training.[55] This approach, for example, may allow candidates to

[55] See Felly Chiteng Kot and Darwin D. Hendel, 'Emergence and growth of professional doctorates in the United States, United Kingdom, Canada and Australia: a comparative analysis,' *Studies in Higher Education* 37, no. 3 (2012), pp. 354-364.

obtain their PhD through a series of publications instead of the traditional PhD thesis. The flexibility introduced through these forms of doctorate aims to ensure greater exchange between academia, industry and professional practice.

It must be noted that the focus on augmenting research training with broad skill-development initiatives has been sparked by views expressed by the government and within some parts of industry that PhD graduates (whether from STEMM or HASS disciplines) are not 'work ready' at the completion of their studies. Under close investigation, however, a number of inconsistencies can be identified within this perception. In its submission to the Select Committee on the Future of Work and Workers, the Centre for Future Work rejects the prevailing rhetoric on skills shortage, and argues that Australians (and especially young Australians) are in fact better educated and more skilled than ever. Furthermore, submissions by the Go8 and the University of Technology Sydney provide evidence of a high level of satisfaction among employers with recent university graduates.[56] While debate over 'skills gaps' and 'skill relevance' persists, and universities come under increased pressure to equip graduates with 'real world' skills,[57] it is important to acknowledge the substantial body of evidence demonstrating that humanities graduates and researchers are equipped with skills that are in-demand across an array of different professional contexts, and will continue to be relevant and sought after by employers in the future. In addition, debate around the work-readiness of the PhD cohort must be qualified by a recent study that has revealed that PhD candidates in Australia are, on average, 37 years of age, and that a significant proportion of the national doctoral cohort has been part of the workforce before commencing doctoral training. PhD candidates, that is, are not unaccustomed to the vagaries of the workplace.[58]

Responses to the 2017 Graduate Outcomes Survey made it clear that humanities research graduates continue to express a high level of overall satisfaction with their courses (82.9 per cent agreement), and in particular with the skills developed during their training with (94.2 per cent agreement).[59] Furthermore, significant number of humanities researchers found employment following graduation (88.5 per cent overall; 72.9 per cent full-time). At the same time, however, the survey did reveal that a high number of humanities graduates described themselves as being in employment where they did not fully utilise their skills and education (39 per cent of the overall employed).

There certainly appears to be a misalignment between the understanding (or perception) of what humanities skills are, how they relate to the skills that employers require, and how they can be used across different sectors. This mirrors the situation within STEMM fields, where there have been a range of initiatives deployed to help enhance understanding of what constitutes the STEMM skills set and how employers tend to define it.[60] A project run by the Australian National University and CSIRO's Data61 provides an interesting

[56] Select Committee on the Future of Work and Workers, Centre for Future Work (submission 57), University of Technology Sydney (submission 81), the Group of Eight (submission 105).
[57] See, for example, the discussion in Productivity Commission, *Shifting the Dial: 5 Year Productivity Review*, 2017.
[58] Tebeje Molla and Denise Cuthbert, 'The Issue of Research Graduate Employability in Australia: An Analysis of the Policy Framing (1999-2013),' *Australian Educational Researcher* 42, no. 2 (2015), p. 251.
[59] 2017 Graduate Outcomes Survey, National Report, 2018.
[60] Office of the Chief Scientist, *Australia's STEM workforce: a survey of employers*, 2014.

example of these efforts.[61] Researchers working on this project used a machine learning algorithm to analyse thousands of job advertisements in order to better understand Australian industry demand for highly-skilled researchers. Through this process, the researchers discovered 'a large hidden job market in Australia for people with PhDs,' indicating that while employers do not frequently use 'PhD' as keyword in their ads, the job descriptions reveal a requirement for high level research skills and other capabilities associated with a PhD. The fields of communications and management, manufacturing, transport and logistics have been identified as the largest potential sectors of employment for PhDs. The existence of this 'hidden job market' for researchers speaks volumes about the current misalignment in understanding what skills PhD graduates have and what skills industries need. The fault may indeed lie, the study suggests, in a type of PhD training that continues to privilege skills required for academic rather than industry careers on the one hand, and a lack of awareness across industries of what skills and capabilities people develop during their doctoral studies on the other. The hope is that job-searching machines of this type can help universities prepare graduates for non-academic work, while also demonstrating to industry the value of PhD-level research skills.

In a recent contribution to ***The Australian***, Stephen Parker, former Vice-Chancellor of the University of Canberra, argued that there is a strong (and institutionalised) separation in Australia between three traditional categories of knowledge – theoretical knowledge (or knowing why), practice (or knowing how) and experience (knowing what to do). While universities are custodians of theoretical knowledge and vocational schools are charged with practical training, gaining experience is reserved for the workplace. In Australia, Parker argues, there is no bridge connecting these different spheres of knowledge, which goes some way toward explaining the perceived misalignment between PhD training and the requirements of the labour market.[62] Addressing this misalignment within the humanities (as in other sectors) will require effort from all relevant stakeholders: just as it is important for those who provide training in the humanities to understand and appreciate the requirements and expectations of employers, there must also be an appetite among stakeholders outside academia to contribute to defining the parameters of future research training. Ultimately any such effort will need to reflect the fact that universities are custodians of deep disciplinary knowledge and expertise, and have a responsibility to maintain that knowledge by training future generations of experts.

[61] Inger Mewburn, Hanna Suominen, and Will Grant, *Tracking Trends in Industry Demand for Australia's Advanced Research Workforce*, Canberra: Australian National University and CSIRO Data61, 2017.
[62] Stephen Parker, 'Aristotle knew what worked,' ***The Australian***, 12 December 2018.

8 Early Career Researchers

Debate over the future of the humanities academic workforce is frequently focused on the prospects of early career researchers (ECRs) and their ability to replenish disciplinary ranks. Analysis of the Australian academic workforce outlined in *Mapping HASS* highlights an ageing workforce across the sector, and an impending shortage of senior staff available to take on planning, administration, leadership and mentorship roles. Strategies for providing career pathways for talented researchers at the early stages of their career in academia will be vital for the future of the sector.

Some of the recommendations that have emerged from recent reviews of Australia's research training are also relevant in developing support mechanism for ECRs, such as ensuring that ECRs have access to information about both academic and other career pathways, and the provision of quality supervision (and mentorship) by senior staff.[63]

In 2014 the British Academy, in conjunction with the UK's Arts and Humanities Research Council, published a report that looked specifically at mechanisms of support for arts and humanities researchers at the immediate completion of their doctoral studies.[64] The report, which was based on materials gathered through an online survey and interviews with a selection of research organisations and ECRs in the UK, outlined some of the major concerns for ECRs that would likely resonate with the experience of their Australian peers. These included:

- the prevalence of fixed-term contracts and their adverse effect on career progress;
- the rise of 'portfolio work' (which is a common euphemism for precarious employment) where ECRs hold multiple part-time roles at the same time;
- not being recognised as a researcher owing to the type of role being performed (for example in administration, in teaching-only positions, or information services), and as a result missing out on opportunities that are made available for researchers;
- a prevailing sense of a lack of professional choice and the necessity of accepting unfavourable contracts in order to remain within the higher education sector;
- concerns over the difficulty of transitioning into other sectors.

Asked to consider the type of support that ECRs find most beneficial, respondents outlined several examples of good practice:

[63] McGagh, Marsh, Western, Thomas, Mihailova, and Wenham, *Review of Australia's Research Training System*. These types of support are also highlighted as critical in *Postdoctoral Career paths 2.0: The Golden Triangle of Competitive Junior Investigators, Adequate Academic Systems, and Successful Careers*, Alexander von Humboldt Stiftung, 2013.
[64] Kay Renfrew and Howard Green, *Support for Arts and Humanities Researchers Post-PhD*, British Academy for the Humanities and Social Sciences and Arts and Humanities Research Council, 2014.

- providing relevant information about academic and other career pathways from the earliest stages of doctoral training – ECRs who secured permanent contracts within academia were more likely to have begun seeking advice on pursuing an academic career prior to or at the start of their doctorate;
- having access to quality mentorship, in particular for advice on preparing grant applications and publishing strategies;
- allowing researchers to self-identify as ECRs within an institution (even if they perform non-research role), and thereby allowing them access to programs designed to support researchers;
- involving ECRs in the planning and design of ECR support programs;
- ensuring that senior academics are well informed about ECR development opportunities; and
- the existence of a robust ECR information sharing network.

The report has also found that while many institutions provided significant training and development opportunities, more than half of ECRs surveyed did not feel that they were fully informed about these opportunities. Often ECRs seek advice or information from their academic supervisors and mentors, who may be less informed of opportunities for ECRs compared to career development staff. For this reason, strong and widespread faculty communication is vital.

A compelling intervention into the debate on the future academic workforce is a recent study investigating what universities expect from their entry-level academic employees by analysing the text within a series of job advertisements by Australian universities.[65] This study aimed to explore whether the graduate outcomes of PhD programs align with the skills and attributes that academics require in their future workplace. The authors of the study note that while the literature calls for changes to PhD programs in order to make them more relevant to the workplace, most of the supporting data used to inform change comes from different industry sectors rather than academia, despite academia being the major employer of research graduates.

Text from job advertisements from eight universities, based primarily in Victoria and covering each of the four main university groupings (Group of Eight, Innovative Research Universities, Australian Technology Network, and Regional Universities Network) were used for this exploratory study. All of the job advertisements used in the analysis were recorded on the same day (24 June 2013), and only those advertising for positions for academic levels A to C were considered to ensure the data was relevant for the ECR cohort. The majority of the advertisements in the sample were for full-time employment.

In their general observations, the authors noted a huge variability in the length of the job advertisements, ranging from two to seven pages, with the number of key selection criteria varying from 2 to 21 and a range of up to 10 desirable selection criteria. Each of the positions required PhD qualification, and in some instances also other qualifications such as teaching or other specialist certification. The advertisements also outlined a requirement

[65] Rachael Pitt and Inger Mewburn, '[Academic superheroes? A critical analysis of academic job descriptions],' *Journal of Higher Education Policy and Management* 38, no. 1 (2016), pp. 88-101.

to perform administrative tasks ranging from managing course delivery, organising seminars and conferences to participation in committee work. The 'publish or perish' maxim held true, with ability to undertake research and produce outputs explicitly outlined in almost every advertisement. Grant funding was another key requirement, with the ability to apply for grants outlined more frequently for levels B and C. Teaching expectations ranged from teaching innovation, curriculum design, experience with assessment (including its design), experience in co-ordinating subjects, experience in co-ordinating student placements and willingness to teach outside one's area of expertise. Reflecting on these requirements, the authors observed that the level of casualisation in the Australian workforce would make it difficult for many applicants to obtain the breadth of experience sought in the advertisements.

Additional requirements included the ability of applicants to network inside and outside of the academy, with emphasis on the type of networking that is directed toward external marketing efforts and finding placements for students. Interpersonal skills, the ability to relate to others and work in teams and communications skills across a variety of media were also frequently required, and the advertisements included statements about the need to be responsive to change and flexible within an uncertain higher education environment. The oft-used catch all criterion of 'other duties as required' further indicated a broad range of service-oriented activates, from expecting academics to be involved in enrolment and induction processes to attending Open Days. Employers also required a willingness to work from remote locations and travel interstate and overseas, as well as an acknowledgement of the need to work outside normal hours. The desire for applicants to have international links was also foregrounded in several advertisements, which appeared to assume that applicants had already had the opportunities to travel to conferences and meet collaborators internationally, potentially during their doctorate. In their conclusion, the authors offer the following profile of the young academic applicant:

> This new academic we see figured in the data is a multi-talented, always ready and available worker that we have started to label the 'academic super-hero', capable of being everything to everyone and leaping over 24 [key selection] criteria in a single job application.
>
> The academic super-hero conforms to university strategic priorities (including in directing their research focus and undertaking pastoral care for students and colleagues) and is always alert, if not alarmed. At any moment our hero must be ready to deal with the multiple uncertainties that beset the higher education sector in Australia, all the while collecting business cards for that next round of student placements, soothing hurt feelings and smiling graciously at the crowds of prospective students at Open Day while publishing prodigiously and creating innovative learning opportunities for their students across multiple media.[66]

Any discussion of support for ECRs in academia must acknowledge the academic recruitment process, and consider whether doctoral and postdoctoral training provides the relevant disciplinary and professional preparation for entry into the academic workforce. It

[66] Ibid., p. 99.

is also important to consider whether the current academic recruitment process – which places great emphasis on research output – properly takes into account and values applicant experience beyond academia. If young academics are to prepare future graduates for work both in and outside of academia, there may be benefit in tailoring the recruitment process so that applicant experience across different sectors is given appropriate weight.

8.1 The Concordat

A central theme that has emerged from discussions on the postdoctoral research experience is the lack of an overarching strategy for supporting ECRs. In the UK, the introduction of the Concordat to Support the Career Development of Researchers was a major step toward the creation of a co-ordinated strategy of ECR support.[67] The Concordat was established in 2008 as an agreement between the funders and employers of researchers in the UK, with the aim of improving employment and support for researchers by setting out clear standards that research staff can expect from the institution that employs them, as well as their responsibilities as researchers. Its aim was to articulate a vision for working practices that would enhance the attractiveness and sustainability of research careers, and thereby ensure the continued provision of well-trained, talented and motivated researchers. The implementation of the Concordat was overseen by the Concordat Strategy Group, whose members represent major research funders and universities, and is managed by Vitae.

This initiative emerged as a result of intensified efforts across Europe to support researchers and ensure that research careers would remain attractive into the future, which culminated in 2005 with the European Commission's adoption of a European Charter for Researchers and a Code of Conduct for the Recruitment of Researchers.[68] The Charter is a set of general principles and requirements that specifies the roles, responsibilities and entitlements of researchers and their employers (and/or funders), while the Code outlines the principles and requirements that should be followed by employers and/or funders when appointing or recruiting researchers. These documents combine to provide a framework for improving and consolidating the career prospects of researchers across Europe. A five-step implementation process ensures that institutions that join the initiative take concrete steps to enhance working conditions (as set out in the European Charter and Code), receiving the 'HR Excellence in Research Award' when those steps are successfully implemented. The British Concordat is recognised as the equivalent of principles of the European Charter and Code that underwrite the Award.

The Concordat (like the European Charter and Code) was primarily a response to a trend that saw a large number of researchers, especially in the early stage of their careers, employed on fixed-term contracts, which often had an adverse effect on career progression and development. The Concordat is based on seven key principles:

1. Recognition of the importance of recruiting, selecting and retaining researchers with the highest potential to achieve excellence in research.

[67] The Concordat to Support the Career Development of Researchers.
[68] The European Charter for Researchers, The Code of Conduct for the Recruitment of Researchers, Brussels: European Commission, 2005.

2. Researchers are recognised and valued by their employing organisation as an essential part of their organisation's human resources and a key component of their overall strategy to develop and deliver world-class research.
3. Researchers are equipped and supported to be adaptable and flexible in an increasingly diverse, mobile, global research environment.
4. The importance of researchers' personal and career development, and lifelong learning, is clearly recognised and promoted at all stages of their career.
5. Individual researchers share the responsibility for and need to pro-actively engage in their own personal and career development, and lifelong learning.
6. Diversity and equality must be promoted in all aspects of the recruitment and career management of researchers.
7. The sector and all stakeholders will undertake regular and collective review of their progress in strengthening the attractiveness and sustainability of research careers in the UK.

Each of the seven principles is further unpacked within the Concordat document. For example, the first principle, which covers the issue of recruitment, outlines the need for employers to attract excellence and respect workforce diversity. It states that recruitment processes must be transparent, open to all qualified persons, and that the person and vacancy specification must be clearly identified. Skills required for the post must be relevant to the role, and unsuccessful applicants need to be able to access feedback on their applications. This principle also outlines the need for selection panels to reflect diversity and a range of expertise and for its members to have training in panel assessment.

Some of the main motivations behind the Concordat include the vision to reduce reliance on fixed-term contracts, and to ensure that the pressures associated with the short-term nature of these contracts do not function as an impediment to career progression.

The 2014 report from the British Academy and Arts and Humanities Research Council that examined strategies for supporting arts and humanities ECRs also reflected on the implementation of the Concordat within the HASS sector.[69] It noted that while the implementation of this agreement was cross-institutional and that researchers were treated the same irrespective of discipline, the arts and humanities research cohort often faced unique challenges so support for this cohort should be differentiated (though the report itself did not elaborate on this point).

The report also outlined a number of areas in which the implementation of the Concordat has proven problematic. For example, in applying the narrow definition of 'researcher,' institutions exclude from their ECR support programs those who are employed in non-research roles, but who might nonetheless be most in need of this kind of support. In addition, the time pressures of precarious work often mean that ECRs are unable to take advantage of the support that is offered, and thus increasing the number of these programs may not have an impact upon participation rates. The lack of institutional funding together

[69] Renfrew and Green, *Support for Arts and Humanities Researchers Post-PhD*, pp. 10-11; 54-61.

with the inability of senior academics to dedicate their time to ECR programs is frequently cited as a challenge to the more fulsome implementation of the Concordat.

In 2018 the Concordat underwent an independent review, which looked at the impact the agreement has had, as well as challenges associated with its implementation.[70] The review was based on community consultation, which included 350 responses from researchers in academia and industry, research managers, principal investigators and research leaders, policy makers and funders as well as professional and trade associations. The consultation process revealed that the Concordat has had a significant impact on the support and development of researchers, but that progress in its implementation was variable across the seven principles and inconsistent across employing institutions. Overall, the review found that the Concordat has played an important role in improving the culture of support for researchers, citing several examples of notable impact. It also had international resonance, serving in a number of instances as a leading good practice example, while also fuelling the creation of innovative activities to support researchers.

The researchers also recognised improvement in the appraisal system, including the introduction of separate career development reviews in a number of institutions, guidelines for development needs analysis, training programs, researchers' representation on institutional committees, and proliferation of research staff associations. Other wider benefits, as the review identified them, have included increased support for staff wellbeing, improved workloads, increased emphasis on diversity, and a reduction in the use of fixed-term contracts.

The main areas of concern identified by the review were the lack of awareness of the Concordat, and the continued need for improvement in the use of time-limited contracts. Furthermore, while the Concordat aims to support the career development of all individuals who have a role in carrying out research, the review showed that more progress was required in the support of early career researchers in academia.

The review made 15 recommendations for change, with focus placed on the need to raise the visibility of research staff within institutions and provide support for all research-active employees regardless of their official title or role (or indeed, contractual status). The revised Concordat also emphasises the need to find a solution to the problem of promotion in a context of time-limited contracts. In addition, efforts should be made to address the tension between principal investigators and postdoctoral researchers, ensuring that postdoctoral staff have independence and time to develop their own research and their skills. The review recommended that 20 per cent of research time should be allocated to these activities – a point with particular resonance among the research community.[71] A revised Concordat should also address the question of research mobility which, while beneficial in creating networks and developing research ideas, can also have a negative impact on the professional development and personal wellbeing of researchers. In addition, the review insists that the principles of workforce diversity and gender equality should be integrated into all principles of the revised Concordat, rather than standing separate.

[70] UK Research and Innovation, 'Review of the Concordat to Support the Career Development of Researchers,' 2018.
[71] The reactions to the review can be followed on Twitter using #Concordat18.

Finally, the review also insisted on the need for collecting better data on research career pathways as a critical tool for future policymaking.

In Australia, a recent parliamentary inquiry into Government funding arrangements has recognised that the future of the country's research sector depends on the availability of a strong and talented pool of researchers, and highlights the importance of investing in early and mid-career researchers.[72] The inquiry identified four key areas related to Australia's current research funding arrangements that have had an adverse effect on ECRs: administrative burden, funding bias, workforce casualisation and barriers to cross sector mobility. This investigation also criticised the grant assessment process, which places great weight on a candidate's track record, rather than on the quality of the proposed project – a situation that is especially problematic for ECRs, who often work in precarious conditions that prohibit the development of a competitive research profile.[73] The inquiry produced a series of recommendations aimed at better supporting the participation of ECRs in the Australian competitive grant system, and in particular applicants from under-represented groups.

Similar to debates about research training, discussion about support for ECRs is often framed by the dual effort to assist in navigating the challenging landscape of academic employment, while also ensuring the continued development of skills that can aid the transition to other sectors. These discussions often raise the issue of fixed-term contracts as a major impediment to both individual career development and the sustainability of the sector as a whole, and the need to provide longer contracts (and bridging grants) wherever possible. Finally, questions as to the benefit of designing an overarching support strategy for ECRs remain ever-present.

[72] Parliament of the Commonwealth of Australia, House of Representatives Standing Committee on Employment, Education and Training, *Australian Government Funding Arrangements for non-NHMRC Research*, 2018.
[73] On the prospects of early career researchers within Australia's competitive grant system see also Pat Bazeley, 'Defining "Early Career" in Research,' *Higher Education* 45, no. 3 (2003), pp. 257-279.

9 Workforce Diversity and Gender Equity

Diversity and gender equity are fundamental to the development of the future humanities workforce.[74] The Diversity Council of Australia broadly describes inclusiveness as a situation in which people of different ages, cultural and religious backgrounds, genders, sexual orientations and physical and mental abilities feel valued and respected, have equal access to opportunities and resources, and can contribute their perspectives and talents to improve their organisations.[75] Commitment to these principles of inclusion and equity will be instrumental in ensuring the ongoing vitality of humanities disciplines, and expanding the disciplinary range of humanistic scholarship so that it adequately reflects and draws upon the full complexity of Australian society.

9.1 Workforce Diversity

Two recent international reports provide some insight into the current state of diversity and gender equity in the humanities in specific national and institutional contexts. The first, published by Columbia University in October 2018, involved a study of tenured faculty members across natural sciences, humanities and social sciences using online surveys, individual interviews and departmental and university data.[76] Prompted by the relatively slow pace of improvement in diversity of the faculty body and persistent questions about equitable treatment of the staff, the University examined whether underrepresented faculty, women, and minorities were treated equally on issues of salary, workload and leadership, and whether the climate they experienced was conductive to their success.

The findings revealed several common issues across departments, including a lack of women in senior positions, and their underrepresentation in the roles of named chairs, directors of centres or institutes, and in more prestigious committees. An apparent lack of transparency, an existence of unwritten rules, and perceptions of cronyism and favouritism were all frequent features of testimonies by female faculty members. Diversity was shown to be quite poor in many Arts and Science departments, with very low numbers of faculty members with minority backgrounds. The report also observed that women and members of minority groups were often saddled with high-workload, low-prestige duties, and were more likely to undertake 'invisible labour' such as providing informal career and study advice to students. Analysis of salaries also indicated possible inequities, especially within mid-career cohorts in the natural and social sciences. Finally, a survey of instances of harassment and bullying revealed that women were far more likely to experience these

[74] The term 'diversity' is used throughout the literature review despite its inherent presumption of a normative position against which diversity is established; the debate over using the term 'multiplicity' instead of 'diversity' will be taken into consideration in further development of the Future Humanities Workforce project.
[75] Diversity Council Australia, 'Inclusion.'
[76] Columbia University, Faculty of Arts and Sciences, *Policy and Planning Committee Equity Reports*, 2018.

types of behaviours, with almost one third of those surveyed experiencing at least one instance of harassment (either by their colleagues or students) across Arts and Sciences. Women also expressed low levels of confidence in existing procedures for reporting and resolving these incidents. While the survey used in the report showed that most staff members were satisfied with the intellectual climate at Columbia and generally positive about their colleagues and students, these findings point to complex, endemic issues that prohibit academic staff from performing at their peak.

The 2018 report on racial and ethnic equality in history research and teaching in the UK published by the Royal Historical Society represents another important intervention in this field.[77] The report opens by observing that while the recent research in black history, histories of migration and ethnicity, and histories of race, imperialism and decolonisation have transformed our knowledge of the British, European and global past, the racial and ethnic profile of history students and staff at UK universities remains overwhelmingly white. Indeed, a study of the student cohort and academic staff in UK universities has revealed that approximately 89 per cent of the student cohort, and 93.7 per cent of the academic staff, is white. These figures are both well above the 77.3 per cent figure of the entire university student cohort, and 85 per cent for the university sector as a whole. It is also the case that only 5.7 per cent of academics from minority groups serve in leadership roles.[78] Students from minority backgrounds (the report uses acronym BME – black and minority ethnic) are less likely to pursue history study at secondary or university level; they are consequently underrepresented in postgraduate training, which in turn affects the numbers in the pipeline for academic employment.

In discussing the experience of academic staff with minority backgrounds working in history, the Royal Historical Society highlights concerning levels of abuse on the basis of race and ethnicity. Types of abuse range from explicit instances of bullying, to more subtle forms of discrimination and bias, and are perpetrated by colleagues and students, and by members of the public. Women from minority backgrounds are also more likely to be subjected to abuse than men. The survey exposed a wide range of issues frequently experienced by minority staff members, including teaching allocations based on race, irrespective of research specialisation. In addition to frequent conflation between minority historians and histories, research into histories of the Global South is often less valued by institutions and fellow academics. Respondents also report bias in student feedback, and in hiring and promotion practices. Similarly to the Columbia University report, respondents express little confidence in institutional procedures dealing with abuse and discrimination, and in thinking about procedures for addressing questions of inclusion and equity across the academic workforce, there is a perception that issues relating to gender have hijacked this discussion, sidelining glaring problems associated with race and ethnicity. Suggestions for reversing this trend include extending initiatives designed for achieving gender parity (such as the Athena SWAN Charter, which will be discussed in detail later in this review) to target imbalance in race and ethnicity.

[77] Royal Historical Society, *Race, Ethnicity and Equality in UK History: A Report and Resource for Change*, 2018. On research methodology see pp. 47-49.
[78] Ibid., p. 22; p. 44

Indeed, in 2016 Advance HE (previously the Equality Challenge Unit), which is charged with supporting equality and diversity for staff and students in British higher education, launched the Race Equality Charter (REC). This initiative follows the same methodology that was previously used in developing the Advance HE's gender equality charter (Athena SWAN). REC encourages higher education institutions to apply a framework for identifying and developing solutions aimed at improving the representation, progression and success of minority ethnic staff and studies. The level of progress determines whether an institution received a REC Award, and at what level (Bronze, Silver or Gold). The first evaluation of the impact of the REC is expected in 2020.[79]

In addition to mapping the experience of the academic staff, the Royal Historical Society report also explores a range of problems that emerge in history education – from secondary to postdoctoral level – that prevent successful diversification of the discipline and its workforce. One of the prevailing issues is the White-centred and Eurocentric profile of the history curriculum in secondary school and universities, which prevents broader engagement with the discipline. Fortunately, significant efforts have already been made toward 'globalising and diversifying […] teaching curricula' at university level, and while these efforts do not map onto issues of racial and ethnic equality, a diversified curriculum is seen as fundamental to the process of attracting (and retaining) students of diverse backgrounds to the study of history.[80] Postgraduate training is another critical part of the equation. The report revealed that postgraduate students of minority backgrounds experience difficulty in finding the right supervisors for their areas of interest, which is partly caused by the fact that history departments are often dominated by monolingual staff, and that research is often focused on Europe, Britain and the US.[81] Funding also represents a serious hurdle to the diversification of history research, with postgraduates often noting that funding processes ignore project specificities, allocating the same material support for postgraduates working on globally-oriented projects and for those working on 'the history of Shropshire,' despite clear differences in research cost.[82] An expectation that research that is not focused on Britain 'must ultimately be tied back to Britain' further restricts postgraduate research topic choice, which in turn has an enduring effect on the diversity within the discipline.[83] The report also considers the role of early career researchers, and notes that the precarious position of early career historians is a serious challenge for future-proofing the discipline, with precarity disproportionately affecting historians of minority backgrounds and further diminishing an already restricted pipeline of research labour.

By taking a whole-of-discipline approach, the report provides comprehensive insight into issues that impact on racial and ethnic diversity in history, offering a series of recommendations and good practice examples for concrete steps that historians at all career stages (from postgraduates to senior leadership) can take to address the lack of diversity. The ability to tackle systemic racism within academia, the report concludes, ultimately

[79] Advance HE Race Equality Charter.
[80] Royal Historical Society, *Race, Ethnicity and Equality in UK History,* p. 23.
[81] Ibid., p. 64-66.
[82] Ibid., p. 65.
[83] Ibid.

requires accepting that it exists; that all parties have responsibility for it; and they all play a role in securing racial equality.

Within the Australian context one of the more important studies in the field of academic workforce diversity has been a 2012 review of higher education access and outcomes for Aboriginal and Torres Strait Islander people.[84] In a similar vein to studies conducted by Columbia University and the Royal Historical Society, the review gives a sense of the relatively slow progress that has been made toward achieving parity of underrepresented groups in higher education, despite recent efforts. The review indeed opens by noting that important milestones to Indigenous higher education – such as the first student of Aboriginal or Torres Strait Islander background to receive a degree from an Australian university, or the graduation of the first Indigenous doctor – were reached in Australia almost a century later than in other countries with similar colonial histories, such as the United States, Canada and New Zealand.[85]

Aboriginal and Torres Strait Islander people are severely underrepresented across the Australian higher education sector. According to the review, this group made up 1.4 per cent of all university enrolments in 2010, which was well below the 2006 parity figure of 2.2 per cent.[86] Interestingly, students of Aboriginal and Torres Strait Islander background are more likely to be female and mature-age students (aged 25 or over) compared to non-Indigenous students. The review also noted that student retention and completion rates are lower for Indigenous than non-Indigenous students. Participation in postgraduate research programs is also comparatively low, with Indigenous students making up to 1.1 per cent of HDR students at university and 0.8 per cent of all HDR completions in 2010. At postgraduate level, the retention rate remains lower for Indigenous than non-Indigenous students, although this difference is smaller than at undergraduate level (80.1 per cent for Indigenous versus 83.4 per cent for non-Indigenous students, compared to undergraduate level figures of 63.4 per cent for Indigenous students and 79.8 per cent for non-Indigenous students). The academic staff profile exhibits a similar bias, with Aboriginal and Torres Strait Islander people making up just 0.8 per cent of the academic workforce in 2010.[87]

Ultimately this review suggests setting a parity target for student enrolments and staff based on the proportion of the total population aged between 15 and 64 who are Aboriginal and Torres Strait Islander people (this figure was 2.2 per cent in 2006). As in the Royal Historical Society report, discussion in this review is framed by the problem of securing a steady supply of Indigenous research talent into the academic workforce. Efforts in this area would include, for example, designing capacity-building courses – such as master classes, mid-degree and pre-PhD courses – that would help to better prepare students for the demands of an HDR degree. The need for developing cultural competency in supervision was also seen as critical in supporting Indigenous HDR students. The

[84] Behrendt, Larkin, Griew, Kelly, ***Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Islander People Final Report***. See also McGagh, Marsh, Western, Thomas, Mihailova, and Wenham, ***Review of Australia's Research Training System***, pp. 94-106.
[85] Ibid., p. 4.
[86] The review defines parity as proportion of the total population aged between 15 and 64 who are Aboriginal and Torres Strait Islander people. According to ABS, the parity rate in 2006 was 2.2 per cent.
[87] Behrendt, Larkin, Griew, Kelly, ***Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Islander People Final Report***, pp. 6-10.

University of Melbourne's Aboriginal and Torres Strait Islander postgraduate summer school, designed for both HDR students and their supervisors, represents a good model in this field. Importantly, while most students will experience isolation during the course of their research degree, this issue can have a particularly strong effect on Aboriginal and Torres Strait Islander students, who are often the only candidates of this background within their cohort. It is important to note here the recent publication of Good Practice Guidelines for Aboriginal and Torres Strait Islander Research Education, developed by the Australian Council of Graduate Research in collaboration with the National Aboriginal and Torres Strait Islander Higher Education Consortium, which outlines principles universities should follow in strengthening academic, professional and cultural support for their Indigenous researchers.[88]

The Australian Research Council (ARC) also plays an important role in developing Indigenous research capacity, as its Discovery Indigenous Scheme specifically supports research projects led by Aboriginal and Torres Strait Islander researchers and builds research capacity through HDR positions and support for ECRs. In addition, the ARC also seeks to build the capacity of Indigenous researchers through its Aboriginal and Torres Strait Islander Researchers' Network. Notwithstanding the existence of these programs, the 2012 review asserted that adjustments should be made to current ARC evaluation processes, in order to better recognise Indigenous research. The ARC's Excellence in Research for Australia (ERA) evaluation is currently conducted across eight broad fields of research (which are further sub-divided into disciplines and sub-disciplines), based on classification provided by the Australian and New Zealand Standard Research Classification (ANZSRC). There are concerns that this framework does not sufficiently provide for assessment of the research regarding Aboriginal and Torres Strait Islander people, as there are currently no four- and two-digit fields of research pertaining to Indigenous-specific topics, and the framework does not explicitly identify research as relating to Aboriginal and Torres Strait Islander people.[89] This issue may be addressed by an overarching review of Australia's and New Zealand's research classification system, which is currently underway. It must also be acknowledged that the ARC's Engagement and Impact assessment exercise includes specific assessment of interdisciplinary and Aboriginal and Torres Strait Islander research, with a separate panel convened in respect of Indigenous research.[90]

9.2 Gender Equity

Efforts to achieve gender equity in the Australian workforce, and society more broadly, have produced significant results over the past several decades, with participation by Australian women rising from 43 per cent in 1978 to nearly 60 per cent in 2015. According to the Workplace Gender Equality Agency, achieving equality requires:

- provision of equal pay for work of equal or compatible value;
- the removal of barriers to the full and equal participation of women in the workforce;

[88] ACGR Good Practice Guidelines for Aboriginal and Torres Strait Islander Research Education, October 2018.
[89] Behrendt, Larkin, Griew, Kelly, *Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Islander People Final Report*, p. 121.
[90] See Australian Research Council, EI 2018 Framework.

- access to all occupations and industries, including leadership roles regardless of gender; and
- the elimination of discrimination on the basis of gender, particularly in relation to family and caring responsibilities.[91]

While considerable gains gave been made in this area over the past five decades, the pace of this progress (alongside occasional periods of regression) remains a cause for concern. This is especially true in respect of the debate over the pay gap, with a recent report by the Grattan Institute revealing that female graduates are today expected to earn 27 per cent less than their male counterparts over their careers. Ten years earlier this gap was 30 per cent, which raises the question as to whether this glacial pace of change is sufficient for achieving a more inclusive and efficient future workforce.[92] In addition, the World Economic Forum's 2018 Global Gender Gap Report also highlights Australia's relatively slow progression towards gender parity over the past decade.[93] With a gender parity index score of 0.730 (where 1.000 would represent parity), Australia is ranked 39th out of the 149 countries included in the report, trailing economic peers such as Ireland (9th place), New Zealand (7th), Germany (14th), the United Kingdom (15th), and Canada (16th), and well behind the global leaders Iceland (1st with an index score of 0.858), Norway (2nd; 0.835) and Sweden (3rd; 0.822). Furthermore, although Australia's index score has increased from 0.716 in 2006, more rapid progress toward parity by other nations has seen our ranking drop 24 places. These figures provide context for the recent statement by the University of Sydney's Women, Work and Leadership Research Group, that the assumption that 'the future of work will not be a gendered process and have gendered implications is at odds with the present.'[94]

In academia gender equity has been monitored in Australia for the past three decades.[95] In the mid-1980s, women comprised 20 per cent of academic staff and held 6 per cent of senior positions (positions above 'senior lecturer'); since the 1990s, many Australian universities have developed policies to increase the representation of women in academia. According to one study, these initiatives have been largely effective, with women comprising 44 per cent of academic staff and holding 31 per cent of senior positions in academia in 2014.[96] Equally, and notwithstanding this significant positive impact, measures of the participation by women in academia continue to call attention to a number of negative trends.

According to a recent article, although women account for around 60 per cent of all undergraduate completions, almost 50 per cent of all doctoral completions, and around 40 per cent of academic staff, within academia their numbers remain concentrated at the lower

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[91] Select Committee on the Future of Work and Workers, *Hope Is Not a Strategy*, p. 11.
[92] Norton and Cherastidtham, *Mapping Australian higher education 2018*, p. 77.
[93] *The Global Gender Gap Report*, Geneva: World Economic Forum, 2018, p. 11.
[94] Select Committee on the Future of Work and Workers, *Hope Is Not a Strategy*, p. 11. See also Marian Baird, Rea Cooper, Elizabeth Hill, Elspeth Probyn and Ariadne Vromen, *Women and the Future of Work*, The Australian Women's Working Futures Project, University of Sydney, 2018.
[95] Hilary P. M. Winchester and Lynette Browning, 'Gender equality in academia: a critical reflection,' *Journal of Higher Education Policy and Management* 37, no. 3 (2015), pp. 269-281.
[96] Ibid.

end of the hierarchy.[97] Thus, while women account for large number of doctoral completions in Australia, this achievement does not translate into meaningful changes in gendered patterns of academic staffing. As one report on women in science noted, the entrenched patterns of disadvantage associated with the participation by women in the (science) research workforce appears to repeat itself in successive generations, as we continue to see low levels of retention and success for women beyond the postdoctoral stage.[98] A recent volume on women in philosophy echoes this view. Drawing upon 30 years of data collected by the Australasian Association of Philosophy, the research revealed that there had been little change in the composition of the discipline since the late 1980s and early 1990s.[99] In their contribution, Susan Dodds and Eliza Goddard insist that the debate around underrepresentation of women in philosophy needs to shift focus from the 'pipeline problem' as an increase in the number of women enrolled in philosophy courses has not resulted in a shift in discipline's gender profile.[100] The focus instead needs to encompass a broader institutional context, and philosophy education from earliest to most advanced stages.

Success rates for ARC and NHMRC (National Health and Medical Research Council) competitive grants for women and men are today comparable, but participation rates are significantly lower among women.[101] Women were also found to be underrepresented among the deputy vice chancellors (research) and on the ARC and NHMRC assessment panels. The data also showed that there was a 'tipping point' following the completion of a PhD, where women enter the type of positions which defer or deny them a clear research career trajectory. Female graduates work to a greater extent in academic teaching and in advising or mentoring students, while male graduates work to a greater extent in undertaking research, managing, and supervising others. Gender is also significantly associated with differences in annual earnings, with female graduates generally on inferior terms with respect to earnings, employment conditions, and appointment levels.

Similar trends have been noted in the 2018 report from the Royal Historical Society on gender balance in UK history.[102] A follow-up to a 2015 study entitled *Gender Equality and Historians in UK Higher Education*, this new report seeks to identify what has changed over the course of three years, and what strategies have helped to bring about greater equality. Reflecting upon the 2018 data, the project working group noted major barriers to gender equality in the historical profession still remain, both on formal and informal levels.

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[97] Ibid., p. 275. This information is based on 2003 data; more recent Higher Education Statistics data reveals that in 2017 women accounted for 57 per cent of all underground completions, and 56 per cent of all postgraduate completions. Women also comprised 46 per cent of academic staff, with the lower participation rate at senior levels unchanged.
[98] Sharon Bell and Lyn Yates, *Women in the Science Research Workforce: Identifying and Sustaining the Diversity Advantage*, Melbourne: L. H. Martin Institute, University of Melbourne, 2015, p. 5.
[99] Fiona Jenkins and Katrina Hutchison, 'Introduction. Searching for Sophia: Gender and Philosophy in the 21st Century,' in Fiona Jenkins and Katrina Hutchison eds., *Women in Philosophy: What Needs to Change?* New York: Oxford University Press, 2013, p. 5.
[100] Susan Dodds and Eliza Goddard, 'Not Just a Pipeline Problem. Improving Women's Participation in Philosophy in Australia,' in Jenkins and Hutchison eds., *Women in Philosophy*, pp. 143-163.
[101] Winchester and Browning, 'Gender equality in academia,' pp. 275-276.
[102] Royal Historical Society, *Promoting Gender Equality in UK History: A Second Report and Recommendations for Good Practice*, 2018. For a smaller scale study within the Australian context see: Australian Women's History Network working group, *'It destroyed my research career': survey of sexual and gender-based discrimination and abuse in Australian Academia*, July 2018.

The research revealed that gender-based discrimination remained across the sector, with 48 per cent of female and 16 per cent of male respondents reporting some form of discrimination. Similar to the Columbia University study and the Royal Historical Society's report on race and ethnicity in UK history, this study also showed a low level of confidence in current policies aimed at addressing these issues. Importantly, the survey indicated that gender balance shifts sharply in favour of men at the early-career stage level: while graduate and postgraduate history students have small majorities of female historians, postgraduate researchers and permanent academic staff in history are predominantly male. Furthermore, gender inequality was experienced, seen or suspected by a high proportion of all survey respondents, and in particular among ECRs. The report also notes that overwork is gendered in its impact on historians, with a disproportionately higher level of female respondents reporting they had been adversely affected by having to work on weekends or having to give up annual leave, and noting that caring responsibilities are still not given due recognition. The issue of the so-called 'leaky pipe,' which sees fewer women progress to senior positions and a persistent pay gap between men and women remain major points of concern in history, and indeed across academia. While some progress has been made, the report highlights that the pace of change remains a major challenge, and notes that at the current rate gender parity among the professoriate will not be attained until around 2050.

On the question of raising awareness about gender inequity, this study shows great improvement since 2013 when the Royal Historical Society ran its first gender survey. Today there is also a clearer vision of strategies that help to improve gender equity, such as transparent workload allocation; gender-aware recruitment and selection; gender-aware advertisement of all opportunities; visibility of female role models; restricting meetings to standard working hours; and mentoring for new staff members. In addition, the use of gender-neutral language; anonymised shortlisting; and training in equalities legislation, good practice and invisible bias are all found to be fundamental for achieving positive change in this area. Alongside department-specific initiatives, history departments are becoming increasingly involved with the Athena SWAN Charter, with this initiative being used to orient gender equity efforts.

9.3 The Athena SWAN Charter

The Athena SWAN Charter initiative has been a major driver of efforts to advance gender equity in higher education. Established in 2005 to encourage and recognise the commitment to advancing the careers of women in STEMM employment in the UK higher education and research sector, in 2015 the Athena SWAN Charter was expanded to include staff and students working in the arts, humanities, social sciences, business and law sectors (Advance HE's Athena SWAN Charter).

Across Australia, 40 institutions are currently participating in the Athena SWAN pilot program, which is part of the Science in Australia Gender Equity (SAGE) initiative, organised by the Australian Academy of Science in partnership with the Australian Academy of Technology and Engineering. The institutions joining the Charter are expected to work towards the Athena SWAN Bronze Institutional Award, which confirms that the recipient institution has built a solid foundation for improving gender equity in STEMM. This is the entry level award; it is followed by Silver (which denotes significant activity

and achievement) and Gold (confirming a sustained record of activity, achievement and leadership in the field).

At present it seems that the 2015 expansion into other disciplines has not yet been implemented consistently within the Australian program. First round of applications reveals that while institutions employed a whole-of-institution approach in undertaking self-assessment, they developed action plans only for STEMM.[103] Yet the question of just how suitable the Athena SWAN project is for Australia's HASS sector is central to current debate on the future of the humanities workforce, as we acknowledge that the overall problem of gender asymmetry in the HASS academic workforce is similar to that which has been observed across the STEMM sector, and that certain HASS disciplines reveal levels of disparity that are on a par with numbers in STEMM fields.

The survey of current trends relating to diversity and gender equity in the humanities demonstrates that there are a number of pressure points that require closer study, in particular the current pace of progress, the ongoing need for informing and raising awareness of the value of diversity and equality within the humanities, and the need to raise confidence that policies on diversity and inclusivity are more than mere 'box-ticking exercises.' In addition, the emerging literature calls for questions of diversity and equality to be explored in their full complexity, and with an understanding of the fact that a wide range of different factors combine to intensify discrimination and disadvantage. As the report on gender by the Royal Historical Society notes, race and gender, for example, often combine to exacerbate challenges faced by black or minority background female historians. In the Australian academic domain, there is a need to extend the type of investigation captured by the *Mapping HASS* report to better trace the progress made by individual humanities disciplines and the sector as a whole in the area of diversity and equality.

Next steps

Throughout 2019, the *Future Humanities Workforce* project team will explore issues surveyed in this literature review, initially by seeking submissions in response to a consultation paper, and later through a series of focus group interviews. For further information, please visit: https://www.humanities.org.au/advice/projects/future-workforce/

[103] Science in Australia Gender Equity, Cohort 1 Members.

10 Glossary

Capability	Capability is the ability to integrate and apply specific skills and knowledge in different contexts.
Diversity	Diversity refers to the degree to which people of different ages, cultural and religious backgrounds, genders, sexual orientations and physical and mental abilities have equal access to opportunities and resources, and can contribute their perspectives and talents to their communities and workplaces.
Early Career Researcher (ECR)	An individual who was awarded their PhD within the past five years. The term Early Career Researcher (ECR) is used in preference to the less-frequently used term Early Career Academic (ECA), while acknowledging that research-only roles are rare in the humanities, and ECRs generally cover a significant portion of teaching duties in their institutions.
HASS	Humanities, Arts and Social Sciences, defined by FoR two-digit codes 12 to 22 inclusive.
Higher Degree Research (HDR)	Higher Degree Research refers to both Master of Philosophy by research and Doctor of Philosophy by research courses.
Humanities	In this literature review, 'humanities' refers to the fields of study and research that investigate human cultures, values and beliefs. This generally includes studies in the creative arts and writing; langauge, communication and culture; history and archaeology; and philosophy and religious studies. In quantifying humanities research output in Australia, this literature review uses Field of Research (FoR) classification codes. These codes are used by government departments and agencies, universities, the Australian Research Council (ARC), and the Australian Bureau of Statistics (ABS) to evaluate research investment, outcomes and impact. The humanities and creative arts fields are defined by FoR two-digit codes 19 to 22 inclusive, which includes 17 disciplines at 4-digit classification level.
Humanities Research Workforce	The university-based academic workforce, along with the wider postgraduate-trained workforce, with training in the humanities.
Humanities Workforce	The humanities workforce includes both undergraduate and postgraduate-trained humanities graduates.
Skills	Skills are the abilities of individuals as they relate to completing tasks in the workforce.
STEM/STEMM	STEM refers to science, technology, engineering and mathematics, defined by two-digit FoR codes 01 to 11 inclusive. STEMM includes medicine.