Institutional diversity and its determinants examined through the research positioning of Australian universities.

Author:
Zipparo, Julian

Institutional diversity and its determinants examined through the research positioning of Australian universities.

A thesis in fulfilment of the requirements for the degree of Doctor of Philosophy

Julian Zipparo
School of Education
Faculty of Arts and Social Sciences
2021

THESIS TITLE AND ABSTRACT

Thesis title

Institutional diversity and its determinants examined through the research positioning of Australian universities.

Thesis Abstract

This research critically analyses institutional diversity through the research positioning of Australian universities. In so doing, it makes a contemporaneous contribution to the question of how diverse the institutions within the sector are, and in particular, how we can better understand the determinants or factors that help explain it. Understanding institutional diversity and its determinants is essential, given the concept serves as a bipartisan and enduring principle which underpins Australian higher education policy. Successive governments have sought to configure and resource the university sector in ways which meet varied needs and fit within resource constraints. Their approach to optimizing efficacy and efficiency has been through sector level settings designed to encourage institutions with a diverse range of missions.

Exploring these questions through multiple methods and a theoretical framework that contributes to balancing historically polarised approaches, this research concludes that Australian university research positioning, while expressed in terms of uniqueness and difference, converges upon common aims and approaches and demonstrates a clear lack of diversity. The apparent homogeneity of research positioning across the sector is explained in part through the shortcomings and inherent contradictions within the mission-based compact program's design and implementation, and is also a product of the interaction between the sector funding model and isomorphism in institutional approaches to competitive resource seeking. However, and importantly, the observed homogeneity is also explained by selective narrative construction by universities, which serve various purposes and act to obscure intra-institutional complexity and what is argued to be significant internal diversity. This internal diversity has considerable implications for seeking diversity at the level of institutions through policy or programs, and indeed for observing for it in research.

Thesis Title

Institutional diversity and its determinants examined through the research positioning of Australian universities

Thesis Abstract

This research critically analyses institutional diversity through the research positioning of Australian universities. In so doing, it makes a contemporaneous contribution to the question of how diverse the institutions within the sector are, and in particular, how we can better understand the determinants or factors that help explain it. Understanding institutional diversity and its determinants is essential, given the concept serves as a bipartisan and enduring principle which underpins Australian higher education policy. Successive governments have sought to configure and resource the university sector in ways which meet varied needs and fit within resource constraints. Their approach to optimizing efficacy and efficiency has been through sector level settings designed to encourage institutions with a diverse range of missions.

Exploring these questions through multiple methods and a theoretical framework that contributes to balancing historically polarised approaches, this research concludes that Australian university research positioning, while expressed in terms of uniqueness and difference, converges upon common aims and approaches and demonstrates a clear lack of diversity. The apparent homogeneity of research positioning across the sector is explained in part through the shortcomings and inherent contradictions within the mission-based compact program's design and implementation, and is also a product of the interaction between the sector funding model and isomorphism in institutional approaches to competitive resource seeking. However, and importantly, the observed homogeneity is also explained by selective narrative construction by universities, which serve various purposes and act to obscure intra-institutional complexity and what is argued to be significant internal diversity. This internal diversity has considerable implications for seeking diversity at the level of institutions through policy or programs, and indeed for observing for it in research.

Thesis submission for the degree of Doctor of Philosophy

Thesis Title and Abstract	Declarations	Inclusion of Publications Statement	Corrected Thesis and Responses

ORIGINALITY STATEMENT

☑ I hereby declare that this submission is my own work and to the best of my knowledge it contains no materials previously published or written by another person, or substantial proportions of material which have been accepted for the award of any other degree or diploma at UNSW or any other educational institution, except where due acknowledgement is made in the thesis. Any contribution made to the research by others, with whom I have worked at UNSW or elsewhere, is explicitly acknowledged in the thesis. I also declare that the intellectual content of this thesis is the product of my own work, except to the extent that assistance from others in the project's design and conception or in style, presentation and linguistic expression is acknowledged.

COPYRIGHT STATEMENT

☑ I hereby grant the University of New South Wales or its agents a non-exclusive licence to archive and to make available (including to members of the public) my thesis or dissertation in whole or part in the University libraries in all forms of media, now or here after known. I acknowledge that I retain all intellectual property rights which subsist in my thesis or dissertation, such as copyright and patent rights, subject to applicable law. I also retain the right to use all or part of my thesis or dissertation in future works (such as articles or books).

For any substantial portions of copyright material used in this thesis, written permission for use has been obtained, or the copyright material is removed from the final public version of the thesis.

AUTHENTICITY STATEMENT

☑ I certify that the Library deposit digital copy is a direct equivalent of the final officially approved version of my thesis.

Thesis Title and Abstract	Declarations	Inclusion of Publications Statement	Corrected Thesis and Responses

UNSW is supportive of candidates publishing their research results during their candidature as detailed in the UNSW Thesis Examination Procedure.

Publications can be used in the candidate's thesis in lieu of a Chapter provided:

- The candidate contributed **greater than 50%** of the content in the publication and are the "primary author", i.e. they were responsible primarily for the planning, execution and preparation of the work for publication.
- The candidate has obtained approval to include the publication in their thesis in lieu of a Chapter from their Supervisor and Postgraduate Coordinator.
- The publication is not subject to any obligations or contractual agreements with a third party that would constrain its inclusion in the thesis.

☑ The candidate has declared that **their thesis contains no publications, either published or submitted for publication.**

Candidate's Declaration

I declare that I have complied with the **Thesis Examination Procedure.**

Table of Contents

CHAPTER 4: THE HOMOGENEITY OF AUSTRALIAN UNIVERSITY RESEARCH POSITIONING — 103

CHAPTER 5: INSTITUTIONAL RESEARCH POSITIONING AS AN INTERPLAY OF EXOGENOUS AND ENDOGENOUS FACTORS — 137

APPENDICES   **221**

REFERENCES   **254**

List of Tables

List of Figures

Abbreviations

ACER	Australian Council for Educational Research
ACOLA	Australian Council of Learned Academies
ARC	Australian Research Council
ASSA	Academy of Social Sciences in Australia
AVCC	Australian Vice Chancellors Committee
AWRU	Academic World Ranking of Universities
CRC	Cooperative Research Centres
CRN	Collaborative Research Networks
CSIRO	Commonwealth Scientific and Industrial Research Agency
DVC	Deputy Vice Chancellor
ERA	Excellence in Research for Australia
FOR	Field of Research
G08	Group of Eight
HASS	Humanities, Arts and Social Sciences
HERDC	Higher Education Research Data Collection
HESA	Higher Education Support Act
MCEETYA	Ministerial Council on Education, Employment, Training and Youth Affairs
MRI	Medical Research Institute
NHMRC	National Health and Medical Research Council
OECD	Organisation for Economic Co-operation and Development
PVC	Pro-Vice Chancellor
REF	Research Excellence Framework (UK)
RUN	Regional Universities Network
STEM	Science, Technology, Engineering and Mathematics
TEQSA	Tertiary Education Quality Standards Agency
THES	Times Higher Education Supplement
UA	Universities Australia
UNS	Unified National System

Australian university acronyms or shortened references (used within compacts):

Acronym or common reference	University
ACU	Australian Catholic University
ANU	Australian National University
Batchelor	Batchelor Institute
Bond	Bond University
CQU	Central Queensland University
CDU	Charles Darwin University
CSU	Charles Sturt University
Curtin	Curtin University
Deakin	Deakin University
ECU	Edith Cowan University
Flinders	Flinders University
Griffith	Griffith University
JCU	James Cook University
LaTrobe	La Trobe University
Macquarie	Macquarie University
Divinity	Melbourne College of Divinity
Monash	Monash University
Murdoch	Murdoch University
QUT	Queensland University of Technology
RMIT	Royal Melbourne Institute of Technology
Swinburne	Swinburne University
Adelaide	University of Adelaide
Federation	University of Ballarat/Federation University
UC	University of Canberra
Melbourne	University of Melbourne
UNE	University of New England
UNSW	University of New South Wales
Newcastle	University of Newcastle
Notre Dame	University of Notre Dame
UQ	University of Queensland
UNISA	University of South Australia
USC	University of the Sunshine Coast
Sydney	University of Sydney
Tasmania	University of Tasmania
UTS	University of Technology Sydney
UWS	University of Western Sydney
Wollongong	University of Wollongong
VU	Victoria University
SCU	Southern Cross University
USQ	University of Southern Queensland
UWA	University of Western Australia

Acknowledgements

The generosity and kindness of many people is responsible for this thesis.

My supervisors Professors Kristy Muir and Kalervo Gulson were kind enough to take me on as a doctoral candidate. When I asked them, I was naïve of the workload this type of endeavor creates for them (thankfully, or I would not have asked!). For five years, they enabled me to find my way at all turns. They tactfully provided feedback on drafts that must have made hard reading, and (possibly without even realising it) made me feel better and more confident with every conversation. Having worked for both of them in their previous roles as Associate Deans, I had the great fortune of experiencing first-hand before going into this adventure with them, their exceptional talents as researchers and mentors. One of the best outcomes of this thesis, was that I had an excuse to stay in touch and spend time with them after we parted ways in our work lives. Thanks too, to Associate Professor Scott Eacott who kindly assisted during the final year of my candidature.

Kate McLoughlin, my partner of 15 years, was a PhD-widow for many weekends and evenings over the last five years. Her support efforts extended the entire spectrum: from re-designing our spare room (complete with a jar of cookies) when the place had become stale and tiresome to spend time in, to reading through chapters and slapping my wrist for every use of passive voice, undefined pronoun, and meandering sentence. The first year of this thesis, grappling with the scholarly field while living, eating and exploring our way through a new country, was among the best of my life so far. There is not a chance that I would have been so adventurous - on any of life's fronts - without Kate.

My selfless and supportive - without exception – parents Gerardo and Paolina Zipparo who upended their young lives to give opportunities just like this to their children. My sister Lisa who (among so much more) stacked our family bookshelves with things that stimulated intellectual curiosity, and the rest of the family who politely asked – and listened – to how I was going for what must have seemed like an eternity. Close and encouraging friends, who often helped inadvertently and importantly by taking my mind away from this task, with particular thanks to Mick and Sal, Colm and Andy, and Marco Scali.

Abstract

This research critically analyses institutional diversity through the research positioning of Australian universities. In so doing, it makes a contemporaneous contribution to the question of how diverse the institutions within the sector are, and in particular, how we can better understand the determinants or factors that help explain it. Understanding institutional diversity and its determinants is essential, given the concept serves as a bipartisan and enduring principle which underpins Australian higher education policy. Successive governments have sought to configure and resource the university sector in ways which meet varied needs and fit within resource constraints. Their approach to optimizing efficacy and efficiency has been through sector level settings designed to encourage institutions with a diverse range of missions.

Exploring these questions through multiple methods and a theoretical framework that contributes to balancing historically polarised approaches, this research concludes that Australian university research positioning, while expressed in terms of uniqueness and difference, converges upon common aims and approaches and demonstrates a clear lack of diversity. The apparent homogeneity of research positioning across the sector is explained in part through the shortcomings and inherent contradictions within the mission-based compact program's design and implementation, and is also a product of the interaction between the sector funding model and isomorphism in institutional approaches to competitive resource seeking. However, and importantly, the observed homogeneity is also explained by selective narrative construction by universities, which serve various purposes and act to obscure intra-institutional complexity and what is argued to be significant internal diversity. This internal diversity has considerable implications for seeking diversity at the level of institutions through policy or programs, and indeed for observing for it in research.

Preamble and thesis context

In 2015 my partner was offered a role that involved three years of living in China. Too good to pass up, and not inclined to be apart, the question became whether I could join her, and if so, what would I spend my time doing in a country where we knew nobody, and would have only a rudimentary understanding of the language? At the time, I had been working in research management roles for around a decade, with experience at three universities and Australia's national research funding council. It was a very deliberate career choice. As a child of migrants without exposure to higher education until their three children, universities' transformative potential was clear in my household. I genuinely believed, as I still do, that universities – and in particular, the knowledge which they play a key role in generating – are as close to a panacea for all manner of complex problems as society has ever gotten. However, at the time I had only built expertise in supporting the research enterprise and not the doing of research itself. Adding the latter, I thought, would surely make me better equipped to contribute to my chosen profession. With the generous permission of my employer of the time, Macquarie University, I was given one year of leave to go to China to support my partner and take the chance to commence the PhD which had otherwise been a fanciful idea for which there was never a good time.

I became interested in how similar or different Australian universities are through my experience at three institutions which collectively span the range of universities in the sector in terms of size and history. In each of them, I was involved to varying degrees in the development and implementation of research related strategies. At a faculty level in a large research-intensive university (UNSW); at the university levels at a small institution working for its first Deputy Vice-Chancellor Research and developing its first research strategy (the University of Canberra); and at Macquarie which is generally considered a 'mid-tier' Australian university by most measures, including 'research performance'. To my delight, I discovered a vibrant and active academic field continuing to debate a panoply of issues and questions related to institutional diversity. Further still, the concept, it turns out, was fundamental to many of the higher education sector policies and design settings in Australia (and elsewhere). I had stumbled upon an issue with both scholarly and practical significance, which resonated with my own experience and interests.

Fast forwarding to 2019 and 2020, the majority of the empirical work and analysis for this thesis had been done on a part-time basis alongside the return to full-time work. The COVID-19 pandemic was wreaking havoc, and the higher education sector in Australia was in turmoil. As international borders closed, the flow of overseas students into Australia had stopped, and the ramifications for universities were quite devastating. At the time of writing, estimated sector job losses were in the order of 17,000 (~13% of the entire national university workforce), and morale at a very low ebb[1]. Universities that had long been reliant upon income from overseas students' fees were reconfiguring themselves to balance books and, we were told, to survive. While nobody of right mind could ever wish for such a thing or take pleasure in benefitting from it, circumstances prevailed wherein the argument for the significance or 'so what?' of this research almost wrote itself. I had explored questions around how to configure and manage a sustainable university sector, at a time when our society was being forced to contend with the very issue head-on.

---

[1] See for example, Zhou, N. (2021, February 3). More than 17,000 jobs lost at Australian universities during Covid pandemic. *The Guardian* (accessed online), and this commentary which captures the mood adeptly - Eltham, B. (2020. June 12). If Australian Universities Are Going To Survive, They Can't Just Produce "Job-Ready" Graduates. *Jacobin Magazine* (accessed online).

Chapter 1: Introduction, context and thesis overview

Chapter overview

This thesis tackles the questions of how diverse Australian universities are as a sector, what the determinants of institutional diversity are, and what this means for policy and programs seeking to stimulate it. The opening chapter introduces the research, locating the topic within the context of Australian higher education policy, where the concept of institutional diversity represents a fundamental principle underpinning sector configuration and design. The policy reforms that have shaped the sector as it is currently constituted - and have had the most significant implications upon institutional diversity - are introduced and explained. As a focal point through which diversity is examined within the thesis, academic research's central role and importance in the modern higher education context is argued. As well as providing a brief overview of the theoretical and methodological decision making, the chapter argues the significance of the thesis by situating it among gaps within the chosen scholarly field, and through the practical applicability of the resulting empirical insights.

Institutional Diversity

Institutional diversity has been the subject of scholarly interest traceable to a long history. Within the social sciences, it has been mapped to the works of Durkheim, Weber, and Parsons into the modern-day, as well as spanning a range of discipline areas from Darwinian biological origins through organisational studies (Van Vught, 2007, 2008). This thesis is positioned to contribute to the *higher education studies field*, where the amount of empirical work on the topic appears to have accelerated in recent years since several prominent researchers in the field pointed out that there had been a relative paucity of it (Goedegebuureet al., 2009; Huisman, Meek & Wood, 2007; van Vught, 2008; Huisman et. al, 2015; Teichler, 2010). Despite the increasing volume of research published in this space, important open debates and questions remain.

Research on institutional diversity in higher education specifically, has explored the variety within (internal diversity) or between (external diversity) universities or higher education providers and sectors across a wide variety of international settings. In addition,

the research designs applied, and the dimensions or areas of focus through which researchers have chosen to explore associated questions are voluminous. The published research from the most recent decade alone has covered dozens of jurisdictions and focus areas (illustrated by Appendix A and discussed in chapter two). Distinct trends, however, are observable within the field. There has been a tendency toward exploring particular types of diversity, and the chosen parameters of focus have been skewed toward using university education programs rather than the academic research function of universities (though arguably the two are not neatly separable). For understandable reasons, and correcting for what were observed as shortcomings of prior research in measuring differences between institutions at an earlier time (Codling & Meek, 2006), research designs overwhelmingly moved in recent decades to the use of quantitative methods, amenable to distinguishing variation and trends:

> many analyses focus on quantitative-structural issues of higher education, i.e. the shape and size of the system [...] most of these analyses have paid stronger attention to the teaching and learning function than to the research function of higher education [...] quantitative-structural aspects have often been more central to resource allocation in higher education than research issues (Teichler 2008, p.350)

Theoretical frameworks applied to research in this area have also been heavily influential and appear to have evolved through some broadly observable trends. For example, in recent decades, a favouring of frameworks with environmental or structuralist emphases is evident. Works utilising such frameworks, coupled with the aforementioned methodological approaches, have increased the field's understanding in many ways. At the same time, however, this trend has in some ways limited the field's capacity to provide more holistic explanatory insights. Though more limited and continuing to emerge throughout the course of this thesis, a collection of works have sought to redress this balance by applying perspectives that enhance the attention paid to agency at more local or micro levels, through for example, the strategic positioning of institutions.

When the field is analysed as a whole, the results of previous research show variable and even at times contradictory results. In addition, there is an absence of consensus around the complex determinants or factors which explain what causes or inhibits institutional diversity. The issue of whether diversity exists, and in particular, how it can be explained, remain open and pertinent empirical questions with important practical implications. Empirical work from varied perspectives and approaches, which this thesis seeks to contribute

to, offer the opportunity for a more nuanced understanding, something concluded by the fields most prominent and cited researcher from recent decades:

> Diversity is not solely determined by environmental and system factors, as universities increasingly act as strategists and their choices can have an important direct or indirect impact on the level of system diversity. Further research should therefore, also be oriented towards a fine-grained understanding of these micro-level dynamics and the interaction with external pressures (Huisman & Tight, 2015, p.12)

Thesis aims, research questions and approach

This thesis contributes to the field of institutional diversity in higher education, and applies lessons to the contemporary Australian policy context by:

(i) applying an emergent qualitative focussed research design, and a theoretical framework that contributes to the re-balancing of approaches taken historically in the field. These are applied to increase the depth of understanding about the observed trends, and more specifically, how the determinants of diversity might be explained;

(ii) critically examining institutional diversity through the *research* related strategic positioning of Australian universities. Research represents a less explored focus area for diversity studies, despite being highly valued and a critical element of the contemporary higher education setting. Institutional diversity issues also have significant implications for the way university research is resourced and managed. Positioning involves the processes through which universities locate themselves into specific niches within their sector and in relation to their external environments (Fumasoli & Huisman, 2013; Strike & Labbe, 2016);

(iii) exploring institutional diversity directly through an Australian Commonwealth government program (mission-based compacts), which was *designed with the aim of facilitating diverse institutional missions,* thereby enabling lessons to be drawn for policy and practice.

Aligning with the relativist ontological position and constructivist epistemology upon which this research is based, the development of research questions followed an emergent and reflexive approach. Initial research questions were developed based on a comprehensive critical analysis of the literature, which allowed for the identification of empirical gaps within

the field. Agee (2009) noted that question development through a reflexive approach underscores the strengths of qualitative research, and indeed it provided benefits for this research. The increased understanding of the phenomena under examination continued throughout each empirical stage, which allowed for the exploring of unexpected and beneficial directions. Initial research questions, necessary as part of the doctoral application process, were refined as the work progressed and as the field itself (and my own understanding of it) continued to evolve through the course of the research. The resulting three research questions addressed in the thesis are:

1. ***To what extent does the research positioning of Australian universities demonstrate institutional diversity?***

2. ***How can we understand the key determinants that shape institutional diversity?***

3. ***What lessons can be drawn for higher education policy and program approaches which seek to stimulate institutional diversity?***

Overview of methodological decisions

Ensuring congruence between ontological and epistemological positions and the research design was a key consideration throughout this research. The thesis was designed and undertaken as an emergent qualitative piece of research, reflecting a belief that: (i) the researcher and participants both influence and are influenced by the research exercise; (ii) that understanding evolves throughout the process; and (iii) that the resulting knowledge is *co-created* by the researcher, and those who have participated in the work.

Methods that utilise objectively measurable indices have been applied usefully to the questions of variation that underpin institutional diversity research. This thesis sought to explore beyond such indices for additional explanatory or causal insights within what is a

complex social environment and set of relations[2]. Combining qualitative methods such as interviews and document analysis has been suggested to be particularly useful for exploring deliberate or emergent actions leading to specific positions (Fumasoli & Huisman, 2013), with case studies able to add depth and concrete, context-dependent knowledge (Flyvberg, 2006). As will become evident throughout this thesis, and is addressed in the conclusion, the combination of these methods – document analysis, interviews, and case study - proved critical to what became the eventual thesis.

Overview of theoretical approach

In designing this research, an attempt was made to contribute to the rebalancing of theoretical perspectives, which within the institutional diversity field have historically appeared polarised, relatively static, and oppositional. As well as recognising the tensions between them, this research sought to inclusively draw from the insights provided by structural (external constraint) and micro-level (agency) perspectives. One of the aims of doing so was to explore the potential for such an approach to contribute to unresolved explanatory questions, within what is a setting of increasingly complex systems, environments, and relationships. Meek's (1991) work was influential here, having pointed out the dangers of: (i) the teleological nature of excessively polar frameworks which have predetermined structural outcomes; (ii) seeking singular causes and explanations; and (iii) the use of dualisms and absolute states. A helpful example Meek provided was where prominence is given to constraining external and structural forces to explain institutional behaviour, institutional convergence is then observed. An interesting detour in the literature illustrated that this appears by no means exclusive to institutional diversity studies, with the construction and use of dualisms common within higher education studies more broadly, perhaps due to the relative level of neatness, simplicity, and perceived clarity they provide (cf. Macfarlane, 2015).

---

[2] It is worth noting that influential foundational studies in the institutional diversity in higher education field, with Birnbaum's (1983) work a good example, were undertaken at a time when qualitative methods were marginalised, a position from which they have arguably now emerged into both wider use and acceptability (Punch, 2013)

While the contributions to understanding institutional diversity that have been afforded by institutional theory are voluminous, attempts to reconcile critiques of its difficulty accounting for agency are ongoing. For this purpose, recent evolutions in several cognate areas have explored conceptual constructs such as institutional positioning and organisational identity. These concepts contend that institutions construct identities through self-reflection and interaction with others and their environment, and actively position and seek niches and distinctiveness (Fumasoli & Huisman, 2013; Fumasoli, Pinheiro, & Stensaker, 2014b; Stensaker, 2014; Frølich et. al 2012). In this way a medium is found (applied primarily so far in a European context) through which greater agency can be attributed to institutions, who can manoeuvre strategically and even, to varying degrees, help to shape their environments:

> we posit institutional positioning as the linking pin between the higher education institution (i.e. the organization level) and the higher education system (i.e. the environment level) (Fumasoli & Huisman, 2013 p. 157)

The framework applied to this thesis combines institutional theory with institutional positioning, with the mechanism through which this is achieved being Marginson and Rhoades (2002) g*lonacal agency heuristic.* As detailed within the research design chapter, the glonacal heuristic highlights multiple levels of scale (*glo*bal-*na*tional-lo*cal*), and the reciprocal and interactive influence between forces at each level. These are conceptualised in both an institutional sense (formal agencies) and through the ability of individuals and collectives to take action (exercise agency). A three dimensional and flexible conceptualisation allows the levels within the heuristic to be adapted. Furthermore, as suggested by Vidovich (2004), who has also used this heuristic, "'agency' might potentially be exerted continuously at all points between the three main levels" (p343). Analytical consideration is thereby given not only to global, national, and local layers, but as developed through the course of this research to other emerging (for example, regional) levels.

Finally, the conceptual approach adopted for the thesis proved particularly useful when applied to what has been labelled a 'meso' level (Frølich et. al 2013; Teichler, 2008), or the intra-institutional groupings like faculties, departments, and other teams of academics, which constitute universities. The resulting examination of institutional positioning focussed not only at the level of interactions between institutions and environment, but also at and between meso layers within an institution. The discounting of these levels was a noted

limitation of some previous works in the higher education field, including for example the well-known work of Marginson and Considine (2000), which influenced decision making here by specifically noting its necessity to considerations of institutional diversity.

Original contribution and significance

The value of academic research has been assessed in shifting ways over time, with societal benefits and impact arguably representing the most recent evolution. The significance and effect of research outcomes beyond the academy are an increasingly scrutinised consideration[3]. In this light, this thesis's contribution and significance are elaborated below at both scholarly and practice levels.

Contributions to knowledge and gaps in the scholarly field

Understanding of the structural factors that influence higher education has evolved since the time of Burton Clark's (1983) highly influential but static triangle of coordination. There is now a more sophisticated view of the dynamic interplay between markets, government, and internal or local-level agencies. Despite this, research in institutional diversity in higher education utilising theory which adequately reflects these developments appears to be still emerging. Theoretical approaches heavily utilised in preceding decades have tended toward frameworks with a relatively stringent focus upon the primacy of external constraints, as represented most commonly (including within Clark's triangle) by dualistic conceptualisations of the state and markets.

This thesis' theoretical contribution derives primarily from the bringing together of aspects of various frameworks to capitalise on the benefits brought by each, while making

---

[3] Here my employment history informs much of the thinking I brought with me to the thesis. In the course of around 15 years of such work, I have witnessed these shifting trends and the effect of how they are operationalised upon researchers. Australian universities have long reported to government on their research productivity through annual reports of their scholarly publications, grants and PhD completions (used to inform institutional research block grants which are a sizeable portion of the governments investment in research). Quality and excellence emerged as a particular lens of interest to government through the Excellence in Research for Australia (ERA) exercise first run in 2010. Most recently, the supplementary Engagement and Impact Assessment (EIA) exercise, has since 2018 sought to assess research and incentivise end user engagement and proactive planning for and capturing of impact. The role which I have undertaken at the same time as completing this thesis, includes some responsibilities related to this.

allowance for their limitations when utilised exclusively. The framework is then applied to what is argued here as an under-examined but potentially germane area of focus for institutional diversity studies - the academic research function of universities and the institutional positioning related to it[4]. By providing a constructivist and qualitative perspective, the work seeks to contribute to the stock of, and *types of*, knowledge in the field. While empirically exploring whether institutional diversity exists in the contemporary Australian context is valuable in itself, the novelty of this approach can contribute to resolving the arguably more complicated explanatory questions around the determinants of diversity. Rossi (2009a) neatly summarises this idea:

> In the absence of strong theoretical consensus, empirical analysis plays a very important role in order to help disentangle some of the complex processes that affect the dynamics of diversity, and to shed some light on the possible causal relationships that underpin them (Rossi, 2009a, p.394)

The conclusions drawn in various pieces of research that were published during the later stages of this thesis, support the claims of value being made herein for the thesis' chosen approach and level of focus. For example, Huisman and Mampaey (2018) describe the scope for further exploration in light of contradictory findings and the lack of explanatory insights within the field: "What is clearly lacking in the studies so far is an explanation for why and when universities are likely more similar or dissimilar to each other when they communicate elements of their image to the outside world" (p. 427). Similarly, and related explicitly to institutional positioning, Barbato, Fumasoli and Turri (2019) note "that in order to understand better university strategic positioning, the determinants of university positioning need to be uncovered and accounted for" (p.328).

Finally, within the Australian context specifically, Croucher and Woelert (2015) conclude that studies on institutional diversity in higher education have reached a relative consensus that isomorphism (or what DiMaggio and Powell explain as convergence to similar processes or structures between organisations, explained in chapter three) has occurred in Australia

---

[4] As well as being under-examined, one consequence of previous methodological trends has been an over-reliance on research volume metrics as the proxy for research and the focal point of analyses which have chosen to focus upon research. Such approaches, as well as not capturing a large body of (for example unfunded) academic research which takes place within universities, are arguably limited to providing insights with regard to vertical or volume differentiation, which represents only one of the multiple types of diversity, as is outlined in chapter two.

following the unification of the national system (explained in the latter part of this introductory chapter). This thesis fills a gap identified by their research which noted that *there is both a lack of empirical work which tests the convergence consensus, and the field lacks an understanding of the role of institution-level dynamics* within such a scenario:

> we conclude that the Australian case lends clear empirical support to the isomorphism thesis and yet propose that further research is called for that more clearly distinguishes between the various dimensions of institutional isomorphic change, and which supplements the system-level analysis presented here through more close-up institutional case studies
> (Croucher & Woelert, 2015, p.3)

The value of this empirical research for policy and practice

Institutional diversity forms a fundamental concept underpinning Australian higher education policy, sector design and resourcing, as this chapter will go on to demonstrate. Moreover, with funding of over $3.5 billion in the 2015-2016 budget at the commencement of this thesis, higher education has been the largest sectoral recipient of Australian government research resourcing, representing over 35% of the total national investment for science, research, and innovation. Empirical research, as well as assisting to critically evaluate whether institutional diversity is an appropriate principle to underpin policy and programs that operationalise such a significant investment, can play a role in maximising efficacy and effectiveness. As pointed out by Huisman, Meek and Wood (2007), empirical examinations can enable the effectiveness of policy approaches through the understanding they provide around how and why diversity evolves over time or differs between sectors or jurisdictions.

Numerous scholars have noted empirical gaps that exist in relation to policy and institutional diversity. For example, understanding and evidence has been said to be lacking in relation to: (i) the impact of regulatory environments on institutional diversity (Lepori, Huisman & Seeber, 2013); (ii) specific regulatory programs or approaches and whether they have positive or negative influence (Fumasoli & Huisman, 2018); and (iii), the ways such settings interact with institutional strategic action:

> careful attention should be paid to the interplay of multiple (sometimes conflicting) policy logics and instruments, in addition to the complexities associated with policy making and policy implementation, which are, to a degree, mitigated by the strategic responses of institutions (Pinheiro, Charles & Jones, 2016. P. 320)

In his 2017 book *The Australian Idea of a University*, Professor Glyn Davis makes the case that as a sector, lack of institutional diversity is potentially a sector-wide risk that needs rectification. A homogenous set of institutions, according to the logic, is less resilient to shock and disturbance, which at that time he presumed would come in the form of digital disruption. Instead, at the time of writing, sector-scale risks are resulting from the economic fallout from the COVID-19 pandemic. The effects are playing out in the form of institutional reshaping and restructuring efforts which have proliferated across Australian universities of all sizes, ages, and types. Within such an environment, which appears likely to continue to be characterised by resource constraint and the searching for efficiencies, the principle of institutional diversity will likely maintain the bipartisan political support it has enjoyed for at least several decades:

> Since [the unified national system] both Labor and non-Labor Federal Governments have emphasized the need for maintenance and extension of diversity in institutional roles and the importance of each university developing its own distinctive mission and goals.' But despite this strong encouragement, both Ministers and senior government officials continue to bemoan the lack of diversity and a high degree of similarity in institutional missions and goals (Harman, 2001. p.326)

This thesis goes on to argue that institutional diversity in higher education represents an unquestioned policy orthodoxy in Australia. It is also a concept utilised by universities, and the groups representing them, when positioning themselves against their competitors for resource-seeking purposes. Neave (2000) foresaw the potential for such outcomes, suggesting the concept of institutional diversity risked being appropriated to the point that it assumed an ungrounded 'slogan-like' status. To obviate such a risk, contemporaneous empirical evidence, and a richer understanding of the issue, which may support or challenge diversity as a policy driver is required. Without such evidence, there is a risk that inappropriate or ineffective approaches are pursued, which do little more than add to the burden upon Australian universities already struggling to meet increasing demands from their multiplicity of stakeholders (not least, government). Beyond questions of appropriateness, if institutional diversity is to be pursued as a policy approach, understanding the factors which promote or stifle it is arguably an essential precondition for the effectiveness of the resulting programs (such as mission-based compacts, explored herein) which are implemented in order to stimulate it.

Finally, at a local institutional practice level, the insights that this research elicits into areas such as institutional positioning have potential practical utility. Lessons can be drawn for planning, a function to which universities are dedicating increasingly significant time and resources within the context of finite stocks of both. Fumasoli and Huisman (2013) have canvassed this, outlining the benefits that can be gained through a deeper understanding of how internal and external actors converge upon shared courses of action, and how inter-institutional dynamics play out in terms of positioning. Here, the benefits of case study research, as outlined by Burton Clark who utilised the approach widely himself, can be found: "Institutional case studies move inquiry close to ongoing practice. Such inquiry can be research for use at the same time it is research for fundamental understanding" (Clark, 2003, p.115).

The Australian higher education context

The remainder of this introductory chapter covers contextual information which is important to situate the research questions and the resulting thesis. It focuses primarily upon Australian higher education, and a selection of sector-level settings and policy reforms that have been influential in shaping the sector as it is currently constituted.

Defining 'university' in the current Australian setting

The way higher education and universities are defined and conceptualised has fundamental implications for institutional diversity examinations (Meek, Goedegebuure, Kivenen, & Rinne, 1996). Internationally, instruments such as the UNESCO International Standard Classification of Education (ISCED, 2011) offer a neat boundary for higher education, set at the offering of degrees at the bachelor level and above. In Australia, the higher education sector is comprised of public and private research and education providers, who are registered and authorised to deliver post-secondary (tertiary) qualifications. The sector currently consists of around 40 universities and somewhere between 130-150 other higher education institutions[5] (Norton, 2014; Coaldrake, 2019).

In Australia, the use of the 'university' nomenclature is bound and limited by legislative and regulatory requirements, which this thesis will show have direct implications for institutional diversity. The same instruments also control standards and access to public funding outlined within a number of sources: the *Higher Education Support Act* (HESA 2003); *National Protocols for Higher Education Approval Processes* (MCEETYA, 2007); and a *Higher Education Standards Framework.* The latter includes *Higher Education Provider Category Standards*, established following a landmark Review of Higher Education (the 'Bradley Review', to be discussed) in 2008 which resulted in the establishment of a Tertiary Education Quality and Standards Authority (TEQSA).

---

[5] The number of universities in Australia ranges within literature between 39-42, depending on whether private universities (such as Bond, Torrens and Notre Dame) and specialist universities (such as the Melbourne College of Divinity) are included. Similarly, the number of other higher education providers varies in different sources: Norton (2014) specifying 130; Coaldrake (2019), 131; and the Bradley Review (2008) describing '*150 or so other providers of higher education' (p. xi).*

Australian universities are considered self-governing institutions (Bradley, 2008a), primarily established under state or territory government legislation[6]. Importantly, however, the Commonwealth provides a considerable proportion of direct funding to universities, which during the course of this thesis ranged from a starting point of just under 60% for 2014 to a level just under 50% by 2019 (Department of Education[7]). Universities, at the same time as retaining independence in terms of governance and management, are required to adhere to regulatory, quality and accountability requirements, as well as funding conditions that effectively act to place limits upon the extent of their autonomy (cf. Karmel, 1998).

The centrality of research

What particularly distinguishes Australian universities from the other higher education organisations that outnumber them in the delivery of post-secondary education is research and the generation of new knowledge. This arrangement represents a relatively modern evolution, with historical accounts describing a focus upon expertise and dissemination of existing knowledge (and indeed research higher degrees not offered at all in Australia until the 1940s) and training for the professions (Meek & Wood, 1998; Coaldrake & Stedman, 2013; Forsyth, 2014; Norton, 2014). Throughout the twentieth century, Australian universities have traversed a trajectory typical to many western nations, having now converged upon a single research-focused model, where research activity is now arguably the primary focus, with significant financial and reputational influence (Meek, Goedegebuure, & Huisman, 2000; Taylor, 2006).

As well as being a fundamental input into global competition for status and prestige, research has become inextricably tied to the broader concepts of *innovation* and *knowledge economies.* These concepts have been framed by bodies such as the OECD and World Bank as both global and urgent imperatives. Australian governments appear responsive to such messages, with the competitive logic implicit within public pronouncements from such bodies, often utilised as a part of justifications for decision making or particular courses of

---

[6] With the exception of the Australian National University established under Commonwealth legislation, and the Australian Catholic University which is established under Company Law.

[7] Figures calculated using the Government's annually published data, with 2019 being the most recent year available: https://www.education.gov.au/finance-publication

action. To provide two examples: the core assumptions and motivations behind the Commonwealth Department of Education *Varieties of Excellence* (2002) report, which specifically examined institutional diversity, are evident from its first sentence which frames the topic through the prism of Australia not having a university ranked in the international top 50 or 100 (though of what specifically, we are left to infer). Similarly, the landmark 2008 Bradley *Review of Higher Education* stated that*:*

> For countries in the vanguard of the world economy, the balance between knowledge and resources has shifted so far towards the former that knowledge has become perhaps the most important factor determining the standard of living – more than land, than tools, than labour. Today's most technologically advanced economies are truly knowledge-based
> (Bradley 2008a, p.88)

Universities, and the bodies who represent them, appear to have embraced such narratives utilising them as a part of their resource seeking efforts. These efforts are critical to the sectors functioning given the cost pressures created by a funding system that does not meet the full costs of research[8]. Some suggest a concomitant enhancement in the perceived importance of higher education's role in policy (Van Vught & Huisman, 2013), with Olssen and Peters (2007) having gone as far as suggesting that it became "the new star ship in the policy fleet for governments around the world" (p.313). The resourcing of universities and their research however, remains a vexatious issue. In Australia, a private good and market-focussed conceptualisation of universities has influenced budgeting and public funding approaches since the post-war massification of higher education. Governments have attempted to find the optimal means for designing, managing, and resourcing higher education and research in ways which maximise efficacy and efficiency. This issue is not unique to Australia as Meek, Goedegebuure, and Huisman (2000) noted, *"No country can afford to fund all of its universities as world class research universities"* (pg. 2)*.*

---

[8] The *Report of the Review of Research Policy and Funding Arrangements* (Department of Education & Training, 2015), shows that more than half of the expenditure on research undertaken by universities came from funds sourced from: international undergraduate and postgraduate student fees; domestic undergraduate student income; and other, smaller, contributions such as non-research specific donations and bequests and investment income. This arrangement proves to have critical implications for institutional diversity as shall be described later in the thesis.

For several decades one of the key principles underpinning Australian higher education policy has been institutional diversity, with policies and programs seeking to stimulate varied institutional configurations and offerings. Diversity is assumed to provide the most appropriate and efficient means to organise and resource the sector-wide delivery of education and research. Mirroring principles with biological origins, a more diverse sector of institutions is also presumed to be more resilient to shock. As previously noted, Davis (2017) suggests that lack of diversity potentially represents an 'Achilles heel' for the sector in the face of potential digital disruption. At the time of writing in 2020, the same assumptions have surfaced in public discussion around the sector's sustainability and capacity to withstand the fiscal effects of a global pandemic:

> To be successful at this national scale, universities will need to create sufficiently differentiated profiles. Universities today make that effort when attracting international students, but because the assumption has been that their local student intake can always be relied on, they have fallen back on broadbased, and largely undifferentiated offerings
> *(The Australian[9],* 24th April, 2020)

The extent to which the desirability of diversity has reached a level of orthodoxy in Australian educational policy is evident in the regularity with which it appears as a term of justification for particular actions[10]. Diversity was a fundamental principle used to justify the creations of both the binary and unitary systems in Australia (Codling & Meek, 2006), and gained what has endured as its contemporary policy prominence following the 1997 *National Review of Higher Education Financing and Policy* (the West Review). In the decade following, diversity featured within the 2002 Higher *Education at the Crossroads* (Nelson Review) report. In the same year, the Department of Education Science and Training's report *Varieties of Excellence: Diversity Specialisation and Regional Engagement* specifically focussed upon exploring approaches to a diverse and specialised sector.

---

[9] '*After the virus, it will be time for universities to think big*' - article appearing in The Australian newspaper, 24th April 2020 written by Catherine Friday (managing partner Oceania, government and health sciences of Ernst & Young).

[10] Such an orthodoxy may not be limited to Australia, with Teichler (2008) suggesting a biased discourse and that "the diversity debate in Europe triggered off from the U.S. had a strong analytical and normative bias from the outset in favour of: a high extent of diversity is beautiful" (p. 368)

Underscoring the positions taken within the *Varieties of Excellence* report are several core ideas: (i) a return to the binary system is undesirable, however, a trend of all universities aspiring to the comprehensive research model since the creation of the unified system is problematic; (ii) diversity could be achieved through greater specialisation (selective excellence in teaching, scholarship, research and community service), rationalisation and collaboration, in particular collaborative partnerships and strategic alliances; (iii) diversity is warranted on the basis of international trends (the work of the Carnegie Commission in the USA and Dearing Report in the UK is utilised as providing the basis of such a claim throughout the report); and (iv) diversity allows for responsiveness to student demand, as well as to a broader public interest (through which, interestingly, a defence of the flaws of ranking systems is justified by virtue of the notion that the competition which underlies them is well understood by the public at large).

While not focussed specifically upon the topic of institutional diversity in the same way as the *Varieties of Excellence* report, the same ideas make repeated appearances in other major government reports which have followed it and dealt with structural issues in higher education. The Ministerial Council on Education, Employment, Training and Youth Affairs in 2007 noted that:

> Diversity in Australia's higher education system, both within and between institutions, is important to meet diverse and changing student, employer and community expectations (MCEETYA 2007, p.3)

Similarly, the Bradley Review which followed the year after, used the rationale that diverse institutions equate to a greater capacity to meet diverse needs:

> diversity in tertiary education provision remains necessary to ensure that the full range of learner, industry and social needs can be met (Bradley 2008, P.180)

The correlation of the concepts of diversity and specialisation in documents such as these, represents an important means by which the achievement of institutional diversity in Australian higher education is conceived. While comprehensiveness is used to describe universities' efforts to cover a full breadth of discipline areas, specialisation refers to the selective concentration upon particular disciplines. Assumptions built into such positions appear to come from fields outside of higher education. Eckel (2008), for example, outlined

that specialisation and the pooling of expertise and facilities have been shown to deliver cost and effectiveness benefits in fields such as healthcare. Whether such benefits apply to higher education, however, is unclear, and the dynamics of the sector create challenges for its neat translation into this setting:

> While institutions do offer niche programs, the current environment encourages institutions to compete on the breadth of offerings, not on what they do exceptionally well. However, the realities of making and implementing academic priorities that set one field or discipline against another are extremely difficult given the organizational dynamics of universities (Eckel, 2008 p.188)

Modern higher education reforms with institutional diversity implications
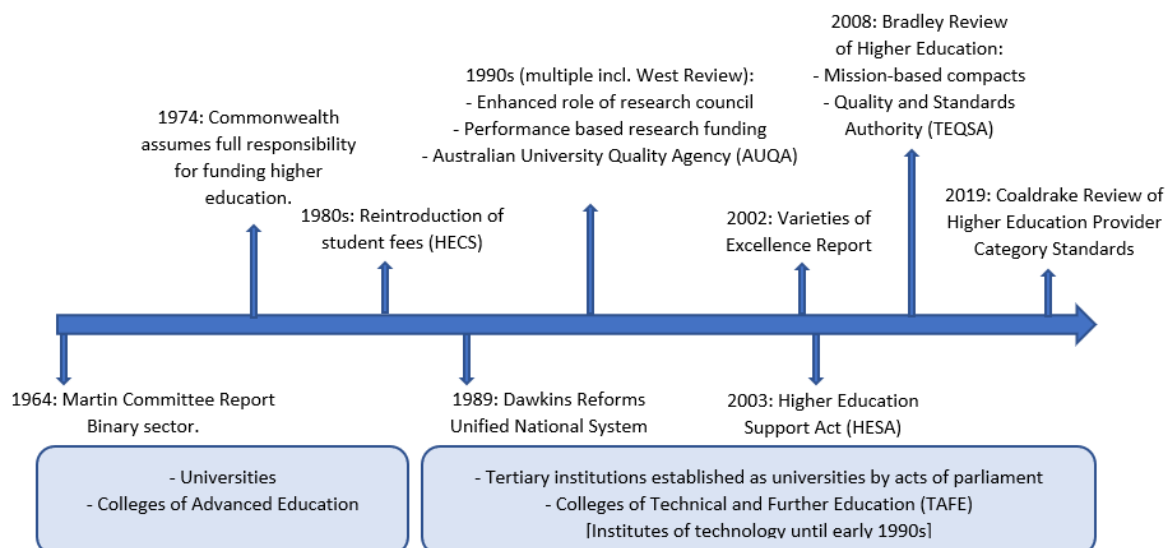
Figure 1: Australian higher education reforms with institutional diversity implications

(i) The Unified National System ('the Dawkins reforms')

The current configuration of the Australian higher education sector was set in place during the late 1980s when a Unified National System (UNS) was instituted. Colloquially better known as the 'Dawkins reforms' (so-called given the Minister in place and seen as overseeing the changes) the UNS is acknowledged as having fundamentally transformed Australian universities into their modern and still current form. The UNS replaced an arrangement in place for the several decades prior (resulting from the Martin Report of 1964), which structurally differentiated universities, institutes of technology, and colleges of advanced

education. The reconfiguration of these institutions, which included amalgamations, were cast at the time as a necessary efficiency improvement within a context moving from elite to mass education. However, the Dawkins reforms quickly became the subject of controversy (cf. Goedegebuure, Lysons & Meek, 1993; Karmel, 1998), with the enduring impacts still the matter of debate decades later (cf. Croucher & Woelert, 2015).

The principle of institutional diversity was fundamental to the objectives of the Dawkins reforms, something overtly expressed within the policy statement which heralded in the landmark changes:

> The new arrangements will promote greater diversity in higher education rather than any artificial equalisation of institutional roles. Institutions that attempt to cover all areas of teaching and research, compromise their ability to identify, and build on, areas of particular strength and the achievement of areas of genuine excellence. The ultimate goal is a balanced system of high quality institutions, each with its particular areas of strength and specialisation but co-ordinated in such a way as to provide a comprehensive range of higher education offerings. Diversity and quality are paramount; the unified system will not be a uniform system (Dawkins, 1988. p.28)

Regulatory protocols mandating research were instituted, requiring the offering of research degrees in three broad fields to qualify for university status[11]. Meek and Wood (1998) explain that at that point, institutions rapidly sought research and research students to obtain the concomitant institutional legitimacy that the university title afforded.

Contrary to stated intentions, the outcomes of the UNS reforms have been characterised as detrimental to institutional diversity, having encouraged a less diverse system than that which preceded it. For example, Meek and O'Neill (1996) map the high point of Australian higher education differentiation to the period just prior to the UNS. Application for university status following the reforms required the meeting of standardising criteria, including: the negotiation of an institutional profile made up of mission statements; range of courses; research offerings; and a response to national priorities. Within the first decade

---

[11] Exceptions to this rule can be made, for example for institutions with research activity in less areas to be recognised as an 'Australian University of Specialisation', such as the 2012 case where Melbourne College of Divinity became the University of Divinity. Again, the relevance of this for this thesis' eventual conclusions are explored in later chapters.

following the UNS, Karmel (1998) described seven elements of the changes which resulted in the perverse convergence outcome:

1) the abolition of the binary divide, representing unification rather than diversification;

2) the amalgamation of institutions, where growth at all costs reduced diversity;

3) the articulation of national priorities, resulting in uniform institutional responses;

4) the aforementioned uniform funding arrangements for research;

5) the lack of coordination of discipline offerings, following which institutions each sought to pursue a model of comprehensiveness;

6) the evaluation of quality, requiring conformity to similar values; and,

7) the publication of funding models and research quantum, which resulted in the major objective of all institutions becoming research and the seeking of prestige.

Others since have described an array of additional factors with similar effects. Marginson and Considine (2000) describe isomorphic tendencies quickly becoming evident within the *internal executive cultures* of the post-UNS universities. Maling and Keepes (1998) describe the standardising test set up and required for membership by the Australian Vice-Chancellors Committee (AVCC) which required planning from all, for enhancement of teaching and research ambitions. Finally, the requirement that universities be of a certain minimum size (enrolling at least 8,000 students) is said to have created the imperative for universities to conform with *recognisable models* where the differences between institutions are less significant than the similarities (Marginson, 1998). As this thesis will demonstrate, these critiques of the UNS (for its impact upon diversity), in some ways continue to play out and are visible in contemporaneous sector trends.

(ii) Review of Australian Higher Education ('the Bradley review')

In response to environmental factors perceived to be of critical importance at the time, the 2009 *Review of Australian Higher Education* again developed a sector level framework for reform of the structure, organisation, and financing of higher education (Coaldrake & Stedman, 2013). The review's headline goals sought to increase higher education participation rates and low socioeconomic representation through the uncapping of what were otherwise limited student places and explicit targets (*diversity* in the form of the terms even more common usage, applied to demographics and inclusion). However, a number of the resulting measures had consequences for *institutional* diversity. For example,

to address concerns related to quality which came with goals to widen participation, a standards regime was developed. A national Tertiary Education Quality and Standards Authority (TEQSA) was created and tasked with evaluating providers' performance against common threshold standards, another requirement for entering the sector and for maintaining accreditation.

Annual discussions between universities and Commonwealth officials, which had occurred since the Dawkins reforms, were redesigned and structured around the negotiation and maintenance of *mission-based compacts*. Compacts would produce individual agreements between the Commonwealth and all Australian universities and were legislated as a mandatory condition for the receipt of Commonwealth funding. Among the explicit aims and design principles of mission-based compacts (and indeed as outlined within the research design chapter, a fundamental reason for selecting them from the array of available options through which to examine sector diversity for this research) was the goal of addressing concerns of post-UNS institutional convergence and to "*facilitate greater specialisation within the sector and greater diversity of missions*" (Commonwealth of Australia, 2009).

(iii) Review of Higher Education Provider Category Standards ('the Coaldrake review')

The most recent government review with direct implications for institutional diversity is the 'Coaldrake review,' which took place during the latter stages of this research. Fundamental to the *Commonwealth review of Higher Education Provider Category Standards*, was revisiting of what were noted as the country's unique regulatory requirements: "Australia is somewhat unusual in codifying the types or scale of research activity necessary to be classified as a university*"* (Coaldrake, Discussion Paper, Dec. 2018, p. 11)). While the implications of this review were still playing out at the time of writing, the recommendations were made public and accepted by Government in late 2019. Chief among these, were proposals to amend the way institutional categories and nomenclatures applied within higher education since the Dawkins reforms, acknowledging that the existing arrangements had resulted in issues of 'under-differentiation':

> It is, and will be, critical that the higher education sector is comprised of higher education providers of different sizes, locations, and missions offering differentiated, innovative, and flexible higher education options to accommodate diverse student populations and communities. Such differentiation encourages and enables students to choose institutions

that best suit their educational goals and abilities, stimulates social mobility, enables the higher education sector to meet labour market needs, and encourages competition which can help continuously lift performance of the sector.
Review of Higher Education Provider Category Standards, Final Report, Oct. 2019
(Coaldrake, 2019, p. 28)

The above is indicative of a variety of assumptions underpinning policy. Firstly, the idea that a competitive marketplace of education has the effect of enhancing performance (in undefined ways). Secondly, as is discussed within the literature review in chapter two, the idea that diversity is necessary and beneficial for the offering of choice. Some of the politics that sit behind this issue evident in publicly available submissions to the review, discussion papers and the final report. Issues of status and hierarchy abound within these documents, with, for example, heightened status attributed to the 'highly protected and regulated' research-based university nomenclature: "Almost all stakeholders are amenable to teaching-only providers existing in the higher education sector, as they currently do, but question such providers having access to the university title" (Coaldrake, 2019). Submissions to the review also demonstrate resistance to titles with negative and subordinate connotations such as 'non-university'. The resulting change proposals which are summarised below in table 1, while yet to be enacted, represent an attempt to provide (and incentivise, through the addition of an aspirational status for those not in the university category) alternatives to institutions that facilitate greater differentiation.

Table 1: Coaldrake review recommended revision to higher education provider categories

Existing category title	Proposed revised title	Stated purpose of proposed title
Higher Education Provider (currently numbering 131)	Institute of Higher Education	Avoiding of confusion caused by the broad definition of 'higher education provider'
	National Institute of Higher Education	Differentiating high-performing self-accrediting providers and serving as an aspirational destination category.

Australian University (currently numbering 40) Australian University of Specialisation (currently 1)	Australian University	Merging of previous general and specialised categories, and refining requirements for quality and quantity of research
Australian University College (currently 1)	None	
Overseas University (currently numbering 2) Overseas University of Specialisation (currently none)	Overseas University in Australia	Merging of previous general and specialised categories, accommodating either comprehensive or specialised focus.

The above reforms and the policy and program settings that have resulted from them are key mechanisms in Australian higher education with direct aims and effects related to institutional diversity. As shall become evident through the thesis, they are important context within which Australian universities are embedded. The approach and theoretical framework for this research, sought to treat such environmental imperatives, not as determinative in and of themselves, but rather as factors with which universities have an interactive relationship which includes scope and capacity for their own agency, decision making and influence. Using one of the mechanisms designed by government to stimulate diverse institutional missions, the mission-based compact program, allowed this research to explore the questions: How diverse are Australian universities as a sector? How can we better understand what the factors are which shape and determine institutional diversity? Are there lessons which can be drawn for policy and programs which seek to stimulate institutional diversity?

Thesis structure and organisation

The thesis is presented in eight chapters. This chapter has provided an introduction to the research and located it within the context of Australian higher education policy and sector settings. Chapter two provides the critical evaluation of the scholarly literature in the institutional diversity in higher education field. The gaps ensuing from the literature review informed the research questions and design of the thesis. The influence of parameter and theoretical framework selection on research findings is argued, and used to help explain

contradictory conclusions in previous research and a lack of consensus on what constitutes the determinants of institutional diversity.

Chapter three details each aspect of the thesis's research design, providing rationales for decision-making and an understanding of the features and limitations of each. The thesis is positioned as a constructivist and qualitative perspective for institutional diversity research. The theoretical framework is explained, which was designed to contribute to a rebalancing of what are argued as historically polarised theoretical approaches in the field.

Chapter four offers a response to the research question seeking to understand the extent to which institutional diversity is evident in Australian universities' research positioning. The chapter is primarily built upon the document analysis of mission-based compacts for the sector, covering the 2014-2016 period. The analysis concludes that despite Australian universities universally positioning their research in terms of distinctiveness and difference, viewed across the sector, research positioning converges upon a limited and common range of approaches and goals.

Chapter five explores the research question focussed upon what determines institutional diversity, through triangulation of the document analysis, an institutional case study, and participant interviews. Factors of a global and national nature are used to explain the homogeneity at a sector level observed in mission-based compacts. In contrast, a distinct regional layer emerged from the analysis, representing a potential determinant of diverse institutional research focus areas in Australian universities, based in varied location-based influences and factors. The relationships and interplay between determinants are explored, as well as some of the challenges faced determining and analysing them.

Chapter six presents the institutional case study, which provided a challenge to the document analysis findings by demonstrating that when an Australian university is examined at greater depth, significant complexity and internal diversity is evident which is absent from institutional level representations. Intra-institutional dynamics and determinants are shown to be an ecosystem comprising a considerable plurality of views, inputs, activity, and approaches. Notably, the case study shows that institutional positioning is in part the product of the selective crafting of stories for multiple internal and outward purposes. This finding is

argued to be significant for institutional diversity questions, as such narratives result in the masking of internal complexity, and thereby the extent to which diversity within and between universities is visible at the level of institutions.

Chapter seven utilises the document analysis, case study and interviews to draw lessons for policy and for approaches (such as mission-based compacts) which seek to stimulate institutional diversity at a sector level. The chapter makes the argument that the level of institution may not be the optimal focal point for seeking diversity, given among other things, the unique features of academic research which confound such boundaries, and heavily devolved decision making and discipline drivers which perpetuate diversity.

Chapter eight is the conclusion for the thesis, which draws together the findings, acknowledges the limitations of the research, and provides suggestions for future research in the area. An afterword then revisits my positionality, with a short summation of how my perspectives changed, or not, through the course of my time as a research student.

Chapter 2: Institutional diversity in higher education literature review

Chapter purpose and outline

This chapter reviews the literature in the institutional diversity in higher education field within which the thesis is situated. It opens with discussion on the definitional issues and challenges associated with institutional diversity as a concept, explaining decisions taken in relation to the research questions and approach. The commonly claimed benefits of institutional diversity are outlined, in both a scholarly and policy context, and the argument is offered that it has assumed an unquestioned orthodoxy in the Australian higher education setting, often utilised without apparent underpinning empirical evidence. In critically evaluating the previous international research in the field, the influence of parameter and framework selection on research findings is demonstrated and then used to help explain contradictory conclusions and a lack of consensus on what constitute the determinants of institutional diversity. Previous research in the Australian higher education context, where sector convergence has commonly been observed, and lessons from a selection of international settings provide comparative context. Finally, theoretical evolutions in the scholarly field, including actively during this research, are introduced and linked to the observed gaps and thesis research questions.

Definitional considerations and decisions

Definitional issues abound around the concept of *institutional diversity*, which is vulnerable to misunderstanding, which has been attributed to ambiguous use of the term (Meek et al., 1996; Fairweather, 2000). The challenge of unpacking and exploring the topic area is exacerbated by the use of varied terminology with nuanced meanings which have at times been conflated, used interchangeably or without adequate definition (Huisman, 1998). The assortment of terms encountered within the literature of the academic field and policy-related documentation includes: 'diversity', 'differentiation', 'variety', 'diversification', 'heterogeneity', 'homogeneity', 'convergence' and others. While each of these terms relates to the notion of variation, the differences between them for research purposes are significant.

Differentiation has been defined as a dynamic process of emergence as opposed to a state of affairs, which only has meaning where describing the function of parts relative to a whole. *Diversity*, in contrast, refers to static variety at a particular point in time, which in keeping with its biological or ecological origins is reserved for indicating variety of types within a system. Finally *diversification*, refers to a process by which the diversity of a system increases, again – like differentiation – dynamic and referring to transition, but related to change in the number of units within a community rather than the relationship between a single unit and the environment (Huisman, 1998; Meek et al., 1996, van Vught, 2007). As the research questions of this thesis explore variation *across and within* a sector at a particular point in time (as opposed to, for example, longitudinally over time), the term *diversity is* utilised throughout when referring to the concept at a sector level, with *differentiation* used in the context of institutional level strategic or emergent actions. As the empirical component of this thesis explores the extent of diversity at a point in time, *homogeneity* is the preferred antonym throughout, with *convergence* reserved for use in instances where the process or state of increased similarity over time is discussed. In applying these terms, lessons were drawn from existing research, which suggests care needs to be taken to avoid their use as simple dialectic or non-dynamic absolute states[12]:

> Looked at from any one point in time, the relationship between diversification and homogenization seems static. But viewed from the advantage of the historical perspective, one can discern not only a dynamic relationship between diversification/homogenization of higher education structures and functions, but also a symmetrical one. The trend towards either diversification or homogenization is not one directional, nor is either phenomenon independent of the other (Meek, 1991 p.474)

The typology used as part of a twenty-year longitudinal analysis of diversity in the United States by Robert Birnbaum (1983) appears prominently within the institutional diversity literature. It elaborated a definitional tool which delineates the various types of diversity within the higher education context (Dill & Teixiera, 2000; Huisman, Meek, & Wood, 2007; Meek et al., 1996; Morphew, 2009; van Vught, 2007, 2008). Birnbaum, whose work drew from earlier work by Verne Stadtman (1980), outlined seven categories of *external*

---

[12] The suggestion has also been made that tendencies toward diversity or convergence may be better represented as points on a continuum between which systems and institutions may be moving constantly, without the effective realisation of either (posited in the works of both Clark and Neave).

diversity, useful for examining differences between organisations (as opposed to within them – *internal* diversity):

- *Programmatic Diversity*: differences between program offerings (degree levels, discipline areas, comprehensiveness, mission and emphasis);

- *Procedural Diversity*: differences in approach to the services offered– for example by way of delivery systems or policies and administrative processes;

- Systemic Diversity: differences in institutional type, size and control;

- *Constitutional Diversity*: differences in demographics, family backgrounds, abilities of the constituents of higher education, including students and staff;

- *Reputational Diversity*: differences perceived between institutional prestige or status (an area which he considered difficult to define given variation but generally related at that time to things like student selectivity);

- *Structural Diversity*: differences explained by varied historical and legal foundations, or varied internal divisions of authority;

- *Values and Climate Diversity*: an 'ephemeral' source of difference, at the time newly emerging to analysis, within which he included social or environmental cultures and climate (for example student subcultures or inclinations toward community).

As shall be demonstrated within this chapter, the focus of much empirical research since this work has been upon *systemic* and *programmatic* diversity, types which are compatible with particular methodologies which have subsequently been widely applied. Issues related to methodology are canvassed in greater detail in the subsequent research design chapter, which purposively sought to address the limitations observed in prior research.

Birnbaum's definition of programmatic diversity covered discipline areas, but the typology arguably does not provide an adequate place for the research function of universities. In addition, since this typology was developed, and the intensification of a competitive global higher education market, commonly explained through ideas such as neoliberalism and marketisation, a further distinction has emerged between what has been called *horizontal* and *vertical* diversity (in some ways captured by Birnbaum's reputational category). Verticality implies the evaluation of differences as superior or inferior, while horizontality treats differences purely in terms of variation without attendant value judgment

(Awbrey, 2007). Applied to higher education, the distinction becomes operative where functions or activities have either formal or informal implications for ranking of any kind (Marginson, 1998).

Vertical diversity typifies the contemporary higher education context, where research plays a critical role in assessments, league tables, and global status competition. Teichler (2008) noted that in higher education, the desirability of vertical diversity has varied over time and also between national systems, having been more pronounced during the 1980s and 1990s and in systems such as those in the United States and Japan. He pointed out however, that research within the field has often focussed upon vertical diversity and the associated prize of prestige and legitimacy which goes alongside it:

> While horizontal diversity (for example curricular thrusts and varied research paradigms) tends to be viewed as fuzzy, vertical diversity is sexy. It arouses all sorts of emotions as regards elite, excellence and quality versus failure, thus not only legitimising the winners, but also stigmatising those not on the top and even calling into question the appropriateness of a vertically diversified system (Teichler, 2008 p.368)

This thesis, while not excluding vertical diversity (and indeed, producing findings relevant to it), was designed with a primary focus upon horizontal diversity between the research positioning of universities at the level of a sector. Such a focus aligns with the use of the concept within Australian higher education policy. While some Government proclamations, as described in chapter one, claim *vertical* performance outcomes as a driver, the policy settings they produce to achieve these ends are focussed upon sector level configurations built on a principle of system-level *horizontal* diversity. Aligning the research with such usage was considered important, given one of the primary aims and research questions of the thesis was the drawing of lessons applicable to policy.

Rationales for institutional diversity and policies which seek to stimulate it

Discussions on the issue of institutional diversity are predicated on judgements (in some cases assumptions, in the case of many of the government reports noted in chapter one) as to whether diversity in higher education is a necessary or desirable attribute. Echoing the idea of specialisation traceable through Durkheim's concept of mechanical solidarity (1893) and Weber's division of labour (1921), the consensus appears that diversity is a worthy

goal that produces increased efficacy and efficiency. These outcomes are particularly valued in an age of mass delivery, marketisation and where increasing links between higher education and economic growth have been made (Teichler, 2006). Again, Birnbaum (1983) represents an oft-cited foundational explanation of the reasons why diverse higher education institutions are advantageous, based on their assumed capacity to more effectively cater to:

(i) *varied needs of consumers*: namely students from different backgrounds and capabilities;
(ii) *social mobility outcomes*: with different modes of entry allowing upward mobility, and 'honourable' downward mobility, correcting 'errors of choice' (Van Vught, 2007);
(iii) *the varied needs of labour markets*: in the context of an increasing variety of specialisations;
(iv) *the political needs of interest groups*: as a tool providing identity and political legitimation;
(v) *the combination of elite and mass education*: relating to Trow's (1973) idea that the survival of elite institutions depends on a comprehensive system of non-elites (to provide the crux of labour market training), relatable to the distributional politics evident in the Australian system discussed in chapter one;
(vi) *increased effectiveness*: by allowing institutional specialisation and focussing of attention and effort; and
(vii) *lower risk experimentation with innovation*: via the opportunity to learn from others or experiment with approaches without having to implement them.

What is clear here again is a focus primarily upon the teaching function of universities. Concerning the importance of diversity for research specifically, Birnbaum drew an indirect (albeit important in its own right) link between diversity and academic freedom, as well as freedom from political interference, stating that such conditions are fundamental to the advancement of knowledge and truth.

Drawing upon Darwinian principles, Birnbaum also posited that diversity provides a system with stability by better allowing it to respond to external environmental conditions or pressures and withstand catastrophe. He analogised that ecosystems rely on genetic variability, which allows species to evolve in response to environmental change. They thereby depend on the availability of differentiated species that perform unique functions in complex cycles of interaction and genetic variability, which permits evolution. Problematising such an application of socio-biological constructs, Meek et. al (1996)) explained the various ways in which fundamental features of higher education differ from the natural or biological setting, for example, with a relative absence of institutional 'deaths', and the inability of organisms to change their identity.

Within the Australian university context, the concern expressed by former University of Melbourne Vice-Chancellor, Professor Glyn Davis reflects the application of such principles. In his essay '*The Idea of An Australian University*' (Davis, 2017), he contended that a homogenous higher education sector in Australia exacerbates sector level risk. At the time, this was framed primarily in terms of the potential impacts of digital disruption. Equally however, such a contention could be superimposed with the context of the global pandemic, and the economic impacts being felt at the time of writing in 2020:

> Australian public universities are alike in key ways – they are large, highly regulated, largely non-residential institutions offering standard degrees, linking research with teaching, stressing familiar pathways to professional standing. If new modes of study attract large numbers of students away from existing public universities, the sector will prove vulnerable to changes emanating from Silicon Valley and entrepreneurs closer to home (Davis, 2017, p.26)

Further benefits of institutional diversity found within the literature have broader socio-economic rationales more closely relatable to research. Diversity *between* higher education institutions has been said to allow for: the accrual of cost-benefits by way of efficiencies in the production of outputs (Morphew, 2009); a structure which facilitates improved performance in the context of competitive knowledge economies (Horta et. al, 2008); and a greater capacity for responding to national priorities (Karmel, 1998). Furthermore, Teichler (2008) suggested that vertical diversity may also exercise a motivation function, by creating inequalities in reward which stimulate effort and achievement. Such an idea, while pertinent to inter-institutional competition related to research, is contestable considering the variety of studies which have shown – as shall be discussed - that market competition may not actually be conducive to stimulating diversity[13] (Codling & Meek, 2006; Marginson, 1998; Meek, 2000; Rossi, 2009a; Zha, 2008).

While appearing consistently as a justification for policy approaches, as noted in chapter one, various critiques of the institutional diversity messaging of government have been put forward. For example, it has been labelled rhetoric, which is at times is devoid of explicit detail on how institutions should differ (Huisman & Tight, 2015). Moreover, talk of

---

[13] Cattaneo et al's (2018) relatively recent work interestingly posits that the relationship between competition and diversity may be quadratic, with more competition resulting in increased specialisation, but this may reverse at a threshold with more extreme levels of competition leading to isomorphism (a U-shaped trend, supporting the notion that relationships are not always linear).

institutional diversity has not been matched by the development of policy initiatives that foster diversity (Codling & Meek, 2006). Finally, it has been suggested that government talk of desirable diversity contradicts their actions, such as the development of uniform quality assurance and accountability mechanisms which actively constrain diversity (Eckel, 2008; Van Vught, 1996). Each of these observations contribute to the value of exploring the concept empirically and contemporaneously through a program such as mission-based compacts, which has the stated purpose of stimulating diverse institutional configurations and offerings.

Scarce counter-arguments to an institutional diversity orthodoxy

Arguments against institutional diversity are far less common within both the academic literature and policy papers and pronouncements. In a small number of cases, the point has been made that consistency – as a counter construct – is beneficial in some areas. For example, the UK *Diversity in higher education: Higher Education Funding Council of England* (HEFCE) policy statement of 2000 noted that consistency is preferable to diversity when it comes to: quality and standards of higher education programs; funding for teaching; and approaches to institutional accountability. To this list, Marginson (2007a) added that almost universal support can be found for isomorphism when it comes to the spread of rights for access to education; financial accountability; transparency in management and governance; and minimum standards in teaching and research. However, very few explorations can be found that purposively question the orthodoxy of diversity as a beneficial principle (particularly related to the research as opposed to education function of universities). Even less apparent are empirical works that use evidence to do so.

One of the more substantial critical accounts is that of Teichler (2008), who suggested examination of a competing hypothesis, that vertical diversity may not be desirable and rather, "a broad range of horizontal diversity could serve more easily a socially acceptable balance of objectives" (p.351). In presenting a series of potential dangers of over-diversification, he noted that debates and analyses appear to be normatively biased[14], with

---

[14] Here an ideological link was made by Neave (2000), who as well as suggesting that the term has similar effects that 'deregulation' once did in industry circles, pointed to its 'normative overload', as the absence of diversity became a critique of outdated notions of state control:

institutional diversity (and vertical diversity in particular) portrayed as the only option to coping with the increasingly complex demands and expectations upon higher education sectors.

Related to this, Skolnik's (1986) earlier work suggested that diversity may enhance opportunities for large numbers of people to experience some form of higher education. However, greater diversity may mean increased inequality in the nature of those opportunities, with quality differences of consequence to subsequent education and employment opportunities. In addition, he noted that horizontal diversity and greater specialisation may provide a narrower range of potential interactions between disciplines and between students and faculty. In discussing the idea that diversity may have assumed a normative slogan-like quality, Neave (2000) established the link between diversity goals and their resourcing implications. He suggested that vertical diversity may run counter to the ideal of equality of access, and have the potential effect of institutional fragmentation as some institutions '*bear the brunt* [15] *of mass teaching and learning'.* Such a point has relevance within the Australian context, where the category standards changes outlined in chapter one, depending on how they are implemented, have the potential to reconfigure institutions in ways which concentrate some upon teaching as opposed to research or both.

Coaldrake and Stedman (2013) point out that the debate around diversity in Australia is beset by conflicting agendas, with calls for a return to the days of differentiation often heard from those who would appear to benefit most from the pigeon-holing of institutions. Couched in economic terms, the underlying argument is that there would be cost-savings if some institutions opt-out of participation in the expensive exercise of research. Meek and Wood (1998) (whose stance may be illustrated by their referral to a then early version of the Group of Eight as the 'Research Cartel'), point out that diversity discussions are fundamentally political, as one or other approach advantages a particular set of institutions or interests. Such

---

absence of diversity became a critique of the apparent inadequacies and archaisms held to be the inevitable result of detailed and close state control. Indeed, increased systemic diversity was regarded as one of the benefits to be had from introducing competition for students, resources, staff, equipment and repute (p.18).

[15] The use of such language itself tells an important story outside of the scope of this work. As Coaldrake and Stedman (2013) point out, research in the current landscape is bestowed a higher status as an intellectually stimulating and rationed activity within institutions, while teaching is couched in terms with negative valence: students referred to in terms of 'load', and 'relief' provided from them.

advantage sets in train campaigns by those disadvantaged for alterations which better suit their interests.

Distributional politics are fundamentally intertwined with institutional diversity debates in Australian higher education. The primary agenda of advocates of diversity appears at times to be the concentration of investment and research effort into a limited number of institutions. Counterpoints to such views include that: (i) concentration narratives are often built on the assumed but unproven dichotomy that quality and excellence at the top requires austerity at the bottom (Teichler, 2008); (ii) that the benefits of concentration are likely varied by discipline, for example, it may benefit those in the hard sciences with complex and high infrastructure costs, but not those in the social sciences where benefit might instead be gained from broad, diverse approaches (Lindsay & Neumann, 1987); and (iii) that in the Australian market, which has in the recent past relied heavily on the revenue derived from international students, the health of the overall system is more beneficial than the development of small numbers of elites (Sheil, 2010). Concentration, depending on how it is implemented[16] also has potential implications for the (albeit problematic) teaching-research nexus. It must also be considered in light of the questionable value or appropriateness of the international rankings systems which appear to be one of the underlying motivators for it (Hazelkorn, 2009a).

The desirability of diversity appears a largely unquestioned orthodoxy within Australian higher education policy, with counter contentions such as those presented above at times absent from the broader discussion. Within Australian higher education, debates around institutional diversity occur within a social, political, and historical context. It is closely tied to how resources are or should be dispersed, particularly for research. Therefore, empirical exploration of the topic can contribute not only to policy and program effectiveness, but also to broader questions on whether institutional diversity constitutes an appropriate principle to apply within the Australian higher education setting. Findings from this research contribute to such questions, particularly the third research question seeking lessons for

---

[16] The G08 quotes the OECD on options here, such as: the linking of research and teaching from postgraduate levels only; the separation of teaching and research (i.e. teaching focussed institutions); and/or the redirection of incentives toward teaching. Meek et. al (2008) proposed formal segmentation and differential funding for research intensive, regional and teaching-oriented institutions.

policy and programs that seek to stimulate institutional diversity, which are provided in chapter seven.

The central influence of parameter selection on the findings of diversity research

"there is no textbook recipe for how to measure diversity, but the selection of dimensions, variables and analytical methods must be seen in the context of the specific goal of the study and its analytical framework" (Huisman et. al. 2015 p.11)

Along with the aforementioned definitional issues, the field continues to struggle with the inherent difficulties of how to measure or distinguish diversity (Moodie, 2015; Teichler, 2008). Despite institutional diversity being the subject of intense policy and growing research interest, neither a common conceptualisation nor a theoretical consensus on determinants has yet to emerge (Piché, 2015; Salini & Turri, 2015). In part, this may signify the increasing complexity of the factors which affect structural developments in higher education, at global, national, sector and institutional levels. Additionally, however, such a gap may reflect the wide assortment of parameters and areas of focus chosen for empirical research, along with the frameworks used by researchers in the field.

The central importance of 'variable' selection was theorised by Huisman (2000), whose voluminous works approach the topic primarily from a positivist viewpoint whereby diversity is measurable. He pointed out that as a starting point, there are important practical considerations, such as the cost of collection or whether variables are collected and available for the range of institutions being compared. Following from this, he contends that the *limitation* of variables is of fundamental importance, with analyses affected by both the number of variables and the range of values within them. While acknowledging that the making of definitive distinctions on the determinants of diversity is a fraught exercise, Neave (1996) similarly pointed out that level of analysis and aggregation or disaggregation is all important.

Adding to the need for clarity in parameters (and the conclusions drawn using them) is Skolnik's (1986 & 2013) observation that diversity is not a uniform state. Some types of diversity may be increasing at the same time that others decrease. Referencing Birnbaum, he

noted the relativity of specific findings, in ways which stress the importance of definitional clarity:

> Since those who have written about this subject have catalogued dozens of possible dimensions of diversity, the importance of the phrase, "with respect to specific characteristics" cannot be overemphasized. Two institutions can be very different with respect to some characteristics, but quite alike with respect to others. Thus, failure to define differentiation in specific terms can easily lead to disagreement about the extent and consequences of differentiation (Skolnik, 2013 p.1)

Similarly, the activity-specific nature of diversity or convergence is noted by Bleiklie (2001), and Lepori, Huisman and Seeber (2013). In short, researchers capacity to draw conclusions, and indeed their perceptions of diversity or convergence, are heavily influenced by where attention is focussed.

Research designs within the field have tended in recent decades to focus parameter selection into discrete components[17], most commonly related to the education side of university functions. In addition, the approach taken is then to apply quantitative methods for examining variation between the chosen parameters (Teichler, 2008). Harris & Ellis (2020) provide an illustrative example of the way the field has converged upon this as a principle underpinning research design: "Institutional diversity studies are *inherently bounded* by the need to categorize and measure institutional attributes" (p. 347, emphasis added). While providing an appropriate means of seeking to determine whether diversity can be said to exist in different areas, such designs have come at the expense of more holistic explanatory understandings of the complex determinants of diversity. Here qualitative approaches offer an opportunity for insights, as is further detailed in chapter three.

The findings of previous empirical institutional diversity research

The extent to which previous research indicates diversity in higher education systems varies between national systems, over time, and relative to a number of factors, not least the selection of parameters noted above. While contradictions in findings are understandably troublesome for those seeking neat conclusions, contradictions might be expected given

---

[17] Interestingly Dill and Teixiera (2000) suggest that the ambiguity of previous diversity research is potentially the product of "too narrow a conception of diversity" (p.114)

temporal and geographic considerations and the wide assortment of parameters, methods, and frameworks available to researchers in the field. Methods and frameworks themselves have been suggested as being capable of producing different results even utilising the same data (Huisman, 2000). In addition, the configuration of higher education sectors, and the primarily nationally based policy and funding frameworks within which they operate, vary widely across the world. Conclusions related to institutional diversity and its determinants, need to be seen and made with clear reference to, and understanding of, the complex and limiting contexts from which they emerge.

Determinants as an open question reflecting theoretical debate

A systematic and critical examination of the large body of literature (the extent of which is illustrated by the last ten years alone, captured in Appendix A, by country, choice of focus, and framework applied) reveals that the institutional diversity field has traversed a series of theoretical evolutions. The answer to the question of what determines institutional diversity has been intertwined with theoretical movements across the structure and agency spectrum. The most recent incarnation (which notably continued to evolve during the years of this thesis, and is described in chapter three) attempts to synthesise and reconcile what has been largely dualistic treatment[18] or to "build and renew the analytical bridges between environmental changes and organisational dynamics" (Frølichet. al 2013. p.80). The broad phase prior to this synthesis period saw a preferencing for theoretical frameworks with an environmental focus, which emphasise the influence of competition (Population Ecology), interaction (Resource Dependence), and adaptation (Organisational Ecology and Institutional Isomorphism). The extent to which research has referenced the aforementioned seminal Birnbaum (1983) work and the subsequent research of Huisman over several decades, shows that they have been highly influential in this regard.

The counter agency or internally focussed perspective was seemingly prominent prior to what is labelled here as the neo-institutional period, with a basis in works such as that of

---

[18] The period in which these observed phases occur covers at least three decades, and as noted elsewhere and in chapter one, this period has seen significant changes to higher education which underpin and arguably warrant the differences in the frameworks applied.

Parsons and Platt (1973), and Burton Clark's *The Higher Education System* (1983 & 1986). According to the latter, the most important determinants of diversity are not external or institutional, but rather the disciplines to which academics belong which constitute the complex building blocks of higher education. Driven by the research imperative, the nature of these disciplines is beyond control and ever-changing, fragmenting into subcultures influenced by an interplay of formal and informal authorities. Such a view relates in some ways to Cohen and March's (1974) concept of *organised anarchies* which contended that higher education is largely impervious to control, with diversity and differentiation thereby being a natural state.

Concerning the question of determinants, Meek (2000) noted that research in the area has often sought to explore or find singular causes or explanations. Such an approach is problematic, in particular, given the growing underlying complexities also noted by Tiechler (2006):

> As long as we assumed that a limited number of underlying forces determine the structural development of higher education, we were in the position to develop relatively bold concepts about the causes and the consequences of certain patterns of the higher education systems. The more we become aware of a growing complexity of underlying forces, the less we can trust in simple concepts of causes and effects (Tiechler, 2006, p.19)

The way diversity research has been approached historically, and the contradictory findings and lack of explanatory consensus that have arguably resulted, suggest that benefits might be gained through more holistic and inclusive research design (with awareness then of the limitations of what might reasonably be concluded). The confining of research to more limited boundaries, while understandable considered in its context, may be inadequate for capturing: (i) system complexities (Meek, 2000; Neave, 2000; Teichler, 2006); (ii) the potential for contradictory patterns to coexist (Neave, 1996); (iii) or variation within institutions where trends may differ by area (Lepori, Huisman & Seeber, 2013). As shall be outlined in detail in chapter three, the question of determinants remains an open one, which this thesis addresses through a purposively designed theoretical framework and associated methodology that drew lessons from the approaches previously applied within the field.

Varied findings in international settings & insights for Australia

Whether and why higher education institutions are diverse has been explored across and between wide assortments of jurisdictions. Most work focuses upon a single country or sector, with a small number taking a cross-national approach (cf. Huisman et. al 2007; Pinheiro, Charles & Jones, 2016). Of hindrance to such comparative works (and also problematising the application of conclusions from one national sector to others), are a wide assortment of higher education system designs and associated political structures. Sharp distinctions exist between national systems which have: federated or centralised approaches to design and policy-making (Meek et al., 1996); relatively stand-alone or connected systems such as those within supra-national groupings (i.e. Europe); and, unitary or binary system designs (Lepori, Huisman & Seeber, 2013), or as in the case of the UK and Australia movement between the two in the past quarter-century. Despite these distinctions, the issues shared across jurisdictions that diversity-focused policies and approaches aim to ameliorate, mean the findings from research based in other jurisdictions provide useful considerations, with appropriate caveats.

Previous research in the field was examined without limitation to particular jurisdictions, as shown in Appendix A, which shows research covering over 20 different countries from the past decade alone. Of particular note, given their prominence and capacity to provide lessons to the Australian setting, are: (i) the United States, as a country which is considered a benchmark for institutional diversity, and which also has its own diversity focussed classification system; and (ii) the United Kingdom, who similarly sought diversity through structural settings, by moving to a unified system (Meek & Wood, 1998), and from whom policy and idea modelling and borrowing is a historical feature in Australia (Lindsay & Neumann, 1987; Moodie, 2015). The relevance of these two settings is also illustrated by the extent to which they were referenced in the most significant national report on the topic discussed in chapter one, *Varieties of Excellence: Diversity, Specialisation and Regional Engagement* (Commonwealth of Australia, 2002). While much research has explored the wider European setting with useful results, that setting includes cross-national processes and approaches (for example the Bologna Process and reforms where 46 European countries

agreed on approaches to greater consistency between national contexts), which distinguish it from the Australian setting.

The United States: Lessons from a hallmark of institutional diversity

The US Carnegie Classification system describes itself as the "leading framework for recognizing and describing institutional diversity in U.S. higher education for the past four and a half decades"[19]. The current number of institutions included in the classification schema is 4,664, representing a system of considerable size and complexity. The range of institutional types within the system, namely doctoral universities, four-year colleges and community colleges, means that in meta-level policy circles such as the OECD and World Bank, the US system is held up as a model for institutional diversity (Marginson, 2007a). Moreover, the volume of empirical works which have explored the topic within that national setting, result in an array of lessons and insights of use to jurisdictions such as Australia.

Early diversity studies within the US setting showed contradictory findings. Jencks and Reisman (1968) concluded that homogenisation was evident as the traditional forces promoting diversity (religious, political, ethnic, social class, and geographic differences in institutions and their clienteles) were eroded. They also attributed the trend to lower status institutions trying to gain status by imitating high-status institutions. Baldridge et. al. (1977) confidently concluded the contrary soon after, proposing that US institutions varied widely in their organisational structure, goals, and governance patterns to the point that "by any reasonable measure the American higher educational system is more complex, diverse, and fragmented than any other higher educational system in the world" (p. 372).

The landmark and highly cited study by Birnbaum examined diversity within eight of the jurisdictions the US system during the period 1960-1980, finding that the number of institutional types did not increase despite a period of heavy growth. This work used population ecology to explain the way that organisational adaptation was limited by levels of homogeneity in the environment (relatively homogenous environments, it is theorised, producing relatively homogenous organisations, a conclusion later re-drawn by Van Vught

---

[19] The Carnegie Classification of Institutions of Higher Education 2018 edition, Indiana University Center for Postsecondary Research (accessed online)

(2008)) (Birnbaum, 1983). Expanding the jurisdictional view to all fifty states, Morphew (2009) reached the same conclusion using institutional theory and stressing the link between organisational survival and perceptions of legitimacy. The concepts of academic drift or mimetic isomorphism (the emulation of the structures and behaviours of the highest performing by those lower on the performance spectrum) were considered particularly important to higher education where goals are less amenable to objective measurement. Similarly, normative pressures created by the seeking of legitimacy and professionalisation (and movement) of staff, were used to explain a lack of growth in diversity during the snapshot years used (1972 and 2002). This despite the number of unique institutional types increasing during that time, though at a far lower rate than increases in the total number of organisations.

In recent years, Harris and Ellis (2020) drew the conclusion that while institutional diversity is hailed as a strength of the US system, a consistent decline in diversity has been evident there for the last four decades:

> Despite the vast changes occurring to colleges and universities from the time of Birnbaum's original study through our most recent data, the pressures and trends toward homogenization march unabated. No matter the measure of institutional diversity we used, the decline of diversity exists (Harris & Ellis, 2020, p. 357)

Such a conclusion echoes earlier works, such as that of Teichler (2007) which went as far as suggesting that "The American higher education system is the most pluralistic and diverse system in the world" (p.382). These studies represent the macro system exploration of diversity primarily through the prism of institutional types. They again demonstrate how areas of chosen focus, influence the conclusions which are drawn. Focus at a system and type level is useful for a variety of purposes, for example, exploring the environmental or regulatory dynamics which influence the configuration of higher education at a sector level. However, what can be missed is granular detail of how institutions within these typologies may or may not substantively differ. Indeed, Harris and Ellis (2020) echoing others before them (Teichler, 2008; Seeber et. al. 2016), note that future research would benefit from a focus at what they call the 'meso' institutional level to complement these system-level understandings.

Transposed onto the Australian context, the exploration of institutional diversity through institutional types alone would understandably lead to conclusions that the sector is

homogenous. Davis (2017), for example, noted that as comprehensive research universities, all Australian universities would fall under one subheading in the Carnegie Classification. However, limiting research to such a level of aggregation would lack sufficient detail to: (i) see potential for variety to exist within institutional types; or (ii) contribute to understanding fully the interplay of factors which may be acting to stimulate or inhibit diversity (or even both at the same time).

The United Kingdom: Lessons from another unified system

The focus of diversity research in the United Kingdom is framed mostly around the establishment of a unified national system in 1992, a point at which polytechnics were accorded university status. The motivations behind the move have been variously described as: an attempt to reduce overall unit costs and to arrest institutional convergence (Taylor, 2003); the deregulation of funding to foster marketization and alternative providers to increase competition and student choice; and within successive government policy statements and white papers as part of a vision for sustaining and encouraging diversity (Purcell, Beer & Southern, 2015). The core funding of teaching and research has shifted from a formula based approach to a state-regulated quasi-market where universal rules apply, but are implemented in ways designed to facilitate institutional differentiation (Filippakou, Salter & Tapper, 2012).

Importantly for comparative purposes, while labelled a unified system the UK actually represents three national systems complete with structural differences. For example, in the case of Scotland and Wales a greater focus on central planning occurs than in England, whose approach involves greater institutional exposure to states and markets (Filippakou, Salter & Tapper, 2012; Taylor, 2003). In addition, the wider European community within which the United Kingdom has been situated in recent decades, means that its higher education systems are exposed to relatively unique supra-national structures and agreements which in various ways influence and interact with structural choices.

As well as moving from a binary to a unitary system, a further parallel to the Australian sector evident within the UK system is the broad division of institutions into self-selected (and largely mission-based) groupings. The four groups which emerged following the unification of

the system are: The Russell Group, who broadly represent the elite research-intensive institutions; The University Alliance, representing institutions with balanced research, teaching and innovation profiles; The Million+ Group, who are distinguished by a social inclusion and teaching focus; and a 1994 Group, which has since disbanded but was made up of smaller research focussed institutions in some ways characterised as Russell aspirational (O'Connell, 2015; Purcell, Beer & Southern, 2015).

The historical-comparative work of Filippakou, Salter and Tapper (2012) sees trends over time: the period of 1945-1965 as one where institutional convergence was dependent upon perceptions of prestige; the movement to a more stratified model between 1965-1992 with limited convergence between two poles; and finally since 1992 increasing stratification. In so doing, Filippakou, Salter and Tapper outline how the unified system, and the policy, governance and funding approaches that have evolved along with it such as the Research Assessment Exercise (mirrored in Australia since 2008 by Excellence in Research for Australia – ERA - exercise), have resulted in a uniform commitment to research but a hierarchical stratified form of diversity. O'Connell (2015) however noted that this is not universal and varies between the groupings mentioned above. She described increased stratification between the research-intensive who compete for vertical differentiation (difference in terms of performance or status), while other parts of the sector demonstrate a greater focus upon horizontal differentiation in their mission development. This presents a challenge to those studies contending that environmental drivers such as international ranking systems deliver uniform consequences for diversity (such as isomorphism within narrower constructs of excellence).

Much like the empirical work in other contexts, diversity studies focussed upon the UK demonstrate contradictory findings. Taylor's (2003) examination of quantifiable performance indicators comes to the clear conclusion that the level of diversity since the unification of the UK system has increased in terms of research profiles, financial turnover, and student population. However, the claim is made that the UK still represents internationally a comparatively small degree of diversity (though which particular comparisons were used to reach such a conclusion are not elucidated). Uniquely, this piece of work goes on to conclude - in ways which may be challenged given its strict focus on an

analysis of quantitative measures - that increased diversity resulted from uncoordinated "accidental events, unplanned and unrelated to any conscious set of values or beliefs or to any truly embedded differences in institutional mission" (p.267). Of additional note for this thesis, institutional diversity in the UK was most evident in the less examined area of research activity as measured by differences between institutions in: the proportion of research funding; the variety of funding sources for research; expectations of research activity of academic staff; the pursuit of both pure and applied research; possession of key research facilities; and the number and proportion of full-time research students.

The UK provides an example of a unified national system, where government policy has sought, like Australia, to stimulate institutional diversity. It demonstrates that the patterns of diversity or convergence may be differentiated not only at the level of institutions but also by institutional groupings, which are also an important feature of Australian higher education. Like the United States, previous research findings demonstrate variability, with the determinants of institutional diversity an open question. Moreover, both the UK and US settings indicate how research has built an understanding of the influence of environmental or exogenous factors, but less clarity at the level of institutions. They show the potential benefits to be gained from applying alternative theoretical approaches and methods that explore both at the level of sector and institution, outlined in chapter three as the approach taken to this thesis.

Australia: Institutional convergence as the consensus since the Dawkin's reforms

Compared to the variability of international findings, research on institutional diversity in Australian higher education since the late 1980s show relatively uniform conclusions. A consensus exists that convergence on various levels has been a feature of the national sector since the Dawkin's Unified National System reforms (Codling & Meek, 2006; Croucher & Woelert, 2015; Huisman et al., 2007; Meek, 1991; Pinheiro, Charles, & Jones, 2016; Davis, 2017; Yielder & Codling, 2004). Such a view appears shared by Government, though like many of the aforementioned international studies, proclamations such as the below are focussed at the level of structure and institutional type:

> Whilst there is significant diversity in the stated missions of universities, it is argued that there is limited systemic diversity. Indeed, there is a surprising degree of homogeneity in the types

and structures of Australian universities, with almost all institutions aspiring to and conforming to the norm of a comprehensive, research-intensive, campus-based university (Varieties of Excellence Report, Commonwealth, 2002 p.7)

Meek and O'Neill (1996) outlined what they perceive as cyclical movements between diversity and convergence over time. They propose that the sector was less differentiated in its earliest stages until the introduction of Colleges of Advanced Education in around 1965. At this point, the trend moved toward diversity, with a high point at the incorporation of TAFEs (Technical and Further Education, vocational education providers) in around 1981. Following this, they contend the pendulum swung again toward convergence following the unified national system in 1988.

Marginson's (1999a) secondary analysis of previous research and government data painted a somewhat less cohesive picture, demonstrating that since the unification of the national system, trends to convergence in some areas emerged alongside those toward increased diversity in others. Convergence was evident, for example, in terms of: (i) institutional model and size, with the aforementioned universal striving toward a comprehensive public doctoral model (made up of between 4,000 and 40,000 students); (ii) the absence of any undergraduate only institutions; and (iii) uniform growth in terms of research higher degrees. Conversely, diversity and variation were evident in terms of: (i) geographic catchment of students; (ii) modes of enrolment (between part-time, full-time, and external); and (iii) in age and prior qualifications. Moreover, research activity - as measured in terms of income - demonstrates consistent variability, with the domination of sandstone and to a lesser extent redbrick universities, mirroring an overall trend toward vertical differentiation. His work concluded, similarly to others, that to develop more nuanced understandings, for example of levels of diversity in terms of teaching and research, more fine-grained and qualitative analyses would be required.

Determinants in the Australian context

The question of determinants in the Australian sphere shows similar trends to international studies. Isomorphic externally focussed explanations have featured prominently, with the competitive quasi market-based framework applied to higher education said to have produced paradoxical results. While institutional autonomy appears

to have increased over time, competition mechanisms work imperfectly (in particular during periods of high student demand and resource flow) to produce imitative behaviours counterproductive to diversity (Codling & Meek, 2006; Marginson, 1998; Meek & Wood, 1998). Convergence in terms of course offerings, such as the almost universal offering of Law and MBAs by the early 1990s, took place despite the underlying premise of policy being that institutional competition in a deregulated environment would stimulate institutions to diversify through the seeking of niches (Meek & O'Neill, 1996). Pinheiro, Charles and Jones (2016) note in their cross country comparison (with Norway and Canada) that Australia presents a particularly marketised higher education system, where institutions have stratified to cope with the increasing expectations across an assortment of functions.

In the current COVID pandemic context where institutional sustainability questions have arisen, the observation of Australia as a heavily marketized system appear supported. Australian university finances have been shown as heavily reliant upon overseas students' fees, which represent a significant income source for the sector. Marshman and Larkins (2020) in modelling the impacts of COVID-19 upon overseas student revenue concluded using publicly available data, that severe financial effects could be felt by over half of the sectors universities in the period through until 2024. This resulted from overseas fee revenue constituting ~26% of sector revenues in 2018, the year before the pandemic for which data is available, accounting for over 8.8 billion dollars. Given the government funding model described in chapter one, which does not cover the full costs of research, this revenue is a crucial source of institutional cross-subsidisation.

Less often cited, but highly relevant to Australia are geographic factors, with the peculiarities of landmass and population centres, having created a historical lack of student mobility compared to other systems such as the USA. In Meek and O'Neill's (1996) view, these have played a part in sustaining (though not creating) homogeneity. Davis (2017) describes a homogenous Australian university sector and uses the concept of path dependency to show that Australian universities have followed a '*Metropolitan Model*'. The sector is in large part comprised of city-based institutions made up of commuters as opposed to separate large residential communities as are often found overseas.

Codling and Meek (2006) explore the 'facts and fallacies' of previous work focussing on Australia and New Zealand. They emphasise the effect of environmental uniformity on diversity (Van Vught (2008) came to similar conclusions), again utilising biological constructs:

> variation in species is more likely to occur in a heterogeneous ecological environment, as organisms adjust to different local conditions. By contrast, if adapting organisms are subjected to the same environmental conditions, they will tend to evolve convergently […] variation in environmental conditions across a higher education system will inevitably promote variations in response by local institutions and will foster diversity. In contrast, uniform environmental conditions will promote similar responses from individual institutions and promote homogeneity across the system (Codling & Meek, 2006. p.7-8)

Codling and Meek (2006) also use institutional types as a lens through which to test the effect of policy, funding, competition, and rankings. Marginson and Considine's (2000) classificatory model provided the means of doing this, as has also been utilised in this work and is found and explained in Appendix B. Their results found evidence that distinctions – for example, between sandstones and technology universities – were dwindling due to emulative behaviours. Convergence resulted from the sandstones adopting more applied missions and seeking partnerships. At the same time, the technology universities adjusted their cultures to be more academic, poached staff from their competitors, and broadened their research focus. Funding approaches, as Marginson and Considine also noted, have the similar effect by virtue of their distribution in the Australian context based on formula-driven block grants, which creates a hierarchy of institutions much in the way international rankings do, in which the lower-ranked seek to compete by emulating those above them[20].

Like the aforementioned international work in the field, research focused at the level of institutions and exploring institutions' capacity to exercise agency has been more limited in the Australian context. Marginson and Considine (2000) provide an example whereby determinants are conceived as resulting from an interplay between environmental and organisational factors. Their work linked isomorphism within executive decision making with external drivers, namely a 'one-size fits all' performance-based funding model and a setting of resource scarcity:

---

[20] Conversely in their international exploration, Horta, Huisman and Heitor (2008) concluded that funding approaches (when competitive as opposed to direct) can potentially foster diversity. They went on to suggest that competitive funding then is one of the few sustainable policy options to foster diversity, where market and/or government controls appear unable.

The problem is not so much that individual universities choose the 'wrong model', as that the competitive dynamic, sustained by government system-setting and the Darwinian devices of induced funding scarcity and ever increasing pressures on managers, has locked them all into common modes of behaviour that their senior executives have all too willingly embraced. Governance of the Enterprise University is sustained by internal leadership and decision making structures and cultures and in national policy and systems of funding and accountability (Marginson & Considine, 2000, p.18)

Another particularly relevant piece of research which applied a multilevel approach (albeit using secondary data), was Meek's (1991) work which examined the then-new Australian unitary system of the 1980s. Meek examined three levels: firstly, basic academic or disciplinary units (an 'understructure'); individual organisations in their entirety (the 'middle or enterprise structure'); and wider government and other regulatory mechanisms which relate institutions to each other (the 'superstructure'). The findings demonstrate that the net effect during the period examined was that diversity was less evident, however, causality was attributed to inter-institutional competition for scarce resources, with inherent academic norms and status and reward structures playing an important role. The centrality of actors within universities was is proposed, with their place within the structure (understructure, middle structure and superstructure) largely determining their interests and responses to protect them. The notable overarching conclusion was that structure or environmental variables are both a medium and product of social interactions. In short, structural factors are subject to change and influence and "it is the human agents who constitute the higher education field that theory and method must finally be directed" (p.491).

In an attempt to look beyond conventional systemic and programmatic quantitative approaches to diversity analysis, Goedegebuuret. al (2009) used the results of a 2007 *Changing Nature of the Academic Profession Survey* to explore the perceptions, aspirations and reported activities of academics in teaching, research and community service. The decision to do this was based on the contention that what academics themselves consider important is the most useful guide into what is occurring 'within the walls of institutions'. Their conclusions were relatively modest, that diversity in terms of aspirations, perceptions, and activities exists, but viewed in the light of the importance placed on the idea of diversity, not to the extent that may be expected. The authors note the same limitations of previous

research focussed at the level of systems, but at the same time offer a caution against conclusions which can be drawn from the counter perspective:

> One can criticise the above studies to the extent that they use 'system level' data such as institutional size, forms of institutional control, disciplines offered, type of degrees awarded, and modes of study offered. We contend that indicators of this type 'hide' what is really happening within the walls of institutions. If one looks deep enough and is sufficiently sensitive, diversity can always be found (cf. Clark, 1996). But is that a meaningful input into the policy debate?
> (Goedegebuureet. al 2009 p.50)

What is clear from the previous research in both international and Australian settings is that nuanced understandings of diversity and its determinants, require the consideration of the interactions of multiple levels. Limiting focus to structural and sector levels, while useful for forming some conclusions on the extent of diversity in particular settings, have not provided sufficient empirical insights into what determines diversity. Similarly, an exclusive focus at the institutional level offers a counter perspective but also produces a structural imbalance. What previous research continues to show, since having been suggested by Meek and O'Neill (1996), is that multi-level explorations are required, which provide insights into the (non-linear) interaction between structure and agency within the higher education setting.

Recent developments and empirical gaps

Strategic positioning has emerged within the literature as an avenue whose exploration may help to reconcile some of the gaps and contradictory outcomes evident in previous institutional diversity research. Those who have sought new conceptual approaches to studying diversity through institutional positioning, identities and strategies (cf. Frølich et al., 2012; Fumasoli & Huisman, 2013; Fumasoli, Pinheiro, & Stensaker, 2014b; Stensaker, 2014), propose this is a germane approach for various reasons. Firstly, it aligns with the current environment of steering and relative 'institutional autonomy', but in addition, strategy and positioning represent critical junctures at which institutions intersect with their environments: the state, markets, and other institutions. Added to this, they provide a gateway through which system level diversity can be explored at a level of greater detail and

granularity, which may contribute to the noted gaps and contradictions in previous research where a greater focus has been evident at macro and structural levels.

Despite the aforementioned contemporary milieu in which research has come to occupy a heightened strategic significance, few empirical works have explicitly focussed on diversity through the research function of universities. Moreover, what little work there is with such a focus, appears to exclusively utilise objectively measurable variables to which quantitative methods can be applied. Previous explorations of diversity which have chosen to focus upon research specifically, have used the following parameters: institutional finances (Salini & Turri, 2015); research metrics such as research income, publications and citations (Beerkens, 2012; Taylor, 2003; Weingarten, Hicks, Jonker, & Liu, 2013); 'research involvement' as indicated by the ratio of PhD students in a student cohort (Huisman 2015); and access to and success in obtaining competitively allocated funds (Horta, Huisman & Heitor, 2008; Rossi, 2009b; Taylor, 2003). Such proxies are useful particularly for exploring volume differences and the vertical stratification of institutions, but what is missing in them are in-depth insights into horizontal diversity.

Attempts have been made in the past decade to develop practical methodological tools to explore diversity. While such tools take a multidimensional perspective, and better incorporate research, the approaches remain metric-based. The formative work of the LH Martin Institute and ACER has created evidence-based data-driven profiles, which use U-Map and U-Multirank classificatory structures pioneered in Europe (Van Vught & Huisman, 2013). They plot the organisational profile of universities against indicators covering: teaching and learning, student profile, research involvement, knowledge exchange, and international orientation (Coates et al., 2013; Mahat, 2014). The indicators used for research resemble the approaches noted above, using the inputs of: ERA active fields and performance; publications per academic and by institution; proportion of postgraduate students; and research revenue. While these profiles seek to help move discussion related to institutional diversity "beyond extant sectoral partitionings and contingent policy interventions" (Coates et. al, 2013, p.2),

their contribution to the question around the determinants of institutional diversity may be limited for the same reasons as those noted for previous research in the field[21].

Chapter conclusion

The stimulation of diverse and varied institutions and institutional priorities has been a bi-partisan and enduring principle of policy in the Australian context, aiming to improve efficacy and efficiency within a context of resource constraint. Empirical work, however, which supports or challenges this as an approach is scant. Rigorous empirical research offers a potential aid to decision making on whether institutional diversity remains a fit for purpose approach for the sector, and if so, how it might best be operationalised and achieved. Both of these practical questions link neatly to the scholarly field that explores institutional diversity in higher education, how it has evolved, and the active open questions still being worked through.

The importance of careful definition, parameter setting and approach to empirical work in this space is demonstrated by the findings of previous research, the volume of which internationally appears to have grown in the most recent decade. The choice of parameters through which diversity is explored, and the theoretical frameworks through which the research is filtered, play a fundamental role in whether diversity or convergence is observed, and thereafter the explanations of why. Accordingly, given the observed volume and array or focus areas and frameworks, the field shows wide variability in findings, with the 'why' or determinants of diversity question, a notable gap which is the subject of continued debate.

While less voluminous than international settings, research on institutional diversity in the Australian higher education space shows less variability, with a relative consensus that convergence of universities has occurred since the Dawkin's reforms unified the national system. However, discussions on institutional diversity are often in the form of commentary, which is intertwined with distributional politics between organisations seeking to position themselves and their interests for the purposes of funding and resource allocation or status. As such, a contemporaneous exploration of the issue can add not only to the observed

---

[21] Ironically, Purcell, Beer and Southern (2013) suggest that such tools may stimulate convergence as institutions compete to be ranked against the same criteria.

scholarly gaps, but to the broader national questions, which at the time of writing include dealing with sector sustainability issues and optimal future design.

This thesis's choice to focus upon the positioning of Australian universities reflects recent movements within the field. These have sought to re-balance the scholarly conversation, through perspectives which attribute greater agency to institutions to interpret and respond to what have traditionally been portrayed as converging environmental constraints. In addition, the choice of focus upon the *research* function specifically, represents an under-examined area of focus, despite university research being an area of particular prominence and perceived value in the modern setting. As a function of university work subject to researcher (often discipline driven) decision making and academic freedom, research positioning as a focus using qualitative methods, offers a potential complement to existing research that has understandably tended toward quantifiable approaches to exploring variation. Through the constructs of organisational actorhood and strategic positioning, the field has theoretically evolved to a position where the interplay between environment and institutions might be explored in more *balanced* ways. In so doing, a contribution can be made to explaining the contradictory findings of previous research, and the gap in the fields understanding of the factors which determine diversity, which have been of sustained scholarly and practical policy interest. As shall be outlined in chapter three, this research has been designed accordingly, with research methods aimed at producing both a sector level and intra-institutional set of insights developed through an in-depth institutional case study.

Chapter 3 – Research design and methodology

Chapter purpose and outline

This chapter discusses each aspect of the research design, providing rationales for decision-making and demonstrating an understanding of the features and limitations of each. The underlying epistemological and ontological positions which anchor the research are outlined, as critical considerations for problem selection, approach, and analysis. The chapter explains the theoretical framework applied to the thesis, and the approach taken to balancing historically polar perspectives through the application of the glonacal agency heuristic. Finally, the qualitative methods used are explained and unpacked, including how they were brought together to contribute to the research questions, and in so doing to the field's understanding of institutional diversity in higher education.

Researcher positionality and self-reflection

I came to this research with a history in research management and strategy development that spanned several universities, as well as one of Australia's main research funding agencies (the Australian Research Council). This was advantageous in terms of background knowledge and capacity to navigate a convoluted sector often appearing to have a logic of its own. However, it in turn meant that I brought with me to the research a series of opinions and perspectives. These needed active and sustained effort to identify and challenge. Positionality came to the fore particularly during the empirical stage - to be outlined – which involved semi-structured interviews, where again it brought benefits as well as costs. While transcribing and analysing the interviews, I noticed that some participants did not explain concepts or particular programs to me, as they assumed my understanding of them (as part of the introduction to the interviews, I needed to explain my position working within the sector, including at a 'competitor' institution). While richness of description was potentially harmed by this, it was offset by a sense that I was easily and quickly able to build rapport with an audience of participants who were genuinely interested in the thesis topic, and who understood research and its value.

As a key part of the research process, and thanks to my supervisors' foresight, active reflexive self-questioning was used to obviate positionality issues. This included extensive analytical memoing which commenced from the very outset before any empirical work was undertaken. It continued through literally, every document coded, interview conducted, transcribed, and then analysed (the memo is almost the same length as the thesis, ending up at some 240+ pages). As well as enabling the continued self-questioning and awareness of positions, I gained countless beneficial insights through a process of coding and creating a thematic metamemo from these extensive musings themselves. Some of the positions and perspectives which I came into the research with remained somewhat unchanged, but many were challenged and significantly evolved, as I note in the afterword following the conclusion of this thesis.

Ontological and epistemological foundations

Ontological and epistemological positions are of central relevance to problem selection, approach, and analysis within institutional diversity research (Huisman et al. 2015). From positivist perspectives, for example, the dimensions of institutional diversity are objectively measurable, whereas from the constructivist or interpretivist alternative, determinations involve more subjective judgement. While arguably overly polar, oppositional, and simplified, such a characterisation demonstrates the way that such foundations might result in vastly different research questions and methods utilised to explore them. Rizvi and Lingard (2007) summarised the contrasting positions and their ontological bases more broadly:

> the positivist view justifies knowledge in terms of observable, generalizable and predictable data, while interpretivism emphasises the social construction of reality and seeks to provide explanations of human behaviour in terms of intentionality (Rizvi & Lingard, 2007, p. 47)

While strengths and weaknesses of each are the subject of voluminous academic literatures, two of the noted limitations of positivism, which are relatable to the gaps in the institutional diversity field are: (i) a restricted capacity to explain complex social processes, and (ii) difficulty dealing with interpretation of meaning and purpose. As noted in chapter two, understanding in the field has evolved and made important progress in many areas, however, it has yet to come to a shared understanding of the factors that determine institutional diversity. As universities exist within a highly complex, social, and

institutionalised setting, a constructivist approach can add new perspectives and understandings around the factors and interactions that shape and help explain the question of why or why not institutional diversity exists.

A constructivist viewpoint generally posits that social environments, given the existence of human behaviour, cannot be understood without reference to experiences and meanings given to activities by the participants within them. Knowledge is co-constructed from such a perspective through interaction and the development of consensus, which is where qualitative methodological approaches in natural settings are particularly useful (Guba & Lincoln, 1994). Early in the design of this research, a matrix was compiled which comprised the fundamental positions of the various paradigms, using the synthesis provided by Guba and Lincoln (1994) in particular. This matrix can be found in Appendix D and facilitated the consideration of these issues, as well as their implications for the research design.

This research originates from a *relativist ontological position and a constructivist epistemology*. Approaches to ensuring quality and rigour with such a position vary slightly from those utilised by researchers within the positivist tradition – commonly the concepts of validity and reliability (Golafshani, 2003). Lincoln and Guba (1985), among others, have sought to reframe the concept of reliability for qualitative research, contending that *dependability* provides a more appropriate characterisation meeting similar objectives. Similarly, validity while not a universal concept, broadly represents a mechanism for demonstrating the accuracy of results, and that research is measuring its intended areas of focus. The application of the ideals of *trustworthiness* or *credibility* again provide alternatives which fit with a constructivist epistemology (and qualitative methods) and deliver similar ends (Jones, Torres & Arminio, 2006; Yin, 2011; Denzin & Lincoln, 1994; Creswell & Miller, 2000).

Triangulation is a frequently utilised means for achieving rigour and credibility within both quantitative and qualitative research paradigms. In contrast to the concepts above, triangulation as an approach sits equally comfortably as a means of credibly and dependably generating knowledge about socially co-constructed and localised realities, using both quantitative or qualitative methods. Multiple methods and data sources, purposively selected and dependent on the questions being posed "lead to more valid, reliable and diverse construction of realities" (Golafshani, 2003 p.604). This research borrowed from the quality

criteria outlined by Kyburz-Graber (2004), and applied the following practical steps: (i) use and description of a theoretical basis including research questions; (ii) triangulation through multiple sources of evidence; (iii) development of a chain of evidence with traceable reasons and arguments; (iv) full documentation, in this case in the form of extensive analytical fieldnotes and memos; and (v) final compilation through iterative review and re-writing.

Theoretical framework

Fundamental to many fields of social science enquiry, including that of higher education and institutional diversity, are a series of ongoing debates which reflect opposing epistemological and methodological dichotomies: generalisation versus individualisation; macro versus micro; and structure versus agency (Vaira, 2004). By and large, as noted in chapter two, institutional diversity research in recent decades has tended toward macro-structural frameworks, where higher education institutions are understood to be moved toward convergence by common externally located constraints. The antithesis position contends that the exercising of micro-level agency can lead to localised variations and thereby tend toward diversity. While the institutional diversity literature is replete with historical treatments that have tended toward one perspective or the other, relatively recent developments have attempted to better bring together and draw upon the strengths of each. This thesis sought to contribute to such developments, by bringing together institutional theory with strategic actorhood and institutional positioning perspectives through the application of the glonacal agency heuristic. The following section provides a brief outline of what each component of the framework contributed to the research, how the heuristic was used to combine and reconcile them, and how the resulting framework was applied to the research process.

Institutional Theory

Institutional theory has been the predominant framework utilised within the institutional diversity in higher education field for several decades. It is traceable to a number of seminal works, not least that of Meyer and Rowan (1977), who elaborated the symbolic and functional character of organisations who align their structures with institutional contexts in order to gain legitimacy and resources. A review of the literature in the institutional diversity field (and

visible in the summary of the most recent decade of it in Appendix A) showed that the most common applications of institutional theory in higher education studies, have drawn heavily upon the theoretical perspectives stemming from Meyer and Rowan, as well as the institutional isomorphism perspective provided by DiMaggio and Powell (1983). The latter describe institutional adaptation to constraining environmental conditions and pressures (including from other organisations, and by virtue of a highly institutionalised environment with formal and informal rules from multiple sources), manifesting in three forms:

(a) *Coercive Isomorphism* - for example, the influence of common regulatory and funding environments which limit institutional behaviour within well-defined parameters;

(b) *Mimetic Isomorphism* - standardised responses and imitative behaviours, for example as lower-status institutions seek to emulate more successful institutions who become 'surrogates for quality'. This concept relates closely to the idea of *Academic Drift* (Meek, 1991; Morphew, 2000, 2009; Tight, 2014); and

(c) *Normative Isomorphism* - the homogenising influence of professional norms and disciplinary structures.

Moreover, these perspectives have commonly been used within the institutional diversity field in conjunction with two other theoretical perspectives focussed upon organisations which emerged during the same period: (i) Hannan and Freeman's (1977, 1989) Population Ecology, which based in the principles of Darwinian evolution, and focussed upon population dynamics, deals with competitive behaviours between organisations seeking resources and legitimacy; and (ii) Pfeffer and Salancik's (1978) Resource Dependence Theory, which focusses upon the interaction between organisations and their environments (primarily other organisations), upon which they are both dependent and influential.

Cai and Mehari (2015), exploring the use of institutional theory in leading higher education journals up until 2014, concluded that it has often been applied without the effective incorporation of movements within the broader field. Several such developments have sought to rectify a static focus upon the relationship between organisations and their environment, isomorphism and institutionalisation, and to give account to the role of micro level factors and agency. The overlooking of these has been an enduring key critique, which has driven the seeking of alternatives:

The wider concepts of the theory, mainly developed after 1990s, have not been fully utilised to explore and explain issues in higher education. For this reason, higher education researchers have tried to exploit many other theories to overcome the limitations of new institutionalism
(Cai and Mehari, 2015 p.18)

The same authors provide an outline of these theoretical developments seeking to enhance the focus upon agency, shown below. Importantly, however, and as the review of recent institutional diversity literature shown in Appendix A supports), they show that the time lag which it took to adopt developments known as 'neo-institutional' into higher education research was as much as 10-15 years. The result being that by focussing upon macro constructs to explain process and outcomes at a micro level, a resultant structural bias has manifest in difficulties explaining social processes and change (Amenta & Ramsey, 2010). The associated theoretical debates and developments informed the drawing of conclusions outlined in chapter two, for example, the contention that an in-depth understanding of the determinants of institutional diversity remains a gap in part due to historical approaches taken to exploring for them. They were also important aides for decision making on how this research could be designed – including the selection of the methods to be outlined later in this chapter - to address the observed gaps.

Cai & Mehari (2015): Developments in institutional theory seeking to enhance the focus upon agency:

Descriptor	*Brief explanation and examples*
Sense making	People create meaning in a complex situation (Pietilä, 2014)
Rational system theory	Organisations as tools implementing goals addressing needs in the technical environment (Bernasconi, 2006)
Principal-agent model	Rational actors maximise preferences according to their priorities (Enders, de Boer, & Weyer, 2013)
Actor's perspective	Emphasising the importance of actors in decision making (Lepori, Usher, & Montauti, 2013)
Negotiated order theory	Individual identities are produced in organisational settings (Bell and Taylor 2005)
Bourdieu's theory of practice	Individuals can act as agents (Gonzales, 2012)
Organisational change theory	Organisational change considered from structural, human resource, political and symbolic perspectives (Gallant and Drinan, 2006)
Political, teleological and cultural models	Advocate for radical change (Kezar, 2005)
Professional theory	Individual professional response to changes (Teelken, 2012)
Self–referential theory	Organisational behaviour: the bias to include internal, consolidate indicators (Agasisti, Arnaboldi, and Azzone, 2008)
Transformative approach	The structural design of public organisations fulfil collective public goals and reorganisations reflect changing goals (Christensen, 2011)
Social theories (deficiency and structural theories)	Cultural biases define leadership and competence as masculine characteristics (Jackson and O'Callaghan, 2009)
Dialectical theory	Connecting mechanism between the embeddedness of institutional structures and human urge to change those structures (Rusch and Wilbur, 2007)

Instrumental perspective and political model	Organisation can be considered as a means to achieve specific goals and features of difference of interests, values and norms give rise to competition and conflict between actors (Larsen, 2001)
Institutional entrepreneurship	Ability of organizations to strategically alter context as a source of power (Lawrence & Suddaby, 2006)

The *institutional logics* perspective represents a further attempt to transform institutional theory from a historic position where primacy was given to structure over agency, through "a metatheoretical framework for analyzing the interrelationships among institutions, individuals, and organizations in social systems" (Thornton, Ocasio and Lounsbury, 2012). Building from earlier work of Friedland and Alford (1991), Thornton and Ocasio (2008) provide what appears to be a foundational definition for institutional logic, describing "socially constructed, historical patterns of cultural symbols and material practices, including assumptions, values, and beliefs, by which individuals and organizations provide meaning to their social reality" (p.101). These logics provide a framework within which actors are embedded with *partial* autonomy from social structures, and through which individual and institutional behaviours can be understood.

The application of institutional logics to the higher education field was systematically explored by Lepori (2016), who notes that while the theory has become a prominent new stream of institutional theory, a disconnect remains with its use within higher education literature: "most uses of New Institutionalism in the field are still based on its original formulation in the late 1980s, which emphasized the importance of compliance and isomorphism" (Lepori, 2016). Such an observation mirrors the aforementioned trend observed by Cai and Mehari, and supports the notion that the field of higher education studies, including the institutional diversity subfield within it, stands to benefit from research which more effectively incorporates evolutions occurring within the broader theoretical field[22].

While the limitations of institutional theory need to be acknowledged, as a family of theories it has made substantial contributions to the fields understanding of organisations and continues to evolve in ways seeking to overcome the shortcomings which have been

---

[22] During the later stages of this thesis, Graham and Donaldson (2020) published research contributing to such a gap, using institutional logics (combined with the same methodological approach employed herein - case study, semi-structured interviews and thematic analysis) as a framework through which to explore the thinking and associated practices of higher education leaders.

ascribed to it. The features described within these perspectives, coupled with population ecology and resource dependence theories, provided frameworks through which environmental and structural factors could be observed for throughout the analysis of this research. Importantly, as shall be explained, by combining these perspectives with others of a more micro-level and agency focus (in ways which attempted not to privilege either, through use of the glonacal heuristic), this research drew from the concepts provided by these theories and tested them against participant perspectives. Throughout the remainder of the thesis, these concepts are revisited, and indeed some of the thesis' main conclusions support and validate their continued relevance.

Institutional positioning and strategic actorhood

Attempting to provide greater account to the influence of non-environmental or endogenous factors, are various theoretical constructs that build upon the idea that organisations, and those within them, are integrated and goal-oriented *actors* capable of deliberate choices (cf. Krücken & Meier, 2006). Such perspectives are often described and explained by contrasting them against external and environmentally focussed alternatives. Three examples which have divided prior works in the institutional diversity field in this way - though using slightly varied labels - are:

	Label for works using perspectives with a greater localised focus where agency acts to promote *diversity*	Label for works giving greater emphasis to external and environmental settings by which institutions are constrained and are driven toward greater *convergence*
Meek et. al. (1996)	'Internal Perspective'	'Environmental Perspective'
Fumasoli, Barbato and Turri (2019)	'Managerial Rationality Focus'	'Environmental Determinism Perspective'
Antonowicz (2013)	'Divergence Theory'	'Convergence Theory'

Building upon the aforementioned developments in institutional theory, strategic actorhood and institutional positioning perspectives acknowledge that while external factors provide a framework around organisational action, institutions also play an active role, rather than solely being passive responders to external or environmental factors. It is at the juncture

of the creation of strategy that an interplay is observed between organisational level dynamics (which include identity, historical and normative processes), and their environments (cf. Frølich et al., 2012; Fumasoli & Huisman, 2013; Fumasoli, Pinheiro & Stensaker, 2014a; Morphew, 2009). Increasing use of such perspectives was evident in research published during the course of this thesis, though in many cases it was applied by the aforementioned researchers to the European higher education context.

Strategic planning has become a ubiquitous practice within higher education, and pertinently for institutional diversity, to how universities define and portray unique characteristics (Morphew, Fumasoli & Stensaker, 2016). Institutional agency is expressed through strategic action and identity creation, with organisations capable of rational goal setting and pursuit. Importantly, however, while providing some counter to the externally focussed deterministic perspectives of earlier institutional theory, the embedded agency conceptualisation which this represents continues to foreground the limiting effect of structural environmental factors:

> It is not argued that institutional positioning is the most important determinant of institutional diversity, but it is argued that institutional positioning is a key mechanism through which diversity takes shape in a system [...] environmental factors may, to a large extent, set upper or lower boundaries to system-level diversity (Fumasoli & Huisman, 2013 p.162)

Moreover, the same authors suggest that while exercising of agency can result in institutional diversity, it may do so only temporarily, before isomorphic forces continue to exact pressures toward convergence. In this way, an allowance appears to be made for deliberate agency and organisational actorhood, however the constraints to intentionality provided by environmental influences continue to appear imbued with greater deterministic strength.

Glo-na-cal agency heuristic

> "the continuing challenge for higher education research is to build and renew the analytical bridges between environmental changes and organisational dynamics"
> (Frølich et. al 2013, p. 80)

The glonacal agency heuristic was the concept through which this thesis brought together and sought to build a bridge between the aforementioned frameworks. The heuristic was developed by Marginson and Rhoades (2002) to establish a framework for comparative

higher education research in the context of globalisation. Beyond this original purpose however, it provided a means by which environmental and more localised agency factors could be explored *in ways which less explicitly privileged either*. The heuristic contemporised and expanded upon Clark's (1983) triangular conceptualisation of coordination in higher education, shown in figure 2. It did so by giving greater consideration to local or micro level agencies, and new perspectives on the way interactions occur between (in their case global, national, and local) layers.

Clark's now dated but influential three planes of influence on higher education focussed upon markets, the state and professional-collegial control. While it did make allowance for local levels transferring power at regional and national levels, it hypothesised that their influence was oppositional and polar: movement toward one meant movement away from the others. The limitations of this model to contemporary higher education have been demonstrated as structural features have evolved. What were previously seen as oppositional forces within a zero sum game (based on their treatment in unpinning liberal theory as Marginson and Rhoades (2002) explain), came to interact and even cooperate, for example as governments assumed the role of fostering markets (Jongbloed, 2003).

Work in the higher education field utilising conceptualisations such as Clark's triangle have largely resulted in a skewed focus upon national-level markets and policies. The result of this is a more limited understanding of the issues and dynamics at each of the other levels, including both the environment beyond the nation-state (noted by Zha, 2009, for institutional diversity research in particular) and fine-grained local variations:

> In using the nation-state as the dominant unit of analysis for international comparison, global forces remain shadowy, local variations are flattened out, and issues of "street level" implementation are obscured (Marginson & Rhoades, 2002, p.305)

Addressing these limitations, the glonacal agency heuristic was designed and illustrated not as a two dimensional and unidirectional triangular model, but as a three-dimensional hexagonal schematic which highlights a *dynamic reciprocal relationship between dimensions and the simultaneous significance of each of them*. The term 'agency' was utilised as a double entendre to signify both institutions (formal agencies, in an organisation sense, particularly relevant to the globalisation context in which the heuristic was initially based) and the ability of individuals and collectives to take action (or exercise agency). The resulting components of the model were: global agencies; global human agency; national agencies; national human agency; local agencies; and local human agencies.
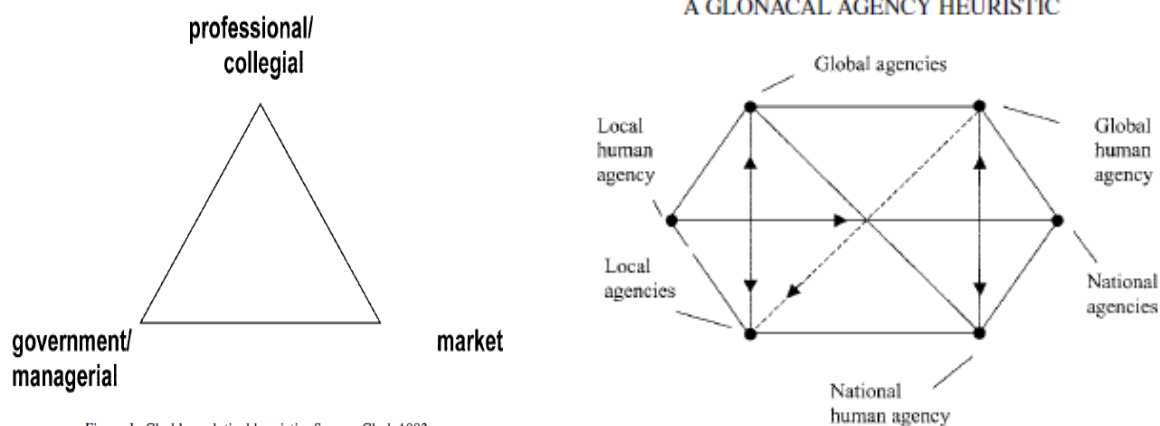
Figure 2: Clark's (1983) triangle and Marginson & Rhoades (2002) glonacal agency heuristic
Source: Marginson & Rhoades (2002)

The exertion of agency takes place continuously at all points between the global, national and local layers of the glonacal agency heuristic (Marginson & Rhoades, 2002; Vidovich, 2004). In addition, these layers provide a starting point, with flexibility enabling the building of inter-scale levels or spatial containers. Analytical focus need not be limited to global, national, and local levels, but as emerged through the course of the document analysis as shall be described, can include additional layers such as the regional[23]

It should be evident that one can go into greater and greater depth in the analysis, generating additional hexagons specifying, for example, multiple agencies of and agency in the nation

---

[23] As detailed within the document analysis chapter, regional as a term is subject to varied definition, with the version decided upon as most relevant for this work (a geographically more focussed locale, for example Western Sydney), differing to Marginson & Rhoades (2002) decision to use the term in terms of wider cross-national geographical zones – such as Asia.

state, or multiple agencies of and agency in local colleges and universities
(Marginson & Rhoades, 2002, p. 290)

As shall be demonstrated below, this proved particularly beneficial as a means of framing this thesis' examination and understanding of intra-institutional dynamics.

Thesis approach to applying the heuristic

The nature of interactions between levels of the heuristic provided the primary means by which this research treated and sought to reconcile the environmental and localised agency perspectives outlined above. Marginson and Rhoades (2002) described these through four core features:

(i) *reciprocity*: activity and influence in the heuristic moves in multiple directions at each of the levels in a series of *non-hierarchical* connections;

(ii) *strength:* the extent of influence or strength of interconnections may vary, influenced by for example economic, cultural or political resources available to agencies or agents, resulting in either direct or indirect and stronger or weaker linkages (the example Marginson and Rhoades provide is of private US institutions with vast wealth, whose global influence may be comparatively stronger);

(iii) *layers and conditions:* which give attention to the effect of historical contexts (practices, resources and structures) and prevailing conditions which affect agency; and

(iv) *spheres:* which distinguish boundaries or the geographical or functional reach of agent activity and influence.

The works of Vidovich (2004) and Portnoi and Bagley (2011) helped to inform the means by which the heuristic was used, being two of the few studies which examined institutional strategies using the glonacal framework. Providing practical explanation of the effect of such a heuristic on approaches to analysis, they noted the importance of consideration being given to issues such as: (i) the *simultaneity* of influence and reciprocal flows between all levels, for example represented by the ways in which higher education institutions and constituents within them have extended their own influence to national and global levels as well as being impacted upon by them; and (ii) the risk and limitations of

overgeneralising the influence of particular dimensions, for example the treatment of environmental conditions as normative and universally deterministic, without consideration of localised and specific practices, responses, resistance, counter trends, and variations.

Making use of the heuristic's flexibility and its conceptualisation of organisational agencies, the model provided a particularly useful tool for framing the intra-institutional university setting. Within universities, agency can also be exercised at the level of formal and informal organisational structures, such as faculties, departments, centres, institutes, portfolio areas, and so on. Commonly in the Australian context, such groupings exist with their own configurations and decision-making processes, executives, management sub-groups, committees, advisory bodies, and other such collectives. The exercising of agency at each of these levels within institutions, is a particularly relevant consideration in the modern setting where strategic planning and positioning is prevalent often at all of them. Applying the reciprocal principles of the glonacal heuristic, layers at each of these intra-institutional levels interact and influence each other.

Figure 3:
The interaction of plural agencies using the glonacal construct

Shading indicative of reciprocal influence, adaptable to varied strengths
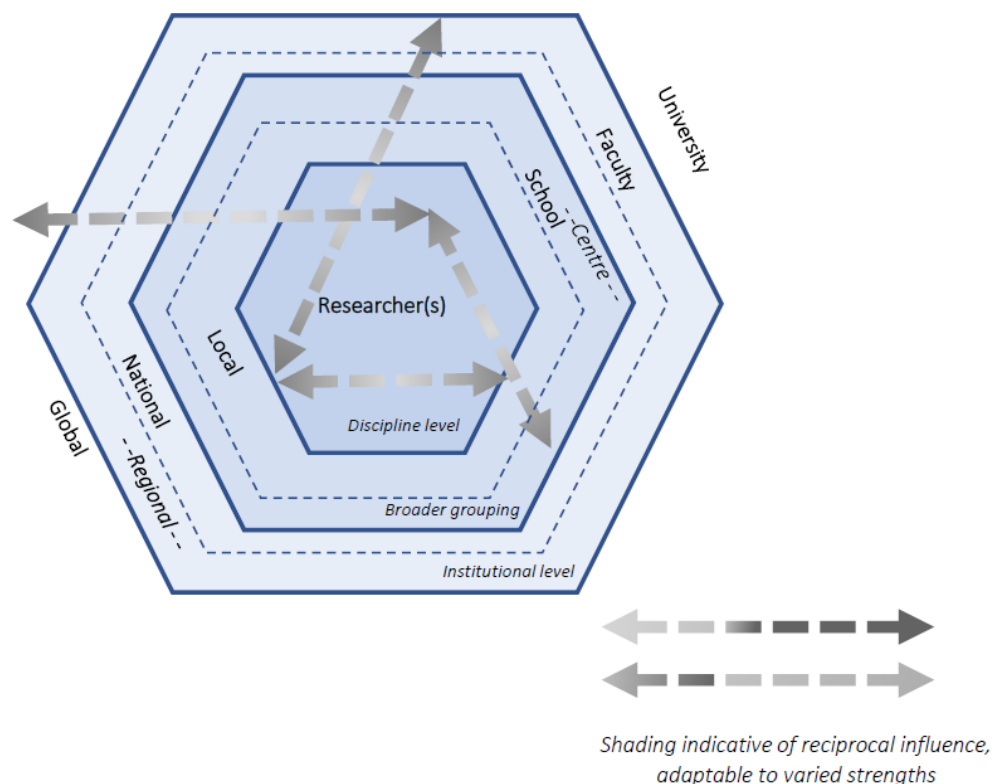
The resulting framework of this thesis was used particularly to inform: (i) participant selection - for example, with coverage sought from the range of intra-institutional layers; (ii) thematic analysis of mission-based

compacts – with coding capturing each of the layers of scale; (iii) semi-structured interview themes – with participants also asked for perspectives on the layers and any interactions between them; and (iv) analysis of all empirical materials and framing of the conclusions drawn from them. In these ways, the glonacal framework provided a conceptual tool which supported the creation of a comprehensive picture showing the confluence of factors that contribute to positioning within a complex setting. Institutional positioning, decision making and behaviours within such a model are not only the results of an interplay between organisations and their various environmental contexts. They are also the result of the simultaneous interaction of agencies at a multiplicity of intra-institutional levels (as reflected in Figure 3 above), which can vary in strength and are affected by prevailing conditions such as history and resourcing.

The aforementioned limitations of polarised conceptual frameworks used in isolation, were addressed through an approach which catered for multiple levels and conceived of influence as reciprocal and interactive (as opposed to the relatively static and linear 'outside-in/inside-out' and 'top-down/bottom-up' paradigms). As drawn from the approach of Vidovich (2004), the analytic process of coding and theme development (to be described later within the chapter) took the approach of separating out each of the (global, national, local and intra-institutional) levels of the heuristic. This enabled the interactive relationships between them to the explored, including across the multiple empirical components, before then being reconstituted as a whole[24].

Finally, this research benefitted from an understanding of some of the limitations and issues related to the use of scaled representations, such as those contained within the glonacal framework. As the mission-based compacts document analysis will show, each of the global, national, and local scales were widely utilised concepts by universities, though they were not defined uniformly. Along with definitional inconsistencies, various risks have been associated with the use of scaled categorisations more broadly which were relevant for this research. For example, Brenner (2001) warned of 'analytical blunting of the concept' and

---

[24] In fact, the initial write up of the analysis findings was in the form of chapters describing each of the empirical components – document analysis and case study plus interviews – examined in detail and in turn by each of the layers of the glonacal heuristic. While not appropriate in form for an eventual thesis, this exercise enabled triangulation and the resulting findings, by allowing for close exploration of similarities and differences between them, as well as through the core features of the heuristic.

pointed out that scales continuously evolve and are remade, with their meaning only understood in relational terms. Despite this, and fuelled by the need for narratives according to Herod (2010), research at times simplistically separates levels of scale which belies their relational nature and results in failure to adequately capture interconnections between them.

Continued debates surround the privileging of particular scales and issues of hierarchy. An earnest attempt was made here to avoid the privileging of particular scales (also conscious of Herod's (2010) claim that often those who say they are not privileging actually come from post-structural positions and privilege the local). More commonly though, as surmised by Skop (2015), issues of hierarchy have manifest in larger areas being imbued with greater significance and power than smaller ones. Some of the issues identified within the institutional diversity literature covered in chapter two, directly mirror those which are said to result from analyses focussed upon or privileging particular levels of scale:

> the chief problem with single-scale analysis is that it tends to be myopic, which in turn results in potentially dangerous simplifications, resulting in the promotion of certain phenomena at the expense of other phenomena […]the recognition that processes are relatively malleable and fragmented requires a theoretical organization that reaches across, around, and between scales (Skop 2015, p.428)

Skop goes on to describe the field of geography moving away from such treatments of scale, by 'flattening' the relationship between scales and acknowledging interactivity. Such movements fit neatly with the aforementioned principles of the glonacal agency heuristic.

Qualitative research methods

While voluminous literature exists comparing and contrasting quantitative and qualitative methods, it is arguably an unproductive dichotomy (Miles & Huberman, 1994). The approach to method selection outlined by both Yin (2011) and Punch (2013) advocate that rather than the either-or thinking reflected in historical paradigm debates, decisions on research methods should be designed based on the research problem at hand. Along with such guiding texts, critical analysis of the literature within the field allowed the choice of research methods to be informed by designs used by institutional diversity researchers and lessons drawn from them. Influential among them, were Fumasoli and Huisman (2013) who described the way that deliberate and emergent actions which lead to specific positions are

best investigated through the use of multiple methods such as interviewing and document analysis. This was brought together with the lesson found in Morphew, Fumasoli and Stensaker's (2016) work, which noted that the drawing of conclusions can be constrained by the possibility that articulations of strategy and identity are more symbolic than substantive, something pertinent to this research and which, they explained, multiple methods can help to overcome.

In seeking to explore both at a sector-wide and institutional level, and to develop an improved understanding of factors influencing research positioning and institutional diversity, rich descriptions were required which could reveal complexities from multiple perspectives. Such descriptions are among the noted strengths of qualitative approaches (Miles & Huberman, 1994). From the sensemaking perspective, Frølichet. al (2013) elaborate this point in terms of being able to explore perceptions within pluralistic organisations from varied positions:

> By using qualitative methods we may come closer to exploring current key actors' perceptions of the individual organisation's "position within the landscape" and perceptions of higher education landscapes as seen from various positions within the individual organisation (Frølichet. al., 2013, p.88)

The three research questions of this thesis represent one fundamental or overarching question which sought to observe the extent of diversity at the sector level; a theoretical question relating to the determinants of diversity; and finally, a question which sought to draw lessons applicable to policy and programs seeking to stimulate institutional diversity. As suggested by Simons (2009), Figure 4 provides a schematic showing the way each of the qualitative methods used, and outlined through this chapter, mapped and contributed to each of these questions:
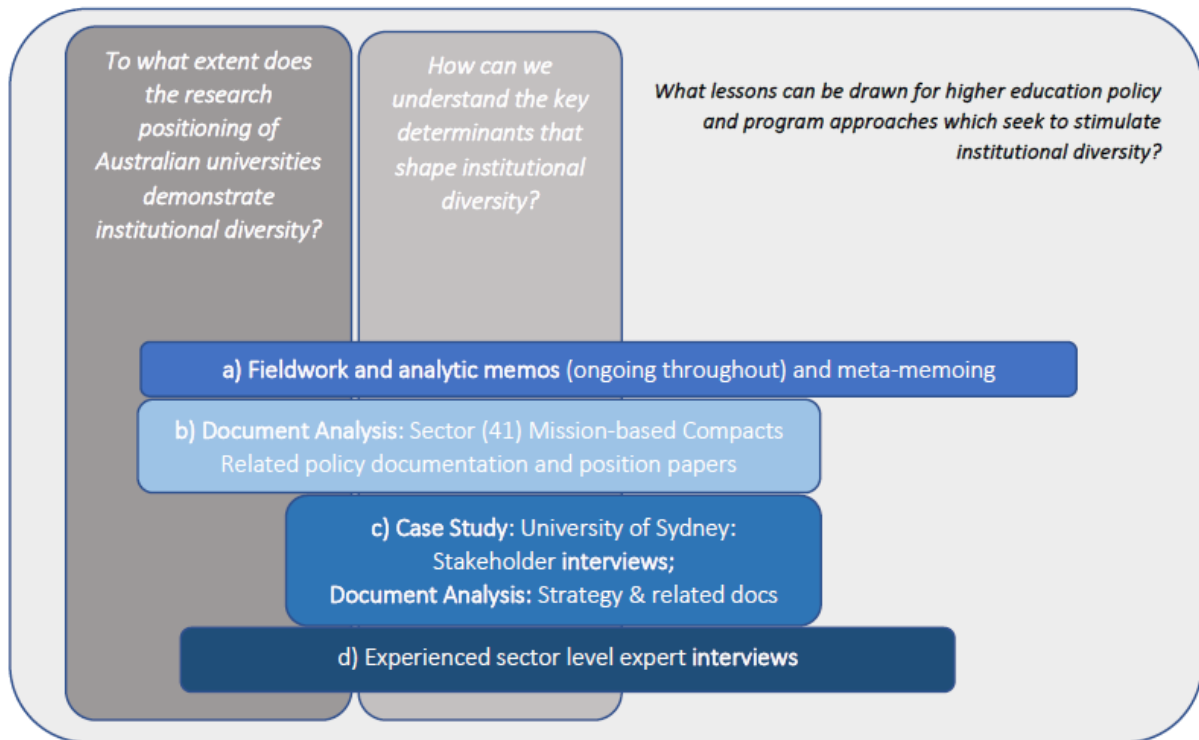
Figure 4: Schematic of methods mapped to thesis research questions

Method one: Document analysis

Document analysis provided this research with both a cost-effective and unobtrusive source of empirical data helpful for uncovering insights into the research problem, as well as an additional data source useful for enhancing validity (Bowen, 2009). Furthermore, document analysis and interviews form a complementary partnership and are widely used in conjunction with each other (Bowen, 2009; Owen, 2014). While documents are unlikely to provide a full picture of, for example, day to day activity within a large organisation, the information within them can be beneficial to the development of interview approaches and questions. This approach proved useful for this research. An initial stage document analysis of the 41 mission-based compacts from the whole Australian university sector, informed the subsequent research stages, including case selection, interviews participants and the subsequent themes explored within them.

Strategies and positioning are considered, within the aforementioned theoretical framework, to be constitutive of action. The choice of which documents to analyse at the level

of the sector, from the range of possible options, was an important one with fundamental implications for what the thesis was capable of exploring and concluding. Mission-based compacts were selected as documents capable of providing a valid reflection of intended institutional activities and therefore, to a degree, a genuine reflection of a form of institutional diversity. Compacts represent formalised plans of action, whereby each Australian university agreed to undertake particular activities over a specified period in mutual agreement with Government. They also included agreed performance indicators and accountability mechanisms in the form of formal review. Each of these distinguish Compacts from other forms of institutional positioning such as mission statements or strategic plans. The level of detail within compacts was both institution-wide, and specific enough to allow for sector-wide and comparative insights. In the period 2014-2016, just prior to the commencement of this thesis, all Australian universities partook in mission-based compacts. In so doing, the ensuing documents provided a set of sector-wide descriptions of institutional strategic planning and positioning across a full range of functions, importantly including the conduct of research.

A variety of principles guided the treatment of activity-based descriptions within these documents. Documents as social productions resulting from human action are developed and need to be understood within the context of accepted ideas, principles and socio-historical and institutional structures (Punch, 2013). In addition, institutional theory perspectives (outlined in the discussion of the thesis theoretical framework), consider the content of institutional productions as fulfilling a variety of functions, not least the seeking of legitimacy through the meeting of highly institutionalised norms or expectations (Meyer & Rowan, 1977). To elicit deeper or even multilayered meanings, and in an effort to ensure that analysis was able to extend beyond what might be (from an institutional perspective) superficial legitimating statements or claims, the following considerations were necessary: the purpose of documents; the authors and approach to creating them; intended audiences (including expectations of them and their understanding); and content (which importantly should consider not only what is chosen for inclusion, but any apparent exclusions).

Finally, the triangulation of findings from the document analysis of mission-based compacts, with the additional methods to be described – the building of an institutional case

study and interviews with sector leaders – was an important means by which legitimacy of the analysis, and indeed the content of compacts as a representation of institutional activity and action (thereby providing a valid mechanism through which to explore a form of system level diversity), could be tested. Systematic exploration of the similarities and differences observed between the empirical components, coupled with researcher reflection aided by analytical memoing (to be described), were an important means by which the analysis arrived at the conclusions making up the eventual thesis.

Mission-based compacts: purpose and context

The 2009 Bradley Review developed a program of reforms which included mission-based compacts as a re-designed means of framing annual discussions between universities and Commonwealth officials which had been occurring since the Dawkins reforms. Institutional diversity was fundamental to compacts, including diversity related to positioning ('missions'), with the express goal of the program being to "facilitate greater specialisation within the sector and greater diversity of missions" (Commonwealth of Australia, 2009). The Australian Labor Party discussion paper *Australia's Universities: Building our Future in the World* (Macklin, 2006) foreshadowed these developments, providing insights into the rationales underpinning them. Critical of the ideals they claimed a conservative party had applied to previous approaches, a balance was being sought between a quasi-market driven model and responsiveness to public good ideals: "The new realities of higher education in Australia and internationally call for new ways of thinking about the relationship between higher education institutions, markets and the Government" (Macklin, 2006. p.51). The approaches they replaced were critiqued as inflexible, with a private good ideology and reduced public investment and financing arrangements (characterised as 'micro-management') accused of dictating institutional behaviour at the expense of autonomous decision making, and thereby diversity:

> Whereas institutional mission should determine which new opportunities an individual university chooses to pursue, instead we see many universities pushed by Government policy incentives to misshape their mission to chase revenue (Macklin, 2006. p.53)

> Government funding conditions restrain rather than promote diversity. They provide no incentives for universities to innovate, to develop distinctive educational packages, or to extend their service outreach to their regional communities [...] Public funding should assist

each university to pursue its distinctive mission and to excel in what it does best
(Macklin, 2006. p.30)

Autonomy and flexibility were cast in the eventual program within a framework of mutual obligation. Universities were given a "reciprocal responsibility to explain their purposes, and to report publicly on how well they have performed against their own goals and the performance standards expected of them" (p.26). The means by which university performance against expectations would be adjudicated by Government (notably, though compacts were a two sided 'agreement' only one sides delivery was formally assessed), were through reporting against mandatory and optional performance indicators. This was noted by Coaldrake and Stedman (2013) as one of the inherent contradictions within the conceptualisation and operationalising of compacts as a tool for stimulating institutional diversity. While universities were characterised as autonomous and allowed scope to individually tailor their responses within the agreement, targets included standardised indicators and identical aspirational targets for all universities. In addition, each university was required to set out how its mission aligned with (the same) Commonwealth goals.

The intended audience of compacts was also an important consideration for the analysis. Compared with the audience of other university strategic planning documents, which serve varied internal and external audiences and functions, mission-based compacts were a targeted agreement between universities and national level policy and programs. The term compact itself is used by governments to represent an agreement and commitment on matters of common concern. While each university's compact was publicly available for transparency and accountability reasons[25], the legalistic nature of both the structure and content of the documents[26] reflects the primary intended audiences being the executive and planning teams at universities and in government. This was confirmed by interview

---

[25] While removed from the most recent version of compacts, a 2010 consultation draft outlined this particular compact purpose specifically: "*by detailing Commonwealth funding commitments and reciprocal University commitments, this Compact also contributes to creating a transparent and accountable system of administration of Commonwealth funding*" (p.4).

[26] The current iteration of compacts included a reduction in legalistic features compared with the initial compact design, with reduced legal language and a series of lengthy attachments were also removed.

participants in subsequent stages of the research, with important implications for the analysis and conclusions drawn.

Impact of compacts content and structure

Compacts were designed and rolled out with a template-based structure, their composition representing an important analytical consideration. Prior to thematic analysis of compacts, familiarity was sought with various related policy materials, including earlier iterations (2010-2013 compacts) and consultation materials, which provided insights into aspects that had changed over time, changed in emphasis or order, or had been removed. The 2014-2016 version of compacts used in this research, included: generic contextual text composed by the Commonwealth; performance indicators; and individually tailored university sections which included descriptive text and numeric responses to government indicators, with optional indicators able to be proposed at university discretion and negotiated. A full list of 2014-2016 compact component parts, is included in Appendix F for reference.

Given such a format, simple content or frequency matching of institutional responses to stated Commonwealth objectives would arguably result in a superficial level of insight into the determinants of institutional actions. In part at the pre-case study and interview stage, greater depth was achieved by exploring for linguistic or structural markers that gave insights into the level of stated and implied support for Commonwealth objectives and any discernible gaps or resistance to them. In addition, the analysis sought cues around the intentionality or foundations of institutional strategic action, which in keeping with the theoretical framework to be discussed, were considered more complicated than a simple linear dynamic. To demonstrate, the University of Sydney provided an explicit example where the nature of influence was interactive as opposed to one way: "As Australia's first university, we have been shaped by and have helped to shape our national story and identity for more than 160 years" (USYD, p12). Deliberate efforts were made to uncover and explicate the interactivity between the national and other layers, and also between influences within a national layer. This was extended beyond government to encompass other national level constructs (such as agencies in the form of sector-level organisations and groupings – Universities Australia and Group of

Eight for example, or other research stakeholders such as the non-university publicly funded research agencies such as the CSIRO)).

Method two: Case study

"an institutional narrative can be worth a thousand statistics" (Clark, 2003 p. 100)

Case study provides a useful method through which to enrich understanding of a complex contemporaneous social or 'real-life' setting, with parameters not amenable to standardisation or control. As suggested in the Clark quote above, proponents argue that intense observation of cases, with appropriate quality measures in place, can provide discoveries that go beyond those of broader statistical analyses (Flyvbjerg, 2006; Harland, 2014; Kyburz-Graber, 2004, Merriam & Tisdell, 2016). Case study research can also be particularly suitable to 'how' and 'why' questions (Simons, 2009; Mampaey, 2016; Rowley, 2002; Miles & Huberman, 1994), which seek to understand, for example, "how people specifically act in a concrete field of action, why they do so, and how the situations observed may be explained" (Kyburg-Graber, 2004, p.56). Neuman (2006) demonstrated the congruence of the approach with the chosen theoretical framework by pointing out that "Case studies help researchers connect the micro level, or the actions of individual people, to the macro level, or large-scale social structures and processes" (p.41).

Flyvberg (2006) asserted that historical critiques of case study research have often been based on misconception or misunderstanding, and systematically sought to correct for these as outlined in the summary of his positions provided in Appendix G. Despite traditional critiques of case study research appearing to have such counterpoints, benefits were gained for this work by a sensitivity to the shortcomings attributed to previous case study research. For example, the presentation of the case within the analysis chapters deliberately sought balance, and to ensure that focus upon description did not occur at the detriment of insight:

> The most challenging aspect of the application of case study research in this context is to lift the investigation from a descriptive account of 'what happens' to a piece of research that can lay claim to being a worthwhile, if modest addition to knowledge (Rowley, 2002. p.16)

Case study type and case selection

Case study research involves a series of critical decisions. In this instance, the defining of boundaries of the case from a selection of 41 universities within the Australian higher education sector, and then the within-institution case groupings. A multiple case study approach was considered as a means of gaining a comparative perspective particularly useful for research question one seeking to explore diversity at a sector-wide level. However, this would have come at the cost of depth which was considered key to addressing the second research question exploring the determinants of institutional diversity. Given the observed need within the literature for greater understanding of the latter, through the systematic production of context-dependent exemplars, *a single case study design* was decided as the most appropriate way forward through the unavoidable 'trade off' between breadth and depth described by Patton (2002). In addition, case study decisions were considered within the context of the other methods being applied, firstly the initial document analysis stage, and then a subsequent stage of interviews with experienced sector leaders. Both of these provided for a sector level set of insights, which could be balanced and tested against the depth and detail provided by the single institutional case.

Research method reference texts provided a plentiful array of case study types to guide design and case selection. The work of Yazan (2015) was particularly useful as it scrutinized the 'contested terrain', and specifically compared three influential reference works which have appeared commonly in the education field, those of Robert Yin, Sharan Merriam, and Robert Stake. Appendix H simplifies and draws out the features of each. Like Yazan's own stated preference, value was gained here from borrowing aspects of the approaches of others to complement the extensive guide and approach provided by Merriam and Tisdell (2016).

The selection of cases is complicated by the lack of universal methodological principles to guide decision making, and is therefore reliant on a combination of intuition and a researcher's capacity to provide collectively acceptable reasons for decision making (Flyvbjerg, 2006). Common across various method works however (for example Simons, 2009; Flyvberg, 2006; Patton, 2002) was the idea that the end goal – or what one wishes to be able to say about the chosen research questions – provides the most useful touch point and

decision-making aid: *"The key issue in selecting and making decisions about the appropriate unit of analysis is to decide what it is you want to be able to say something about at the end of the study"* (Patton, 2002 p. 229). Seawright and Gerring (2008), as well as noting that practical and pragmatic considerations can play a role in case selection, provided a useful exploration of a 'menu' of case selection options and associated theoretical and methodological justifications for each. They also noted that strategies for case selection are often a 'mix and match' which can draw from a selection of these methods: typical; diverse; extreme; deviant, influential; most similar, or most different designs. Similarly, Flyvberg (2006) challenges the idea that such strategies are – or indeed need to be – mutually exclusive, and further demonstrates through the example of his own work how a case may start off conceived as one type of the above, and through the course of the research evolve to be an example of another.

In seeking to rigorously determine case selection, the variety of approaches below were employed to enable and support final decision making about which university to select as the case institution:

i.   Consideration of practicalities, such as access and available time and resources (in particular within the context of full time work and part time research);

ii. Case selection was informed by and determined following the conduct of the in-depth review of the literature, selection and construction of the theoretical framework and research questions (as suggested by Merriam, 1998)

iii. A separate set of analytical memos were built during the initial compacts document analysis stage, outlining features, issues and general observations for every university. These proved helpful for evaluating institutions according to Seawright and Gerring's aforementioned case selection criteria;

iv. Additionally, a whole of sector picture- was gained by mapping publicly available research measures[27] against Marginson and Considine's (2000) typology of Australian universities (usefully applied by others as well, such as Bradmore & Smyrnios, 2009; Codling & Meek, 2006; Williams, 2010)– see Appendix B;

v.   Mission-based compacts analysis resulted in a series of propositions for testing against a case organisation, which were considered against the above. Here a test proposed by Simon's (2009) proved particularly useful, who warned researchers to consider and avoid the possibility of 'false consensus', or making data fit the framework: "consider the theoretical

---

[27] It is worth noting here that Goedegebuure& Schoen (2014) concluded that given regulatory requirements and prevailing approaches mean that all universities in Australia are research universities, the most significant differentiator between them may actually be research intensiveness (a form of vertical diversity).

presuppositions underlying the questions and think through whether they will provide an adequate frame for your case".

The University of Sydney was selected as a suitable information-oriented case selection, capable of maximising the information able to be gained from a single case (Flyvberg, 2006). Thematic analysis of the University of Sydney's mission-based compact demonstrated that the institution could provide insights across all levels of scale within the glonacal heuristic - global, national, and local. In his description of the concept of path dependency as an important determinant of university activity in the Australian sector, Davis (2017) pointed to the University of Sydney as the 'original path' which has served as a model for all Australian universities which have followed it. Such a characterisation (coupled with the aforementioned idea of mimetic isomorphism wherein lower status institutions seek to emulate those of higher status, which appendix B would suggest is the case for the University of Sydney in research terms) supported the possibility that the University represents a form of 'typical' or 'critical' case, albeit one which is comparatively large in scale and with a long history, as evident from the broad features found in table 2.

The determinants of research positioning within an institution of this size and scale could reasonably be expected to be complex. The University uniquely acknowledged its complexity within its mission-based compact, as shall be explained. In addition, the University outlined an internal management approach whereby *internal inter-institutional compacts had been put in place to mirror the Commonwealth approach at a sector level*. Internal compacts between the central university and the faculties at a university, such as this, were useful additional layers through which multidirectional influence – as detailed within the theoretical framework – could be tested and examined. In this way, the choice of this case was also made on the basis of its possible contribution to exploring the effect of such mechanisms on diversity (again, supporting the maximisation of information capable of being drawn from the single case design). The choice of the University of Sydney also came with limitations and again the need for trade-offs. For example, a finding to be later outlined, suggesting regional influences as potentially significant in the Australian context would likely not be fully testable within the context of a metropolitan city-based university.

Table 2: University of Sydney institutional broad features and case context

Institution	University of Sydney
Type	Sandstone
Year of establishment	1860 (oldest in Australia)
Observed compact scales of focus	Global, National, Local
Research intensity (and relative position within the sector)	Research income: ~$347,000,000pa (3rd/41) HDR students: 9,101 (1st/41) (also largest philanthropic effort across sector) See Appendix B for sector-wide comparative detail
Size (relative to the sector)	First tier (among the largest in Australia) 6,000+ staff 30,000+ students
Features & additional notes and considerations	▪ High performing research-intensive university, which may be reflective of the type which others emulate or aspire to (mimetic isomorphism); ▪ Large metropolitan university, providing potentially a negative case to test out regional influences (see compacts analysis chapter); ▪ Comprehensive breadth of disciplines, coupled with self-acknowledged institutional fragmentation and attempts to unify historical differences within the organisation; ▪ Extensive process of strategy development within a relevant time period (Strategy developed throughout 2015, covering the period of 2016-2020); ▪ Internal compacts process which mirrors Commonwealth process at a University-Faculty level.

Method three: In-depth semi-structured interviews

Interviews were a critical aspect of the research design, as an approach particularly useful for research seeking to uncover and understand things from the point of view of subjects and their experiences (Kvale, 1996; Kvale & Brinkmann, 2009; Owen, 2014). Two distinct stages of interviews were undertaken as a part of this research. The first, a series of interviews with University of Sydney staff which were combined with analysis of institutional documents to build the institutional case study. The second were a later series of interviews with experienced Australian higher education leaders, where propositions derived from the compacts analysis and case study were tested.

Choices on the type of interviews to undertake from the wide range of available choices, were made following consideration of a combination of factors: (i) the research questions at hand (in particular that which sought to explore a complex phenomenon with a degree of depth and from multiple perspectives); (ii) the theoretical framework applied; and (iii) importantly, the underlying epistemological and ontological positions previously outlined. Semi-structured in-depth interviews provided a flexible and dynamic approach neatly aligned with a constructivist perspective (Guba & Lincoln, 1994; Taylor & Bogdan, 1984). A series of core topic areas and propositions were brought into each interview, seeking to test findings from the research stages which preceded them. These, however, were not in the form of a set of questions put uniformly to all participants. Participant and researcher contributions interacted to shape the direction of each exchange as it unfolded. An interview protocol for both case study and later experienced sector leader interviews is provided in Appendix C.

Kvale and Brinkmann (2009) describe an approach to structure and preparation for such interviews framed around the use of themes based on the purpose of the study and the required subject knowledge. Such themes provide a starting point from which participant responses can be explored and avenues for additional investigation navigated. The judgment and decision making however on what ideas or topics are followed or not, are taken by the researcher, thereby constituting an unequal relationship (given researcher actions define and control the situation). Despite this, the knowledge construction process is found in the interaction between the researcher and participant which is an *interdependent relationship*. This reflects movements within qualitative research toward the idea that researchers/interviewees are not neutral data gatherers, and that both parties within the interview dynamic unavoidably influence (Yin, 2011) and mutually adjust (Lindblom, 1990) to each other, and that the results need to be seen as negotiated and contextual (Watt, 2007; Clegg & Stevenson, 2013).

Interview participant selection, approach, and rationale

Initial sampling parameters were informed by the research stages which they followed and evolved through the course of the research to ensure fitness for purpose and alignment with the theoretical framework. Initial University of Sydney interview participants were selected following the compacts analysis and sourced from publicly available directories and

websites. *Purposive participant selection* was undertaken aiming to interview those participants with the greatest potential to provide insight into the phenomena of interest (Jones, Torres, & Arminio, 2006; Yin, 2011; Patton, 2002). Prior work experience within roles related to university strategy development at various Australian universities provided useful starting knowledge on who the most appropriate stakeholders might be.

As interviews progressed, flexibility was kept and a snowball or chain approach was also followed. Interview participants at both stages offered advice on additional stakeholders who should be approached based on their relevance or specific experience, familiarity or expertise on the topics which emerged during discussions. Decision-making here was purposive and proved particularly beneficial for understanding internal university compact stakeholders, as this was an institutional approach not previously encountered during my own work experiences. The resulting sample for the University of Sydney interviews totalled 14, which included what was considered an appropriate split with coverage of discipline areas; academic and professional staff; position types and varied levels of seniority; and staff situated across each broad institutional layer - central university, faculty, school, and centre.

Along with the multiple layers of the organisation, potentially contrary evidence or views that might uncover rival explanations were sought. While core participants were sought from those with the most involvement and formal responsibilities related to research strategy, several participants who were slightly peripheral to the phenomenon being observed were also included to obviate the risk of sampling too narrowly. Saturation was an emergent judgment made on a perceived point of diminishing returns to the substance of the research questions. It was evident at various points that additional avenues could have been explored which added new elements to the case, however the decision was taken that they were outside of the scope of the research questions as they were conceptualised. As previously detailed, analytic memoing provided a useful tool through which such decisions and judgements were worked through and reflexively considered.

Decision-making on selecting experienced sector leaders to interview for the final empirical stage followed a similar approach. Through both closeness to the research within the field of higher education in Australia, and prior knowledge and understanding of the participants work experiences gained through the course of my years working within the

sector, participants (with whom I had no prior relationship) with extensive sector level experience were selected and approached. The eventual cohort of six was comprised of leaders with extensive experiences in the most senior institutional roles, and as participants in sector level policy committees and working groups. Their willingness to participate, and indeed the interest they expressed in the topic and potential usefulness of it as a thesis, was taken as validation for some of the arguments of policy and practice significance made in chapter one. Again, a level of representativeness was sought from this cohort, seeking coverage of varied institutional types, sizes, and to a degree role within them (though common structures in relation to the most senior positions meant several of them shared former titles as Vice Chancellors). In addition, the choice was made to focus upon a cohort with recent perspective at very senior institutional levels, but who were not currently in those roles. The logic for such a choice being, they could bring more expansive and unconstrained perspectives, somewhat removed from the aforementioned distributional politics which characterises the sector.

Summary information of interview participants is provided in table 3 below. The University of Sydney case study participants are de-identified in keeping with the projects approved approach to ethics and the confidentiality assurances provided to them. University of Sydney participants are thereby illustrated using generic descriptors which demonstrate the features of their positions within the organisation. To aid the analysis, again in ways fitting the need for confidential data capture, storage and presentation, each participant was assigned a label within the range SYD001 to SYD014. For the purposes of attributing quotes throughout the thesis in a way which further ensures confidentiality, however, a generic descriptor has been preferred which draws from the participant feature considered most relevant to the point being made (for example 'Central university participant' or 'Research management participant'). In contrast, names and short biographical descriptions of the experienced sector leaders are provided to demonstrate their credentials and suitability as individuals capable of providing an informed sector-level perspective. In all cases, permission was sought and consent was granted by them for such identification, as well as for the attribution of quotes used in the thesis. The decision to self-transcribe all 12+ hours of interviews enhanced closeness to the data, and greatly aided the analytical process of thinking through in detail their contribution to the research questions.

Table 3: Case study university and experienced sector leader interview participants

University of Sydney - case study interview participants (14)
Total interviewing time: 8.67 hours
(520 minutes, average length 37 minutes, range 27:58mins - 48:42mins)

Participant position within the University:

University level	4
Faculty or centre level	7
School level	3

Position types:

Academic appointment	7
Professional staff	7

Senior leadership (e.g. Deputy or Pro-Vice Chancellor; Dean; Director or senior executive)	5
Research management (e.g. Associate Deans Research; research manager and supporting staff)	9

Broad discipline area:

STEM	5
HASS	5
Neither	4

Experienced sector leader interviews (6) with selected biographical information
Total interview time: 3.4 hours
(204 minutes, average length 34 mins, ranging from 27:18min – 56:23min + one written response)

Professor Glyn Davis AC
- Vice-Chancellor and Principal of the University of Melbourne (2005-2019)
- Vice Chancellor Griffith University (2002-2005);
- Former President Group of Eight;
- Former Chair Universitas 21;
- Co-chair Australia 2020 Summit; Member of the Innovation Taskforce, an expert group commissioned to review Australia's research and innovation systems.

Dr. Gavin Moodie
- Australian higher education sector commentator and author;
- Adjunct Professor, RMIT & University of Toronto;
- 35 years of experience working in Australian universities (including as Principle Policy Advisor – RMIT & Griffith)

Professor Alan Pettigrew FAICD
- Vice-Chancellor and CEO of the University of New England (2006 to 2009)
- Inaugural CEO of the National Health and Medical Research Council (NHMRC) of Australia (2001-2005)
- Senior academic and executive appointments at the Universities of Sydney, Queensland, and New South Wales.

> - Served on many Australian Government and other committees, including the Board of the Australian Universities Quality Agency (AUQA) (2006 – 2010)
>
> **Professor Mary O' Kane AC**
> - Vice-Chancellor & President Univ. of Adelaide (1996 to 2001) DVC Research (1996);
> - Inaugural NSW Chief Scientist (2008);
> - Advisory and consultant services to universities and government (current)
> - Boards and Committees: including Australian Research Council; CSIRO, Panel for the Federal Government's Review of the National Innovation System.
>
> **Emeritus Professor Janice Reid AC**
> - Vice-Chancellor and President of Western Sydney University (1998 to 2013)
> - Pro Vice-Chancellor (Academic) of University of Queensland (1992–1996)
> - Member of Federal Higher Education Council; committees of the National Health and Medical Research Council and the Australian Vice-Chancellors' Committee.
> - Executive of the Academy of Social Sciences in Australia (ASSA)
>
> **Professor Glenn Withers AO**
> - President of the Australian Council of Learned Academies (ACOLA);
> - President of the Academy of the Social Sciences in Australia (ASSA);
> - Founding CEO of Universities Australia;
> - Extensive work in and for government, including as chair of numerous Australian government bodies (as a Professor of Public Policy & Economics).

Importantly, the conduct of interviews, transcription and analysis occurred over the space of several years given part-time PhD candidature along with full-time work. Case study interviews were offered and, in most cases, conducted face-to-face on the campus of Sydney University, at a location of the choosing of the participants. This was in most cases within participant's offices or meeting rooms, however two participants requested interview by phone for reasons of availability and practicality. The interview of experienced sector leaders, however, occurred during the COVID pandemic period. While prior planning had taken place for face-to-face locations, these interviews were conducted via video conference calls (apart from one who preferred to provide written responses). Analytic memos written following these interviews noted that the seniority and experience of these participants, made them appear comfortable and confident in such a virtual setting, and as such no obvious detriment was observed to having to conduct these interviews in such a fashion.

Thematic content analysis is a widely utilised method for analysing data within the social sciences. This research utilised the practical step-by-step guide of Braun and Clarke (2006, 2013), the components of which are shown in figure 5 below. The authors distinguish their approach from others by utilising it as an analytic method instead of a methodology tied to particular epistemological or ontological perspectives. As such, the approach was suitable to each phase of this research as one which was flexible and capable of being applied to a wide range of theoretical perspectives, research questions, and types of data. As well as the data in the form of documents (mission-based compacts and the University of Sydney strategic plan) and interview transcriptions, thematic analysis was applied to analytical memos and field notes taken throughout the term of the thesis, which facilitated the formation of coherent conclusions drawn from the many concepts and ideas which evolved through the course of the research.

Nowell et al (2017) provided approaches to overcoming some of the claimed limitations of content analysis, and for conducting trustworthy thematic analyses that drew from the issues outlined earlier within this chapter around establishing quality and reliability indicators for qualitative research. As suggested by Clarke and Braun (2013), care was taken during write up of the results from the analysis, to avoid characterising themes as 'emerging', as such wording does not adequately reflect the role of the researcher in the generation of themes and new knowledge. On a related note, the term 'participant' was deliberately chosen through this work (an approach borrowed from Simons, 2009), to acknowledge that rather than the collection of information about them, the interviewer and interviewees share the role of knowledge creation.
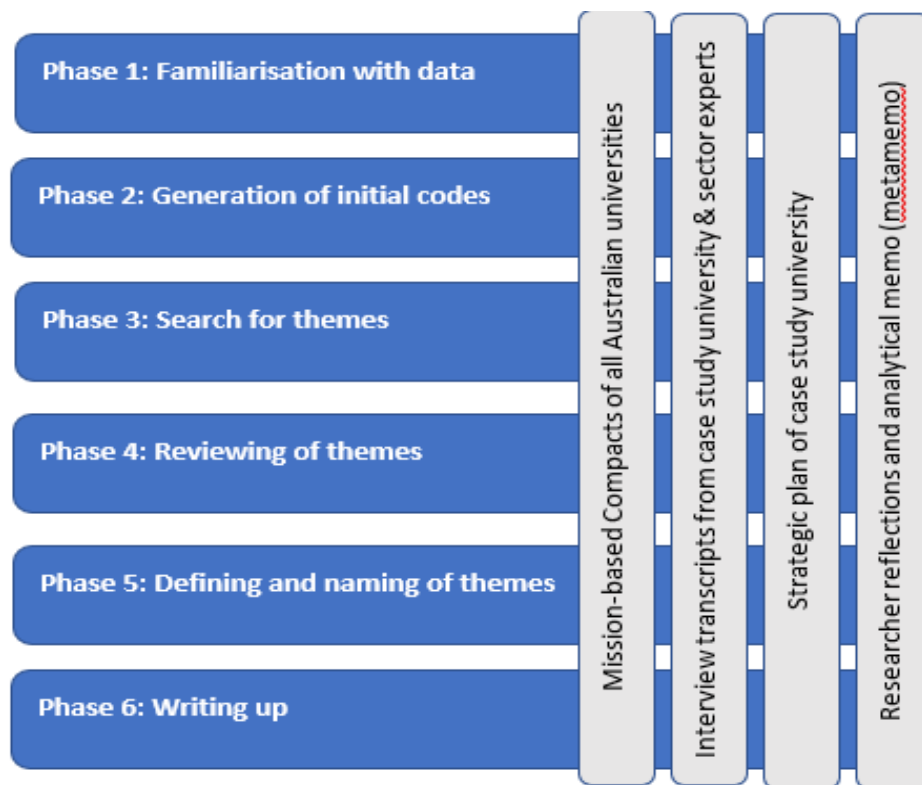
Figure 5: Utilisation of Braun and Clarke's (2006) thematic content analysis phases

The figure shows six phases on blue rounded bars:
- Phase 1: Familiarisation with data
- Phase 2: Generation of initial codes
- Phase 3: Search for themes
- Phase 4: Reviewing of themes
- Phase 5: Defining and naming of themes
- Phase 6: Writing up

Vertical grey bars labelled:
- Mission-based Compacts of all Australian universities
- Interview transcripts from case study university & sector experts
- Strategic plan of case study university
- Researcher reflections and analytical memo (metamemo)

Approach taken to coding

The coding approach selected for this work was based upon the overarching principle of alignment with research questions and conceptual framework. As such, only a very small number of predetermined codes[28] were developed prior to the initial coding stage, representing categories which were considered important to answering the questions at hand and utilising the theoretical framework. Lessons taken from previous research utilising the approach, included O'Connell (2015) and James and Huisman (2009) who both extended codes beyond words to phrases to deal with what can at times be vague abstractions. Care was taken to ensure openness and scepticism were maintained toward codes, and that they were revised freely rather than rigidly adhered to at the expense of issues arising from the documents (Miles & Huberman, 1994; Saldaña, 2009).

---

[28] Predetermined codes for the mission-based compacts analysis were: Global; National; Local; and Institutional Diversity. For the coding of stakeholder interviews, the only additional predetermined codes was 'researcher identified issues' and 'leading questions', which sought to distinguish when I had raised a particular issue/theme in contrast to it having been raised by the interview participant, and when questions from the semi-structured interviews were delivered in what could be seen as leading ways. In both cases these provided useful markers for use during the analysis.

Given the aforementioned structure and context of mission-based compacts, the generic government text was coded along with tailored university response sections. This enabled an analysis of how parameters and expectations were reflected in university responses (or not). In addition, while section five of each mission-based compact specifically covered research and research training, all sections of compacts were coded, conscious that any reduction to particular sections (while potentially allowing for a more manageable and timely analysis) would come with the risk of missing potentially insightful information (Yin, 2011). This approach enabled the capturing of cross references to research relevant aspects, and the incorporation of non-research specific issues which impacted upon more than one of the functions of the university including research. For example, while the 'infrastructure' sections of compacts were intended to cover teaching infrastructure, the mention and relevance to research of the infrastructure described was clear in many responses.

Mission-based compact thematic analysis involved coding and then theme development for the final compact agreements of all 41 universities within the Australian higher education sector, for whom compacts were prepared in the 2014-2016 round. Like many international contexts, Australian universities make use of acronyms in naming themselves or referring to other institutions. To aid ease of reference in cases where these are not familiar, a list of these acronyms or the common shortened naming conventions for all universities has been included in the opening pages of this thesis. Compacts were coded in alphabetical order, with iterative code development resulting in the number of codes evolving and continually increasing throughout the course of the analysis. An overview of the final themes, which are explained in detail through chapters four and five, along with example underpinning codes and illustrative quotes is provided at Appendix E.

After each compact was coded an analytical memo was prepared which documented reflections, new codes added, and notable features (which aided a constant comparative approach as the analysis progressed). A set of key features for each university was also documented, which informed case study decision-making and potential areas for exploration through interviews in the subsequent empirical stage. To appropriately factor in the emerging insights and apply them to earlier cases, a second round of coding was then undertaken on each university compact. As well as supporting the application of a level of consistency to the

analysis, this helped to obviate for the issue coding fatigue, which resulted at various points over a code and theme development process which lasted for many months.

Note on the use of NVIVO software

NVIVO was utilised as both an organising and analytical tool in this research. As well as facilitating the capture and analysis of mission-based compacts and transcriptions of the semi-structured interviews, NVIVO allowed for the housing of additional data in the form of observations and reflections on the research experience captured as field notes within memos (as suggested by Bazeley & Richards, 2000). The software became the central repository for all research data, which served a useful data management function, and provided the capacity to break up and reflect on particular components, codes, themes and in the case of the sector wide materials, universities. The potential downsides of using such software, as described by Bazeley and Richards (2000), include the risk of losing closeness to the data and a macro perspective, that may arise from data compartmentalisation and the over-mechanisation of the process. These were offset by the advantages gained by the flexible data manipulation such as structuring, categorisation, and examination, which the tool facilitated. In part, risks were also managed through regular reflection upon the chosen theoretical framework and its multiple layers.

A further risk for this particular study was the potential influence of the quantifiable measures which are built into many of the design features of this software. As Yin (2011) suggested in his outline of the analytical processes in qualitative studies, "reassembling data by counting frequencies is not an analytic strategy that will result in especially insightful qualitative research" (p. 198). As he went on to explain, however, a variety of approaches are available for overcoming overly mechanistic analysis and for increasing robustness, each of which were considered and utilised (in particular through memoing): (i) constant comparison observing for both similarities and dissimilarities; (ii) negative instance spotting; and (iii) rival thinking, or the consideration of alternative explanations for researcher observations.

Triangulation and the contribution of methods to addressing the research questions

The triangulation of research methods occurred throughout the empirical stages of the research as it progressed. The initial stage compacts analysis informed not only case study

decision making, but also provided a set of broad themes which were explored through the semi-structured interviews. Following the coding of both mission-based compacts, case study interviews and university strategy and analytical memos, codes and themes were compared across the various components, seeking to explore similarities and differences between them. The insights that arose from this exercise were useful for not only the formation of overarching conclusions, but also for helping to identify where there may be gaps. When compared, the complementary nature of these two methods to the overarching theoretical framework was evident, as shown by figure 6, which shows word clouds and coding volumes by each of the layers of the glonacal heuristic.

Figure 6: Word clouds and code volume by glonacal layer – interviews & mission-based compacts
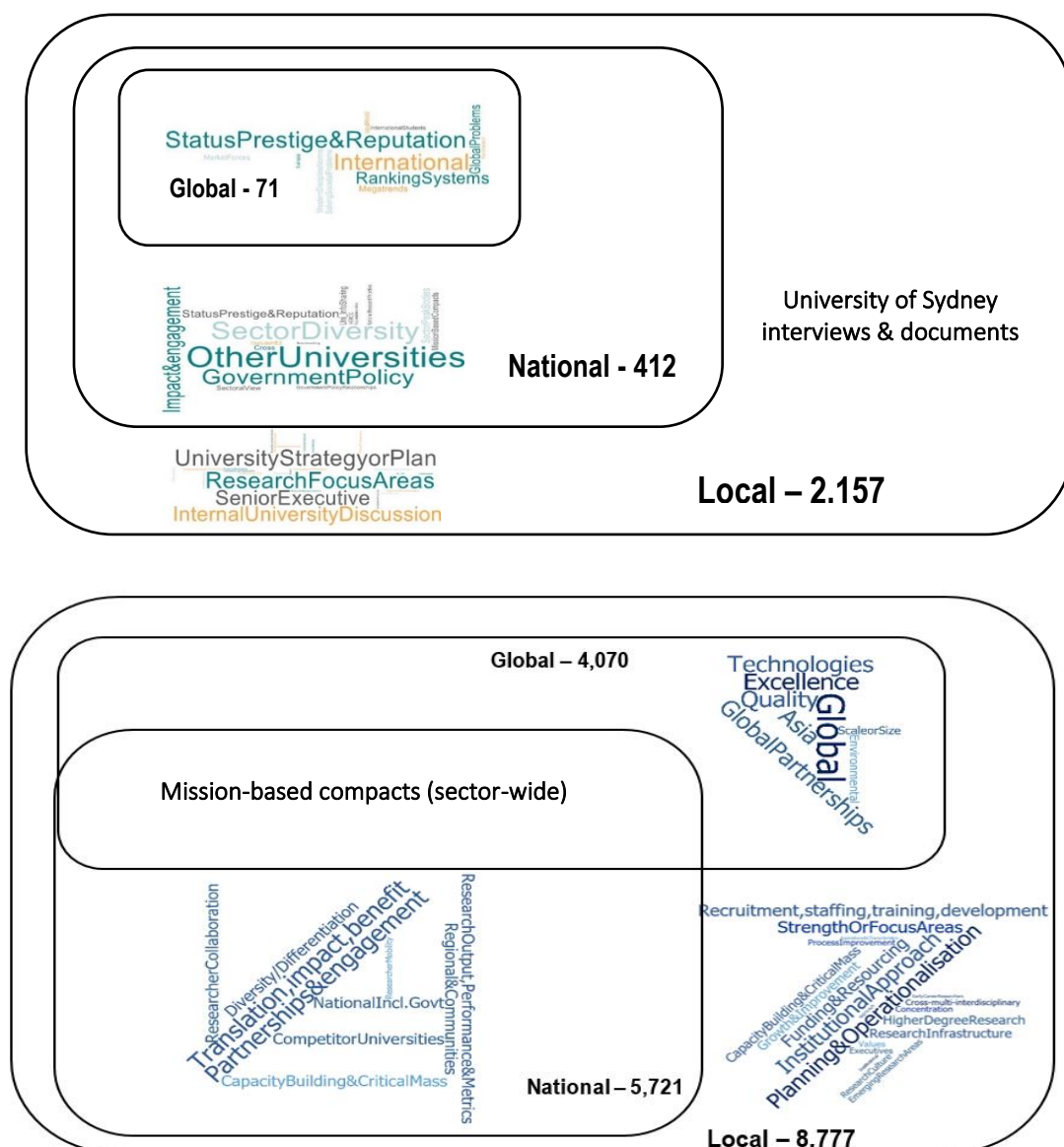
Notable differences were evident in the layers of focus observed in the data, with the case study providing – as might be expected - a greater volume of material related to internal or local-level factors when compared to mission-based compacts where global, national, and regional features were prominent. While useful to demonstrating the complementarity of methods however, and as suggested by Marginson and Rhoades (2000), analysis sought to explore each of the layers not in isolation, or as linear and deterministic, but rather with attention to "the intersections, interactions, [and] mutual determinations of these levels" (p.298). Moreover, the deliberate exploration of similarities and differences between empirical components was particularly beneficial for the research questions seeking to explore the determinants of research strategy development and uncover how the various layers envisaged by the theoretical framework interact.

Finally, following the analysis that combined compacts and the case study, a series of conclusions were formed into propositions, and tested upon sector level leaders capable of applying their own experience and insights at both institutional and broader sector levels. In so doing, an additional analytical component and level of rigour was added to the findings, with particular value found for the third research question related to lessons from the research to sector policy settings, as is outlined in chapter seven.

Chapter conclusion

This thesis's design was carefully and purposively constructed to address research questions identified as gaps within the field, with concomitant practical implications. Commencing with a sector-level thematic document analysis using mission-based compacts, the research sought to draw conclusions relating to the extent of diversity in the research positioning of Australian universities. Building from this initial research stage, a single in-depth case-study was constructed of the University of Sydney, using interviews and documents to provide a rich picture considered complementary to the breadth provided by the sector level insights gained through the document analysis and later sector leader interviews. The capacity for this work to complement existing research and to contribute varied and valuable insights was described as resting in several features of the design which have been outlined within this chapter: (i) a qualitative approach based in a constructivist

epistemology which brought together multiple complementary methods; (ii) application of this approach to *research positioning* as an underexplored area of focus for institutional diversity studies; (iii) through the mechanism of mission-based compacts as a government program designed to stimulate diversity, enabling lessons to be drawn for policy and programs seeking to stimulate institutional diversity; and (iv) through the application of a theoretical framework which sought to harmonise and draw from the strengths of historically polar perspectives, via the application and use of the glonacal agency heuristic.

Chapter 4: The homogeneity of Australian university research positioning

Chapter purpose and outline

This chapter explores the extent to which institutional diversity was evident in Australian universities' research positioning within mission-based compacts covering the 2014-2016 period. Compacts were selected from the array of potential documents through which the diversity of institutional research positioning was explored, as they represented action-based agreements with the express purpose of stimulating diverse institutional configurations and offerings. In addition, compacts provide a logical focal point through which the effects of government policies and programs designed around institutional diversity principles can be evaluated. The chapter provides a basis for responding to the first research question of the thesis which sought to understand the extent of diversity in positioning across the sector. The argument is built through the chapter, that as a sector, Australian universities claim institutional distinctiveness and differentiation using common language, while at the same time their positioning around research converges upon commonalities of approach, aims, and investment. Each of these areas of homogeneity are unpacked and explored, with links drawn between them and to previous research in the field. In addition, the thematic analysis of compacts is used to explain frameworks that appear widely accepted for seeking and indicating status and distinction, and their contribution to institutional homogeneity.

Institutional differentiation and claims of distinctiveness

"Rhetoric about diversity is abundant, especially in university marketing departments of individual universities, which all claim that their institution is unique - while at the same time assuring prospective students that their institution can do everything that its competitors do, only better!"
(Marginson, 1998 pg. 12)

The mission-based compacts of Australian universities show that universities value, and seek to portray, institutional diversity and differentiation. While the extent and form of differentiation statements varied, 40 of the 41 Australian university compact responses included self-characterisations relatable to distinctiveness. The features chosen by universities through which to frame their differentiation statements, as illustrated within

table 4 (page 109), spanned a broad cross section of areas. These cover the various types of diversity defined in prior research, described in chapter two, and also supports the idea that diversity is activity specific (Bliekle, 2001; Skolnik, 1986; Lepori, Huisman & Seeber, 2013; Marginson, 1999b). Areas of focus used to make differentiation statements which were observed across multiple university responses included:

- locational factors (12 universities)
- model or institutional structure or type (9 universities)
- research areas of focus or prominence (9 universities)
- engagement (8 universities)
- values, identity, mission (8 universities)
- profile or status (5 universities)
- specialisation (5 universities)
- size or growth (4 universities)
- indigenous focus (3 universities)

Pertinent for an area of focus for this thesis, nine of the 41 universities made differentiation statements related to the distinctiveness of research discipline areas. For example, Tasmania claimed differentiation via their focus upon research areas related to the environment, tourism, forestry, agriculture, food production, fisheries, aquaculture, and Southern Ocean and Antarctic studies; while UTS focussed upon on their approaches to research which emphasised industry relevance and 'true' cross-disciplinarity, augmented by a technological underpinning across all disciplines.

A common array of terms and language accompanied these proclamations, with university compacts making regular reference to:

- uniqueness (116 references by 35 universities)
- difference (195 references by 29 universities)
- distinctiveness (163 references by 40 universities)
- diversity (613 references by 40 universities, though importantly this included use of term/s in relation to student demographics which was topical at the time).

A feature of institutional compact responses was the lack of references to other universities, indicative of competitive sector dynamics and institutions seeking to present themselves and their activities in positive and unique ways. When compared across the sector, differentiation statements were often observed to be either *contradictory, difficult to assess the veracity of in tangible terms, or seemingly falsifiable by virtue of their extensive use*

across the sector. Such a finding contributed strongly to the overarching conclusion of sector level homogeneity argued herein. Even when exploring the way Australian universities sought to explicitly differentiate themselves, the areas and means by which they claimed distinctiveness were so similar across the board, that claims of difference were themselves demonstrative of sameness.

As well as supporting the contention that institutional diversity may have reached a level of unquestioned orthodoxy, with related concepts having potentially assumed a slogan like status (Neave, 2000), these findings support perspectives suggesting that the articulation of strategic goals may fulfil multiple functions. Mintzberg (1987), for example, separates these into an 'instrumental' set of functions, wherein planned courses of action are outlined, alongside 'institutional' functions which position the institution with regard to their environment. The latter comports with institutional theory perspectives which, as described in chapter three, consider strategic instruments as products of institutional legitimacy seeking (Meyer & Rowan, 1977), with myth and ceremony a means by which this is achieved. Krücken and Meier (2006), describe the result being "mission statements and 'strategies' are often also simply organizational window dressing" (p249). While compacts were chosen, as 'action-oriented' documents with greater potential than other forms of strategic plans and mission statements to extend beyond such superficialities, institutional responses to compacts did demonstrate such features.

As shall be outlined in following chapters, subsequent stages in this research unearthed a relative consensus that compacts were perceived as an exercise with limited utility *for universities*. Viewed and approached as a regulatory requirement, homogeneity of institutional responses thereby may be reflective of institutions prioritising the meeting of the exercise's immediate expectations (and creating a document primarily for government consumption) and providing a very selective reflection of activity. The observation that institutional positioning – even within action oriented documents, such as compacts - may represent crafted narratives in some ways removed from actual activity, creates questions around the appropriateness of using institutional level strategic documents and pronouncements for determinations of institutional diversity, an issue elaborated in chapter six.

The below examples illustrated the contradictory nature of distinctiveness statements, found particularly amongst the sandstone or larger and older Australian universities. The nature of such statements also suggested that as well as meeting government expectations, distinctiveness statements also appeared to reflect the marketing or public relations functions which would be presupposed by institutional theory as a feature of institution-level strategic plans:

- UQ claimed a distinctive structure based on research institutes and large research centres complementing a faculty structure, which resembles the approaches taken by a range of others such as UWS, UWA, USQ, Melbourne, Griffith, Newcastle, Adelaide, and RMIT;

- Adelaide, in seeking to "*become by 2024 no less than Australia's most distinctive university [via the] opportunity for at least one Australian university to become a model of the teaching/research union, to show how universities can recapture what was once the defining characteristic of the research university*" (Adelaide, p.7)*,* claimed to distinctively embrace the ideal of the research and teaching nexus, which is also found in 36 other university responses;

- Monash claimed that they "*will be differentiated from our peers by a genuine focus on "real world" engagement and on achieving impact through research relevance and excellence*" (Monash, p.38), while UNSW claim that a "*distinctive feature of UNSW's research profile is end-user-focused research*" (UNSW, p.20), an approach which was prevalent among many other university responses (as shall be discussed); and

- ANU labelling themselves the "*Commonwealth's university in the nation's capital*" (ANU, p.8), despite the existence of at least three others in the same city (UC, ACU, and UNSW ADFA).

Melbourne College of Divinity provided an illustrative example of Skolnik's (1986) suggestion that diversity and convergence can exist side by side within and across institutions. Evident also in this example, was the straddling of compliance and normative expectations around strategic goals, with differentiation which serves branding or competitive functions (cf. Kosmützky & Krücken, 2015; Fumasoli & Huisman, 2013; Hartley & Morphew, 2008). As Australia's only private specialist institution, the Divinity compact demonstrated uniqueness both in focussed discipline terms, operating in one broad field (philosophy and religious studies), and by way of a collegiate partnership structure with funding to the institution provided predominantly by (religious) partner organisations. However, these differentiators existed alongside stated aspirations that mirror those common across the entire sector

(outlined through the remainder of this chapter), such as the pursuit of status and excellence, national and international engagement, increased research capacity, productivity, and financial viability.

The observed similarity of the positioning of an institution such as Divinity (established as a university in 2012) to the rest of the sector also provides a counterpoint to the suggestion that younger and lower status institutions have greater leeway than more established institutions to deviate from accepted images and norms (Huisman & Mampaey, 2018; Deephouse & Suchman, 2008). Rather than incentivising niche seeking behaviours, this analysis supports the idea that competitive markets potentially act in ways counterproductive to diversity: (i) within a sector driven by status and reputation seeking (van Vught, 2008); (ii) where leading institutions are 'market immune' and there is an absence of free upward and downward movement (Marginson, 1998); (iii) where competitive behaviours manifest as the emulation of successful proxies, or in similar responses to market stimuli (Codling & Meek, 2006; Meek, 2000; Meek et al., 1996; Rossi, 2009a; Zha, 2008); and (iv) as institutional autonomy is restricted within a small range of viable activities (particularly relevant to the context of compacts which are a structured and standardised program applied to all universities):

> Market competition is strongly associated with isomorphism in management strategy [...] On the face of it, it might seem surprising that new universities do not attempt something radically different, for example in research. There is no real prospect that the adoption of isomorphistic strategies can overcome their historic disadvantages. Why then do new universities use imitating strategies? It is because in a market, emulation, rather than originality, is the quicker route to legitimacy and to a limited kind of success
> (Marginson 1999, p 16)

The universal signalling of difference within compact responses directly mirrored the background and instructional content provided by the Commonwealth in all mission-based compacts, which spoke at several points of the distinctiveness of institutions. Statements such as "The compact recognises the University is an autonomous institution with a distinctive mission" ('The Purpose and Effect of this Compact' section of every mission-based compact, pg. 4) framed the expectations that university responses to compacts would demonstrate difference, albeit in largely undefined ways. The breadth of approaches taken to seemingly meet such a generic expectation were clear in the aforementioned comparison of areas of

differentiation drawn from table 4. While their were multiple means of expressing differentiation, claiming difference was ubiquitous across the sector, with only a single exception (UWA) found without any example. Such a finding supports the conclusions of Bowl (2018), who discovered that a discourse of 'distinctiveness' was employed across the board by universities in New Zealand, which "speaks directly to national policy which requires universities to specify their distinctive contribution to the tertiary sector" (p.681). Identifying the determinants of such a pervasive trend based on document analysis alone is limited, however, and thus was further explored and triangulated with subsequent empirical stages. Doing so added nuance to the finding, for example demonstrating the role of competitive resource seeking in driving the search for - and such a portrayal of – distinction, as is discussed in later chapters.

University	Areas of differentiation	Example(s) extracted from mission-based compacts
Australian Catholic University (ACU)	Values, history, and growth.	"The Australian Catholic University (ACU) has a distinctive history and mission […] a modern institution and one which has its roots in the earliest days of Catholic post-secondary education in Australia […] It is also the fastest growing university in the country and the largest English-speaking Catholic university in the world".
Australian National University (ANU)	Locational and engagement.	"The University's location in Canberra, its proximity to the Commonwealth legislative, executive, judicial institutions, and national cultural and scientific bodies, our focus on public policy, and our provision of training and education of a broad range of public servants means that ANU will be a unique resource and partner of real substance for government and parliament".
Batchelor Institute	Specialisation, identity, and values	"Batchelor Institute has a unique place in education in Australia"; "Batchelor Institute possesses characteristics which weave together to define its unique identity [as a dual sector institution specialising in indigenous education] and contribute to its sustainability".
Bond University	Business model	"Bond University's mission statement captures our unique function within the Australian higher education sector. Bond is Australia's only truly private, non-profit and independent university".
Central Queensland University (CQU)	Values and constituents	"CQUniversity will be an inclusive university [...] rather than a university which defines its success on its elitism and exclusivity […] CQUniversity's student composition is distinguished from others by having more mature-age students, more first-in-family students, more Indigenous students, more low socio-economic students, more regional/remote students, a higher proportion of international students from Asian countries, and more distance-education students than the norm for an Australian university"
Charles Darwin University (CDU)	Profile, engagement, locational and model.	"Advance research strengths while also identifying new and emerging research priorities that focus on the unique and complex needs of regional Australia, and the Asia-Pacific region"; "multi-campus, multi-sector tertiary institution characterised by a uniquely high level of community"
Charles Sturt University (CSU)	Delivery model	"The University is currently designing and will pilot in 2013 its distinctive model of Curriculum, Learning and Teaching with collaborative and multi-disciplinary course-level curriculum design and review informed by discipline-based research to ensure currency of curricula and resources".
Curtin University	Research areas and engagement	"Curtin is currently developing its 2013-2017 Research Enabling Plan which will provide a framework to guide the University towards growing and improving its research outcomes and industry engagement. The plan will address the broad issues of research differentiation, research capacity building and research translation/knowledge transfer".

Table 4: Self-identified areas of institutional differentiation by every Australian university

Deakin University	Research strengths and technology focus	"Deakin's strategic plan aims to make Deakin Australia's premier university in driving the digital frontier [...] to make a difference through world-class innovation and research and to be internationally recognised for its unique research strengths, research collaborations and commitment to excellence in research training"
Edith Cowan University (ECU)	Engagement and mission	"The University has a comprehensive approach to embedding engagement in its teaching and research, and was commended by the Tertiary Education Quality and Standards Agency (TEQSA) in its June 2012 audit report for its distinctive engagement strategy; "ensuring an institution-wide understanding of its strategic direction, which charts a distinctive mission for the University, attuned to the needs of the communities it serves."
Flinders University	Research areas	"Distinctive Research" as an (undefined) overarching goal, described as a focus upon "those who are research active or have the potential to be, and on high quality, targeted and collaborative research and research training that makes a difference".
Griffith University	Regional and indigenous engagement	"We were the first Australian university to develop and offer a degree in Modern Asian Studies and many of our discipline areas are heavily engaged in Asia-relevant research". "The establishment of the Griffith Elders-in-Residence program in 2002 generated a new era of Aboriginal and Torres Strait Islander participation in higher education, creating a model which has been duplicated in other Australian universities"
James Cook University (JCU)	Focus, profile and locational.	"Our ambition is to create a resilient and sustainable university that is unique in the Australian higher education setting [...] Our research performance is inspired by the "power of place" and the strategic commitment to a tropical agenda has generally served the University well in providing a distinctive institutional profile".
La Trobe University	Locational, foundational, and engagement.	"La Trobe was the third university created for Victoria, and was established to be complementary to, but different from, the other two [...] aims to be distinctive for the quality and depth of the external partnerships that improve the University's responsiveness to community and partner needs"; "La Trobe has a unique role to play in productivity and innovation, including knowledge transfer and commercialisation. We act as a major leader in Melbourne's north and in regional communities and play an increasingly central role in the economic well-being and social vibrancy of those regions"
Macquarie University	Procedural and student pathway	"one of only three Australian universities participating in Easy Access IP"; "Macquarie's Australian first, Master of Research program based on the Bologna model of research training"
Melbourne College of Divinity (Divinity)	Institutional type and specialisation	"MCD University of Divinity is unique in Australia: it is the only Australian University of Specialisation on the National Register, and it is the only collegiate university in Australia."

Monash University	Size and engagement	"Monash University is the largest university in Australia, with over 63,000 students in 2012 [...] We will be differentiated from our peers by a genuine focus on "real world" engagement and on achieving impact through research relevance and excellence"
Murdoch University	Teaching and learning model, and collaborative health research	"A key point of differentiation for Murdoch in a competitive higher education sector is its holistic, student-centred approach to teaching and learning"; "The range of translational research projects will be developed by looking at the local environment and how research might have an impact on the community, including business, industry, and the broader population. These collaborative projects will add depth to the defined research domains, particularly through the unique research opportunities provided by the establishment of a collocated Health Precinct in areas such as health, biomedicine and related areas including bioinformatics."
Queensland University of Technology (QUT)	Specialisation	"focus on developing critical mass and infrastructure in areas where it has a comparative advantage or unique domain knowledge ".
Royal Melbourne Institute of Technology (RMIT)	Specialisation and collaborative approach	"RMIT's strong reputation for design excellence and innovation is central to our identity"; "While we will continue to support 'investigator-driven' research, our unique capacities and our strong relationships with research partners enable us to work collaboratively to develop new ways of understanding and innovations in technology and practice".
Swinburne University	Engagement approach and locational	"We wish to be known as the most user-friendly and connected university in Australia"; "Swinburne is one of the most densely populated universities in Australia, with 8.1 sqm gross floor area (GFA) per EFTSL compared with a national sector average of 13.0 sqm GFA per EFTSL".
Southern Cross University (SCU)	Locational	"As a regional university SCU is uniquely placed amongst its peers in that it is relatively close to major population centres that are growing and evolving".
University of Adelaide	Approach and research-teaching nexus	"there is thus an opportunity for at least one Australian university to become a model of the teaching/research union, to show how universities can recapture what was once the defining characteristic of the research university [...] subjects that flourish effectively without a research basis may increasingly be left to other institutions with different missions".
University of Ballarat/Federation University	Institutional type	"Founded in 1870 as the School of Mines Ballarat, the University of Ballarat is the third oldest centre for higher learning in Australia. It is Australia's only regional multi-sector university".
University of Canberra (UC)	Type and history	"we were the first CAE in the country and a pioneer of professional polytechnic education. In 1990 we were the only CAE to be re-created as a university, without mergers or restructures, as part of national reforms".
University of Melbourne	Positional status and curriculum approach	"The University of Melbourne is committed to remaining a globally engaged, comprehensive research-intensive university uniquely positioned to contribute to the major social, economic and environmental challenges facing humankind. The University's comprehensive research base is the foundation on which diverse and innovative research outcomes are able to

		be realised in partnership with government, industry and community organisations"; "The Melbourne curriculum provides students with a uniquely Melbourne experience that reflects a well-established international trend in higher education in the US, Europe and increasingly across Asia".
University of New England (UNE)	HDR distinction and selective research investment	"UNE was the only university within Australia to score 100% across 32 indicators in an independent study conducted by the Australian Council of Postgraduate Associations"; "UNE's strategic focus on strongly investing in and enhancing distinct research priority areas".
University of New South Wales (UNSW)	Identity, focus and status	"Australia's most cosmopolitan university"; "The University of New South Wales was established in 1949 to teach and conduct leading research in scientific, technological, and professional disciplines. UNSW is distinctive in that it is the only Australian research intensive university established with this unique focus, modelled on universities such as MIT in the USA and European technical universities".
University of Newcastle	Locational scale and staff development	"distinctive in the Australian higher education sector as the most research-intensive university outside a capital city"; "distinctive UoN career development process that is sector-leading and provides a competitive advantage".
University of Notre Dame	Type, values, and locational	"Notre Dame identifies itself as 'private' because it was not 'created' by the state and is not 'owned' by the state […] prides itself on being a "town University", the only one of its kind in Australia"; "The development goals of Notre Dame will be shared with wide sections of the community in seeking to establish new opportunities and greater levels of funding. These include community groups, Industry, Church and private benefactors committed to the unique place Notre Dame holds within the Australian tertiary education sector".
University of Queensland (UQ)	Approach and structure	"The UQ Career Advantage PhD program is unique in Australia, and responds to the diverse career paths of the PhD cohort"; [Distinctive structure (research institutes and large research centres that complement its faculty structure)] "At UQ, no single [ERA] Field of Research (FOR) is based solely on contributions from a single faculty or institute".
University of South Australia (UniSA)	Indigenous focus	"UniSA will take meaningful steps within its Reconciliation Action Plan to strengthen its position as the University of Choice for Aboriginal and Torres Strait Islander people in South Australia and beyond".
University of Southern Queensland (USQ)	Brand recognition	"Through the period of this compact USQ will significantly raise its public profile and grow in confidence as a university whose mission and culture puts it fully in tune with the needs of 21st century Australian society. This will be evident in our lobbying, our media presence, and our overall brand awareness. We will be well known as a challenger brand across the sector".
University of the Sunshine Coast	Research focus and indigenous model	"strong and unique research capabilities in forestry"; "USC also delivers a collaborative model for Indigenous student success that is distinctively different to other tertiary providers"

University of Sydney	Age/history, mission, and approach	"As Australia's first university, we have been shaped by and have helped to shape our national story and identity for more than 160 years"; "Indigenous culture is fundamental to our identity as a uniquely Australian institution"; "largest and most ambitious fundraising campaign ever seen in the Australian tertiary sector"
University of Tasmania	Locational	"distinctive in its specialisations and that reflects our Tasmanian character"; [Research clusters and partnership in multi-disciplinary areas] "of unique advantage to Tasmania"; "a business development strategy for the University specifically targeting Tasmania's unique advantages (environment, tourism, forestry, agriculture and food production, fisheries and aquaculture, Southern Ocean and Antarctic studies, population-based research, amongst others)."
University of Technology Sydney (UTS)	Mission and research focus	"UTS is one of Australia's leading universities of technology, with a distinctive mission and model of learning, strong research performance and a reputation for leadership in engagement with industry and the professions"; "In 2010 UTS implemented a revitalised systematic research strategy which focuses effort on: building existing research strengths, further developing areas of differentiation (i.e. industry relevance / impact; true cross disciplinarily), augmenting unique UTS characteristics (i.e. a technological underpinning across all disciplines)".
University of Western Australia (UWA)	*None*	None (distinctive in this regard)
University of Western Sydney (UWS)	Functional mission and locational	"UWS has a distinct legislative charter encapsulated in its mission statement: To be a university of international standing and outlook, achieving excellence through scholarship, teaching, learning, research and service to its regional, national and international communities, beginning with the people of Greater Western Sydney".
University of Wollongong	Locational and engagement	"The first regional University to do so, UOW has joined the Easy Access IP network. By promoting accessible knowledge exchange it will ensure UOW's work and discoveries lead to improvements in the lives of people and their communities"
Victoria University	Specialisation	"Our international reputation will be based on inter-disciplinary, applied and translational research focused in our areas of distinctive specialisation [linked to] distinct and differentiated industry and community engagement services"; "In developing distinct and differentiated industry and community engagement services, VU will focus on knowledge exchange opportunities that align with VU's distinctive specialisations and research strengths"; "These clusters of distinctive specialisations include: Sport, Active Living and Health; Sustainable, Liveable and Creative Cities; and, Education and Lifelong Learning"; "to be nationally and in some cases world-renowned in our areas of distinctive specialisation (firstly in the field of Sport, Active Living and Health)".

Areas of sector-level homogeneity

While Australian universities characterised themselves within mission-based compacts in terms of distinctiveness and differentiation, the analysis demonstrated clear homogeneity of research positioning into a limited and common set of themes. Observed across the sector were institutional aims, approaches, and investment into (i) research strengths and areas of concentration or focus (often collaborative and interdisciplinary, and seeking to address external environmental issues or problems, commonly in the areas of health and medicine); (ii) the seeking of improvement and status, or what was termed 'organisational mobility' by Morphew, Fumasoli and Stensaker (2016), which in some cases was framed in generic undefined terms (such as excellence or global standing), and others through external indicators (such as the Excellence in Research for Australia (ERA) exercise); and (iii) external partnerships and collaboration in particular with organisations outside of higher education, with the stated purpose of diversifying sources of funding and undertaking research with impact and broader benefit.

Research strengths, concentration, and focus areas

Universities described their research areas within compacts at varying levels of specificity. The nature of references ranged from narrow discipline - and even project-specific - detail to broader cross-institutional thematic constructs. Apart from sections related to the ERA exercise, where universities were explicitly asked to select fields of research (FoRs) for future improvement, compact structure and guidance texts did not specify a particular set of parameters for such details. Despite this flexibility, the concentration of research effort was evident in various forms throughout compact responses, expressed commonly through areas of research focus or as part of existing or emerging areas of research strength. Such concentrations were often explained by virtue of their contribution to a broader set of goals, such as the encouragement of collaboration, the addressing of themes usually expressed in the form of wider social issues, or aims for status and international benchmarks. In addition, concentration rationales were often framed in the context of limited resources, which necessitated strategic choice. The operationalisation of concentrations appeared to come via the alignment of effort and investment of both financial resources and people, into particular research areas.

Unexpectedly, the decision to focus or concentrate into particular areas was not solely the domain of smaller universities attempting to find ways to compete at scale. Larger universities such as ANU, UWA and Monash also chose to concentrate on particular areas when it came to research, ANU even noting that the "chief characteristics of research at ANU are its focus, concentration and quality" (ANU, p.7).

The achievement or strengthening of status through selective concentration appeared a common means by which universities directed their positioning toward the widespread goal of international recognition or a world standard (themes in their own right, to be discussed). For example: UNE pursued "international distinction in all its specialist areas of research" (UNE, p.35); UTS sought to balance breadth with targeted focus, aiming to be in the top echelon of Australian universities and a world leader in its areas of specialisation; VU's "international reputation will be based on inter-disciplinary, applied and translational research focused in our areas of distinctive specialisation" (VU, p.10); and at UWS, consolidation and focus was the stated means of achieving excellence and competitiveness in terms of world standing. A notable feature of concentrations was their relationship to global problems or challenges, which provided a framework for collaboration and interdisciplinary approaches (discussed as a standalone theme below).

Along with status and distinction rationales, a variety of additional justifications were offered within university responses. These included those with a basis in internal factors, such as La Trobe, UniSA and USQ, who spoke in terms of bottom-up design and maximising participation; those speaking of competitive advantage such as USQ and QUT; and others such as Notre Dame and USC driven by the necessity of limited funding. Indicative of additional externally focussed rationales was the suggestion by QUT that environmental challenges provide "an imperative to selectively concentrate areas of research investment" (QUT, p.7) and focus research "in areas of research strength and emerging priority areas (driven by international, national and state priorities)" (QUT, p.16).

The concepts of research concentration and focus were variously linked with the ideas of 'critical mass' (Ballarat, UWS, Flinders, and QUT), and even more strongly to 'capacity building' (Batchelor, Murdoch, Deakin, Swinburne, Newcastle, Notre Dame, USQ, USC, CSU,

Victoria, Edith Cowan, Macquarie, and Monash). Some of the perceived benefits of these ideals were illustrated within the ACU response:

> Greater critical mass provides the collegiality, interactions, team projects, and breadth of approach that drive much high quality research and will also provide a strong research environment for research higher degree candidates. ACU will acquire the capacity for research on a larger scale (ACU, p.37)

Concentration and focus decisions appeared to be made by several universities based on performance measures such as ERA, which provided a commonly used mechanism for the evaluation of areas of research strength (and on occasion though less frequently, areas for improvement). Internal investment decisions appeared to be made based on such assessments, including, for example, the concentrated recruitment of HDR students into areas of strength or focus (Notre Dame, UWS, USQ, CDU, Edith Cowan, SCU, and USC), or the allocation of funding and resources such as recruitment and infrastructure (Deakin, UWS, UTS, UNE, USQ, Tasmania).

Universities went further to link concentration, and capacity or critical mass building, to improved quality and excellence of outcomes. For example: Bond outlined a belief that "world class research requires significant resourcing and a scale of activity to achieve excellence" (Bond, p.9); ANU decided to "focus resources in core disciplines to ensure true excellence" (ANU, p.34); and USQ contended that a "fundamental component of obtaining excellence is focus" (USQ, p.48). While the genesis of these ideas was not described, they were also observed in government rationales which preceded the program, which spoke of insufficient scale in national research capacity:

> Australia lacks internationally competitive scale capability, both in the capacity of research infrastructure and the critical mass of expertise. Lack of sufficient concentration puts Australia increasingly behind our competitors (Macklin, 2006)

Comprehensiveness, the counter construct to concentration and focus, was less evident throughout university responses *related to research*. Such a finding contrasted with suggestions – at times seemingly not empirically based (cf. Commonwealth, 2002) - that the common aspiration towards comprehensiveness was a national problem needing to be addressed. Where comprehensiveness did appear in relation to research, it was at times used within somewhat contradictory statements, such as those of James Cook who aimed to be

'comprehensive but focussed' or UWA, who sought to be 'selective within a comprehensive base'. UWS outlined an approach to both concentration in the form of centres, coupled with faculty based breadth: "While maintaining the policy of Selectivity and Concentration in the research centres, broader research in the Schools has to be maintained to provide a pipeline of concentrations for the future" (UWS, p.44). Taken together, these observations suggest that comprehensiveness as a strategic approach may relate more to the education offerings of universities, where the maximisation of choice to students within a competitive marketplace underlies its appeal. Professor Alan Pettigrew, the former UNE Vice Chancellor explained that as an institution which commenced as a college of the University of Sydney, historical, social, and locational factors were a fundamental driver of such a trend, applicable to regional institutions more broadly:

> Universities are still pulling on the comprehensiveness lever, they want to be everything to everybody in their own area - and I'm talking regionals there – but they still want to be offering something for their local population to get to, so each university has to be reasonably comprehensive (Professor Alan Pettigrew, interview)

The University of Sydney provided one of the few examples which spoke in terms of breadth and depth, and more directly of research comprehensiveness. Even in that case, however, the observed investment approach indicated focus at a local level via "distribution to faculties through the compact process in order to build or focus excellence in agreed priority areas, including potential emerging strengths" (USYD, p.38). Only one university felt the need to justify the reasons for lack of research comprehensiveness: "The University of Canberra is a small university by national and international standards. Therefore it cannot and indeed should not aim to develop a comprehensive research portfolio" (UC, p.35). It appears likely, when coupled with funding and resourcing issues (to be detailed in chapter five) that Australian universities held a shared view that funding constraints limit research capacities, with a common response to this being selective research investment, focus and concentrations.

Health and medical research

Research discipline areas were not described in uniform ways within compact responses, aside from the widespread use of thematic and inter-disciplinary constructs. Despite this, research related to the broad fields of health and medicine was a prominent

theme which emerged from the analysis of compacts. Investments into health and medical related infrastructure, and the support of related organisational structures, was a feature across all institutional types. The scale of efforts ranged from large infrastructure, such as: the hospitals found at Macquarie, UC, and USC; a $40M biomedical facility at UniSA; a flagship Health Translation Precinct at Monash; centres and medical research institutes; and a wide array of related research strength and focus areas (Deakin, Newcastle, UWS, USC, Victoria, Wollongong, CQU). Recruitment was also a notable aspect of these efforts, exemplified by Wollongong heralding appointment of a Pro-Vice Chancellor (Health and Medical Research).

Analysis of the ERA related components of compacts supported this conclusion. Compacts made voluminous references to ERA, an exercise that has assessed the 'excellence' of fields of research that meets research volume thresholds at Australian universities (against international benchmarks) periodically since 2012. The Commonwealth compacts template included a standardised expectation that all universities select particular fields of research for which a commitment to improvement would be made[29]. Exploring these commitments, health and medical areas were the most prominent at both a two- and four-digit level (these levels broadly reflecting a hierarchy of specificity, with two-digit codes covering an overarching field – such as medicine and health sciences – and four-digit codes more granular discipline areas within them – such as nursing). This finding supports the findings of previous analyses of the data from the first two ERA exercises, which showed that 39 of 40 universities submitted in the health and medical disciplines, making them the most popular fields for submission across the sector (Larkins, 2013a, 2013b). Table 5 below shows the most common areas committed for improvement in 2014-2016 compacts, also noting the most prominent university type for each (using the typology found in Appendix B). It demonstrates that improvement in health and medical research was a particular feature of newer universities

---

[29] The extent of compliance with this requirement did vary, including across institutional types and fields of research. A number of universities did not commit to the improvement of particular fields, including three of the sandstones, two new, one unitech and two gumtrees. The average number of commitments to improve by institutional type were: new institutions on average committed to improve 6.8 - 2 and 4 digit areas (56% of all commitments), gumtrees 4.67 (20% of all commitments), sandstones 3.44 (15% of all commitments), and unitechs 3.16 (9% of all commitments). 64 of the 157 (41%) four digits codes had commitments to improve. 20 of the 22 (91%) two digits had commitments to improve (see below health and medical theme for additional analysis).

(though overall they committed to improving a much higher proportion of areas than other institutional types - 46).

Table 5: ERA fields of research committed for improvement within mission-based compacts

Top five by two digit Field of Research Code	Number of universities (*prominent type)
11 – Medical and Health Sciences	12 (7 new universities*)
13 – Education	8 (5 new*)
01 – Mathematical Sciences	6 (3 gumtrees*)
05 – Environmental Sciences	6 (4 new*)
09 – Engineering	6 (3 new*)
17 – Psychology and Cognitive Sciences	6 (3 new*)
Top five by four digit Field of Research Code	**Number of universities**
1701 – Psychology	7 (4 new*)
1503 – Business and Management	7 (5 new*)
1110 – Nursing	5 (3 new*)
1117 – Public Health and Health Services	5 (4 new*)
1301 – Education Systems	5 (4 new*)

The search for absent cases to challenge this observation acted to reinforce the finding, with health and medical research areas mentioned in every compact response (in the form of research areas of focus, strengths, or institutional structures), except for Divinity and the ANU. The latter appeared to be a peculiarity of the compact response – which lacked discipline specificity – given that *"ANU prides itself on its international reputation for health and medical sciences research"[30]*. Even a university such as RMIT, with a clear focus upon design and technology, identified 'health solutions' as one of its seven chosen high impact research areas. Within this broad trend, however, attempts were made by universities to distinguish their health and medical research at a more granular level, for example at QUT who sought to:

---

[30] Sourced from ANU website dedicated to their six current research priority areas, one of which is health and medicine - http://www.anu.edu.au/research/our-research/health-medicine

Distinguish our health research by a focus on prevention and the use of technology for better health outcomes. In particular, aim to be a national research leader in areas of nursing, wound healing, optometry, prostate cancer, and biomedical engineering (QUT, p.8)

In exploring the documents for determinants and the dynamics influencing a trend toward focus upon health and medical research, a variety of internal and external factors were uncovered. Factors of a national nature included a *Strategic Review of Health and Medical Research in Australia,* and frequently cited health outcome and workforce needs tied to national population demographics (which also included a distinct regional layer, to be further discussed). Distinguishing institutional level drivers and motivations which may be disguised by externally directed claims was not straightforward. However, UniSA in establishing their biomedical facility and a School of Population Health made note of huge student enrolment demand and increases in the area they sought to cater to (alongside state and national needs). Similarly, Adelaide pointed out that given workforce shortages "The majority of the University's growth over the last decade has been in Health Sciences (Nursing, Dentistry and Medicine) and Engineering" (Adelaide, p.20). A common focus upon health and medical research, therefore, appeared to reflect environmental drivers and needs, whereby societies seek and value research with health outcomes, and student demand reflects areas of perceived continuing future workforce and social needs.

These findings resonate with Morphew et al. (2015) 's observations, who noted, applying ideas of academic capitalism in the United States context, that university strategies favoured resource reallocation to areas that were most tightly coupled with external markets. Similarly, Hazelkorn (2009b) observed convergence in the early 1990s toward Law and MBAs and theorised that they may have been based in the financial incentives provided for universities to assume such a focus. In the Australian setting, Mahat and Goedegebuure (2016) observed the extent of funding in this area, suggesting that "In Australia, some faculties of medicine have annual revenues larger than some universities, or larger than all other faculties put together within their university". This idea was echoed in the perspectives of the experienced sector leaders interviewed at a later stage, who saw alignment between an increasing focus upon medical research, and the access to funding it affords. This was both by way of meeting student demands and research funding (access to which they collectively agreed could be improved via agreements with medical research institutes (MRIs)):

More than half the research money available, the entire research money available in Australia, goes to medicine. More than half....so why wouldn't you be? It's the ice-cream seller's principle. You'd be a mug not to be in medicine (Professor Glyn Davis, interview)

In the 90's the major universities, one of which in another state I knew quite well, aware that federal grants and research output were the key source of infrastructure funding and competitive advantage were looking longingly at the NHMRC funded research productivity of the MRIs [...] Melbourne, of course, has the Doherty, the Burnett, WEHI, the Baker, the Florey and other outstanding MRIs which gave the University an early advantage. Sydney and Brisbane and the other capitals had their own medical research enterprises but not on the same scale (Emeritus Professor Janice Reid, interview)

While not directly observed within compact responses, Hazelkorn's work exploring the effect of institutional ranking systems also aligns, with the clear link made between ranking performance and the existence of medical schools or discipline focus in the bio-sciences. In similar ways, a relationship to status (coupled with funding) was pointed out by Emeritus Professor Janice Reid: "a medical school by virtue of its specialties and sub-disciplines, and its laboratory-based and clinical research will get any university in the front door of an exclusive club and this is not lost on the sector" (interview).

Collaborative & multi-disciplinary approaches

Collaboration is a central feature of the university research setting said to occur autonomously at the level of researchers (Fumasoli & Huisman, 2013), despite policy and funding frameworks having historically stimulated competition at its expense (Commonwealth, 2002). Compacts analysis supported the notion that shared effort in research appears to be a significant feature of research positioning across the sector. Moreover, it manifest at multiple levels, from project-level collaborations to cross-and-multi institutional research partnerships spanning national and international boundaries. Collective efforts were also observed at the level of institutional groupings, for example, Vice Chancellors of the Regional Universities Network (RUN) agreeing and signing a multi-lateral accord focussed upon enhancing research collaboration. In these ways, collaboration in research effort appears to confound institutional boundaries that do not offer a neat and contained setting in which research in particular areas occurs.

Distinguishing the underlying aims behind collaboration was aided by exploring the relationships this theme showed to others that arose from the analysis. These relationships

reflected rationales found within the literature which describe the perceived benefits of collaborative research, neatly summarised by Katz and Martin (1997) as related to:

(i) changing funding arrangements and demands for rationalisation ("Expanding local and international collaborations will also expand mechanisms for supporting research that make the University resilient to external funding policy changes and adaptable to national and global needs" (Murdoch, p.38));

(ii) status-seeking ("collaborations with world-leading scholars and universities and raise the University's profile among the global research community" (Murdoch, p.23)); and

(iii) increasingly complex and expensive instrumentation requirements ("With the huge cost of research infrastructure necessary to addressing many of today's major research problems, no university can work alone" (Adelaide, p.10)).

In addition, the increasing complexity of social problems or what were regularly phrased as 'grand challenges', have been suggested as necessitating interactions which cross disciplines ("bringing disciplines together to address the key issues of our time" (Griffith, p.7)), institutions and national boundaries (Aydinoglu, Allard, & Mitchell, 2016), creating a 'fourth age of research, driven by international collaboration between elite research groups' (Adams, 2013). Here the analysis also supported Fumasoli and Stensaker's (2016) similar observation in the North American and Northern European settings that collaborative and multi-disciplinary partnerships were often linked to solving complex and global level challenges.

Like those previously outlined, this theme showed strong connections to funding and resourcing, outlined in greater detail in chapter five. For example, several universities outlined dedicated internal investments to incentivise multi-disciplinary work, seen here at the universities of Sydney and Adelaide:

> To have visible impact in addressing the complex problems facing our nation and the world, we must harness our disciplinary expertise by providing structures and incentives for cross-disciplinary research (Sydney, p.38)

> A central Interdisciplinary Research Investment Fund will be established, to facilitate nimble and adaptive responses across discipline boundaries to emerging social, economic and environmental questions of high public importance both to our region and internationally

Governments also provided financial incentives to stimulate collaborative activity. This included Collaborative Research Network (CRN) funding which was provided to smaller and regional universities to stimulate partnership with larger research-intensive universities. In addition, Commonwealth schemes which were given ample attention within compact responses included ARC Linkage Projects funding, Cooperative Research Centres (CRCs), Industrial Transformation Hubs, and ARC and NHMRC Centres of Excellence. These represent sizeable research grants which universities of all types appeared to position toward. In several cases, increasing focus upon collaborative activity was related to changes in the mechanisms of funding; for example, Macquarie mentioning that "where research funding was once focussed on individuals, today there is a strong emphasis on teams" (Macquarie, p.34), or Flinders stating that "Commonwealth funding is specifically targeted through a number of schemes designed to enhance collaboration" (Flinders, p.20). Numerous universities indicated their success in collaboration in terms of their ability to obtain such funding, for example at UQ where a dedicated collaborative research initiative with UWA resulted in $30M in AusAid funding, noting an institutional focus on collaboration has resulted in a track record of success in competitive grants with partner organisations" (UWA, p.20).

Importantly, while multi-disciplinary and collaborative efforts were a consistent feature across organisations, this type of research approach does not exist in isolation from discipline level expertise upon which it must be built. This idea was offered up both in case study and experienced sector leader interviews:

> you can't have a multi-disciplinary initiative until you have got excellence in disciplines. Therein lies the issue of having groups of people really beavering away in a tight little discipline to advance that discipline before you can bring it together towards a multi-disciplinary approach to a big question, so in a sense you've got to have both. That's an underlying complex policy setting, procedure setting type thing which universities have to do and have to look after somehow (Professor Alan Pettigrew, interview)

Australian universities commonly described their areas of focus and research strength in collaborative and multi-disciplinary terms. For example, Macquarie University sought to "identify and co-invest in collaborative opportunities both within Australia and internationally that are relevant to, and offer benefit for, its areas of research strength" (Macquarie, p.38). Similarly the ANU compact included the aim to "promote targeted growth in research

capability in areas of research excellence leveraged by focused key national and international collaborations" (ANU, p.35). The growing complexity of issues seeking to be addressed by university research, appeared through the compacts analysis to be driving institutions to strive to be a part of collaborative and multi-disciplinary efforts which extend beyond the boundaries of institutions. In addition, coupled with the aforementioned trend toward concentration of effort into particular areas necessitated by funding constraints which limit the capacity for individual institutions to invest in a comprehensive suite of research areas, Australian universities appeared to be seeking niches they could fill within broader collective efforts. While research positioning commonly focusses upon such approaches across the sector and gives the appearance of a lack of diversity, this may obscure diversity that may be found within the detail, as is explored through later empirical stages and chapters.

Status and recognition

Supporting the idea that higher education institutions operate within a status economy where reputation is a highly valued commodity, were pervasive references throughout compact documents to issues of status and recognition. Compacts across the sector contained aspirational statements related to the way universities sought to be perceived, or reiterating achievements or status affirmations, in particular related to research. The research goals and aspirations of universities were often discussed in terms of not only their necessity and role in ensuring growth and resources, but also their value for, and influence upon, the building of institutional profile or standing. While the interplay between status and resourcing remains open empirical question worthy of its own examination (Seeber et. al 2016, for example posit that the status and competition involved in gaining resources may be more important in higher education than the resources themselves), there was evidence to show that within the sector the status associated with research was perceived as closely related to an institutions capacity to gain both resources and students:

> Performing world class research and being recognised for it … can be a major driver in attracting the best and brightest students to our programs in the highly competitive higher education market. Performing well in research generally raises esteem and reputation, thus over time, building the value of undergraduate and postgraduate degrees awarded
> (USQ, p. 34)

JCU recognises that over the next decade, research impact, engagement and translational activity will join research excellence as being critical to institutional reputation, success and the capacity to attract research income, partners, students and faculty (JCU, p.36)

Importantly for institutional diversity, status and recognition statements showed a strong relationship to the aforementioned differentiation theme, with institutions adapting how their unique status or status goals or achievements were articulated to suit their particular circumstances. Bond for example, sought their international status as a leading 'independent university'; Griffith to consolidate their reputation as one of Australia's most Asian-engaged universities (La Trobe similarly seeking to become the "the go-to university on Asia engagement in Victoria" (La Trobe, p.25)); UNE aspired to the status of Australia's 'most collegiate university'; Deakin as Australia's 'premier digital university'; while others such as UTS and Wollongong spoke of status achievements relative to their young age. Others chose to focus their status and recognition aims at a national or regional scale, or to define them in a relational way, such as VU who aimed for recognition in applied and translational research such that they were placed within the top half of the Australian sector, which when viewed against the findings of previous international comparative works (such as Morphew, Fumasoli & Stensaker, 2016) suggests this is not trait peculiar to Australian universities. Finally, a significant number of universities focussed their status aspirations upon their particular areas of concentration and focus, for example, VU, CQU, Tasmania, CSU, CDU, UNE, Griffith, QUT, RMIT, UTAS, Newcastle, Swinburne, and Murdoch all seeking renown in areas they claimed as distinctive specialisations.

While derided for methodological issues, international ranking systems have proliferated and gained increasing attention since the year 2000 (Salmi & Saroyan, 2007). The 'league tables' which are produced by such instruments are considered by some to provide competitive aspirational goals which are influential management tools: "Rankings are helping transform all HEIs [higher education institutions] into strategic corporations, engaged in positional competition, balanced fragilely between their current and preferred rank" (Hazelkorn 2009, p.58). Within the US and European context, Morphew, Fumasoli, and Stensaker (2016) noted the influence of them, relating to their own finding of widespread striving for 'organisational mobility':

there is a strong tendency to emphasize organizational mobility, especially concerning the ambition to "reach the top." Within the plans, there are streams of references to self-assessments as being excellent and the belonging among the best of universities domestically and globally. Typically, the university would cite its ranking and then its hope of improving on that ranking (Morphew et. al., 2016, p.8)

Within the compact responses of Australian universities, the mention of specific ranking systems was uncommon. Many, indeed most, universities chose not to reference them directly, rather preferring to utilise less defined notions such as 'recognised, national or international benchmarks', 'world or Australia's leading', 'world class', or in the cases of VU, JCU, and CQU the even more generic aim of recognition as a 'great university'. As Cowburn (2005) noted, this may reflect a compulsion to be all inclusive which is mismatched with reality, not least as such goals are dependent on unpredictable external factors. Ranking measures were selectively referenced as part of success stories, with only a small number of universities choosing to articulate tangible ranking related goals. Notably, within the Australian context, there have not been moves toward government policy and programs which seek to concentrate research investment specifically with the aim of ranking improvement, something which has been seen in other international contexts such as Germany, China, Korea, Japan and others (Sheil, 2010).

Notable examples where rankings did provide a tangible articulated goal included: Newcastle who sought to improve *staff awareness* of international performance benchmarks, alongside a position within the top 2% in QS and THES measures; UWA aimed for the top 100 in the world by 2013 and top 50 by 2050; and La Trobe established a specific University Rankings Strategy which included comprehensive cross-scale ranking related goals: "La Trobe will be one of the top three universities in Victoria, one of the top dozen nationally and one of the top 300 internationally" (La Trobe, p.7). ANU in discussing the validation of their research quality through international benchmarking processes, included positioning within ARWU, THES, and QS as part of a suite of measures useful for making such determinations, similar to Murdoch where "Rankings are being used to provide a core comparison of external performance" (Murdoch, p.8). In one instance, ranking aspirations were discussed in response to a national government level ambition, which as shall be discussed, demonstrates the interrelation between layers of scale and the challenges of treating them as distinct levels of analysis:

> UQ ranks as one of the top 100 universities in the world on all major international university rankings systems. In support of the Government's ambition that 10 of Australia's universities be in the world's top 100, as outlined in the Australia in the Asian Century White Paper, the University is committed to further improving its strong culture of producing high quality research (UQ, p.24)

Larger and more established universities were more likely to speak in terms of retention of their existing status. As previously noted, they made notably more frequent mentions of descriptors such as 'best', 'finest', 'leading', 'preeminent', 'elite', 'premier' or 'world-class' and 'internationally recognised', which were particularly prominent in the responses provided by the ANU, Adelaide, UNSW, Melbourne, and UQ. UNSW, whose response was notably heavy in recognition related claims, illustrated the extent of their ambitions by providing an analogy which demonstrated the competitive and seemingly zero-sum nature of status, quoting their former Chancellor Gordon Samuel's analogising of the institution as "the epitome of the hungry fighter seeking success and recognition" (UNSW, p.8). In contrast, USQ who directly noted the difficulty they faced gaining recognition from current approaches[31], self-defined a distinctive status goal as the desire to become known as 'a challenger brand' across the sector:

> There is too little recognition given in the sector to institutions such as USQ which have and largely remain the workhorses for the nation's broadening higher education agenda
> (USQ, p.32)

Aside from the small number of cases where a link between status and resources was made, institutional compact responses did not provide overt rationales for seeking status and recognition. However, examination of the positioning and context of related statements appeared to indicate that status issues were central to institutional identity construction. RMIT provided one direct example of this noting that a "strong reputation for design excellence and innovation is central to our identity" (RMIT, p.24). Similarly, the usefulness of status claims as part of institutional branding was not explicitly discussed, but was evident in for example Bond's relation of the two, speaking of their plan to enhance reputation and brand awareness hand in hand. Uniquely at UWA, status and ranking related goals were

---

[31] Interestingly, ranking systems have evolved to address a perceived lack of mobility and impenetrability for younger institutions to compete on traditional measures, for example through the creation of rankings for institutions under a certain age (such as the THES Top 50 Under 50 ranking list, which itself provided an overarching objective at UC).

explicitly linked with a public good rationale, their pursuit of excellence rather than an unspecified end in itself, discussed in terms of serving local and national needs:

> The University sees that it will best fulfil its role as a local and national resource, contributing towards State and Commonwealth needs and priorities and responding to its stakeholder needs, if it undertakes research and scholarship that is recognised internationally as excellent (UWA, p.7)

Status related positioning was common across the sector, with research appearing highly relevant and influential upon the ways universities sought to achieve it. Related to institutional diversity, the seeking of status represents a form of *vertical diversity* whereby institutions can differentiate themselves to seek or portray competitive advantage. While compacts demonstrated the ways in which such positioning and goals can be adapted to suit particular institutional circumstances, Australian universities largely converged upon a relatively limited range of status claims and approaches. Such common status striving has been observed as a widespread preoccupation since it was canvassed within the Commonwealth's 2002 *Varieties of excellence: diversity, specialisation and regional engagement* paper (Coaldrake & Stedman, 2013). Within the international literature exploring institutional diversity, this has also been observed in numerous works for example: Mampaey (2018) who described a 'conformity trap' where institutionalised status related values are considered a necessary signal required for legitimacy purposes; and Pomeda and Casani (2016) who similarly observed that the public discourse of universities "serves as a means of legitimation for the most respected universities in the world because discourse differentiates the leading universities from other universities" (p. 1280).

Excellence and world standard: ERA as a common framework for research positioning

"Firms that resort to a strategy of vertical differentiation choose to distinguish themselves in the quality dimension by offering a superior version of a substantially similar output"
(Erhardt & von Kotzebue, 2016 p.2)

Closely related to the status and recognition theme, concepts such as excellence, world-leading or world-class were commonly used throughout compacts. Excellence and world standard were often applied within compact responses interchangeably as adjectives to describe researchers, research performance, institutional characteristics, and status. They were widely utilised in conjunction with: reputational or perception issues ("ANU has built an

international reputation for excellence in research and education" (ANU, p.7)); broader concepts such as innovation ("Deakin aims to make a difference through world-class innovation and research" (Deakin, p.34)); or as an apparent means of adding validity and significance to descriptions for example of research quality and outcomes ("[JCU's] world-class research generates new knowledge and understanding to meet the challenges facing the peoples of the tropics" (JCU, p.8)). In each of these ways, usage of the terms supported previous work within the field which has noted conformity of branding amongst universities using discourses related to 'excellence' and being 'world-class' (cf. Pritchard, Klumpp & Teichler, 2015a).

The prism through which such statements were most commonly framed within compacts was the Excellence in Research for Australia (ERA) exercise administered by the Australian Research Council. ERA is one of a number of international frameworks, notably a United Kingdom Research Assessment Exercise (RAE), and a New Zealand Performance-Based Research Fund (PBRF), which proclaim to assess research for quality. In so doing, ERA provides both a national comparative measure which allows for intra and cross institutional comparisons[32], and facilitates benchmarking to a 'world standard' of research which provides the basis of its assessment. As well as delivering reputational currency, in most cases, these ratings have been progressively linked to funding (Hughes & Bennett, 2013), for example in the Australian context through its inclusion for a period within Sustainable Research Excellence (SRE) institutional block grant criteria.

The effects of ERA on institutional performance and discipline spread were explored following the first two rounds of the exercise by Emeritus Professor Frank Larkins (Larkins, 2013a, 2013b). His quantitative analysis of ERA 2010 and 2012 outcomes and final reports showed greatly improved performance across universities despite the short timeframe, alongside the submission of fewer units of assessment. This led to the conclusion that most

---

[32] Though the initial stated design of the ERA exercise was not intended for this purpose, league tables comparing institutions arose immediately following the announcement of results from the first assessment in 2012, and since (see for example, Glance, D (2015, 6 December) The ERA assessed: Cost, not rated, and league tables. Is there a better way to do it. *The Conversation* (accessed online)).

universities gained experience during the earlier round and actively made strategic decisions to improve their performance in subsequent rounds.

Despite concerns at the design, development, and initial implementation stages of the ERA exercise (comparable to critiques of international rankings systems), one could reasonably conclude from its prevalence in compacts by 2014, that the exercise achieved widespread buy-in and commitment from Australian universities. ERA appeared to represent a legitimated mechanism for research performance assessment, as well as a benchmark by which the ideal of a world standard can be understood and operationalised by both government and universities. The prominence of ERA related goals and statements within compacts, coupled with statements that linked success in ERA to strategic decision making and efforts, indicates that universities see ERA as an exercise upon which strategic planning can have tangible effects. Indeed, internal decisions on the focus of academic activity were clearly based in many cases upon such beliefs:

> Attention will also be given to several areas of research where ERA ratings of 1 or 2 were achieved. These areas include FoRs with both low and high volumes of research outputs, and they will receive close evaluation to determine the optimum approach to raising the standard of research outcomes or changing the balance of academic activities (Curtin, p.33)

ERA results were also adapted by universities within compacts to suit their circumstances and were included as part of a high number of research related promotional statements. UQ utilised it to demonstrate the diversity of their research, based upon the spread of institutional areas represented in fields of research submitted (with all individual FoRs including contributions from a multiple institutes within the University). The University of Melbourne claimed to be the strongest performing university, with 97 of their areas rated above a world standard score, used as evidence of their comprehensiveness and depth of expertise. The counter approach was rarely found, with very few universities focusing on the extent of areas that considered warranting improvement (ECU and Curtin were exceptions). Few universities demonstrated satisfaction with scores below the designated 'at world standard' of three (Ballarat's treatment of a score of two in cultural studies was one exception).

The evident use of ERA as part of institutional decision making provided pertinent insights for the research question exploring the determinants of institutional diversity. ERA

results were operationalised into institutional strategic planning in a wide variety of ways across the sector. For example, ERA was used in ways which informed funding and resource allocation, such as: recruitment into areas where ERA improvement was being sought (Macquarie and JCU); the scoring of HDR scholarship applications (UWA); and the allocation of funding to faculties and centres (Curtin). Moreover, ERA analytics informed the development of strategy, such as at the University of Melbourne who had created a dedicated ERA improvement team (despite being the self-proclaimed 'strongest performer'), who were tasked with developing and using data in ways which could inform decision making. Similarly, Monash used benchmarking as an important aspect of how they operationalised strategy: "ERA results will be used to help refine research strategies at all levels of the University and to identify areas of research excellence" (Monash, p.35). QUT, meanwhile, used ERA as part of their approach to developing and validating strategy, believing for example that improvement in ERA was proof that their approach of selective concentration was successful.

In contrast, resistance toward the measure was notable in only a small number of instances. The UTS compact response noted the limitations of ERA with regard to recognising and valuing applied or high impact research: "Despite many existing external drivers solely driving a focus on research quality in the very narrowest sense, UTS will maintain its strategy to increase impact alongside increasing quality"[33] (UTS, p.15). Flinders, at the same time as utilising the measure as part of efforts to focus investment, noted that other indicators were necessary supplements: "we do not consider it appropriate to use ERA alone to guide our research planning" (Flinders, p.34). Similarly, Divinity appeared to utilise ERA as a framework for strategic goals, at the same time as tempering its use with more internally driven inputs:

> While MCD is aiming for a 4 in the next ERA round, it is important to note that ERA does not drive the University's research strategy. Therefore, internal allocation of research funds, including for HDR students, will be determined primarily according to Colleges' needs and the needs of their partners (Divinity, p.22)

The potential existence of divergent internal opinion on the validity of the exercise as a driver is suggested by the following statement from UQ: "Subject to further consultation

---

[33] The 12 universities who participated at that time in an impact assessment trial (ATN/G08 Excellence in Innovation for Australia (EIA)) each made mention of the trial as a successful one. The trial itself may be interpreted in some ways as responsive, and in other ways as attempting to get in front of what was perceived as a coming amendment to the ERA exercise to include a research impact assessment component.

with the University community they may also help inform strategic decisions by the university on investment in areas of current and emerging strengths" (UQ, p.38). With an emphatic rejection of the usefulness of the exercise as a strategic input by UNSW standing out from others: "ERA is a backwards looking exercise which does not take into account current research strategy, current research performance, or a push into new and emerging areas of research" (UNSW, p.36). However, such proclamations stand in contrast to the prevailing trend that suggests that ERA in the Australian context heavily influences institutional research positioning, which converges upon approaches aimed at maximising or improving performance related to it. The validity of such a proposition is further explored in chapter five, and its implications for policy in chapter seven.

External partnerships and engagement

Though utilised as a marker of differentiation by several universities, external (non-university) collaborations, partnerships, and engagement, were common across the sector. Distinct from the aforementioned collaboration with other higher education institutions, these partnerships took the form of a wide array of connections with international, national, regional, and local level organisations and groups. Moreover, research outcomes were commonly framed in terms of their impact or relevance to external partners and communities. External partnerships were also intertwined with the other key themes of the compacts analysis, for example:

- *health and medical research* based in partnerships and involving industry and clinical practitioners, and seeking public health outcomes;

- engagement and partnerships of both an *interdisciplinary* and international nature were seen as a key means for solving the identified (often global, but at times regional) thematic problems;

- institutions regularly focussed engagement activities around their identified *strength and focus areas*, with targeted recruitment including the development of dedicated partnership offices and related executives; and

- a clear *imperative to grow* engagements and partnerships was evident, contributing to institutional capacity development efforts, the *diversification of funding*, and the delivery of *excellence and related status outcomes*.

Knowledge transfer[34] was regularly mentioned as part of institutional aspirations to raise awareness of, and improve processes for, intellectual property and translation through commercialisation. This directly reflected one of the Commonwealth's stated aims for each compact seeking to "improv[e] knowledge transfer and commercialisation outcomes". These appeared nascent endeavours for many institutions, pursued in response to what was perceived as a Commonwealth agenda:

> ACU is aware of the Government's priority to improve commercialisation outcomes and is focussing on the potential commercial value of ACU research outcomes. There is strong community orientation and benefit from ACU research although moves towards commercialisation are relatively recent (ACU, p.17)

As well as being articulated as a part of compacts objectives, the Monash response positioned their efforts in relation to an *Industry and Innovation Statement* and *Industry Innovation Precinct Strategy,* as well as discussions at the time around developing a formalised national level *Engagement and Impact Assessment* (subsequently rolled out by the Australian Research Council). This Commonwealth agenda related to engagement and partnerships reflecting broader developments during the period in question, which saw universities increasingly encouraged to play a role alongside other players in knowledge production for the sake of innovation (Sam & van der Sijde, 2014), with research with direct beneficiaries highly valued (Holmwood, 2014). Moreover, the knowledge economies concept gained traction[35] during this period with universities seen as an important contributor (Collyer, 2015).

---

[34] This language has evolved since the 2014 iteration of Compacts, where movements in the area - appearing to have come from the UK context - have shifted toward the term 'knowledge exchange' indicating more a two-way exchange of knowledge as opposed to one way dissemination and 'transfer' of it.

[35] The knowledge economy concept is found within policy papers of supra-national bodies such as the OECD, who in their 2013 *Raising the Returns to innovation: Structural Policies for a Knowledge Based Economy,* typified the ideal that innovation resulting from knowledge-based capital provides benefits such as improved living standards. The year following, Universities Australia filtered such a message into the national realm through their *University Research: Policy Considerations to Drive Australia's Competitiveness*, replete with figures and graphs sourced from the work of the OECD, and beginning with a rallying cry couched in similar hyper-competitive language as found within the OECD reports:

> Countries around the world have recognised they cannot be complacent if they are to compete and prosper in a rapidly changing global economy. Our competitors are introducing explicit strategies for supporting research and innovation as prime drivers of economic and social prosperity. Despite difficult economic times, many countries are nevertheless continuing to increase their investment. Central to their strategies is the aim of creating a 'knowledge economy', in which research organisations, business and government work together to create the industries of the

The way these rationales were mirrored at the institutional level through compacts did appear focussed at the national level, potentially reflecting the assumed audience of compact agreements. For example, UQ claimed to be "supporting Australia's economic development by responding to the needs of industry" (UQ, p.25), and Wollongong who quantified their own economic impact claiming to have leveraged partnerships to convert "every $1 of Federal Government investment received in 2011 into $7 of overall economic impact for the betterment of Australia" (Wollongong, p.7)). JCU framed their response in terms of 'recognition' and an acceptance of the rationales underpinning them:

> The University appreciates the social and economic remit of the Commonwealth and the place of public sector research in meeting it. It also recognises the requirement that university research provides a return on public investment, and the desirability of demonstrating that return through increased engagement with all levels of government and with the broader community (JCU, p.20)

> JCU recognises that over the next decade, research impact, engagement and translational activity will join research excellence as being critical to institutional reputation, success and the capacity to attract research income, partners, students and faculty (JCU, p.36)

At the same time as responding to what were perceived as national level drivers, universities in many cases made the link between translation and social goals. In some cases this was framed as a dichotomy in conflict, for example CDU specifying that "*research is primarily applied and directed towards the public good rather than for commercialisation purposes*" (CDU, p.16); and Adelaide suggesting that commercialisation goals were beyond 'simple metrics' or financial return and more about human impact. In contrast, others framed translation outcomes as responsive to more localised needs and benefits, to provide two examples:

> "An expanded range of translational research will be developed by looking at the local environment and how research might have an impact on the community, including business, industry, and the broader population" (Murdoch, p.8)

> "The University aims to maximise the social and economic impact of research through public engagement and encourages the practice of assessing community need and interests in order to inform new projects" (CDU, p.16)

---

future and improve citizens' living standards
(Universities Australia 2014, p.3)

Expanded upon in chapter five, Australian universities appear to seek resources for research through a common focus upon external partnerships, likely in part as a result of what is perceived to be insufficient government investment into research. The pursuit of research funding from non-government sources may also represent attempts to enhance institutions' agency to pursue their strategic priorities related research, which have significant reputational and status implications. Such a finding is important for questions of institutional diversity and its causes, when considered in light of the aforementioned idea that market competition may act to stimulate convergence (Marginson, 1999). By focusing on research that is responsive to exogenous priorities and needs, the diversity of research undertaken by Australian universities may be limited by the extent to which such needs and priorities themselves are diverse.

Chapter conclusion

Mission-based compact agreements were developed to serve a variety of purposes, including the explicit aim of facilitating specialisation and diversity of missions across Australian universities. Potentially inconsistent with such an aim, the exercise was rolled out as a regulatory requirement, with a standardised template (including a number of pre-determined areas and indicators for improvement), which sought institutional alignment to Commonwealth goals. Thematic analysis of all compacts found that university responses, while seeking to differentiate, converged upon a distinct set of common foci across the sector in relation to research. The observation of widespread differentiation language, often contradictory given their common usage, aligns with other works which have observed similarity and difference in institutional positioning instruments. Kosmützky and Krücken (2015) for example, explain such a scenario as an outcome of universities seeking to balance meeting institutionalised norms required for legitimacy with competitive (vertical) differentiation. Such contradictory needs then result in an optimal option for institutions characterised nicely by Deephouse (1999) as being 'as different as legitimately possible', or by Hartley and Morphew (2008) as 'unique but not weird'. Institutional responses to instruments such as compacts occur within a highly institutionalised setting, where there are commonly understood narratives and expectations through which institutions gain and maintain legitimacy, at the same time as seeking resources.

When it comes to research positioning within compacts, Australian universities seek distinction within a competitive marketplace, through *common* approaches and investment into: (i) research strengths and areas of concentration or focus (often collaborative and interdisciplinary in nature, and seeking to address external environmental issues or problems, commonly in the health and medical area); (ii) the seeking of improvement and status, or what was termed organisational mobility by Morphew, Fumasoli and Stensaker (2016), which in some cases is framed in generic undefined terms (such as excellence or global standing), and in others through external measures (such as ERA, which viewed through these documents appeared to have widespread cross-sectoral buy in); and (iii) external partnerships and collaboration with organisations outside of the sector, with the stated purpose of diversifying sources of funding and undertaking research with impact and broader benefit. The central influence of funding and resourcing for research was evidenced at an institutional level within mission-based compact responses, and then later at other intra-institutional levels as shall be outlined within the case study. Given the relationships observed between funding and resourcing and other themes, the argument is made – importantly for institutional diversity, as shall be elaborated - that funding for research represents a fundamental determinant and an enabler of agency, at both institutional and intra-institutional levels. The findings from the compacts analysis outlined in this chapter were carried into the subsequent empirical stages where they were further tested, and moderated by nuance added through the in-depth case study and interviews.

Chapter 5: Institutional research positioning as an interplay of exogenous and endogenous factors

Chapter Purpose and Outline

This chapter explores the determinants of Australian university research positioning and contributes to second research question, which aims to contribute to understanding of the determinants of institutional diversity. The triangulation of mission-based compacts document analysis, institutional case study, and sector leader interviews, coupled with the glonacal based theoretical framework, uncovered an array of interconnected drivers and influences of an exogenous (of external origin, or cause) and endogenous (originating internally within institutions) nature. Factors of a global and national nature are explored, and used to help explain the homogeneity at the sector level observed in mission-based compacts discussed in chapter four. This chapter outlines findings of a heavy sectoral reliance upon government funding, as well as the overarching role and influence which funding and resourcing – and sector settings for their distribution - play in determining institutional research activity and positioning. These are linked to an observed valorisation of institutional size and ubiquitous striving for growth and improvement. Providing a counter point to determinants which stimulate similarities, a finding that regional and location-based drivers may act to stimulate differentiated research positioning in the Australian context is introduced and unpacked. The relationships and interactions between determinants are explored, and the chapter concludes with some of the challenges faced while determining and analysing them.

Factors and influences of a global nature

University research contributions to global-scale issues and the public good

Australian universities showed a notable tendency to position their research as contributing to the resolution of global level issues. The serving of global communities was a commonly expressed ideal within compacts, with the problems of national and global communities often seen as shared and intertwined. Monash, Melbourne, Sydney and Adelaide all chose to characterise these issues using the common language of 'grand

challenges'. La Trobe, RMIT and UQ referred to 'global problems', with the latter seeking to be "recognised as a major global university that is developing solutions to global problems" (UQ, p.7). Nineteen universities made statements with related intent, describing their research in terms of 'real-world' relevance or benefits. For example, Curtin sought to be responsive to challenges of global 'real-world' significance, with 'connectedness to the world around them' a core feature of their overarching institutional identity.

Institutional research focus areas, widely described in thematic terms as discussed in chapter four, also reflected this trend. The pursuit of health and medical research, for example, was regularly outlined alongside claims that the outcomes of such research have potential for broad global application and benefit. The naming of research themes in these areas was itself emblematic, labelled with phrases related to human health and wellbeing, or in the case of the University of Sydney as 'Solutions for a Healthier World'.

Ascertaining the drivers behind universities seeking to contribute to public good by addressing problems faced by society, relates to questions around the purpose of higher education, which is itself a field of continued enquiry[36]. Marginson (2011), for example, problematises the concept of public good as it relates to higher education, noting that purpose in higher education is a contested space in which politics act to shape public goods. This research would support such a contention, with university positioning related to contributing to global issues appearing to reflect – at least in part - an attempt to meet expectations that government plays an important part in setting or perpetuating. Such a role for universities was explicitly flagged within the Labor Party position paper which preceded the creation of the national compacts program:

> Today on a global scale, we face complex new problems demanding new solutions: climate change, rapid urbanisation, water scarcity, pandemics, famine, geo¬political tensions and terrorism. The world needs universities to help solve the most complex problems ever faced (Macklin, 2006 p.27)

---

[36] Again, a contemporaneous link exists here, with national level conversations around the purpose of higher education being reinvigorated again at the time of writing, see for example Pietsch, T. et. al (2020, 6 May) Universities have gone from being a place of privilege to a competitive market. What will they be after coronavirus? *The Conversation* (accessed online)

Interviews conducted with the University of Sydney participants added support to the proposition that institutional positioning related to the public good and global scale issues may reflect universities seeking to meet government expectations. One participant described the principles behind the University's responses, which were effectively built upon the idea of reflecting back to government their expectations:

> another thing we tried to do with that […] was really not make it about the University of Sydney…make it about responding to what the government wants. So putting it into active language about how the University is making a difference, cause there is sort of this implicit view through a lot of this stuff from government, that university, and particularly a university like Sydney, is isolated and not dealing in the real world, but we wanted to bring everything back to, how is it that the University is contributing in the real world? (central university participant interview)

Even beyond responding to the perceived expectations associated with the compacts program specifically, the research positioning of the University of Sydney reflected a public good rationale, with the *University 2016-2020 Strategy* noting:

> We need to support the full spectrum of research – from basic through to applied and translational – as well as research conducted with community partners. Doing so fundamentally alters and enriches our research endeavours, as well as making a major contribution to the public good (p.25)

Institutional level pronouncements and documents serve a variety of purposes, often interrelated, as outlined in chapter two. Alongside meeting social and political expectations, are status-seeking and competitive signalling functions. Tropes related to global issues within institutional level positioning documents, much like the differentiation statements discussed in the previous chapter, appeared to serve both. As well as seeking to fulfil a function of service to society and contributing to global level issues, Australian universities research positioning also served an important status function, with implications for performance in a competitive context. The latter seems particularly important, with the analysis undertaken as part of this research finding that *the* most frequent utilisation of global or world-level references in both compacts and interviews was either in the form of benchmarks or status-related pronouncements and aspirations.

Australian universities compete with each other as a sector, and within a worldwide marketplace for students, staff, and resources for research. Reflective of contest, the positioning which manifests in mission-based compacts, commonly sought or claimed institutional distinction and status. 'Global' was a frequent adjective applied to research positioning to demonstrate or enhance importance or significance. For example, frequent references were made to: global networks, partnerships and engagements, global impact, world-class research or researchers, and research focus upon areas of global significance. Similarly, the terms often accompanied identity-related phrases, with universities referring to themselves as: internationally competitive, internationally engaged, internationally focussed, globally recognised, with global reach and with world-leading research capabilities.

Along with institutional goals around international rankings, and the announcement of any perceived successes therein, the positioning of Australian universities aimed for distinction, status and recognition framed most commonly at a global scale:

- UniSA spoke of the goal to be 'a globally visible university';
- Tasmania sought to bring their research 'to the attention of the world';
- Curtin's vision was to be 'a recognised international leader in research and education';
- Deakin aimed to 'develop an impressive international research footprint'; and
- Melbourne's broad goal was to be 'a truly international institution […] one of the finest universities in the world'.

Indeed, a global outlook appeared across all institutional types, even those who might be expected to choose a narrower focus given their relative size and location. Bond for example, explained "We are regionally located but our focus is national and international" (p.7), and UC spoke of being a small university by national and international standards but who aimed to "build a truly international UC that can thrive in a new era of globalised higher education and research" (p.10).

In pursuing global level aspirations, multiple institutions outlined within their compacts, internationalisation strategies or aspects of institutional strategic plans which were

international specific (for example CDU, where *'Research with Global Reach'* was one of the four pillars of the University Strategic Plan). These were supported by the appointment of executives in related fields such as a PVC International and Outreach at ANU, PVC International Research Engagement at Swinburne, and PVC Global Engagement at Tasmania. The accompanying strategic initiatives most often included goals around international engagement or strategic international partnerships, infrastructure (including global campuses), the attraction of international students, and global mobility in particular for HDR students where partnerships were represented as distinct and advantageous in terms of their capacity to allow for global exchanges or joint supervision.

Global factors relatable to status and competition were far more prominent than any direct treatment of broader global-scale trends and issues found within academic literature. The phenomenon of globalisation for example, fundamental to the glonacal heuristic, itself received minimal direct treatment. Along with the UC reference above, Griffith provided one of the few instances, noting (again, reflecting competition at an international level): "an intensely competitive globalised higher education market" (p.8). ECU and LaTrobe were the only universities who directly referenced the term 'knowledge economy', and Ballarat spoke of endorsing the (undefined) principle of 'internationalism'. At the time of preparing 2014-2016 compacts, the effects of the global financial crisis of the same decade were clearly evident. Several universities linked the crisis to a downturn in international student numbers, which in some cases necessitated dramatic institutional changes. The economic effects provided the impetus for seeking increased partnerships with industry and overseas targets for joint research grants and increased international collaboration, as seen at Griffith and UQ. Here parallels can be drawn to the effects of the pandemic and closed international borders in 2020, where falls in international student revenue have had a sizeable effect on resourcing, and on the capacity of universities to invest in and conduct research.

Responsiveness to national-level drivers and Commonwealth Government settings

"The great majority of institutions continue to be nationally embedded and dependent on governmental legitimation and resource support. The nation-state is not fading away: it remains the main site of economic activity"
(Marginson & Van Der Wende 2007, p.15)

Australian universities are highly attuned and responsive to national level policy settings, primarily emanating from the Commonwealth Government. Determinants of a national character featured more prominently than those of a global level within the mission-based compact responses of Australian universities. Such a finding might be expected when viewed within the context of the previously outlined structure, perceived audience, Government drafted contextual information, instructions, and principles within mission-based compacts. However, the same finding resulted even more strongly from the analysis of sector leader interviews and the University of Sydney case study. This consistency across empirical components supports the notion expressed in the above work of Marginson and Van Der Wende, that even within a globalised context, national-level factors remain highly influential determinants of university activity and positioning.

Within compacts, explicit statements from universities supporting national government goals were common. The very opening statement of the UTAS response provided a clear example: "The University of Tasmania fully supports the Commonwealth's ambitions and objectives for higher education" (UTAS, p.7). Universities chose to articulate the quality of their relationship with Government (at times together with their relationships with communities, industry, and partners) in favourable terms. Moreover, a national level *agenda* was acknowledged in both university documents and interviews, in ways which suggested it existed as a relatively coherent and understood set of ideas, albeit susceptible to flux. A level of reliance by universities upon government policy, funding and decisions was evident, at the same time as what appeared a limited sense of control over them. To illustrate, several institutions made their compact agreements, and their capacity to fulfil the stated mission and strategic priorities outlined within them, contingent upon future government decisions and actions:

> The University's undertakings within this Compact are subject to the policy conditions prevailing at that time and may change in consideration of any material changes to policy that might arise during the term of this agreement (Wollongong, p.7)

> We will look to Government to foster a stable and supportive policy and funding environment that minimises regulatory burden and that supports competitiveness and our ability to align institutional strategy with governmental objectives (RMIT, p.8)

The context of the time at which the 2014-2016 mission-based compacts were prepared, also included substantive proposed reform to the financing of institutions through a demand-driven approach to student places. Some universities expressed apprehension at the changes (and "the decision of the Commonwealth Government" UWS, p.7), with the effects seemingly uncertain and potentially determinantal:

> Deregulation of the Higher Education sector has placed pressure on CDU's interstate student cohort, pressure that threatens the very existence of the only University fully focused on regional development in this part of Australia (CDU, p.7)

> This is an ambitious plan, being pursued in a challenging environment in a new demand-driven tertiary education market (Victoria, p.7)

Across the sector, university responsiveness to national settings was far more evident than indications of institutional agency which sought to actively influence them, or suggestions of resistance. Notable given its paucity was a statement such as the following from Curtin which was indicative of tensions with a government decision to set compulsory universal targets for the sector: "the low SES [socio-economic status] target as set by the Commonwealth are inappropriate for Western Australia. Low SES enrolments vary significantly across the 38 universities, university groupings and between the states and territories" (p.29). Distinctively, Notre Dame decided to express its foundational independence explicitly:

> Notre Dame commenced life as an entirely privately funded venture and without any government financial support […] Notwithstanding the recognition of Notre Dame by the state and the receipt of Government funding to support it in its pursuit of promoting the public good through the provision of university education, Notre Dame identifies itself as 'private' because it was not 'created' by the state and is not 'owned' by the state (Notre Dame, p.7)

Potentially reflective of the aforementioned context of proposed reform of the time, the least subtle and most aggressive example of resistance to national influence was found in the University of Adelaide response. The University in that case appeared resentful of external intrusion upon university operation and in particular, its capacity for self-determination and free enquiry:

> Crucial also to the research university idea are academic freedom and institutional autonomy. The University of Adelaide's voice will need to be heard more often in public debate when government policy or external priorities threaten to intrude into an agenda that should be driven by curiosity, originality and the development of disciplines (Adelaide, p.8)

We will take a fuller part in the national policy debate about higher education, to seek to remove the constraints that prevent leading universities in Australia competing with their peers abroad. These include moderation of the increasing government intervention in planning, course design and academic standards (Adelaide, p.11)

Triangulation of the compacts document analysis, case study, and sector leader interviews allowed for deeper insights to be drawn on the reasons why national level drivers represent important determinants of institutional positioning. A perceived responsiveness to national settings, seen within the compacts analysis, may in part be explained by the exercise being viewed as a regulatory requirement to which compliance was required, and *upon which access to resourcing was made contingent*. Universities preparing compact responses are likely to converge upon commonalities, where they respond to common (and commonly perceived) national government expectations, which were expressed through the uniform structure and guiding materials of the program. Coupled with this, and observed particularly through the case study as outlined in chapter six, Australian universities as large and complex organisations craft coherent narratives to meet particular purposes. In the case of compacts, this was witnessed through the prevalent *alignment* with government priorities and expectations and attempted demonstration of the desired diversity (or uniqueness) while conforming with common and highly institutionalised expectations.

Funding and resource seeking as a fundamental determinant

The strongest apparent determinant of the research positioning of Australian universities is the seeking of funding and resources for research. The significance of this theme was evident in its prominence across the analysis of mission-based compacts, the case study, and the sector leader interviews. Moreover, this research suggests that the reduced proportion of government funding over recent decades (noted in chapter one), and the government funding model – particularly for research - exacerbates the observed resource seeking. Education and research functions within Australian universities are compartmentalised in an institutional portfolio and planning sense, however, they are fundamentally intertwined by a model where the full costs of research are not covered by granting agencies and concomitant institutional block grants. As a result, university research is a cost-bearing exercise which is cross-subsidised by university revenues obtained through other means. Given regulatory constraints placed upon university domestic student fees and

enrolment numbers, it is through fees from an international student market that universities seek and find such revenues[37]. The institutional positioning outlined in chapter four reflects attempts to differentiate and claim distinction within the aforementioned global competitive marketplace, including for students.

Smaller and regional university compact responses included references to issues of institutional sustainability and financial viability, though such issues were not exclusive to them[38]. The context of these concerns was at times broader than research, for example, CDU and CQU both discussing the limitations imposed upon them by locational and demographic issues. Both considered flagged deregulation policies of the time a threat, in a context where "Regional universities face inherently higher costs and reduced opportunities for diversification of revenue as compared to urban universities" (CDU, p.11). Divinity, SCU, VU and UC each mentioned the external environment as driving the need for strategic approaches to improve financial viability. The latter directly referencing financial rectitude from the Commonwealth as the impetus for reduced reliance upon them. In contrast, and supporting the thesis above on the influence of the research funding model, the larger and more research-active universities mentioned resourcing issues and the impact of funding constraints most commonly within the context of research. The UQ compact provides an example of the cross-subsidisation dynamic, with a goal for research growth dependent upon substantial infrastructure and investments which are borne by student revenue:

> To increase both the quantity and quality of the University's research activity would require substantial investment in the development and ongoing maintenance of infrastructure. To support this investment, the University has recently increased its undergraduate domestic student numbers as a mechanism not only to meet demand but also to ensure a sustainable funding base (UQ, p. 24).

---

[37] At the time of final writing within the 2020 pandemic context, the loss of international students as a revenue source has exposed the fragility of such a model, as institutions cut costs and staff in an effort to balance budgets. Among the first institutions to do so were large research intensive institutions (see for example, Visentin, L. (2020, 16 September) UNSW, ANU to each shed more than 200 jobs as revenues plummet. Sydney Morning Herald (accessed online)

[38] "ANU, like all Australian universities, must maintain the quality of its research and teaching whilst ensuring a sound financial outlook for the organisation" (ANU, p.8)

Reliance of universities upon Commonwealth government funding

Funding from Government was a key feature of all compacts, with Australian universities demonstrating a particular reliance upon the Commonwealth as a source of funds. As previously noted, the proportion of this direct funding has decreased over time, including during the course of this thesis when it dropped, according to Department of Education publicly available sources[39], from just under 60% for 2014 to just under 50% by 2019. Compact responses included statements which appeared directed at Government, and aimed to emphasise the necessity of Commonwealth funding, and that its provision represented a worthy investment:

> "Griffith is a substantial recipient of research funding from the Commonwealth, providing a solid return on investment" (Griffith, p.37)

> Given the University's aspiration to change the lives of Australians through research that is publicly funded, it is essential that the higher education sector can demonstrate that these funds are being spent wisely (Newcastle, p.9)

Statements from universities regarding the limited nature of government funding were also evident, at times directly referencing the restrictive impact this had for the delivery of quality research. A contradiction was apparent in university positioning, which on the one hand sought distinction in terms of significant growth in external – often Commonwealth sourced – research income, alongside claims of the difficulties created by its diminishing nature or limitations. Within such a context, some universities took the opportunity to underscore the importance of funding not only to institutional goals but also (in line with the stated expectations of compacts) aligned to the Government's own stated aims, for example below, around growth and global competitiveness:

> world class research requires significant resourcing and a scale of activity to achieve excellence (Bond, p.9)

> current levels of government funding for infrastructure development remain inadequate for the University to sustain growth expected by government. The growth in the health-related discipline, in particular, is currently resulting in a need for further investment in relatively cost intensive laboratory space by the University (Curtin, p.32)

The seeking of differentiated funding sources away from the Commonwealth Government

---

[39] The Department annually publishes related data which was accessed online

appeared a common effort. This was evident for example in positioning for increased external partnerships outlined in chapter four, as well as widespread philanthropic efforts (La Trobe, UNSW, CDU, Monash, Macquarie, Divinity, Flinders, Griffith, RMIT, Notre Dame, UWA, USQ, UQ, UTS, VU, Adelaide, USC, and QUT). ANU set specific funding diversification targets, seeking that by 2015, 40% of their revenue would come from non-Commonwealth courses, including a 45% increase in internationally sourced income. Financial constraints were a visible limitation upon strategic capacity, with levels of institutional agency seemingly contingent upon the existence of enabling resources:

> USQ is stepping up to its next stage of maturity as a university. This development will be contingent on securing a diversity of income and exercising strong fiscal discipline and focus (USQ, p.10)

> a university's ability to maintain sustainable research capacity in its fields of research foci is underpinned by its ability to procure diverse research revenues (i.e. national competitive grants, state and commonwealth government grants, and direct industry funding) (USC, p.38)

> We exist, within the limits of our resources, to encourage the advancement, development, dissemination and application of new knowledge informed by free intellectual enquiry
> (Sydney, p.21)

These findings resonate with the work of Clark (1998b) which suggested that such responses represent attempts by institutions to maintain a level of agency and capacity to follow self-determined strategic directions:

> To fashion a new change-oriented character, a university generally requires greater financial resources: it particularly needs discretionary funds. Widening the financial base becomes essential since virtually everywhere mainline institutional support from government, as a share of total budget, is on the wane (Clark, 1998b p. 6)

The same can be said for individuals and groups of researchers within universities, whose capacity to self-determine appears enhanced by the gaining of external research funding, and a decreased reliance upon institutional level support (an issue explored in chapter six). The case study institution also showed that efforts for enhanced self-reliance and active agency, may actually find their genesis in responsiveness to Government decisions:

> "The federal government's shift of focus to innovation, as demonstrated by the National Innovation and Science Agenda, together with the recent Watt Review, will also change the way we are funded for our research […] This means that we must find ways to bolster our research that directly addresses the problems of industry"
> (University of Sydney 2016-2020 Strategic Plan, p.25)

"we are actively responding to Australian Government public policy, particularly the national science and innovation agenda in terms of how we are able to transform our research strategy, in particular to look at other income sources"
(research management participant interview).

Size, growth, and continuous improvement

Imperatives for improvement in status, quality and growth pervade the Australian higher education sector. Growth and improvement narratives appeared across the spectrum of Australian universities, as opposed to being more prevalent for any particular institutional type or grouping. It was observable in the largest universities, such as Monash (the largest Australian university measured in student numbers) who undertook institutional reorganisation to seek 'transformational improvement' across portfolio areas including research. At the same time, it was also a feature of the smaller and newer universities, where growth and upward trajectories were more likely to be discussed in terms of their rapidity, and related to capacity building and critical mass:

> The coming period in the University's development is focused on achieving critical mass and the economies of scale that will allow it to invest in quality improvement in teaching, research and engagement, and thereby attract the significant external resources that can help realise a more substantial profile, performance and culture (Sunshine Coast, p.9)

While there was some variation between institutions in terms of which areas were prioritised, all Australian universities positioned themselves for growth or improvement in some combination of the following research areas:

- research metric related performance indicators (income, publications, higher degree student load or completions, and ERA results)
- profile, status and recognition
- engagement and partnerships
- diversity of funding sources
- infrastructure, staffing and resourcing
- research culture
- existing or emerging research strength areas
- external engagement, partnerships, and impact.

Positioning within compacts included self-promotion of historical growth, and/or aspirations toward it, even related to the conflicting trend of concentration and focus (when talking in these terms, growth was still sought, though concentrated in selected areas). The above areas, represent widely accepted and institutionalised proxies of success for research. By aiming for growth and improvement in these areas, Australian universities effectively compete in a sphere where their outputs are similar, and thereby superiority provides the means by which differentiation (vertical diversity) is possible (Erhardt & von Kotzebue, 2016 p.2).

Such a trend is not unique to Australia, with Morphew, Fumasoli and Stensaker (2016) observing 'organisational mobility' as a key feature of the North American and Northern European settings. Their work noted that universities sought to balance public and private dimensions and drivers to meet the expectations of multiple constituencies. While some of the observations of their work resonate here, the strength of influence of ranking systems was more pronounced in the North American and European setting, with Australian universities choosing instead to position for excellence and world standards framed instead around the national ERA exercise. Despite variation in the instruments through which such efforts are focussed, they share fundamental principles attributed by many to the ideal of 'new public management', a key feature of which is increased concern with indices designed to benchmark, measure and rank (cf. Ferlie, 2008; Marginson & Considine, 2000; Tolofari, 2005). Meek (2000), for example, describes new public management in higher education as characterised by business like conditions and practices based upon efficiencies, accountability, performance assessment and benchmarking (Meek, 2000). As noted in chapter two, the effects upon institutional diversity appear detrimental, with such instruments seemingly inciting conformity and isomorphism (Croucher & Woelert, 2015; Pritchard, Klumpp, & Teichler, 2015b), such as that which has been observed within compacts.

Data and performance indicators appear to play a key role in driving the normalisation of continual growth and improvement, with the design of compact processes and templates of significance here. Indicators and mechanisms built into the standardised templates inherently implied that the status quo was not an acceptable outcome or goal for universities. Related to research specifically, the expectation for growth or continual improvement was

overt as part of a generic requirement for all universities to nominate ERA areas committed for substantial improvement. Beyond the compacts requirement for the use of quantifiable data related to activity and institutional goals, universities demonstrated their own reliance upon - or preference for - data to provide demonstrable evidence of the value of their activities or the nature of performance. UniSA's compact provided a stark example of this, opening not with a typically general, historical, contextual, or value-based statement, but with statements about quantifiable growth in revenue and other areas. In addition, universities utilised data to inform internal functioning and decision making, through mechanisms such as an internally developed composite research performance measure ('Q-index') at UQ, and UTS's business intelligence and analytics approach:

> The University has a strong business intelligence function and performance tracking and reporting systems. UTS produces a comprehensive Annual Performance Report, which combines qualitative assessments with quantitative performance against KPIs (UTS, p.9)

Resistance to the idea of growth, or justification for not seeking it, was found in a small number of cases, providing a stark contrast to the norm. Though an overarching aspiration at UNSW was to 'continuously improve our position as a leading research-intensive university', their response indicated that the level of growth they had experienced in the preceding six years was 'neither sustainable nor desirable'[40]. UNE contrasted themselves from other universities by envisaging low levels of growth in several areas (such as engagement and commercialisation) due not only to their institutional size, but in an effort not to compromise their alternative focus upon quality improvement. Griffith and UNE were noteworthy examples where inherent conflicts between strategic imperatives - for growth and quality - were acknowledged, and where justification for bucking the norm was deemed necessary:

> UNE does not anticipate establishing a large number of new research collaborations. The University already partners with key institutions relevant to its areas of research focus […] UNE plans to broaden and strengthen the pre-existing partnerships with these organisations (UNE, p.9)

> Growth at Griffith should not come at the expense of research quality and therefore we will aim to support a research performance culture focussed on excellence which exceeds current levels of performance (Griffith, p.38)

---

[40] The lack of sustainability of their approach demonstrated by the pandemic fuelled crisis where UNSW – as mentioned – became one of the first Australian universities to report publicly the need to re-shape and re-size through redundancies and the merging of faculties.

The effects of size and growth upon institutional diversity were flagged by Karmel (1998) as a feature of Australian universities very soon after the Dawkins UNS reforms. He suggested that a 'growth at all costs' mindset resulted from the minimum size requirements which were attached to university status, necessitating institutional amalgamations. In addition, Australian universities, he suggested, universally pursued the model of comprehensiveness, a view since shared by others (Marginson, 2007b; Marginson & Considine, 2000; Coaldrake & Stedman, 2013). The language of comprehensiveness is not found in the university research positioning contained within mission-based compacts, where counter concentration and focus narratives were instead adopted. However, the concept does fit with universities seeking to cater to a full breadth of student choices as part of their efforts to compete within the aforementioned global student marketplace.

Regional and locational determinants: The 'power of place' as a potential driver of diversity

In contrast to the converging effects observed for global and national factors, locational influences within the Australian higher education sector may stimulate institutional diversity. While not exclusive to them, this was particularly evident in the positioning of regional universities. Across the sector, seven institutions[1] self-identified as 'regional universities', who in 2011 formed into a Regional Universities Network (RUN). The mission-based compacts of these universities commonly reflected the principles which underpin the network, including the promotion and enhancement of contributions to regional and national development. Regional universities described their distinctiveness, status claims, and aspirations in related ways. CDU, for example, claimed to be "one of the most "regional" of Australian universities, and one of the most critical institutions in Northern Australia" (p.7). Flinders aimed to be "the regional higher education 'partner of choice' for government, non-government, training providers and businesses in southern Adelaide" (p.15). Several universities (JCU, UNE, UWS) chose to explicitly note that regionalism was inherent within their legislative foundations, quoting their parliamentary Acts which spoke of meeting the needs of the communities in which they were located:

> UWS has both a legislative charter and a demonstrable commitment to serving the Greater West of Sydney – a diverse and growing region of opportunity, challenge and aspiration, but one with a history of social and educational disadvantage (UWS, p.7)

Indeed, the University of Western Sydney demonstrated one of the strongest connections to community, providing an illustrative example of how this influence reflects in strategic decision making and institutional positioning:

> When we were looking at supporting a new research area and reviewing our research concentrations and resource allocation, being in Western Sydney was a major influence. Our catchcry was 'making a difference', and staff and partners in the region genuinely embraced our mission, centred as it was on the West. For us location was significant.
> (Emeritus Professor Janice Reid, interview)

Universities are embedded within communities, and their positioning commonly reflects service, commitment to, or a sense of responsibility for contributing to these communities. Place-bound identity has been considered a core feature of universities since their beginnings (Marginson, 2011). Professor Glenn Withers elaborated upon this idea: "locale also matters, which is the nature of the community in which you're embedded, not just which part of the country and what sort of broad style you are, but how you relate to your community" (interview). Mission-based compacts analysis suggests that strategically, Australian universities do utilise their relationship to their communities as an important element of their institutional identities. Moreover, as noted in chapter four, these provide a common means through which institutional claims for differentiation are framed (for example, by CDU, JCU, La Trobe, Newcastle, Notre Dame, UTAS, UWS, Wollongong, and SCU).

Regionally aligned research areas of focus

The most tangible locational influence upon the diversity of Australian university research positioning was related to research areas of focus. Regional universities claimed areas of research focus which were, in many cases, aligned to perceived needs or issues of relevance to their region or the communities within them. Pertinently for an examination of diversity, and as evident in table 6, these focus areas covered an array of issues and discipline areas, as opposed to a converging upon commonalities across institutions. The breadth and variety of research areas evident across the sector, as shown in the table below, suggest that location and place-based determinants vary across the country, and as such, appear to play a part in stimulating institutional diversity.

Table 6: Diversity of regionally aligned research areas of focus

University	Research areas	Alignment evidence
USC	Forestry, aquaculture, and coastal sustainability	"USC's existing and emerging research focus areas are aligned with the Queensland State push to build a four-pillar economy based on agriculture, resources, construction and tourism" (p.38)
JCU	Tropical Ecosystems and Environment; Industries and Economies in the Tropics; Peoples and Societies in the Tropics; Tropical Health, Medicine and Biosecurity	"research and engagement will have clear and deliberate connections to the issues and innovations relevant to the tropics" (p.9)
Newcastle	Manufacturing, mineral resources, energy, and environment	"aligned its research endeavours to those of our regional communities and businesses" (p.36), resulting in areas of relevance to their Central Coast and Hunter regions
CQU	Port operations, bulk freight, gas pipeline logistics, smart technology in supply chains and regional workforce planning	"[CQU] strives to make its research relevant to the region (its industries, businesses and the community)" (p.17)
Murdoch	Food and water security, animal production; grains research; fish and fisheries research; and desalination	"translational research projects will be developed by looking at the local environment and how research might have an impact on the community, including business, industry, and the broader population" (p.38)
CDU	Five selected research priority areas - Indigenous Knowledges, Social and Public Policy, Education, Energy, and Creative Industries	"undertaking research focussed on generating solutions to the complex problems faced by Northern Australia and its neighbouring regions" (p.16);
CSU	Agriculture and wine research. Localised research impact example - better management of pests on local farms.	"[meeting the] needs and aspirations of its rural, regional and remote communities in western NSW and the Murray-Darling Basin" (p.19)
Tasmania	Sense-T initiative: Aquaculture Optimisation (Southern, North West and East Coast Tasmania); Viticulture risk management and productivity (Northern and Southern Tasmania); Dairy & Beef Pasture and Animal Health Optimisation (North West and North East Tasmania); Community based adaptive water management (North East Tasmania)	"Research clusters: collaborate with the State government and identify multidisciplinary areas of unique advantage to Tasmania, and develop research and innovation clusters in partnership with government and industry" (p.17).
USQ	Core strengths: agriculture, environment and landscape as well as regional resilience;	"In addition to building USQ's capacity in priority research areas, the new strategic plan has placed a major emphasis on "developing an innovative research culture that in its DNA is outward looking,

	Emerging areas: regional systems, digital futures, computational mathematics, and biomedical sciences	understanding of market needs and is collaborative" (p.17)
Uni SA	Integrated Health and Successful Living, Energy Independence and Energy Security, Sustainable Cities, Water Security and Water Futures, and Advanced Manufacturing	"Identification of UniSA's research focus linked to unmet need and which align to state and national priorities [...] UniSA's research will respond to community needs, priorities, issues and aspirations" (p.12)

Shortages in areas such as regional allied health were raised by numerous institutions in conjunction with the initiatives through which universities sought to make contributions: health precincts; institutes; clinical practice and research facilities; and hospitals (at ACU, CQU, CSU, UC, Deakin, and the South Australian Health and Medical Research Institute involving all SA universities). CQU pursued research focus areas of relevance to their region, such as engineering and food production, which were reliant upon specialist spaces or distinctive infrastructure and equipment which were locally available. While James Cook positioned locational factors as a clear opportunity, seeking to take advantage of their tropical setting, through relevant, engaged thematic research and partnerships. Both institutions provided a useful summation of how they sought to *leverage off their location*, through a 'power of place' concept:

> CQUniversity will become a research-focused university, understanding and exploiting its 'power of place' to contribute to stronger, more vibrant communities and local economies through the engaged research it undertakes (CQU, p.9)

> Our research performance is inspired by the "power of place" and the strategic commitment to a tropical agenda has generally served the University well in providing a distinctive institutional profile. [...] We will capitalize on our place and the positioning of our campuses and field stations at the intersection of two great axes of global economic growth: the Asian axis and the tropical axis (JCU, p.9)

Challenging the proposition that locational factors are determinative

Examining the relationships between the themes that arose from the compact analysis, outlined throughout chapter four, provided nuance to these findings. In particular, *research focus areas, location and regional themes demonstrated strong links to funding and resourcing, and the seeking of diversified research funding sources*. Several sector leaders also offered the view that regional university claims over particular location-based niches may

represent marketing and branding for competitive purposes. While research areas may be called out within the research positioning of institutions, by no means are Australian universities the sole or even primary custodians over them. Professor Glyn Davis noted the influence of CSIRO within the Australian research landscape as a Commonwealth-funded research agency which, by its existence, confounds the possibility of such university ownership over research areas (in particular in the area of agriculture). He illustrated the broad extent of sector-level participation in research areas, using the example of the James Cook tropical focus:

> Even in the tropics, some of the tropical medicine work is being done other than in James Cook, in fact most of it would be my guess…and there has been a lot of people that have worked on coral reefs and other issues that James Cook might want to claim as its own, they don't have the field entirely to themselves (Professor Glyn Davis, interview)

Moreover, Professor Davis noted that while location could - and in many cases did - exercise some influence (including at the University of Melbourne where co-location with medical precincts was fundamental), it was not in his view determinative. He provided the example of Griffith University, which during his time as Vice-Chancellor sought potential locational niches where competitive advantage for research could be gained, however was unable to find them in the broader Gold Coast context.

Professor Mary O' Kane posited that the mix of discipline areas (in particular those of high-cost) impact upon an institution's capacity to invest in and focus upon particular research areas, and thereby also moderates the influence of place:

> Location is a very big driver. Location and the mix of disciplines in a university. Universities that have a big ag[riculture] and medical faculties and things, look very different to universities that have, sort of a lot of business and ICT. The presence of some of those big expensive faculties can drive the flavour (Professor Mary O' Kane, interview)

Echoing path dependence perspectives, or adaptations of it such as 'imprinting' which attempt to explain the influence of the past upon organisational behaviour (Marquis & Tilcsik, 2013), several of the sector leaders explained that historical and cultural factors were key determinants of university positioning. Emeritus Professor Janice Reid, for example, offered the idea that rather than deliberate choices, differentiated research focus areas were a product of adaptation to historical circumstances. The amalgamations resulting from the UNS

reforms were important in her view, with the newly emerging institutions at-the-time seeking to lay claim to niches which would allow for lobbying for privileged funding and be reputationally advantageous:

> There are also quite diverse and in some ways accidental influences in the ways universities have sought to differentiate themselves. Tropical health in Townsville at JCU, oenology and wine-making at CSU, and so on were less deliberate choices than the happenstance of their locations and histories. Charles Sturt for instance was a combination of several far-flung regional CAEs. The assertion of distinctiveness for some was ex post facto as it was for other former CAEs (Emeritus Professor Janice Reid, interview)

The influence of regional drivers in the Australian higher education context, and the possibility that localised environmental imperatives may contribute to enhanced institutional diversity has previously been raised by Pinheiro, Charles and Jones (2016). While noting that Australian universities commonly form partnerships and even span multiple local areas (for example, with large metropolitan-based universities in some cases having their own satellite regionally-based campuses), their research found convergence toward a shared aspiration for 'local relevance combined with global excellence'. In addition, the potential stimulation of diversity and unique combinations was explained as resulting in part from "regionally based universities seek[ing] to work with and support local industry" (p.316).

These ideas appear in some ways supported by this research, with universities themselves linking regionalism with the opportunities it affords for differentiation. However, locational factors exist alongside historical, cultural and organisational settings which mean that 'the power of place' is not a straight forward and singular determinant of research differentiation. As Kitigawa (2003) noted, albeit outside of the Australian context, universities are expected to be responsive to multiple drivers including those based in regions, but the degree to which each institution does so is variable. Moreover, as shall be elaborated in chapter six, the in-depth case study demonstrated that institutional positioning involves crafting coherent narratives for multiple purposes. The above university claims appear to represent at least in part, branding constructs, given institutional positioning around (differentiating) location-based research areas fails to adequately reflect the extent to which these areas of research are undertaken across the sector.

Limitations and challenges faced exploring the determinants of research positioning

'Alignment' and language concealing causality

Applying the thesis theoretical framework, determinants and influence were deliberately explored as reciprocal and multidirectional, rather than simple top-down or outside-in dynamics. Mirroring some of the observed complexities in the application of structuration theories, difficulties were experienced distinguishing intentionality and the direction of influence. This was particularly the case for the document analysis. The wide use of concepts such as *alignment* to describe institutional actions as being consistent with exogenous factors, obscured their genesis and the strength of influence in any particular direction. Environmental priorities may drive institutional actions, or conversely may be selectively chosen to demonstrate consistency and *meet the expectations of the compact program, which explicitly sought such alignment[41]*. The latter feasibly occurs within a complex institutional setting where unaligned activities are also pursued, and where multiple drivers and agencies are being exercised. Such a finding demonstrates some of the limitations of document analysis used in isolation, and also reflects the unresolved question within the field of why or why not institutional diversity exists.

Language related to *responsiveness* provided a more unambiguous indication of determinants with genesis, or strongly influenced by, external settings *("*The University continues to be responsive to the needs of industry and the community in general in developing its teaching and research programs" (UWA, p.9)). More frequently, however, even where university strategic initiatives were clearly related to external constructs or environmental features, the connections were described using agnostic terms such as *alignment* or *consistency,* which are suggestive of a level of institutional agency:

> The University of Ballarat's Research Plan 2013 to 2015 builds upon our strengths and identifies priorities and strategies for improving our research performance in targeted areas consistent with the Government's aspiration to build and recognise world class research using

---

[41] As noted in chapter three, the concept of alignment was drawn directly from Government instructional text which describe the compacts as a framework for describing "how the University's mission aligns with the Commonwealth's goals for higher education" (p.4), with the express ambition of "better aligning higher education and research with the needs of the economy" (p.6). These ideas were not new to compacts, having been a recurring feature of Commonwealth stated goals for several decades.

the ERA framework, improve innovation and impact of research, and better engage in the Asian region (Ballarat, p.36)

USQ's mission is naturally aligned with the Commonwealth's refreshed ambitions and objectives for higher education (USQ, p.7)

Bond's 2013-2017 Strategic Plan, recently approved by Council, aligns well with the Commonwealth's innovation and engagement objectives (Bond, p.17)

CDU's Strategic Goals align well with Commonwealth ambitions (CDU, p.8)

the university's profile and plans for the future are consistent with the policy settings of the Australian Government (Griffith, p.8)

While seemingly reluctant to acknowledge national government priorities as determinative of institutional positions, the commonality of compact responses across the sector observed in this research, and their close correlation to the stated aims of government suggest that they are heavily influential at the level of institutions. The thematic areas where homogeneity was observed in chapter four, demonstrate a clear relationship between Commonwealth priorities and institutional responses. For example:

(i) the Commonwealth's stated objective to 'promote collaboration, amongst universities, across sectors, between researchers and industry Australia and internationally' (section 5.1.1), was reflected in the great majority of university responses, though again, with obscuring language, as illustrated here by ECU: "The strong alignment of ECU's strategic direction with the Government's priorities is evidenced by […] ECU's emphasis on engagement and collaboration" (ECU, p.9);

(ii) the Commonwealth objective to "progressively increase the number of research groups performing at world class levels, as measured by international performance benchmarks" (compacts section 5.1.1), directly reflected the notable sector-wide trend toward research grouping, focus and concentration;

(iii) traction for performance benchmarking ideals was noticeable in the overwhelming use of ERA as a mechanism around which institutional research improvement efforts were framed;

(iv) the national innovation system and research workforce needs were cited by several institutions as the basis for efforts to grow the size, and improve the quality of, higher

degree students;

(v) universities referenced a government *Strategic Review of Health and Medical Research,* and workforce needs, when discussing their plans for health-related initiatives. However, none acknowledged these directly as the primary drivers behind the inclusion of health-related research in institutional research focus areas, though Tasmania indirectly noted that prevailing circumstances provided 'significant opportunities'.

In many instances, universities appeared to prefer describing national (often in conjunction with international) influences into their decision making through the aforementioned *public good ideals,* for example:

> ANU recognises the importance of innovation in promoting economic growth and improving social and environmental outcomes (ANU, p.14)

> Notre Dame is committed to Australia's national innovation system and particularly to improving knowledge transfer to end-users and economic and social outcomes for all (Notre Dame, p.17)

> Transfer of knowledge to industry, communities and other end-users is embedded in our goal that the University be a significant contributor to the nation's economic, social, cultural and environmental well-being (Macquarie, p.17)

The pursuit of outcomes which have beneficial impacts at a national level represents a natural point of overlap between Government intentions and objectives, and universities as public-purpose institutions. While 'alignment' allows the opportunity for institutions to selectively choose and portray their efforts as being in step with external (in the case of compacts, government) expectations, the task of doing so is enabled by such overlap:

> These objectives reflect both the core of UNE's mission since its independence in 1953 and the University's commitment to the Commonwealth's ambitions for the 2014-2016 Compact period (UNE, p.7)

As shall be detailed in the subsequent chapter, the in-depth case study and sector leader interviews added nuance to the analysis of determinants, allowing further unpacking of this observed relationship. The complexity of activities, priorities and interests within Australian universities, and the deliberate crafting of coherent narratives at the level of institutions, have fundamental implications for the questions of diversity and its determinants.

Chapter conclusion

Australian universities' research positioning makes frequent reference to contributions to global problems and to delivering outcomes of a public good nature. Even more commonly, the global outlook of universities is centred upon status and competitive positioning. In the Australian context, the funding model which does not cover the full costs of research, necessitates institutional resource generation for research through the seeking of diversified funding sources, including through the fees of international students. Funding and resource-seeking appear to be the strongest determinants of university research positioning, not only through funding directly for research, but also indirectly through such cross-subsidisation efforts. An associated imperative for size, continual growth and status improvements permeates the sector, as Australian universities compete with each other, and also within a worldwide marketplace for students, staff, and resources for research.

At the level of institutions, Australian universities demonstrate an astute awareness and responsiveness to national level factors and influences. In part, the homogeneity of positioning observed in chapter four, appears the product of purposive 'alignment' with the undifferentiated expectations of national government. Again, nationally based factors showed strong links to funding and resourcing issues, with Australian universities' sustainability reliant upon national government funding, which may help explain what appears to be generally passive, responsive, and adaptive behaviours. At the same time however, Australian universities appear to mask such passivity (for example, using language of alignment) and appear reticent to portray their decision making and behaviours as driven by government.

A distinct regional layer juxtaposed the potentially conforming effects of global competitive and national resource and funding related determinants. While definitions on what constituted a region varied in scale, regional factors appeared to result in differentiated research focus areas in some Australian universities, framed around distinctive place-based priorities. The possibility that such localised imperatives may contribute to enhanced institutional diversity supports Pinheiro, Charles and Jones (2016) work; however, this research concludes they may not, be as constitutive of difference as they appear at surface level.

Chapter 6 Institutional complexity and internal diversity

Chapter purpose and outline

This chapter presents a counterpoint to conclusions of sector level homogeneity by demonstrating *significant complexity and diversity within universities which is absent from institutional level representations* such as those contained in mission-based compacts. The findings outlined in this chapter arise primarily from the in-depth case study, where the development and content within the University 2016-2020 Strategy, and the implementation of an internal compacts process mirroring the Commonwealth approach, provided productive avenues for exploring institutional diversity and the determinants of research positioning from an intra-institutional perspective. Dynamics within the University are explained as an ecosystem comprised of a significant plurality of views, inputs, activity and approaches. Finally, the argument is made using the case study and sector leader interviews, that research positioning is the product of the selective crafting of narratives for multiple internal and outward purposes, such as the stimulation and portrayal of cohesion, and to support resource seeking efforts. The significance of this finding is then explained, for both the research questions of this thesis and for use of the institutional level for examinations of diversity.

Institutional complexity and internal diversity

"The faculty itself is very much like working in a small university, and so it's almost like you are going to another institution when you are going to another faculty here"
(faculty level participant interview)

A feature of the positioning of the University of Sydney relative to other Australian universities was the open discussion of challenges related to being a large, diverse, and complex organisation. Such features presented a barrier to strategic and institutional cohesion, which the University was seeking to overcome:

> Our overarching strategic priority is to rediscover what it means for so large and disparate an organisation to be one university, a federation of academic communities working closely together towards shared objectives
> (University of Sydney, 2014-2016 mission-based compact, p.7)

> A central focus of the 2011–15 strategy was that we should become a less fragmented
> institution, more able to make decisions for the University as a whole
> (University of Sydney, 2016-2020 Strategic Plan, p.15)

The 2016-2020 strategy, while acknowledging the intent of its predecessor plan (covering the years 2011-2015) to work through this issue (primarily by way of an organisational restructure from 16 faculties into six), noted the need for continued work to simplify a 'bewilderingly complex' structure, academic leadership, processes and governance. Echoing the loose coupling thesis (Weick, 1976; Orton & Weick, 1990), the plan itself inferred that such conditions were not unique to the University of Sydney, but rather that siloed academic units are a common feature of universities:

> The key achievement of the last strategy was to show the world the extraordinary social and
> intellectual impact a university can have when it begins to be a 'university', and not, like most
> contemporary institutions, a loose collocation of academic silos
> (University of Sydney, 2016-2020 Strategic Plan, p.10)

The scale and breadth of discipline areas at the University is illustrated in Appendix I, which, extracting from the University website and Annual Report, shows 240 schools, centres, institutes, and other groupings. A lack of uniformity in the internal organisation of these groupings adds complexity, which interview participants demonstrated an acute awareness of as a continued challenge:

> The picture becomes even more complex when the internal organisation of our current
> faculties is taken into account; for example, there is very little consistency in the authority and
> responsibilities of similar roles across different faculties and schools
> (2016-2020 University Strategy p.15)

> One of the Vice Chancellor's priorities over the last five years has actually been to try and
> really reshape the University so that everyone is doing things the same way, but that is really
> challenging (research management participant interview)

Proclamations such as these signify significant *internal diversity,* which Fairweather (2000) explains as "wide variation in instructional and research practices within a single college or university, or even within a single program within an institution" (p.80). Extensive differences within institutional communities raise questions about the completeness of cohesive institution-level positioning statements. In so doing, the limitations of using institution-level strategies and positioning for drawing conclusions related to institutional diversity are demonstrated. The extent to which internal diversity is obscured within institutional

representations is evidenced within this case study, for example, by virtue of the very small fraction of the aforementioned 240 groupings, whose activities - research or otherwise - were called out or described within the positioning documents analysed. As Appendix I shows, within the University's mission-based compact, 19 of the 240 groupings were named (11 in relation to research), while within the 2016-2020 University Strategy, 20 of the 240 groupings were named (6 specifically in relation to research). Of those small numbers, faculties and University level research centres constituted the majority named in both documents, meaning only a very small fraction of the other entities (schools, programs, clusters, non-university level research centres, groups, themes, research areas, labs, externally funded centres, and other flagship initiatives) were covered.

As the work of Meyer and Rowan (1977) would predict, the institutional level positioning of the University of Sydney represents an abstraction of a voluminous and complex intra institutional environment. Juxtaposing such a contention against the finding of sector-level homogeneity from the mission-based compacts analysis, problematises the use of the institution as a level of focus at which to observe (or indeed seek) diversity. Focus at an institutional level is very likely at an inadequate level of granularity to genuinely capture the breadth and variety of on-the-ground activities. At the same time, the juxtaposition of document analysis and case study findings will also demonstrate the ways in which the chosen level of aggregation or focus through which to explore for diversity, is highly determinative of what will be found (Neave, 1996; Huisman, 2000), as well as the value gained by the application of multiple methods.

Determinants through an intra-institutional lens

The inputs into institutional level strategy and positioning at the University of Sydney were extensive and diverse. The exploration of intra-institutional processes and approaches that arrived at institutional positions provided both nuance for questions around diversity, and insights into the factors that determine it when it comes to institutional positioning. What follows unpacks the various institutional layers observed in the case study, which in keeping with the theoretical framework of this thesis, were examined as existing in relationships where influence is reciprocal and multi-directional. Firstly, at the university level, the approach and confluence of inputs into the development of an institutional strategy is

163

outlined, which shows that the diversity of views among stakeholders is so significant that consensus is not possible, and institutional mediation is required to decide upon positions. A meso-layer is then analysed, where an ecosystem of planning at faculty and school levels exists, which illustrates how multifarious agencies are exercised within such a complex and multi-layered institutional setting.

Attempting to create institutional cohesion through strategy development

A comprehensive account was gained of the development of the 2016-2020 University strategy from a range of perspectives. Interview participants spoke of minimal involvement and awareness of mission-based compacts (detailed in chapter seven), but extensive engagement and insights into the development of the 2016-2020 University Strategy and its subsequent implementation. Commencing with an emphasis upon the level of consultation undertaken, the 2016-2020 Strategic Plan sought to create shared ownership through a bottom-up (to use participant language[42]) development approach. The document itself promoted that input into the development of the plan included: over 5,000 responses from staff; open focus groups attended by over 600 staff and students; dedicated workshops with contributions from over 400 staff and students; and a series of Vice-Chancellor Town Hall meetings, executive presentations, engagement with external partners, as well as discussion papers covering education, research, culture, and organisational design issues:

> We are confident that the extensive internal and external consultation process undertaken in the development of the plan, and the deep commitment it evinces to supporting education and research, will secure the support and advocacy of our staff, both academic and professional, and our external partners (University of Sydney, 2016-2020 Strategic Plan, p.1)

According to one senior executive participant, the decision to pursue such varied and extensive consultation approaches was guided by the need to provide different means of engaging, to an audience made up of such varied preferences. This in a setting where "the

---

[42] Bottom-up and top-down was a code which captured instances of this and showed that what was characterised as the top or bottom was relative and varied depending on the context being discussed. The top for example was at times seen as the faculty level (" it's often clear though that they are coming with top down views of their faculties" (central university participant interview)); the central University ("I also sit on the University Research Committee and so we sort of get it straight from the top quite regularly" (research management participant interview)); or externally the Government ("on top of all of that we are actively responding to Australian Government public policy" (research management participant interview)).

University of Sydney is traditionally a collegiate model, which means that the staff expect to have substantial consultation about strategic directions" (faculty level participant interview). Engagement with such mechanisms and their development, however, was not consistent across the University, with acceptance among several participants that: (i) not all staff members, regardless of how inclusive the approach, will choose to engage with or be 'reached' during strategy development or implementation; and (ii) that by virtue of the size of the University and broad scope of roles and interests, levels of engagement in such a complex organisation will never be universal or uniform[43] (here the useful analogy was made by one participant of a casual teaching academic – a sizeable contingent – for whom broader environmental, institutional and strategic imperatives, in particular those related to research, would be very distant from day-to-day activities):

> we know that in certain faculties, we will get submissions, written submissions, we know that others are more likely to come to focus groups, we know that there are certain academics who won't leave their research lab because their work, a different kind of activity that takes them away from that has to be far more valuable…and there is a set of people we won't reach (senior executive interview)

While participants outlined broad reach and engagement with stakeholders during strategy development, the lengthy period over which consultation took place limited participants capacity to provide input over time and across activities. One faculty level participant provided an example of participation and engagement not necessarily being a polar 'in or out' phenomenon, but rather a 'coming and going' as time allowed. This participant's reflections were largely positive about the strategy development process, noting a strong collective sense and coming together with very little resistance. However, they expressed difficulty staying engaged throughout the process, given workload and time pressures. When it came to providing feedback on drafts, they explained that the documents were so lengthy that stakeholders could only engage with very specific parts of them. A feeling then resulted of being removed from how the final strategy evolved, with the assumption that a small number of senior executives had thereby moved forward and made decisions.

---

[43] Despite being a sample purposively selected for their relevance to research and strategy development varied levels of interest and engagement were observed. For example, one participant stating "I am aware to the extent that I need to be aware", and another (despite a senior role) that their involvement in strategy development was "as little as I can get away with", signalling a reluctant engagement based in just trying to meet expectations.

The development of the 2016-2020 Strategic Plan at the University of Sydney demonstrates the seeking of cohesion at the level of an institution, from a broad and differentiated set of internal communities. However, the setting of parameters for providing input, and the arrival at a set of final positions encapsulated within the strategy, required decision making independent from the wide array of inputs received. One senior executive described the highly consultative nature of the program and planning process, but a "process of consultation as opposed to consensus building" wherein stakeholder perspectives could be reflected back to them, alongside decisions and the rationales behind them. This reflects ideas found within the literature which have suggested that enhanced institutional autonomy has been centralised into executive structures (Fumasoli, Gornitzka & Maassen, 2014; Frølich, Stensaker & Huisman 2017). The approach taken at the University of Sydney sought cohesion through an inclusive development approach as opposed to a collectively determined outcome. Concentrated decision making was framed as a practical necessity, with consensus unlikely to be possible (or effectual) within a setting where views, interests and priorities are so voluminous, varied and even competing (Frølichet. al. 2013).

Steering activity through selective resourcing aligned to strategy

"There is the messy reality of what really happens in the university's research centres, courses and teaching. Each university will have a template, a plan into which it tries to squeeze all of this while making it look purposeful, predetermined and steered from above. Whether such plans actually shape or reflect the work of the academy, except perhaps through the allocation of modest discretionary funding, is an open question"
(Emeritus Professor Janice Reid, interview)

Echoing the finding from the mission-based compacts analysis that funding is a significant determinant across the sector, the primary means by which activity was steered within the University of Sydney was through resource allocation. Participants described unifying and stimulating cohesion within an otherwise disconnected institution as a primary and deliberate focus of the institutional strategy, and indeed the Vice-Chancellor ("what he's been all about" – central university participant interview). Moreover, a view was commonly expressed that initiatives contained within the strategy had to some degree helped to stimulate a collective sense and increased collaboration:

I mean I think there's a hell of a lot of work to do, but I think the place has genuinely really shifted in the last 5 years from being one that was heavily, heavily siloed to one that's much

more open to collaboration across faculties
(central university participant interview)

The means by which such results were being achieved was through resourcing, selectively distributed in ways designed to stimulate particular behaviours. Enhanced University spending was called out as a key headline within the strategy, which spoke of tripling the University's investment for research. Moreover, where funding for research had previously been broadly distributed, the approach taken in conjunction with the 2016-2020 strategy (which was also observed at multiple other universities through Commonwealth compacts) involved focussed investment into large multidisciplinary and collaborative activities. These were frequently described in positioning statements in terms of their broad public good potential. This was described by one participant, who from a central decision-making perspective, explained the rationale behind the approach as the seeking of performance improvement:

> There is real beauty of being a comprehensive university, and real strength in that, but we had been fragmented in the way that we made decisions, and also distributed in the way we thought about investment in such a way that we just weren't getting the kind of performance that we'd expect, because we gave a little to everyone essentially
> (central university participant interview)

One of the key mechanisms through which investment decisions were operationalised was through internal compacts. Agreements between faculties and the University were implemented across the campus, just as mission-based compacts were agreed between universities and the Commonwealth Government. One participant described this approach as a changed 'treatment' of faculties, which in their view had facilitated the increased cohesiveness sought by the strategy. Key to the effectiveness of internal compacts for steering behaviour and local level decision making, was the direct resource allocation associated with them, something which notably was not a feature of Commonwealth compacts:

> I think it is working, so yes I do think it [cohesion] is possible. I think people were moved beyond their comfort zone in that previously faculties were treated quite separately and there was a lot of duplication of research strategy [...] one of the clever parts about the compacts has been that there were, I think it's the first time I've seen where the University has said well you know we've got this money but to get it…next year's funding is contingent on us demonstrating that we've got some cross-faculty initiatives happening
> (faculty level participant interview)

Similar to the conditional autonomy and steering approach taken by governments to Australian universities (cf. Marginson, 1997) and in international contexts (cf. Ferlie, Musselin & Andresani, 2008), a model was apparent within the University where autonomy in decision making was afforded to local areas, but incentives with the potential to influence decision making were provided in the form of institutional-level investment. Even where faculty-based participants described ideas developed at local school and faculty levels, for example, through an analysis of internal capacities and external environmental scanning, an overlay of institutional steering through the mechanism of selective investment was evident:

> Next year's funding is contingent on us demonstrating that we've got some cross-faculty initiatives happening, um so, I think when you link these things to money um it really does help people move forward and start playing together and talking to each other, and so I think what's happening is there is a lot more networking across faculties as a result (faculty level participant interview)

Internal compacts also provided a practical means of formalising and regularly monitoring activity based on reporting milestones for the funding allocated through them. Such an approach, with direct allocation of funding and purposive monitoring of outcomes from it, represented a point of difference to the Commonwealth equivalent compacts. The effectiveness of this internal approach for steering some behaviours was clear from the uniform perspectives shared by the research management cohort including those such as Associate Deans, Research. Here, for example, the level of importance ascribed to particular strategic initiatives was correlated to the size of the funding investment made into them.

> The University has got a number of priorities in its research strategy, as part of its research strategy, but some are probably a bit more important than others, in the sense that they've got more funding behind them
> (research management participant interview)

Experienced sector leaders affirmed the importance of funding and resourcing as a key determinant of institutional planning and behaviour. Professor Glyn Davis described its importance to executives within universities as "the primary management tool" in a context where there is disconnect between drivers at institutional local levels:

> the way we are structured through regulation and government, the regimes of reporting...so there is a whole set of reasons why the incentives at the bottom are not hugely driven by budget, but the more senior you get in an organisation the more that [funding] comes to dominate your life (Professor Glyn Davis, interview)

Similarly, Professor Alan Pettigrew provided a former Vice-Chancellor perspective suggestive that while funding and resourcing intersects with academic freedom and more localised imperatives, it represents an important tool which at the institutional level can be directed to achieve collective goals:

> you can direct, gently direct your research profile by putting strategic funding in behind certain activities that you really want to support […] The other uniform feature of all universities is the principle of academic freedom. So getting strategic direction setting in research is challenging, simply because the way in which you can manage your research profile across the institution is dependent on the activities of individuals who will always claim their academic freedom. So, it comes back to the concept of how do you herd cats? And my answer is that you move the food bowl (Professor Alan Pettigrew, interview)

The perspectives gained from those in Sydney University executive roles and those who formerly held institutional level roles at other universities, such as the experienced sector leaders interviewed, showed clear alignment. As people who occupy positions that are tasked with developing and implementing collective plans and strategies, a key means of attempting to create uniformity of purpose and effort, among complex and diverse internal stakeholders, is through the provision of incentives. For research, this was primarily in the form of selective and focussed funding and resources. However, and importantly, such resources are also available through other means, and as such institutional level initiatives are in no way reflective of the totality of research activity which takes place within a university such as this. Below, one participant pointed out, for example, that while institutional investments into collaborative multidisciplinary initiatives may come at the expense of pure disciplinary research, the latter continued to occur, albeit funded through other means:

> So that's the challenging trade-off, because any money which is given to the large interdisciplinary activities is taken away from the pure disciplinary research, funded through teaching in many cases (faculty level participant interview)

While this example uses cross-subsidisation through teaching revenue, funding and resources are also obtained in the form of research grants distributed competitively by national research council's using (discipline-based) peer review, or other means. This idea again suggests that while institutional steering through resource allocation is influential, it is unlikely to result in uniform decision making at more local levels.

> Real scholars are getting on with doing the business of actually doing their research and doing their teaching with the absolute minimal direct obligation to conform to some thing central management wants (Professor Glenn Withers, interview)

> Research is an intensely personal activity, strongly dependent on the ideas and imagination of individuals or groups of individuals. Academic staff feel a fierce personal ownership of their research; it shapes and dictates their career development and their status with their peers (Taylor, 2006, p.2)

Reflecting Burton Clark's (1983) influential work, which gave pre-eminence to the impact of researcher or discipline level drivers (or what he termed 'academic oligarchies'), a tension remains where highly varied discipline-based determinants act to confound efforts at institutional direction setting. This is particularly the case for research, where *academic activity and decision making remain heavily influenced by discipline-based norms and indicators of success:*

> People think of themselves as you know either an orthopaedic surgeon first or a political scientist, or an English literature scholar, and in their community they know who the movers and shakers are, who are the leaders, and what the rewards are that would push them up into greater recognition and success (research management participant interview)

An indicative example of a resulting tension from the University of Sydney was evident through the goal for increased collaboration across disciplines and faculties. While participants noted some success had been achieved in stimulating such activity through resource allocation, it was not felt uniformly throughout the institution. Here, using the example of visual arts and chemistry, fundamental disciplinary differences were explained as limiting the possibilities and uptake of such a goal: "the methodology is completely different, the type of output you generate is completely different, the way the significance or the esteem of it is measured, or the impact of it is measured, is completely different" (faculty level participant interview).

Throughout participant interviews, perspectives were provided that inevitable differences remained between discipline areas, faculties, groups, or individuals, which limited the reach and influence of institutional goals. Participants from an institutional standpoint appeared to continue seeking commonalities as well as localised buy-in, at the same time as recognising that it would not be possible in all cases:

> I do think it is possible to have a whole of University view about some things even if it is whole of University view that says, or that recognises that, there are different cultures in different faculties and different requirements (central university participant interview)

> many of the layers of initiatives that sit within it [the University Strategy] actually go directly to an individual, and yes it might be a set of individuals that show the potential to flourish it's not everyone, so I don't think it's felt uniformly across the place, ever
> (another central university participant interview)

Participants at a Faculty level provided more fine-grained perspectives, which again suggested that activity and behaviours would inevitably, in some cases where no alignment was perceived, be guided by other more individualised imperatives:

> some people might relate to [strategy and institutional positioning] and are thinking, well alright this is my opportunity to thrive in this environment, others might say well I'll just sit here and do my BAU [business as usual] work (faculty level participant interview)

Unique to higher education, according to some participants, the view of a university as a setting where institutional citizenship is weak, was clear in some descriptions: "the nature of the University is that people end up basically in their own domains, and so you have in essence cells of interrelated people" (research management participant interview). One participant characterised the academy itself as built upon the principles of autonomy and enabled individualism, a reason why effective and institution led priorities and change has difficulty taking root within the setting:

> Let's say if you work for Macquarie Bank or Telstra or something like that, what's very different about here is that academia is very much based on enabling individualism, you know, and even though academics work in an institutional context, it's very much about individual autonomy […] So you wouldn't say that a nuclear power plant, and you wouldn't have workers saying well I don't like to do things that way, it doesn't suit me. Universities are at the opposite end where individual autonomy is a kind of key cultural feature of our organisations, and that's because of a long tradition (faculty level participant interview)

Experienced sector leaders again aligned with such perspectives, and the idea that for researchers, "their first loyalty is of course to the discipline and to their own field" (Professor Mary O'Kane, interview), and at the same time that "the mechanisms for top-down direction of research are too weak to affect individual researchers much" (Emeritus Professor Gavin Moodie, written response). However, what was missing from such viewpoints is the possibility of reciprocal influence, which is a key feature of the theoretical framework described in chapter three.

Academic decision making related to research does allow for the exercising of significant autonomy. However, such decisions may be guided *at the same time* by individualised values, purpose, discipline-based drivers *and* other mechanisms and incentives determined at any number of institutional or environmental levels. This appears particularly possible given the finding of this research which demonstrated the strength of influence of funding drivers. The obtaining of funds for research, as well as enabling research to be undertaken, acts as a highly influential proxy for status and success, as noted in chapter four. The interaction between autonomous decision making and funding drivers, for example, was described by one participant, and was inferred in the University Strategic Plan itself:

> I think pragmatically it's an interactive force we both influence each other, and much of it is in fact governed by funding sources. So as soon as there is money allocated for a specific thing then you've got all the experts coming out of the woodwork putting in grant applications and directing their research to that particular question. And once the funding for that particular question or theme evaporates, they shift (research management participant interview)

> this is the vision of an institution in which there is freedom for individual researchers to pursue their own lines of enquiry, but also an evidence based understanding of our research strengths and an institutional ability to invest strategically in research and education projects (particularly large scale, cross disciplinary projects) of national, regional and international importance (University of Sydney, 2016-2020 Strategic Plan, p.11)

An additional characterisation which emerged from case study interviews was the idea of researchers as akin to franchisees, developing their own businesses. A recipe for success of initiatives rests in a balancing of drivers from both researcher and institutional directions:

> Things need to be driven by individual researchers, and it needs to come then from the ground up, so even though we can have a top-down view of some things, we need to have researcher buy-in and we need to have researcher champions for them to succeed. Where does the balance sit? (central university participant interview)

The decision-making processes related to academic research occur at multiple levels within an institution. As well as being filtered through multiple layers within an institution, often with their own positioning, plans and approaches to investment, decisions devolve all the way down to individual researchers whose own agency interacts not only with intra-institutional factors, but with environmental imperatives. This autonomy, as described above, may be influenced by factors such as selective institutional investment designed to stimulate particular behaviours, but at the same time, decision makers appear to understand the limitations they face in determining institutional positions.

> "to have the full picture and a reasonably good understanding of the dynamics of
> organizational change at universities one has to take into account the path-dependent
> character of university structures, practices and identity concepts"
> (Antonowicz, 2013 p. 11)

The influence of historical context as a framework within which decision making occurs appeared significant in the University of Sydney. One participant, who had many years of experience at the University stated that the reason for the existence of some areas of research was that they were "accidents of history" (research management participant interview)[44]. As the oldest Australian University, some discipline and research areas existed, according to them, by virtue of the University of Sydney at one time being the only university to teach and offer degrees in the discipline area. When asked to offer a view on this observation, one participant noted that "universities generally don't have a great track record of stopping things right?" (central university participant interview). Another participant chose to directly use the concept of path dependency (explained in the literature by many, for example, Antonowicz (2013) above) as an explanation of how strategic choices are framed and often dependent upon - and limited by - previous choices:

> Institutions go down particular pathways that are not always easy to budge. It's not saying that they can't, but often the costs of doing something different […] and where they have come from are going to drive things more than the latest strategic plan, or the latest initiative of the VC […] it's not quite as easy as saying, we've got a new strategic plan, we've got a new strategic you know initiative, because I think that can do a lot and it's not to say that it can't happen, but that inheritance and previous choices are often just as important
> (faculty level participant interview)

The relevance of path dependency within an institution of the age of the University of Sydney was also acknowledged within the Strategic Plan: "While this plan itself sets out our direction for the next five years, it is important that it is understood as part of a trajectory, beginning with our foundation almost 170 years ago and building on our 2011–15 Strategic Plan" (2016-2020 University Strategy, Foreword p.1). Several experienced sector leaders spoke in similar terms, particularly notable when coupled with their seniority and what might be assumed to be their capacity to influence direction or change. Historical factors appear to

---

[44] Davis (2017) suggests that rather than accidents, the founding statute for the University of Sydney included provisions for educating into the professions which reflected the needs of the colonies.

provide an inherited set of social and cultural pre-conditions which bound the capacity for strategic decisions:

> You're quite right about the convergence on a common set of aspirational statements, but in reality what you see in the university groupings and aspirations, as captured in the coveted international rankings, is as much a product of history as it is a function of their planning or strategy (Emeritus Professor Janice Reid, interview)

The University of Sydney as a case provides an example wherein the exercising of agency at various levels is framed within parameters which include a long history[45]. As Strike and Labbe (2016) note, decision making within universities is often incremental and "Historic legacies, existing relationships, established cooperative practices and habits of mind are the ones that shape institutional responses" (p.9). Applied within the University of Sydney's complex setting, such paths exist at each of the institution's levels, from the institution level through to sub-units and even then, to individuals. The determinants of something such as research positioning then, even where autonomy and inclusive design seeking institutional change are a feature, cannot be separated from limiting historical contexts, an important idea for policy considerations discussed in chapter seven.

Layers of planning – an ecosystem of reciprocal influence and 'alignment'

The domain in which case study participants described their capacity to influence in the strongest and most active terms was developing plans at meso and localised levels. The recent work of Fumasoli, Barbato and Turri (2019) theorises that an important consideration that should be factored into research from an strategic actorhood perspective is this meso-organisational layer, which they asserted exists as sub-levels between environments and managerial rationality. Analysis which included this meso level for this research, resulted in a picture showing a variety of plans described at the University of Sydney, which included the

---

[45] Other universities also contextualised their compacts responses using historical and tradition related tropes: Adelaide "will be a university true to its historical roots" (p.11); UC "is cognizant of its history" (p.7); and Tasmania's plan spoke of continuing a long tradition "building on the significant achievements of our past" and "recaptur[ing] the energy of our founding spirit" (p.7)). Again, connections were observed to ideals embodied within university founding legislations, for example: James Cook whose Act outlines a role undertaking research in areas of importance to people of the tropics; La Trobe whose fundamental purpose was the serving of region based communities; UWS who spoke in terms of a 'distinct legislative charter'; Notre Dame where fidelity to catholic values underpinned goals related to social obligation; and UNE who objectives sought to "reflect both the core of UNE's mission since its independence in 1953 and the University's commitment to the Commonwealth's ambitions" (p.7).

aforementioned internal compacts, as well as an array of faculty level and school level research plans. In some cases, these covered the broad overarching collective research goals and activities of a group, while in others they were created to focus upon specific activities (for example plans for ERA at discipline grouping levels which crossed faculty boundaries). Figure 7 provides an illustration of the intersection of these various plans and settings which helps to demonstrate the multiple layers and the multidirectional nature of influence within an institution.

Figure 7: Institutional planning layers mapped to a multidirectional framework
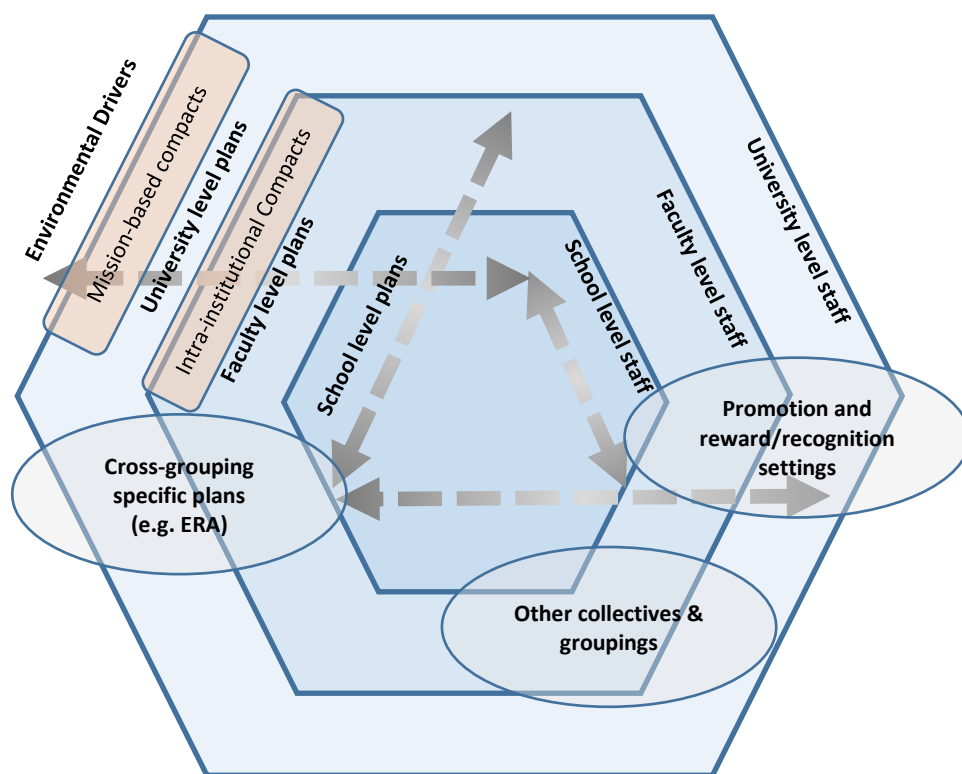
While at times couched in the aforementioned top-down and bottom-up binary language (implying a greater capacity to influence from one direction, the top), the descriptions of participants demonstrated the reciprocity of influence across layers within the institution. This was echoed within the University Strategy itself, which described a symbiotic environment wherein the success of local and university level initiatives was co-dependent:

> Culture change is most effectively ensured when shared values are embraced in each local area, and consequently change local practice. Leaders should model and encourage the behaviours that reflect our values; they should also provide formal and informal opportunities to discuss and receive feedback on the ways in which our values can be given practical

expression. The methods used in each area to tackle issues of culture will and should vary. Staff will be encouraged to take account of local circumstances and issues and motivated to share examples of best practice.

However, if this local work is to take root it must be supported by University-wide initiatives to embed our values in academic policies, and in core human resources policies. The process of cultural change should be monitored and overseen at a University level. Only in this way will we see real change (2016-2020 University Strategy)

Participant descriptions of the development of more localised meso and micro levels of planning, notably differed from the institutional equivalent. Local level planning provided more flexible boundaries for input and less limiting parameters. The breadth of consultation and capacity for provision of input was described by this participant as more open and geared toward obtaining stakeholder priorities, to the extent that it resulted in a level of fatigue:

When we were developing the strategic plan for the Faculty, there were multiple consultations, so it was an iterative process, and it involved staff, all academic levels from A to E, as well as all our professional staff. So it took, I think it probably took over a year, to the point that everybody was like 'please' [laughs] can't do this anymore. So it was heavily consulted, consultative across all levels to try to get a sense of what people's, what the staff wanted, the University Strategic Plan I think has been a little bit more top-down (faculty level participant interview)

Differentiated functions between the strategies of the University's various levels were described by another participant, with the meso faculty level effectively mediating between institutional objectives and school or disciplinary level concerns. Furthermore, the way this was described suggested that at faculty levels expectations were more pronounced, and even if promoting institutional perspectives they needed 'to be seen' to be supportive of discipline level drivers (which notably again were framed in terms of funding):

The way I see it the school is typically seen as being responsible for maintaining disciplinary research. The Faculty is in between the two and the question is where the Faculty sits, because the University is trying to promote large research centres typically, like many institutions now, to try to make high profile concentrations of leading academics by putting large investments into specific areas […] then the Faculty has to somehow sit between the two because the Faculty strategy doesn't want to be seen to not support disciplines at all, because clearly disciplinary research is the bulk of ARC funding (faculty level participant interview)

The concept of *alignment* again featured prominently, as it did within the mission-based compacts analysis. Similar to the description in chapter four whereby universities across the sector chose to characterise their activities as in alignment with national or government priorities, within the University of Sydney localised areas described their goals

and priorities in terms of their alignment with the central University's goals or ideals. However, through interviews, unlike document analysis used in isolation, closer examination was enabled of what is otherwise an ambiguous term for determining the nature and direction of influence. Participant perspectives showed that when particular plans were developed, in relation to other plans, was an important factor with implications for multiple plan alignment. In the case below, Faculty and central university plans were being formulated in tandem, with the Faculty plan then put on hold to await the institutional plan, in order that alignment could be maximised:

> the University one was being developed while the Faculty one was being developed, so eventually we got the Faculty one to a certain point and then we stopped and we waited for the University one to come out, and then we made sure that we aligned with it
> (faculty level participant interview)

A 'top-down' viewpoint, which emphasised the University plan's pre-eminence, was evident in some descriptions. In the view of one participant for example, the meso level faculty strategy mirrored the institutional strategy for the purposes of leverage, with a variety of approaches put into place to 'enforce' alignment:

> There is a Faculty strategy which mirrors that strategy, it also tries to tie in the strategy of the schools into the larger university strategy. So there's strategies at 3 levels […] there's the layers to consider there feeding into the Faculty strategy, and at the same time the Faculty is trying to leverage the research strategy of the University.

> So, for example in our last round there was, were strategy workshops in each of the schools, before the Faculty strategy was put together, to try and sort of enforce that alignment, and then there is the top down because the University strategy had already been discussed at that point (faculty level participant interview)

The same participant, while considering alignment a worthy goal, expressed scepticism at its likely existence between the multiplicity of plans across organisational units, which may serve differing functions and therefore have varied emphases:

> So each school has its own strategy, then on top of that is the Faculty, then the Faculty has its own strategy in education and teaching, sorry teaching and learning, and research, and so on. And then on top of that is the University strategy. Now, ideally they should all be aligned, that's not always the case. There is an acknowledged emphasis where the schools are expected to place emphasis on maintaining research in the disciplines, whereas the faculty is perhaps responsible for multi-disciplinary efforts (faculty level participant interview)

Stensaker and Fumasoli (2017) have previously described universities as environments where 'multi-level strategies' exist at different institutional layers (faculties, schools, departments, institutes and centres) with varied relationships and purposes. Such a scenario, as shown in figure 7, was very evident at the University of Sydney. Commonly the aim presumed behind such an approach is the strengthening of organisational coordination and cohesion within a complex setting by allowing for localised adaptation. However, Stensaker and Fumasoli concluded that multi-level strategies may have limited efficacy, as they can be rejected or ignored. Moreover, they introduce the possibility that the extent of such plans may even work to increase institutional complexity:

> although introduced as integrating instruments – multilevel strategies may actually increase the complexity within the university as different strategies provide different actors with leeway for opportunistic behavior (Stensaker & Fumasoli, 2017, p.1)

The University of Sydney case provides an example which supports the notion that multi-level planning, despite serving a coordination function, may serve to increase complexity. In keeping with the theoretical framework, and the concepts of organisational actorhood (Krücken & Meier, 2006; Krücken, 2011), agency within the University (even as represented through the sample of research decision-makers) appeared highly pluralistic. It encompassed the agency of individuals and – similar to the formal agencies specified within glonacal in its original globalisation context – through organisational groupings by disciplines, faculties, schools, departments, institutes, and other group constructs[46]. Strategic goals at each of these institutional sub-grouping levels were described within plans with varying levels of alignment to the central University plan. An internal compacts process with associated funding and resource allocation served to stimulate alignment, within an otherwise decentralised decision-making structure. However, and importantly as shall now be demonstrated, alignment of plans can be crafted at the same time as the maintenance of a plurality of activities driven by multiple actors and agencies furthering their own varied interests (Seeber et. al. 2016).

---

[46] The attribution of agency at such meso levels was also very recently found in the work on Nokkala & Diogo (2020) who describe research groups as holding "entrepreneurial agency independent of their national and/or organisational context, forming a specific nested organisational field" (p.518).

Crafting of narratives for varied audiences and purposes

"we are a highly narrative environment, and words have real currency"
(central university participant interview).

Participants described institutional strategies and compacts (Commonwealth and intra-institutional) as documents built upon the crafting of coherent stories. The audiences for such stories or messages were varied, with nuance applied to tailor them accordingly. Thematic analysis of interviews and documents indeed showed that narrative construction related closely to many themes. Stories were crafted, for example, to improve the chances of success in requests for funding or resourcing, and to unify members of a large organisation to common purpose. Related to research, this commonly involved descriptions of areas of research focus and strength (tied to shared, often global, problems), and the bringing together of interdisciplinary groups around them. Such narratives were commonplace across the sector, as shown in chapter four, and were also evident within the University of Sydney and its multiple levels of plans.

The importance of crafting tailored stories to influence research resource decision making spanned the multiple layers which were observed at the University of Sydney. It applied to seeking funds within the institution from faculties, schools or the central University, and external organisations such as government, grant bodies or external partner organisations. It also spanned the scale of individual researcher projects applying for grants through large infrastructure bids prepared by at an institutional level seeking substantial investments. Here, for example, a compelling narrative around obesity, diabetes and cardiovascular research enabled external funding to be gained for the Charles Perkins Centre, an initiative called out as a specific research focus area within the institutional strategy, where University investment sought to incentivise collaboration:

> what's the best idea we've got at the time to put in an application to get some money from the Government? Low and behold it was a story about obesity, diabetes and cardiovascular research, cause that collectively is a massive strength across research, and it seemed like that's a good strong broad area that we can make a story around…so we bid to the Government, we got $95 million bucks (central university participant interview)

Such deliberate effort to craft a narrative to obtain funding is not uncommon to competitive research grants in general, where it is described through terms such as 'grantspersonship'.

One participant went further showing that the crafted stories which resulted, do not necessarily reflect what happens at an on-the-ground level, and that deliberate institutional effort was then required in order to try to fashion it: "then we found ourselves in an invidious position of, well we told a story about what this thing was going to be to get the money, and we are having a really hard time in reality, making that story real".

Such a finding has significant consequences for drawing conclusions (in this case about institutional diversity) based upon institutional positions. It also provides insights for open questions about whether articulations of strategy and identity are more symbolic than substantive (Morphew, Fumasoli and Stensaker, 2016). As explained by both Huisman, Norgård, Rasmussen and Stensaker (2002) and Mampaey (2016), the symbolic role played by strategies (which has led to institutional convergence conclusions in much research, given that institutions in articulating strategies often passively comply and respond to normative expectations to maintain legitimacy) means that their content may not necessarily reflect the full extent of institutional activities which are difficult in nature to predict and measure.

These ideas are important for mission-based compacts as broad-reaching agreements, which attempt to align diverse needs and cover a wide range of institutional functions and activities, divided in practical terms amongst multiple university portfolios. One participant described the deliberate efforts required to apply a consistent voice, and the dangers of overly devolved drafting in such a scenario:

> I mean the thing with the compact is it had an overarching section and then it had all the different other sections, and you want to have a voice that comes through that, that's a consistent voice for the University. So I've seen these things can just become diabolical mess if you just send material out and say to people, 'you're responsible for this section'
> (central university participant interview)

The need for deliberate coordination and management again suggests the diversity of inputs from such a wide range of stakeholders in an organisation of this size, which can include contradictory positions. Such complexity is deliberately managed and crafted in to cohesion in particular, according to this participant, when presenting to government: "we are going to try and present as one university, it's a federation, it's complex, but when it comes to government relations and policy we are going to present as one university" (central university participant interview).

Importantly, such descriptions did not speak of the changing of localised circumstances, priorities, or activities, but rather the selective packaging of them. The consequence for research into institutional diversity, is that explorations based on documents alone, may not account for what lies beneath and beyond editorialised constructions. While thematically and linguistically, institutional positioning may give the appearance of coherence and homogeneity across institutions (given the standardised set of expectations they may be responding to, well described by institutional theory), what is missing is the complexity that is deliberately obscured. Providing an example of this specific to research was this participant whose view of research strengths and focus areas was that they were: "more driven by just making research comprehensible and what the University and Faculty is doing and almost branding and what fits on a website […] it's next to impossible to really have specific research areas across a faculty let alone a university" (research support participant interview).

Institutional strategies are restricted in their capacity to either describe – and exert influence upon – activity and behaviour within a university. This idea was supported in the experienced sector leader interviews, where again the role of resource seeking was shown to be a primary determinant for neat narrative constructions:

> I think for compacts, universities of necessity have developed a well-intentioned veneer over the reality of the inner workings of institutions, trying to tie together the commonalities and the aspirations when in fact a university is much more complex than this. It is a scholarly potpourri of self-generating research clusters, administrative units, teaching programs, and affiliated bodies, such as the hospitals [...] But mostly it is a well-managed complexity. People at all levels are trying to present a coherent and unified face to government, to make sure that their institution thrives and funding is forthcoming (Emeritus Professor Janice Reid, interview)

As was also reflected in findings from mission-based compacts analysis of the sector, Professor Mary O'Kane suggested there would likely be differences between institutions. In a case such as the University of Sydney, positioning is more restricted given the scope of activities encompassed within such a large organisation:

> it's values based, and 'doing high quality research that makes a difference', and that is probably about as far as you can go. If however you are Southern Cross University, you probably can say much more about, 'we have a strong focus on Northern NSW, we are particularly focussed on doing marine work, we make a difference to a local community that is socio-economically challenged' or whatever. So you'll see a bit more of it in those universities, but if you are Sydney, you are everything. And with Sydney they will also talk about being a

'big global university and representing Australia', or being an icon for Australia
(Professor Mary O' Kane, interview)

The mission-based compacts analysis described in chapter four showed, however, that Australian universities of all ages, types and sizes chose positioning statements that converged upon similar narratives. The influence of institutionalised norms, perceived expectations, and mimetic thinking and approaches appears clear *at the level of institutions*. Institution-level research positioning demonstrates passive responsiveness to external environmental factors, particularly those at a national level. From complex and diverse internal ecosystems, Australian universities are able to draw selectively, and to craft coherent stories that serve multiple purposes, not least resource and status seeking and the meeting of what they perceive to be the expectations of stakeholders such as government.

Chapter conclusion

The University of Sydney shows that significant intra-institutional complexity belies coherent institutional positioning within universities of this type. The complexity of such environments are encapsulated in concepts such as *organised anarchies* (Cohen & March, 1974) or the *loose coupling* thesis (Weick, 1976), through which traditional notions of organisations as rationalised and coordinated structures were challenged in ways which have held traction over time (Orton & Weick, 1990; Mignot-Gérard, 2003). Internal diversity within the University was evident in the development processes for a strategy which deliberately sought to unify a historically fragmented institution. Some success was being achieved for initiatives contained within the strategy, by virtue of funding which incentivised local area alignment to institutional positions. Regardless, a highly plural ecosystem remained within the institution, where extensive sub-unit planning adds to the complexity, and allows for selective foregrounding of activities to demonstrate alignment.

The addition of a case study to this research and multiple data sources contributed significantly to the thesis research questions. For example, the observations of sector homogeneity through mission-based compacts analysis, were nuanced by the finding that such institutional level positioning involves the selective packaging of activities which are crafted to meet particular objectives (such as those within mission-based compact guidelines). Narratives of cohesion obscure the underlying complexity and fragmentation

within an organisation of this size where significant *internal diversity* exists. Research decision making, in particular, is plural down to the individual researcher who has autonomy to decide on research directions, and who is often driven by multiple imperatives that are not institutionally determined. Therefore, conclusions of convergence or homogeneity based in higher-level institutional positions likely fail to capture diversity that exists at less visible lower levels, a conclusion which supports earlier work based in other international contexts (Mampaey, 2016; Diezmann, 2018; Antonowicz, 2013).

Chapter 7: Lessons for policy and program settings

Chapter Purpose and Outline

This chapter outlines lessons drawn from the findings of this empirical research for policy and program settings seeking to stimulate institutional diversity. Mission-based compacts as a government program, overtly sought to promote 'greater specialisation and diversity of missions' (Commonwealth, 2009). However, when compared across the sector, and examined further through a case study and interviews with experienced sector leaders, the converse was observed. The chapter argues that the application of a standardised format and a uniform set of expectations applied to all universities is counter-productive to stimulating diversity. This argument is supported by examination of an intra-institutional compacts exercise that had apparent success within the case university in *encouraging alignmen*t – or internal convergence - to an institutional level set of goals. The chapter responds to the third research question of the thesis, by providing a series of considerations for the development of policies and programs seeking institutional diversity, developed on the basis of lessons drawn through the course of this research.

Context and boundaries for the drawing of policy lessons

Given the array of sector configurations and models that exist internationally, policy approaches in higher education, and therefore recommendations for them, are heavily context-dependent (cf. Guri-Rosenblit, Šebková & Teichler, 2007). This is the case even between jurisdictions such as the United Kingdom and Australia where sector and policy design has historically been borrowed. Policy recommendations also need to be tempered by an understanding that institutional diversity serves as only one among a myriad of considerations that government and policy makers must factor into decision making. Indeed, Birnbaum (1983) pointed out that institutional diversity is unlikely to be a primary concern of policy makers when considering resource allocation approaches, as that is something they could neither afford financially or politically. In providing recommendations to the Varieties of Excellence review into Australian institutional diversity, Clarke, Thomas, and Wallace (2001) caution that a single issue cannot dictate public policy. Their approach of thereby

focussing recommendations at the level of principles for consideration in policy development has been followed here.

Mission-based compacts as an ineffective mechanism for stimulating diversity

> "where a particular view is imposed by a central agency typically
> provides a blueprint for conformity" (Clark, 1996 p.16)

Mission-based compacts were the primary instrument through which this research explored the extent of institutional diversity at the sector level. This decision was based on considerations outlined in chapter three, which included the program's aims specifically built upon the foundation of promoting diverse institutional missions. Looked at through the research positioning within compacts, chapter four describes a sector which converges upon common approaches. This finding was supplemented by building a case study wherein institutional diversity determinants were also explored and found to be a complex interaction of exogenous and endogenous factors. The case study also facilitated the drawing of lessons for approaches such as compacts, from the perspectives of participants and the insights afforded by examining the issue in depth at the level of an institution.

A compliance exercise of limited involvement and perceived utility

> "I'd say you are probably one of ten people, if not less, that have read it. I think that it's a
> completely wasted opportunity and a bureaucratic process which was implemented in a
> cookie-cutter model" (central university participant interview)

Commonwealth mission-based compact agreements outlined activities planned or undertaken at more granular levels within institutions such as faculties, schools, and centres, in most cases linked to a broader set of overarching university goals or objectives. In exploring with case study participants how mission-based compacts were developed and the inputs into the process at the University of Sydney, it became clear that the document was prepared as a discrete piece of work with very limited collective input. Despite their roles that included responsibilities for research strategy and planning, most interview participants appeared to have little to no involvement in the development of mission-based compacts, in many cases even lacking awareness of it. This contrasted starkly with the 2016-2020 University Strategy, and an intra-institutional compacts process where more inclusive and consultative

development approaches were widely described, with the overwhelming majority of participants indicating both their awareness and active involvement.

Participants perspectives on mission-based compacts suggested that it was an exercise they sought to comply with and execute, with little practical utility or influence upon strategic goal setting or behaviour. The approach to preparation and decision-making was guided by preparing something that drew from already agreed strategic goals in ways that would gain internal executive agreement and satisfy the Government stakeholders who oversaw the process. When asked to reflect on this observation a sector leader noted, "they've got a good office […] that does those things, and it'll have been done by that office and probably shared with the other members of the Vice Chancellors team, and they will have looked at it as item number 3 at some meeting and barely read it" (experienced sector leader interview).

Mission-based compact processes were designed to include interactive development, with institutional drafts provided to the administering Commonwealth Government department who were then to engage in dialogue with each university. This direct dialogue represented a clear point at which interactive influence might be exercised and observed and was thus explored in greater depth. Participant recollections, however, were of minimal discussion or suggestions related to institutional content or decision making. They went on to suggest that this may have been limited by the practicalities of Government representatives having to undertake such a process with all universities over a short period:

> Yes so they came for a day or half a day […] very few suggestions, it was really very much listening […] But I actually think that should be done more, like actually getting out, but it's hard for the Department. Even just to do it for 39 universities, so that's a month or more, I think they were trying to do two a day, so from their perspective it's not really an easy thing to implement (central university participant interview)

Mission-based compacts were a policy mechanism created by the political party no longer in office as noted in chapter two. The result being that the implementation process may not have reflected original intentions, something which was viewed by this participant as a lost opportunity with implications for its influence upon institutional diversity:

> What the Labour party wanted it to be was, that there would be differentiation between each university and there was a lot of sense in that. So there might have been different

performance measures developed. Still, in the way that it was implemented and probably with the resources that the Department had, they couldn't really do it in any other way. But also there is very much a view that, you know, you talked about diversity, while there's just been a policy view of treating all universities the same (central university participant interview)

The drafting of the final agreement, as well as being driven by the need for internal executive approval and alignment to institutional strategic directions, was framed around meeting what the University perceived as the expectations of government. As well as setting the agreements' parameters in ways that foregrounded particular activities, government influence upon institutions occurred in other more subtle ('implicit') ways. It also suggests the homogeneity observed in compact responses from across the sector could be explained as an outcome of coercive isomorphism (DiMaggio and Powell, 1983), with common regulatory settings limiting institutional behaviour within well-defined parameters.

The observation that compacts were undertaken with limited involvement and were of little utility, was tested on the experienced sector leaders. Their views derived from experience at a broad cross-section of institutions (Adelaide, Griffith, University of Melbourne, ANU, UNE, UWS), and confirmed that this was not a peculiarity of the University of Sydney case: *the easiest and most efficient way to manage it is for a small number of people to do it"* (Professor Mary O' Kane). Emeritus Professor Janice Reid noted that compacts were taken seriously by UWS during her tenure as VC. However, they were 'one more' among multiple regulatory requirements, which more established institutions likely felt comfortable attributing minimal importance to:

> I would concur with Sydney University in its assessment of the reach and salience of compacts. Sydney might be a bit more dismissive of its utility and relevance, but I suspect other institutions' held similar views, albeit somewhat moderated by age, status, and position, and by dependence on the Commonwealth's largesse, and the ongoing quest for resources, recognition and standing (Emeritus Professor Janice Reid, interview)

Two of the experienced sector leaders noted that compacts' relevance to researchers within institutions would be marginal, albeit for different reasons. One explained this as a result of the level of generality at which the documents discuss the detail of research and activity (something Adjunct Professor Gavin Moodie noted as problematic for their use in determining the existence of diversity). The other assessed that such exercises were the

purview of a bureaucratic and managerial class removed from on-the-ground scholarship, holding and exchanging common notions which helps to explain similarities:

> What you had was a group of bureaucrats at the middle of each university going through the motions of producing a strategy which they probably had some common notions about, because they are the ones that meet together at Universities Australia or Group of Eight meetings or whatever, talk to each other. They are often no longer true scholars, they are really just bureaucrats and managers so they produce managerialist responses
> (Professor Glenn Withers, interview)

The idea that sector convergence may be in part explained through common views held at the level of executives has previously been suggested by Marginson and Considine (2000). Their research concluded that coupled with a market-driven setting, the influence of executives' mimetic isomorphic tendencies have been exacerbated by the decline of academic influence within institutions.

While mission-based compacts had the stated aim of promoting diversity of missions across the sector, the homogenous responses outlined in chapter four may be explained by the observed approach and treatment of compacts, seen at the University of Sydney and more broadly confirmed by the experienced sector leaders. If institutions and the executive offices within them, in general, viewed the compacts process in compliance terms, one would expect to see the similarity of themes and approaches, which the institutions observe to be the expectations of the government. Such expectations were clear within the guiding text of compacts, as discussed in chapter four, which were uniform across the sector. Coaldrake and Stedman (2013) explained this as one of the inherent contradictions within the conceptualisation and operationalising of compacts. Within an institution which covers the breadth of activity seen at the University of Sydney, the expectations can be met through the selective foregrounding of particular goals, achievements or activities, and the crafting of narratives of alignment described in chapter six.

Intra-institutional compacts as an effective multi-level strategy coordination tool

The University of Sydney, along with Charles Sturt University, chose to mirror the Commonwealth's sector-wide mission-based compacts process at an intra-institutional level. Just as each university individually agreed a mission-based compact with the Commonwealth outlining activities over a specified period, the University of Sydney negotiated intra-

institutional research compacts with each of the (at the time, 16) faculties. The goals of intra-institutional compacts were outlined within the Commonwealth compact, explained as a means of encouraging alignment with (in that case national) external drivers, as well as an increased level of internal focus. The means by which this would be enabled was through the strategic allocation of funding and related review and performance assessment:

> We will renew research 'compacts' with each of our 16 faculties and allocate available Commonwealth funds to support strategic initiatives that align with the National Research Investment Plan and the proposed National Strategic Research Priorities
> (University of Sydney, mission-based compact 2014-2016, p. 8)

> Promoting focus and excellence in our faculties. We will use our 'research compacts' with each of our 16 faculties to provide customised packages of additional services and funding designed to assist each faculty to focus and strengthen its research strategy, while also fostering research excellence across the university. We will monitor and review performance through the compacts (University of Sydney, mission-based compact 2014-2016, p. 38)

As discussed within the research design chapter, this arrangement allowed the determinants of strategic decision-making and positioning to be examined at an institution-environment level (through the Commonwealth compact and University Strategic Plan) and at the meso-level. The application of the theoretical framework allowed comparisons to be drawn out and explored, adding to the capacity for the research to draw conclusions around, among other things, the inputs into - and effects of - such mechanisms upon institutional positioning.

In contrast to the limited staff involvement and awareness of the Commonwealth mission-based compacts, most interview participants offered views and insights into intra-institutional research compacts. Those from central university perspectives, outlined rationales for the approach, as well as a process whereby strategic initiatives of local level concern were put forward as objectives around which central resourcing could then be sought and agreed:

> We have a kind of mirror system to that that the government established where the central portfolios with funds to engage with the faculties in a particular way at a particular point each year to say, over and above everything that you do in BAU [business as usual] what are those kind of key strategic choices in research and education that need some support?
> (central university participant interview)

> So the idea and theory of those compacts things generally is that faculties come with their own strategy, and on the basis of that strategy, you know funding requests are made to do

particular things within that strategy, and then some discussion with them about how much money we've got to give them.
(another central university participant interview)

Deans and Associate Deans Research of each Faculty, several of whom were interviewed, were identified as having carriage and responsibility for these processes at faculty levels, attending meetings where active discussions were undertaken with central university representatives. While all interview participants were aware of the internal process, the perceived level of influence or agency which participants felt capable of exercising did vary. As might be expected, this appeared to correlate to seniority, with the following two examples representing the variation in response between a senior academic research management participant, and a more junior professional staff member. The difference also demonstrates that faculties (as with universities in the Commonwealth equivalent) appear to act as intermediaries between levels:

There is a compact scheme between the DVCR and the Faculty each year, and I am not sure really on what level that is negotiated, or to what extent there are negotiations that are possible. Schools are very much sort of told them after the event
(school level professional staff participant interview)

So they said to us, this is your blue sky time, so this is where you can put forward what you think your strengths are…and where you want, where you would ideally like to invest and how you would like to do that, so we were kind of given a fairly open slate, to you know, ask for whatever (research management academic participant interview)

The more direct application of funding and then university monitoring of the activities, in contrast to the Commonwealth equivalent, appeared influential in driving specific decision making and behaviours. This was reflected in one participant's characterisation of the internal compacts process as being valuable for 'seeing where they could get money' from the University, or the below example where intra-institutional compacts directly influenced behaviour or faculty positioning and activities:

It just so happened that the compacts at the end of last year sort of was in line with our having to re-do our strategic plan, and so it was much more aligned with that…and you know what they wanted from us for the compact is very much tied in with what the University wants (faculty level participant interview)

Notably, the approach taken to the discussion and negotiation between the two parties showed marked differences again to the Commonwealth process. While the

Commonwealth appeared to exercise very little overt influence upon content of a drafted Commonwealth compact, the University actively evaluated the appropriateness and strategic alignment of the activities put forward by faculties. One participant pointed out that because of the variable 'quality' of faculty responses, a central unit within the Vice Chancellor's office had been formed and put in charge of further developing two particular cases, where interventions were assessed as required in order to make the agreements more strategic.

The capacity to compare and contrast the internal university compacts process with the Commonwealth mission-based compacts was one of the rationales for selecting the University of Sydney as the case institution. It proved a valuable decision, as the perceived success of one (internal compacts) in shaping behaviour compared to the seeming failure of the other to gain traction or seemingly influence behaviour (mission-based compacts) was useful for the third research question of the thesis seeking lessons for policy aiming to stimulate diversity. An important distinction between the two compacts approaches was their intent. While intra-institutional compacts aimed to promote convergence and unify the historically fragmented organisation's efforts, the Commonwealth hoped to encourage plurality and diversity. The perceived success of internal compacts in stimulating internal cohesion and strategic alignment, when compared to participant perspectives on the lack of utility and influence of Commonwealth compacts, suggests the possibility that: (i) the intra-institutional approach which involved active discussion and review, and which was more explicitly linked to resource allocation, enhanced the effectiveness of the compact mechanism for stimulating behaviours; and (ii) that a standardised approach may be more effective where seeking cohesion or similarity in responses, as opposed to distinct or diverse ones.

The limitations of institutional constructs in a higher education and research context

"There is far more diversity in terms of what's being generated around the University and what's being thought about than what it sometimes looks like"
(research management participant interview)

"there is a lot more diversity, you just need an audit rather than telling them to write diversity statements, if you did an audit of what they actually do diversity would be there […] The issue of diversity in research is a chimera in a sense of institutions driving it, but it actually happens in ways. You know it is there, it's just that it's organic" (Professor Mary O'Kane, interview).

A fundamental starting point for governments and policies that seek to stimulate diversity is understanding the extent of existing diversity within the system of interest (Moodie, 2015). In fact, Goedegebuure, Lysons, and Meek (1993) suggested shortly following the Dawkins reforms that such an understanding may have helped avoid the paradoxical outcomes observed. This research suggests that focus at the sector and institution level for assessments of diversity, are at an insufficient level of detail to allow for meaningful determinations. Such a focus would reasonably lead to the conclusion, reached in chapter four following the analysis of mission-based compacts, that the Australian higher education sector has converged and represents a system of institutions lacking diversity. However, at more granular level of focus, provided here by the in-depth case study, what is evident is that institution-level constructions represent a selective fraction of activity within institutions which, when it comes to research, are characterised instead by internal diversity.

This thesis chose as its parameters of focus, the research positioning of institutions, instead of the more commonly examined education side. While the two are inextricably linked, what was observed of university research specifically is that it confounds neat institutional boundaries. Cross-institutional collaboration is a key feature of the endeavour, with researchers working with others with little consideration given to the institution to which they belong. Moreover, cognate research areas in multiple institutions are also moderated by peer review processes that serve a function of ensuring – among other things - originality.

In several instances participants described a scenario where researchers collaborate freely, but at the institutional level it is more difficult. This is indicative of institutional-level interests being at times misaligned with activities and interests at more local levels. As noted by one participant, academic researchers tended to be good at working with other researchers, including at other universities, as was required for larger and more prestigious research funding schemes, despite a lesser capacity for such collaboration at executive or institutional levels:

> I think we're not very good at all institutionally working with each other. Researchers end up collaborating a lot, all the time, and for some of these larger things they have to collaborate with each other. Again ARC Centres of Excellence for example, require collaborations with some scale and some dollars, so that happens. We're just not good at all at the sort of VC/DVC level (central university participant interview)

As noted within the compacts analysis, the prevalence of research collaboration complicates assessments of institutional diversity by essentially blurring the level of the institution as a clear demarcation of activity. Participants noted that this was a feature which distinguished higher education from other fields:

> What I love about academic communities are, they actually look very much beyond institutional boundaries, which is very unusual in terms of other sectors of commerce, so I don't know if the senior leaders of the Commonwealth Bank would talk to the senior leaders of Westpac as much as our political scientists from Sydney would talk to the ones from ANU, would talk to UNSW (faculty participant interview)

Within a medical research context, one participant noted that "all the research I do is with other universities [...] because of the breadth of the sorts of questions we're asking, it's rare that you'll find every single person within one university that's going to help you answer that question" (faculty level participant interview). A related idea was also expressed by another faculty level research management participant who noted that research funding schemes, such as Centres of Excellence or the Medical Research Future Fund, had the express aim of stimulating and steering activity toward cross-institutional collaboration to address more complex issues. Collaborations were observed not just across institutional borders but international ones: "it's a relatively small field and I know the majority of people in the field, but most of the collaboration is with international organisations rather than local organisations" (research management participant interview).

Research forms a significant part of Australian university activities, which is particularly important and valued within the modern context, as described in chapter one. Despite being an activity conducted by individuals within an organisational setting, institutional boundaries when it comes to research are porous. Moreover, the generation of new knowledge would appear to naturally tend toward diversity as researchers seek novel ways to add to the existing stock of knowledge found within disciplines. The practice of research was described by one participant as uncertain in direction and evolving in unpredictable ways, again shaped by discipline fields:

> Research goes in wild and crazy, crazily divergent directions all the time [...] it will always be his kind of entropic thing that will diversify itself in our disciplinary field
> (research management participant interview)

Within higher education, the use of the institutional level as a focal point at which diversity is sought, while understandable for practical reasons, offers a limited set of insights into the activity being undertaken within a university. This is particularly the case for research as a unique activity defined by its originality and uncertain outcomes and governed by peer review mechanisms that sit outside of institutional constructs. The principle of institutional diversity can be applied, depending on what it aims to achieve, at different aspects of university functions. For example, it may have relevance at the level of teaching programs, where duplication may produce inefficiencies. Having said that, as the following section will demonstrate, the funding mechanisms currently in place are an important factor which would limit the effectiveness of any such approach.

Competition and the sector research funding model as a determinant which fundamentally constrains diversity

"If Australia wants a truly differentiated tertiary education system it needs to move from formula-driven policies that provide identical incentives to all institutions to tailored performance contracts that play to the strengths of individual institutions and build strengths in the national interest"
(Goedegebuure, Massaro, Meek & Pettigrew, 2017)

At least for the past three decades, Australian higher education policy has contributed to creating a highly competitive sector environment (cf. Beerkens, 2013). This was reflected in the mission-based compacts analysis findings, where university positioning acts accordingly and outlines the ubiquitous striving for growth, competitive funding, and status. Built into assumptions which sit behind quasi-market approaches applied to higher education, is the belief that exposure to competition and market forces can stimulate functional differentiation of institutional types and activities, to a greater degree than alternatives such as regulation (Meek, 2000). The impact of competition upon institutional diversity has been the subject of debate, as noted in chapter two. As Teichler (2006) synthesised, while some expect competition to increase horizontal and vertical diversity, others assume that the greatest impact will be to create increased stratification, or vertical diversity, without the requisite impact upon horizontal differentiation. His work concluded that the field was at the point where evidence was needed to test such propositions. This research makes an empirically based contribution to such debates, and supports those who have suggested that *competition*

acts to incite conformity and isomorphism (Croucher & Woelert, 2015; Pritchard, Klumpp, & Teichler, 2015b; Codling & Meek, 2006; Marginson, 1998; Meek, 2000; Rossi, 2009a; Zha, 2008).

The analysis of compacts and the case study found that the strongest determinant of Australian universities' research positioning was the seeking of funding and resources. This contention held at multiple levels, the university level, the meso-layers within it, and at the level of researchers themselves (though conclusions relating to the latter need to be moderated by the participant sample which provided insights of this layer from a largely second-hand perspective only). The funding model described in chapter two, which creates cost-pressures for universities by not funding the full costs of research, results in resource seeking behaviours aimed at obviating this issue that are then common across the sector. Due to regulatory constraints placed upon university domestic student fees and enrolment numbers, international student fees provide a commonly utilised means of cross-subsidisation for the unmet costs of research. The institutional positioning outlined in chapter four reflects attempts to differentiate and claim distinction, within the resulting competitive global marketplace. In addition, while research positioning described universities' attempts to focus, university discipline profiles are influenced by attempts to offer the most comprehensive range of discipline areas possible, in part for the attraction of the international student market which act as an important cross-subsidy for otherwise unmet costs of research.

The multi-track funding system has previously been used to explain the ubiquitous imperative of universities for diversified fund seeking, and to concerns around sector sustainability (Allen Consulting Group 2009). The practical impacts it has given rise to include: fragmented and fluctuating revenues, difficulty covering unfunded indirect costs, high transaction costs, complicated management, coordination, and cash flow issues (Raudla, Karo, Valdmaa, & Kattel, 2015). Mission-based compacts in 2014 occurred when the funding model for universities was set to undergo significant changes, as part of a demand-driven model that the government of the time was implementing (subsequently changed by a new government). The responses of universities indicated a level of insecurity, with smaller and regional institutions in particular, concerned about sustainability. During this thesis, such

sustainability issues came to the fore, as the loss of international student revenues during the COVID-19 pandemic has led to severe budget issues for Australian universities, particularly the most research-intensive universities.

The comparison of Commonwealth and intra-university compacts demonstrated the influence that direct funding has upon activity. The success of intra-university compacts in stimulating faculty behaviours aligned to institutional interests was largely the result of such funding provision. It follows that if the existing approach of stimulating competition through resource scarcity continues, the most effective means for stimulating institutional diversity would be through – ironically – directly allocating some funding (and therein also status) on the basis of differentiation[47]. However, and importantly, competitive markets on their own are not entirely responsible for convergence:

> Too often we assume that to promote diversity it is necessary to encourage more market-like behaviour (if not actually markets in a true sense) and to tighten institutional management. But markets are agnostic on the issue of diversity; they are just as likely to produce uniformity as to encourage differentiation – as, perhaps, is tighter institutional management which probably encourages universities to struggle to be more 'successful' according to rather narrow and traditional criteria (Pritchard, Klumpp & Teichler 2015a, p16)

If institutional diversity is considered a principle worth applying to Australian higher education, then, fitting a theoretical framework where institutions and those within them have agency which interacts with external factors, Australian universities, their institutional leadership, and the bodies which represent them, also have an important role to play.

The role of universities as organisational actors in promoting institutional diversity

Universities make an important contribution to the extent of institutional diversity, which cannot solely be attributed to environmental determinants. This thesis contends that the homogeneity of positioning observed in mission-based compacts in chapter four, results from the interplay of sector and environmental settings and *institutional-level decision-making, which was largely passive, compliant, and responsive to them*. The common themes

---

[47] Clarke, Thomas, and Wallace (2001) note that such an approach would also need to be "employed strategically rather than through systems which self-perpetuate historically-derived divisions", which is pertinent when considering the discussion of distributional politics and its limiting contribution to institutional diversity, which follows in a subsequent section of this chapter.

observed in mission-based compacts show, for example, that at the level of institutions, universities are locked into status competition using common frameworks for success (most notably ERA). Moreover, their resource seeking efforts converge upon similar approaches, even where they seek to differentiate, for example, by pursuing philanthropic funding or (expensive) research in the health and medical area where they commonly perceive the opportunities to be.

Several of the experienced sector leaders, as former Vice-Chancellors, reflected the view that regulatory requirements were a fundamental constraint for institutions. These were placed within a historical context, and linked particularly to the system that resulted following the unification of the national system during the late 1980s:

> The way in which the system has evolved at the moment, really stems from the last 30 years of work, since Dawkins reformed the system and brought in the newer, younger universities out of the Colleges of Advanced Education. The Government at that time created what they called the Unified National System, which means that every university's teaching and research is funded on the same basis. So that policy decision really is not conducive to diversity in the way that we would perhaps like to see it, and perhaps might be most advantageous to the country (Professor Alan Pettigrew, interview)

Furthermore, the criteria for seeking and maintaining university status in Australia, which specifies that institutions must undertake research within a specified number of fields, inhibits the capacity for institutions to pursue varied models:

> In a sense the real diversity would be choosing not to do research [...] of course you can't do that legally in Australia, so you're not starting from a full range of choices, you start from an incredibly narrow range. You have to have research; you have to have 3 specific areas of recognised strength (Professor Glyn Davis, interview)

At the level of institutions, and the structural configuration of a sector, there are regulatory settings which limit the diversity of choices permissible. However, this research suggests that within these tightly defined institutions, exist ecosystems where diversity is possible and appears to exist. The institutional case study demonstrates the contemporary relevance of early work by Meek (1991) which showed that along with environmental factors, an important determinative role is played by - among other things - intra-institutional competition for scarce resources and academic status and reward structures which often get operationalised at more local levels. In essence, while at an institutional level passive responsiveness to environmental settings (and narratives of institutional cohesion) results in

convergence, within institutions where agency is more actively exercised, the converse can and may be true.

Burton Clark's 1983 triangle of coordination perspective of the influences on higher education has now dated, as discussed in chapter three. However, an aspect of it which remains salient is the point of influence of discipline-based drivers. Revisiting his idea again in 1996's, *The Mockers and Mocked: Comparative Perspectives on Diversity, Differentiation and Convergence in Higher Education,* Clark explains that discipline specialisation on a worldwide scale is uncontrolled and *uncontrollable.* As a result, he concludes that differentiation at a disciplinary level is much greater than differentiation using the institutional dimension. The implications of this which informed his recommendations for policy were that: (i) the decentralisation of power and decision making will facilitate diversity; (ii) policy should stop seeking simplicity; and (iii) greater legitimacy should be granted to disorder. The findings of this research align with that perspective, and to it add that *if* institutional diversity is a genuine goal for the higher education sector, then one of the inhibitors of it is found at the level of institutions, where coherence and order is sought, and where common ideas and external constructs dictate thinking.

Sector bodies and distributional politics

Within the globalisation context within which the glonacal agency heuristic was developed, the model uses double entendre to encompass agency in the form of individual and collectives' ability to take action (exercise agency) and an organisational conceptualisation (formal agencies). The latter in the original model comprised organisational groupings, such as "regional trading blocs and associations such as the European Union or the North American Free Trade Agreement – or non-governmental organizations, such as the OECD or the World Bank" (Marginson & Rhoades, 2000. p. 295). Universities scantly made direct references to such organisations within the Australian context (something notable for its frequency in institutional diversity research done within contexts such as Europe). While this may in some ways reflect that "transnational organizations themselves have limited direct coercive power over universities" (Antonowicz, 2013), indirect influences over national and local polities (including the groupings representing universities) were observed for

example through widespread buy-in to overarching concepts, for example, the 'knowledge economy' which can be traced to them.

The organisational agencies which did feature in the analysis of documents and interviews, were sector level organisations (such as Universities Australia) and university groupings (such as the Group of Eight (G08); Australian Technology Network of Universities (ATN); Regional Universities Network (RUN); and Innovative Research Universities (IRU)). Interview participants described such peak bodies' active role, seeking to influence policy and represent collective views. The process of influence through these bodies to inform such views, appeared subject to its own dynamics. In one participant's perspective, proactive input and influence seeking was required into what would then be a contested terrain[48]:

> The peak bodies have processes for developing policy and one of the ways to influence them given the weight of what we do, with the number of different policy processes that we have to go through, is to get in early and to express your views into that process
> (central university participant interview)

When exploring the observed passivity of universities to policy and funding settings with the experienced sector leaders, they too described the role of collective efforts through agencies. In so doing, a complex picture was painted with the groups tasked with representing the sector having to seek uniformity where it often does not exist (and even having to balance their own internal plurality of views and external competition):

> Universities Australia has a lot of difficulty trying to lobby for the whole sector because in fact it is not a unified sector […] there are attempts by universities and institutional interest groups to influence the federal Government's agenda, but they are so fragmented that I don't think they have a particularly substantive or persuasive impact
> (Emeritus Professor Janice Reid, interview)

> So not only have you got 40 universities competing with each other, you have got their lobby groups competing with each other and then I hasten to say I am not entirely sure that there is a uniform view within each of the lobby groups. Believe me, there are always attempts to influence government policy, but they are not always successful [...] nobody is going to agree at a UA level on what the best outcome is going to be because somebody is going to have to

---

[48] Notably, the views on institutional differentiation expressed by the University of Sydney in their submissions to a Commonwealth review of ERA/block grants (and then again in submission to the Coaldrake Review) reflect the views presented by their broader grouping: They suggested in both submissions:
"Strategies might therefore be needed to either:
• encourage deeper specialisation of research in fewer areas in some universities where their scale is not conducive to supporting world class research in a more comprehensive range of disciplines; or
• facilitate the development of 'specialist teaching' institutions or strategic partnerships between universities with complementary capacities and capabilities in teaching and research"

be a winner, and somebody is going to have to be a loser…and nobody wants to lose
(Professor Alan Pettigrew, interview)

The most overt activities of these groupings are as part of the distributional politics that form an enduring feature of the Australian national higher education environment. The associated debates involve positioning around the extent of specialisation and resource concentration that policy and funding mechanisms should promote, particularly *with regard to research*. Recent developments within this debate appear fuelled by a variety of factors related to research, such as: (i) increasing infrastructure needs and costs, and concern around the sustainability of current funding approaches; (ii) the extent to which demand outstrips supply (as witnessed by decreasing success rates for competitive research grants, often under ~20%) (Allen Consulting 2009); and (iii) by the effect of international university ranking systems which give primacy to research and appear to have had the effect of stimulating the widespread striving for global status since their rise to prominence. Such issues have brought distributional debates to the fore, not only in Australia but in many developed nations, where to varying degrees, programs framed around institutional diversity have been invoked with the aim of increasing *excellence* through concentration in what are considered 'top performers' or those assessed as having the potential to be so[49].

Central to much of the public discussion and work produced by sector bodies such as the Group of Eight universities[50] is the idea that the limited funds available for research in Australia would be more effectively distributed by concentration within limited numbers of universities. Such concentration, it is assumed, would deliver beneficial outcomes by allowing research excellence of an internationally competitive nature to emerge[51]. The implication

---

[49] Some of the better-known examples being the China 985 Project; the German Excellence Initiative; the Brain Korea 21 Program; and Japan's Top 30 Centres of Excellence for the 21st Century plan.

[50] This was also argued by former Chief Scientist Ian Chubb - '*Chief scientist urges strategic research funding',* Australian Financial Review, December 2014 (accessed online).

[51] Similar trends are evident in other international systems, as demonstrated through the discourse analysis which O'Connell (2015) applied to the lobbying documents of UK university groupings, which showed for example a focus of the Russell Group – the Group of Eight's UK equivalent – on achieving further concentration of resources.

Some submissions to the aforementioned *Varieties of Excellence* report noted that, in essence, the model of investment where by the Australian National University receives unique research funding already represents a degree of selectivity and concentration, for which the international ranking performance outcomes sought by proponents of concentration are not clear (Commonwealth, 2002). In addition, concentration of research

being that the capacity for excellence is diminished where funds - and thereby the research effort - is diluted across a larger number of institutions. The following is illustrative of such an argument:

> The focus of the Government's policy needs to be on selectivity and concentration of the higher education research effort with the aim of creating research universities of international research excellence. Australia needs a coherent research funding structure which seeks to selectively fund research of the highest quality as well as concentrate research funding to build world-class research universities which have the capacity to compete at the highest international level (Group of Eight, 2010. p.5)

Empirical evidence of the efficacy and suitability of such an approach for a country such as Australia, however, is difficult to find. The logic of such arguments may have some basis in ideas offered by those such as the Carnegie Commission (1973) in the United States who suggested that institutional specialisation allows institutions to focus their attention and energy, resulting in increased effectiveness. In the place of evidence, are appeals based in following the lead of other countries which have chosen to foreground the importance of international competition:

> The old notion of a nation being satisfied with a broad range of reasonably strong universities has been abandoned even among those countries with strong egalitarian traditions such as France and Germany […] Other countries have been more willing than Australia to comprehend and act on the new realities (Group of Eight, 2008, p.1)

As noted, higher education system settings internationally are not uniform. The principles and approaches which apply in one setting, may not neatly translate in another. Therefore, the veracity of assertions claiming the value of selectivity and concentration of research investment is a question for empirical examination. In addition, international measures of excellence, or vertical diversity measured through ranking systems, are among the many outcomes that a higher education sector might seek to prioritise (and arguably they are a poor reflection of outcomes such as a contribution to public good, which admittedly is difficult quantify and measure).

---

funding is arguably an existing feature of the sector where around 70% of the country's competitive research funding is provided to eight (or approximately 20%) of the sector's universities (Goedegebuure& Schoen, 2014).

While seemingly an innocuous and obvious recommendation, the starting point for any policy should be a consideration of the motivations and aims for pursuing institutional diversity:

> What is of concern to both higher education policy and research is not diversity per se as some absolute state of affairs, but desirable degrees of difference and similarity coupled with an understanding of the forces which push higher education institutions in one direction or another. In terms of higher education policy, it is what is intended to be achieved by diversity (or convergence) that counts rather than its mere existence"
> (Meek, et. al. 1996. p. 228)

The current Australian policy setting, where institutional diversity appears to have maintained an unquestioned orthodoxy as a principle warranting support, is severely hampered by sector discussions which have bound the concept within distributional politics fuelled by resource scarcity and competition which the funding model for research propagates.

Chapter conclusion and policy considerations

This chapter has provided a direct response to the third research question of the thesis which sought to draw empirically based lessons and insights applicable to policy and programs seeking to stimulate institutional diversity. Table 7 provides a summation of the resulting policy considerations, which as noted at the outset of the chapter, need to be understood as context-dependent and based in the particulars of the Australian higher education setting:

Table 7: Policy considerations following from this research

I. Where seeking to stimulate diverse institutional missions, template style regulatory mechanisms are unlikely to provide an effective tool. If, however, approaches such as mission-based compacts continue to be used, a greater focus upon strengthened discussions and associated resource allocation which more directly rewards difference, could provide more genuine and mutually beneficial outcomes;

II. Given current dependence upon Commonwealth Government for funding, Australian universities, at an institutional level, are likely to passively comply (or selectively portray their activities as in step) with regulatory requirements and expectations emanating from the Commonwealth. Ensuring that these expectations do not include alignment to a narrow and common set of goals would likely benefit diversity. In addition, consideration of non-regulatory approaches, including the use of agencies or bodies with a degree of independence may provide a means of overcoming passive compliance which results in similarity;

III. The funding model for research as it is currently constituted produces outcomes which are counter-productive to diversity. By not covering the full costs of research, government

> research funding approaches result in common approaches to cross-subsidisation to cover unmet costs. Reform to such a system might seek and draw lessons from other national contexts which follow alternate models;
>
> IV. Internally, Australian universities are complex and diverse ecosystems. In addition, institutional constructs are a weak representation of activity at more granular levels. Consideration should be given to whether diversity is an appropriate goal focussed at the level of institutions. Directing policy and programs seeking diversity at more granular levels may be a more effective avenue for attempting to stimulate and maintain diversity. Moreover, research as an activity, and well-functioning mechanisms of peer review, inherently act to differentiate, something which programs should be designed in ways not to stifle;
>
> V. Policy and programs seeking to stimulate institutional diversity should not be designed in isolation, or in ways which seek singular outcomes (such as institutional diversity). If institutional diversity is determined to be a valuable outcome, it must form one aspect of more comprehensive packaged reform which considers a fuller range of the outcomes being sought from higher education institutions.

The observed homogeneity of institutional responses to mission-based compacts suggests that *government programs using standardised formats seeking alignment to common expectations is not an effective means of stimulating institutional diversity*. Rather, considering the perceived success of University of Sydney's intra-institutional faculty compacts for aligning disparate areas toward common goals, such an approach may be more suited if actively attempting to stimulate convergence. Within the Australian sector, regulatory settings which must be adhered to provide a structural barrier to system level diversity, which continue to be worked through in the recent Coaldrake review of provider standards.

In addition, the funding model for research and an environment of policy-fostered competition between institutions, counteracts attempts at stimulating diversity of institutional missions through other policies and programs. At the level of programs seeking institutional diversity, *resources that enable and incentivise varied choices and divergent pathways are needed*. Davis (2017) noted that universities cannot afford distinctiveness in specialised fields within the current funding model, as it would not be financially sustainable. Here, acknowledging again that international comparisons are fraught, lessons continue to emerge from other contexts where such approaches are taken. For example, Jungblut (2017) describes the way funding served as a catalyst for (what he called) bottom-up differentiation processes as part of the German Excellence initiative. However, funding needs to be coupled

with status, given its importance within higher education, which is also clear in the positioning of Australian universities. Formulaic and common success measures, such as ranking systems as they are currently constituted, act in ways that punish originality (Clarke, Thomas and Wallace, 2001).

Structural settings and constraints, however, are not the only thing that would need to change if seeking to stimulate institutional diversity. Australian universities are organisational actors with a degree of autonomy to make strategic decisions and decide upon institutional positioning. While their autonomy is not boundless (and path dependency means there is never a tabula rasa to work from), universities and their decision makers appear passive and responsive and locked into common thinking and approaches. These are reflected in prevailing status norms which underpin a ubiquitous striving among Australian universities for growth, global reach, and excellence in research. Moreover, the response of universities, and the bodies who represent them, to an environment of funding scarcity appears limited to competitive positioning. While higher education policy is complex, inherently political and not necessarily seeking smooth functioning of the state and its institutions (Weaver-Hightower, 2008), what appears a precondition to any success in regards to institutional diversity, is the active involvement of these groups and a collective understanding and buy in to what is seeking to be achieved.

The variety of types of institutional diversity are now better understood as a result of decades of study into them. Moreover, as has been noted by Fumasoli and Huisman (2013), both institutional positioning and a multi-layered conceptualisation of universities which acknowledges the complexity and plurality of actors and interests within the construct of a university, can provide policy makers with frameworks that will improve both policy design and implementation. A focus at the level of institutions for observing for and seeking institutional diversity may not be the optimal level of aggregation. As shown in chapter six, institutional level constructs are an inadequate reflection of activity and diversity, in particular for research. As Moodie (2015) suggests: "It seems at least possible that society's different needs could be met by a diversity of programmes, which may be offered by institutions that are similar to each other".

Chapter 8: Conclusion

Addressing the thesis research questions

This thesis sought to increase understanding of the extent and determinants of institutional diversity in Australian higher education, by exploring the following questions through the prism of university research positioning:

1. *To what extent does the research positioning of Australian universities demonstrate institutional diversity?*

2. *How can we understand the key determinants that shape institutional diversity?*

3. *What lessons can be drawn for higher education policy and program approaches which seek to stimulate institutional diversity?*

It concludes that, *while universally differentiating and signalling their uniqueness, Australian universities converge upon a common set of positions, aspirations, and approaches in relation to their research*. Australian universities across the sector, regardless of age, size or type, proclaim or describe pursuit of: growth and improvement; funding and resources; and status and recognition, each expressed in terms of common benchmarks (often global and framed around excellence). Isomorphism is also visible in the strategic institutional approaches employed to seek such ends: selective concentration on research strengths (alongside a level of breadth that their circumstances allow); pursuit of multidisciplinary and collaborative research, often aimed at larger scale and complex problems; external engagement and partnerships; and notable discipline-level positioning and investment in the health and medical research space.

The homogeneity seen at the level of institutions, however, represents homogeneity of institutional level decisions on research positioning, but *not homogeneity in terms of the research enterprise itself within and across institutions* in this study. *Within Australian universities is significant complexity and internal diversity not reflected in institutional representations, which are selective and crafted narratives*. This finding has significant implications, for example, when applying it to much previous research which has concluded there has been convergence in Australian higher education since the Dawkins reforms unified

the sector (Codling & Meek, 2006; Croucher & Woelert, 2015; Huisman et al., 2007; Meek, 1991; Pinheiro, Charles, & Jones, 2016; Davis, 2017; Yielder & Codling, 2004). This thesis proposes that there are substantial limitations to exploring diversity exclusively at the level of institutions in the higher education field. This is particularly the case, given the unique features of academic research, which transcends and problematises traditional institutional structures, organisation, and management, and makes up a significant aspect of university activities in the modern context (in Australia, even regulating access to the name, university).

This research explored beneath the 'veneer' of the institutional level, by building an in-depth case study of the University of Sydney and its research positioning. The research found that mission-based compacts were viewed as a regulatory exercise for which compliance was required, but little practical utility or influence was found. This perspective was supported by experienced sector leaders, suggesting it is not peculiar to the University of Sydney. This finding provides an important lesson for policy and program approaches such as compacts which seek to stimulate diverse institutional missions. Universities responding to such exercises are likely to converge upon commonalities, where they are required to respond and align to common expectations contained within a template-based mechanism. When compared across the sector, the resulting agreements suggest that all universities complied with government expectations. Moreover, the contradictions between the policy logic and program delivery resulted in a collection of agreements that converged on commonalities at the same time as proclaiming difference.

This thesis's research design was purposive in seeking to contribute to open questions around the determinants of institutional diversity. Noting a tendency toward quantitative approaches and a gap within existing knowledge around the interplay between environmental constraints and organisational agency, a qualitative approach was applied to draw out explanatory insights from what is a complex social setting. Lessons which informed the design were drawn from existing research which had delivered contradictory conclusions in international settings. A theoretical framework was chosen to facilitate the exploration of complex interactions in ways that did not privilege the influence of structure or agency. The resulting picture showed that environmental determinants (situated across global, national,

and regional levels) operate in reciprocal influence between themselves and with a plurality of institutional and intra-institutional (local) agents.

At the level of institutions, Australian universities demonstrate passive responsiveness more than an active agency in their interaction with external environmental factors, particularly those at a national level. As outlined in chapter four, compacts showed universities' reliance upon the (non-static) policy and funding related decisions of government, over which little influence was shown. Moreover, wide-spread buy-in was clear to globally situated normative constructs, many of them related to status and prestige. The impact of the funding model for research in Australia was argued as a critical determinant. By not covering the full costs of research, Australian government funding for research creates a shortfall that institutions have responded to in common ways, by seeking cross-subsidy from sources such as international students' fees. Competition therein breeds isomorphism toward a model of institution which is: globally focussed; as comprehensive as their circumstances allow (in order to offer maximum choice); and, concentrated heavily upon gaining international status and recognition through institutionalised and commonly accepted measures of success.

While institutions appear similar at the more abstracted higher levels, it is within universities where diversity and a stronger interplay of multi-directional influences and determinants exist. The theoretical framework which brought together institutional theory and strategic positioning perspectives using the glonacal agency heuristic, proved particularly useful when applied at an intra-institutional level to explore the range of groupings within a large university. A highly diverse ecosystem of activity, positioning, and interests was found among the processes through which an institutional strategy, an intra-institution set of university-faculty compacts, and an array of sub-group plans were developed and in place. The case study made clear the fragmentation within an institution comprised of many constituent parts, interacting with their own often distinct discipline-based factors. In particular, research is characterised by the devolution of decision-making, which extends through institutional layers and all the way to individuals. The University of Sydney acknowledged its complexity within its compact agreement and strategy, and the challenges they have historically faced attempting to unify around common 'institutional' goals. As

Australia's oldest university, history, tradition, and the limiting 'paths' set up by previous decision making further exacerbate such an issue.

Echoing previous work in the field (cf. Frølich et. al. 2013), such pluralism and complexity help to explain 'ambiguous and vague' institutional positioning. Institutional-level positions reflect attempts to encourage and reach a degree of consensus within a contested environment with multiple differentiated actors and competing institutional logics. The homogeneity of sector positioning related to status and excellence and 'world standard', is not surprising when considering institutional complexity and the difficulty of capturing, much less clearly explaining such a breadth of activity and aspirations. A link can be drawn here out to a sector level. As described by the experienced sector leaders, the impact of collective bodies seemingly tasked with representing the sector is weak, in no small part due to the diversity of views across the sector which very often do not align into a singular position capable of being represented. In providing such a view, they described plurality between institutions, not even the level below where this issue would be magnified again.

Out of complexity and internal diversity though, Australian universities selectively craft coherent narratives. Storytelling emerged as an important theme across each of the empirical components, with implications for each research question. The deliberate crafting of narratives serves multiple purposes, not least, meeting regulatory expectations and obtaining funds for research, for which government remains a significant source. In choosing and presenting their activities and aspirations in ways which portray cohesion, universities effectively obscure complexity. As noted recently by Bowl (2018), whose results showed a discourse of distinctiveness mirroring this work's conclusions, texts are constructed representations of reality. In a case such as the University of Sydney, the breadth and diversity of activity enable a high degree of selectiveness, adaptable in myriad ways. Indeed, as the case of compacts at the University showed, deliberate management and control over messaging are required to present the work of a large and complex federation as coordinated and coherent when in many ways it is not. Such a need reflects the highly plural nature of agency within an institution such as the University of Sydney.

Compacts were designed as action-oriented documents detailing institutional activities over a defined timeframe. This made up an important part of the rationale for their selection,

over other strategy documents or ERA reports which detail research at a level of abstraction. Despite this, the emergence upon a common array of themes reflects institutional responsiveness to external drivers and the limitations of institutional level documents (even action-focussed ones) as effective representations of granular local level activity within universities. The results of this research in part support what was observed by Antonowicz (2013), as institutions seeking to balance external circumstances with distinctive institutional cultures, which results in "*structural homogeneity but diversity of content*" (p.14). Here, however, the diversity of content was not found within compacts, but rather at the level of internal and local level planning. Along similar lines, Mampaey (2016) and Diezmann (2018) both observed that at the higher and more visible surface levels of institutional communication, convergence and similarities abound, which mask differences at 'below the surface' levels. The implications of this for institutional diversity research, include the likelihood that the exclusive use of institutional level public documents, results in assessments of diversity (or in Australia's case convergence) based at a level of relative superficiality.

Of note for the question of what determines diversity of research positioning was the document analysis finding which observed location and regional influences as a potential differentiator within the Australian setting. While national-level settings appear conformist, at a regional level, in an environment where universities seek to diversify funding away from government, the localised nature of issues potentially enables diverse research foci. The importance of regional issues in the Australian context and the possibility that more localised environmental imperatives may contribute to enhanced institutional diversity has previously been raised in the work of Pinheiro et. al (2015). However, here again, carrying this proposition forward through the case study and experienced sector leader interviews moderated the resulting conclusion.

Against expectations, given the University of Sydney is a large metropolitan institution, the 'power of place' and location was also observed there. However, while supporting the principle, the sector leaders provided an important counter-point to the conclusion, four of whom had experience as Vice-Chancellors in regional institutions during their careers. While regionally based universities may lay claim to particular research positions and specialisms, in reality, their exclusive ownership over such areas is not possible.

Claiming distinctive locally driven research positions, in part represents an exercise in branding and the seeking and portrayal of competitive advantage. This is particularly the case considering ownership over research areas by universities being limited by cultural and historical factors (such as the existence of a Commonwealth funded research agency – CSIRO), and the prevalence of the claimed research areas across the sector more broadly.

A series of lessons and considerations for policy and programs seeking to stimulate institutional diversity were drawn from the empirical work and findings of this thesis. At the broadest level it can reasonably be concluded that a template-based approach that seeks institutional alignment to common government aims, is not an effective mechanism for facilitating variation in institutional missions. Through its own internal research compacts process, the case study institution showed that such an approach is in fact better suited to stimulating similarities or convergence. However, in describing alignment to national level priorities, universities foreground and selectively use descriptors which meet the alignment need. The resulting constructions then may be of limited salience to the actual goal. If continuing to pursue such a program in an unchanged setting, however, the primacy of funding as a driver of institutional behaviour would suggest that desired behaviours would be better incentivised through the direct allocation of resources (a difference underpinning the more successful approach at the University of Sydney).

One of the clearest findings following triangulation of multiple methods is particularly relevant for the issue of policy and program design. This research concludes that *funding and resource seeking are a fundamental determinant of Australian university positioning and activity*. This applied to institutions seeking resources from external sources and at an intra-institutional level, where selective investment is utilised to steer activity into alignment with organisational goals and represents "the primary management tool" (Professor Glyn Davis, interview). The aforementioned sector funding model and formula-driven block grants create identical incentives for Australian universities that are highly influential. Added to this, they have resulted in common institutional aims to diversify funding sources for research, for example, through research partnerships, philanthropy, and a focus on building health and medical research areas amenable to greater funding. Such a scenario was neatly surmised, along with its implications for diversity, by Marginson and Considine (2000):

the competitive dynamic, sustained by government system-setting and the Darwinian devices of induced funding scarcity and ever increasing pressures on managers, has locked them all into common modes of behaviour that their senior executives have all too willingly embraced (Marginson & Considine, 2000, p. 18)

Of great current concern, international student fees have in recent decades become a common and key avenue through which budget balancing is pursued in response to such a policy setting. The environment at the time of writing in 2020, where such fees have been lost en masse, shows this funding model to be an unsustainable one. Australian universities of all sizes and types are to varying degrees in the midst of crisis, resulting in significant restructuring and institutional re-sizing. A revisited sector research funding model, depending on any chosen alternative, would have sizeable effects upon the diversity of institutions. Therefore, consideration of the principle as part of any change would be prudent.

The key findings for the first two research questions, that apparent homogeneity at the level of institutions belies difference beneath this level, and that narratives act to obscure it, suggest that the level of institution may not be an optimal point at which to focus diversity instruments. As Fumasoli and Huisman (2013) have suggested, the use of positioning coupled with a more granular focus within institutions, could be beneficial. If at the sub-layers within universities - where there is significant autonomy and decision making for research - there is greater diversity or genuine potential for diversity, it is at these levels that programs aiming to foster diversity might best be aimed. The example of competitive research funding is pertinent here. Research granting agencies such as the ARC and NHMRC, by providing research funding (albeit technically awarded to the institution) on the basis of individuals and groups for specific projects, with expectations built into them for novelty and originality, represent a model wherein diversity of research is enabled.

Australian Government, policymakers, universities, decision-makers, and groups representing them are mutually focused upon striving and positioning for vertical differentiation. Policy settings aim to increase the number of Australian universities performing strongly by commonly accepted international measures of excellence. As suggested by Teichler (2006), social outcomes may be better served by focusing on the stimulation of horizontal differentiation, which this research has shown again to be hindered by competitive striving for vertical differentiation outcomes. The development of policies and

programs must first settle such value questions, understand the extent of diversity that exists (at an appropriate granular level), and the areas in which it is being sought. Over recent decades, however, the institutional diversity principle appears to have reached the level of an unquestioned orthodoxy. Value would be gained from challenging assumptions which underpin such an orthodoxy. It is reasonable to suggest that institutional diversity is not a valuable state in and of itself (depending on what is seeking to be achieved). Moreover, policies and programs may not be required to stimulate it directly, they may be better served (for example in the case of university research) trying to ensure that they *do not introduce effects which are counter to it*.

Limitations and lessons for institutional diversity research

This research supports previous observations that parameters and areas of focus selected (coupled then with frameworks and methods) heavily influence institutional diversity research findings (Neave, 1996; Huisman, 2000). In addition, the findings support suppositions of institutional theory and observations such as Stensaker's (2014) that the level of abstraction in public documents, may not be sufficient to extend deeper than 'labels' and genuinely reflect on-the-ground reality. Viewed through the compacts document analysis alone, a particular conclusion that the sector lacks diversity which is driven primarily by national factors would be reasonable[52]. However, coupled with the insights afforded by an in-depth case study and participant perspectives, important nuance was added which caused such a finding to evolve significantly. University positioning within compacts represents crafted stories and fragments selected from a diverse internal range of activities, priorities, and plural interests within universities, to align with the expectations of a standardised and template-based program. This demonstrates the importance and value found in triangulating and using multiple research methods. A reliance on document analysis alone, as is evident in much institutional diversity research reviewed in chapter two, must be approached with caution.

---

[52] Demonstrating the same idea, Professor Gavin Moodie in his written response to me opined that what would be found about the diversity of research would even vary depending on whether you chose to use 2 digit or 4 digit field of research codes of the ERA program (which show different levels of granularity of research).

There were a variety of limitations for this research and its findings which must be acknowledged. The case study, as described in chapter three, provides valid *context-dependent* knowledge. Context in higher education is a significant factor when considering the utilisation of conclusions in settings outside of that which is being observed. While there are lessons to be gained from the Australian setting for international higher education systems, the diversity in sector configurations around the world alone means it is unlikely there would be neat transference from this setting to others. The testing of the conclusions from this research in other institutional case contexts would be highly valuable. Moreover, the research chose to focus upon the research positioning of Australian universities. As circumstances during this thesis demonstrate, national and international settings are an environment of constant flux. Recommendations for policy therefore are situated within not only a political and geographic sphere, but also a temporal one.

Research positioning represents one lens through which the diversity of Australian universities can be explored. The unique features of research, as the chosen aspect of university work to explore, suggests that findings would vary – perhaps significantly - if other aspects of university functions were the chosen area of focus. The participants interviewed for the institutional case study represent a cohort of university employees who have responsibilities related to research management, strategy development and implementation. The sample covered various seniority levels, executive, academic, and professional staff, discipline spread, and location within structures (University portfolio offices, faculties, schools, centres). In addition, a clear point was reached where additional data did not seem required in relation to research positioning. However, it is important, in light of the findings, to note that the participants represent a fraction of the people and roles that make up a complex ecosystem with many working parts. While I have chosen to argue the centrality of research functions to Australian universities, the findings have limits in terms of their generalisability across other institutional functions.

The experienced sector leader interviews took place in early 2020, at a time when there were pandemic-related restrictions on travel. In part this was advantageous, as it meant that participants with public profiles who might otherwise have multiple engagements, were perhaps more available and amenable to participate than they otherwise would be. These

interviews took place virtually, via the use of video conferencing. As most would be aware, the dynamics of face-to-face communication are different to those online. Non-verbal cues could not be examined in the same way as they were for case study interviews (where, for example, defensive body language can be telling on what may not be being said). Having said that, these participants did appear to be confident and experienced in communicating in such ways, and the interviews provided a range of perspectives which added greatly to the conclusions. Conscious effort and supervisors' counsel were required, however, to not give uncritical or preferential treatment to these participants' views, which despite their experience and seniority again reflect particular perspectives.

Avenues for future research

There are ample opportunities for continued research and progress in the institutional diversity field. Future research which continues providing in-depth case studies of, for example, varied institutional types and in different jurisdictions would be highly beneficial. The compilation of evidence from a range of perspectives would enable deeper and broader understandings, and for increasingly robust conclusions to be drawn. The University of Sydney may well be the 'original path' and something of an ideal type for Australian universities, however, additional research focussed upon younger, regional, technology-focussed, non-public, or universities of smaller scale, could produce an array of valuable insights or even provide a interesting challenge to the conclusions herein. In addition, the chosen scope of the case study could be expanded into deeper levels of granularity, for example, exploring these questions from the perspectives of researchers without research management or leadership roles. Such perspectives could add to the picture created here of how internally diverse universities are, and how that diversity plays out in terms of micro-local activity.

Codling and Meek (2006) offered up the proposition for testing in future research that 'the greater the co-operative activity between institutions within a higher education system, the greater the potential for institutional convergence' (p.16). While that may be true in terms of operational management and idea borrowing, the opposite could be true when it comes to research. The influence of collaboration upon institutional diversity represents a potentially fruitful avenue for deeper exploration. Participant perspectives showed that collaboration in research involves seeking complementary or specialist expertise as part of

larger multidisciplinary research endeavours (themselves a sector trend). As such, collaboration may play a role in enabling institutional diversity as expertise need not be co-located (within multiple institutions). Either way, collaboration is an underpinning feature of academic research, and a better understanding of its relationship with institutional diversity would be useful insight for – among other things - issues related to sector configuration and design.

The relationship between funding and agency represents a potentially germane avenue for additional exploration in the modern setting. The perspectives of all participants showed that with regard to research, funding appears to represent a proxy for an activity where it is otherwise difficult to measure success neatly. Moreover, in applying a multidirectional conceptual framework to this issue, it appears that the seeking and obtaining of funds, enables agency. Clark (1998), had several decades ago suggested this at the level of institutions:

> Traditional universities come to a fork in the financial road. They can passively fall in line and undergo parallel financial increases and decreases - as the government goes, so they go - with the governmental stimulus determining university response; or they can actively intervene by deciding to develop additional lines of income from pursued patrons (Clark, 1998. p. 140)

Participant perspectives suggested that the same could apply at multiple levels including down to the level of individual researchers. Researchers' capacity to attract funding for their research heightens not only status, but potentially their autonomy and the capacity to self-determine activity. The experienced sector leaders concurred that the primary loyalty and determinants for researcher decision-making are very often located in their discipline areas. Where researchers are successful in obtaining resources, they might be expected to assign greater importance to their own interests, or their discipline area's needs. Conversely, however, it might be hypothesised that where the resources that enable their research cannot be sourced from the external environment, the capacity for institutions to steer research activity through their own investment is heightened[53]. If this were true, it has significant ramifications for questions of diversity and interesting possibilities for how policy

---

[53] While not something observable through the data, there is potential that the highly fragmented historical nature of the University of Sydney, may in some ways be relatable to the relative success of researchers within it - in obtaining funding which enables their (discipline as opposed to institutionally steered) research.

and funding settings can be marshalled to stimulating it. At this same researcher level of aggregation, the effect and influence of academic promotion criteria upon institutional diversity also could benefit from exploration in greater depth.

The determinants of diversity are complex, multifaceted, and very likely non-static and continually evolving, and as such continued research exploring questions related to them will always add value. As would be the case in any number of areas of research, a post-pandemic context, when it eventuates, will provide yet another setting through which research can contribute to helping us understand and navigate complex social phenomena.

Afterword

Having the opportunity to think and work through a complicated set of issues during the course of this thesis was fascinating, and my views waxed and waned in many directions and through many a rabbit hole. Reflecting back on the positions which I came into the research with, and those I leave with, I can see that some remain relatively unchanged (though with nuance and a greater capacity to added), while others have evolved significantly. At the commencement of this research, my work experiences at UNSW, Macquarie and UC led me to the view that Australian universities are probably relatively homogenous, particularly when it comes to the ways they approach research strategy and planning. In all cases, albeit to varying degrees and scales, I had seen common goals and behaviours. While I was genuinely open and curious in my approach, the finding from the mission-based compacts analysis that observed such a trend across the sector did not come as much surprise. When I was mid introduction explaining my approach using compacts to one former VC, before I could finish, said to me: "could you tell the difference between any of them?".

Similarly, I came in with the idea that the primary strategic aim and determinant of goal-setting and behaviour in Australian universities was probably the maximisation of funding and status. An extract from my initial self-reflection memo describes this, and indeed shows a few correlations with what was in my eventual findings:

> A competitive market economy (explained through academically popular ideas like neoliberalism and new public management) appear to have led to increasingly centralised models of management and institutional decision making. The results of which include strategising which is risk-averse, unoriginal, and potentially responsive and driven by short-term (largely budget) imperatives. Moreover, the sector appears to be characterised by chronic insecurity; constant internal restructuring; and attempts to demonstrate benefit to a political class and general public who seem generally disengaged with the value of universities and research (aside from in areas such as medicine, where a tangible benefit case is more easily made in ways which are broadly relatable)
> (memo note self-reflection of starting positions, 2016)

However, I am comfortable in my belief that I maintained a level of subjectivity, rigor and self-scrutiny, and that the findings are a genuine and fair co-construction. In part, this is because *I actually wanted to be proved wrong* and to find something different from what Pfeffer and Salancik had already explained through their resource dependence theory as far back as 1978. I hoped to find that Australian universities were not driven primarily by seeking resources or

status (or by compliance with and the pleasing of government), but were more active agents focused primarily upon genuine intellectual challenges and social benefit ideals. I also did not want to add to what I perceived as an avalanche of neo-liberalism literature (while I agree with much of it), but rather to find something else novel, exciting and original. Again, from my own memos:

> I kind of get disappointed when funding drivers are brought up by participants, as it makes me feel as though I am not finding anything that hasn't been very well understood before. I clearly have a bias toward wanting to find something groundbreaking or at least which challenges existing understandings by exposing something new and different. I need to be aware of this during analysis, as one way this could play out is that I -unconsciously even - emphasise other aspects of the analysis (memo note following an interview, 2017)

One of the more useful tools I used to continue challenging my views and observations and where they came from, was through the coding applied throughout the thematic analysis of interview transcriptions. At every point where a theme or issue was raised by me in the course of interviews, as opposed to the participants, I tagged 'researcher-identified issue'. When I delved into that code and explored the issues which I tended to raise (no real surprises, institutional diversity related), what I did not find was the theme which came through as - by some margin - the strongest in the analysis of both documents and interviews, 'funding and resourcing'. It was clearly there in the documents and of fundamental importance from participants' perspectives, though I didn't want it to be.

The result and conclusion that most changed my existing thinking was the finding related to the fragmentation within an institution, and the crafted stories which are a veneer over the top of it. Early in the literature review I came across the concepts of 'loose-coupling' and 'organized anarchies', and so I did have some conceptual awareness. However, and perhaps coloured by the stories we tell ourselves to feel like what we are doing is important, I held a view that university strategies did both reflect and shape behaviour and activity. Even if researchers, I thought, played strategic games around the edges to acquiesce to what management types wanted to hear (while simultaneously pursuing other interests), I did not realise the extent to which there is a fundamental disconnect between a central university and its many constituent parts.

My focus at the outset was upon the idea of horizontal diversity at the level of a system and institutions, but I came to understand that the real story (as far as I see it) is at the level beneath that. In keeping with the biological themes which are foundational to institutional diversity, and the interactive influence within the theoretical framework, I described this in the thesis as an ecosystem. I imagine now that such ecosystems probably vary across institutions. Some universities are probably more effectively steered in a common direction than others (it must be easier, for example, in a smaller university, and vary to some degree based on leadership and approach, history, culture and so on). Still, I am quite confident that internal diversity characterises all Australian universities. Their outer layers only tell one form and a part of the story, for reasons that are understandable…nobody wants to read about – lest invest in - an organisation which is chaotic and almost beyond comprehension and control.

I also came into the work with a preconception that diversity was probably a good thing. I doubt this is uncommon, and the term certainly has some positive normative valence in our society. I did not realise that institutional diversity is incredibly political and that in Australia, it is impossible to separate those who genuinely believe in the concept's benefits, from those who have appropriated it for university and interest group positioning purposes. I heard Simon Marginson some time ago in a talk describe the sector as intertwined in 'unresolved distributional politics', and this resonated with much of what I saw in scouring public discussions and position papers around the topic. In Australia, we clearly have a hyper-competitive sector which is scrambling to obtain as much of the (arguably insufficient) research funding pie as possible. The heartiest cries for institutional diversity, appear to come from those who would like more of that pie and for the other guests to eat somewhere else. I am not convinced by that approach, as I believe it represents an argument mired in perpetuating status hierarchies, built now on the flimsy constructs of global excellence.

While tangential, hearing the words in late 2020 of John Maynard Keynes addressing the opening the Arts Council of Great Britain in 1945[54], and advocating for distributed funding

---

[54] Parris, M (Host) (2020, September 23rd) James Graham on John Maynard Keynes in Podcast Great Lives. BBC Radio 4. Accessed online.

and the dangers of prestige narrowly defined, the parallels to the current plight of higher education in a world of rankings resonate strongly with me:

> How satisfactory it would be, if different parts of this country would again walk their several ways as they once did, and learn to develop something different from their neighbours, and characteristic of themselves. Nothing could be more damaging than the excessive prestige of metropolitan standards and fashions. Let every part of merry England be 'merry' in its own way, and death to Hollywood!

Navigating the sectors challenges through the coming years will be inordinately complex, with singular concerns – such as institutional diversity – inadequate without more holistic considerations. However, any sector reconfiguration which does not consider the issue, and the settings and factors which stimulate or hinder institutional diversity, would not only be a missed opportunity, but potentially result in counter-productive outcomes in much the same way that current settings have cultivated homogeneity. It seems appropriate to end on helpful advice I received, again from one of the retired Vice-Chancellors, who counselled: 'make sure to stay in your [thesis] lane, you could easily slip down a tricky pathway of trying to solve the sectors grand puzzles, which many many people have spent the better part of their lives trying to tackle'.

Appendices

Appendix A: Summary of recent institutional diversity research

Author(s) (year)	Jurisdiction /system(s)	Framework/approach	Dimension(s) of focus	Summary of findings
Coates et. al (2013)	Australia	Evidence-based data profiles using U-Map and U-Multirank frameworks (initiated in Europe), with cluster analysis applied	Five dimensions (with a total of 33 underpinning indicators) within the framework explored per institution: Teaching and Learning, Student Profile, Research Involvement, Knowledge Exchange, and International Orientation.	Formative work with profiles presented per Australian university with discussion on the appropriateness of indicators selected, and suggested future considerations which would assist to enhance the transparency of distinctions.
Davis (2017)	Australia	Non-empirical historical account. Uses concept of path dependence and principles from institutional theory	System level diversity of institutions	The unified national system resulting from the post-Dawkins reforms solidified convergence upon a common institutional type (in contrast to the previous system which was diverse). Homogeneity within the sector as a systemic risk in the context of digital or other disruption.
Diezmann (2018)	Australia	Bioecological Theory (Bronfenbrenner, 1979, 2005). Content analysis of * mission-based compacts* as well as ERA reports with Bosch and Taylor's (2011) phases of university development also applied.	Similarities and differences in the research strategies that universities with different performance profiles employ related to the Excellence in Research Australia (ERA) assessment exercise	Considerable similarity at the surface level, however at deeper level key differences emerge between ecosystems and by universities at different stages of research development
Goedegebuure, Coates, van der Lee & Meek (2009)	Australia	Secondary data analysis using 2007 international Changing Nature of the Academic Profession survey	Perceptions, aspirations and activities of academics in terms of their teaching, research and community service.	Cautious conclusion that diversity of aspirations, perceptions and activities does to a degree exist. Lack of diversity seen in preferences - strong preference for research over teaching, however this is not reflected in patterns of work reported. Research achievements tend to focus on areas underpinned by policy incentives.
Mahat (2014)	Australia	Organisational theory applied to produce a program-level multidimensional classification tool	Relationship between strategy and program diversity through a case study of medical programs (18 institutions)	Makes case for use of the tool and profiles it allows to inform strategic decision making, and foreshadows future case study approach for more in-depth analysis
Croucher & Woelert (2015)	Australia	DiMaggio and Powell's (1983) institutional isomorphism. Statistical measures of relative variation applied to data from government reports and annual reports	Changes in academic organizational unit structures and changes in the numbers of academic staff and students in different academic organisational groupings (1987–1991).	Significant convergence in formal organisational structures and student and staff numbers in the majority of fields at Australian universities. Analysis of vertical differentiation patterns shows a considerable degree of stability over the period, with some notable exceptions

Author(s) (year)	Jurisdiction /system(s)	Framework/approach	Dimension(s) of focus	Summary of findings
Huisman. Meek & Wood (2007)	Australia, Austria, Denmark, Finland, Flanders, France, Germany, the Netherlands, Sweden, and the UK	Longitudinal (Australia and the Netherlands) and comparative of countries with similar economic infrastructure	Size based on ranges using number of students; institutional controls; range of disciplines; degrees awarded; and modes of study.	Comparative component demonstrated that systems of higher education are highly diverse, with degrees of diversity between them ranging from low in Australia and Denmark and high in the United Kingdom; Longitudinal work showed that diversity decreased in Australia, as it did, following an increase, in the Netherlands; Indications (not conclusive) that government regulation may help to preserve diversity, but that government initiated mergers bring about more homogeneity.
Pinheiro, Charles, Jones (2016)	Australia, Canada, and Norway	Historical analysis using: Secondary datasets and interviews with senior HE staff, central government staff and regional/state/provincial officials.	Interplay between government-led policies on access and institutional differentiation on the one hand and regional development on the other	Australia: university and the non-university sub-sectors still quite distinct from one another. All three cases support importance of environment, policy, funding and competition/cooperation as critical determinants of differentiation and systemic diversity. Natural tendency toward convergence of forms and structures, but this can be mitigated by policy. "*More often than not convergence—and the loss of institutional diversity associated with it—is an unintended consequence of policy efforts*"
Piché (2015)	Canada	Organisational theory to analyse organisational behaviour from a macro perspective using policy and descriptive analysis.	Government policy, nature of funding regimes and economic conditions. Explored change in distribution of funds and research strengths	Diversity inhibited by lack of diversity of objectives in funding policies and egalitarian funding model at a regional level (Ontario), but potentially fostered by Federal level programs predicated on peer review and competitive processes.
Zha (2009)	China	Organisational theory: within context of enrolment expansion/massification and the emergence of neoliberal agenda and market forces.	Government intervention and market forces. Explored correlations between new specialisations, changes in enrolments and institutional revenue	Competition for scarce resources and uniform environmental conditions along with an integration process which results in an institutional hierarchy, is resulting in similar responses - convergence and homogenisation.

Author(s) (year)	Jurisdiction /system(s)	Framework/approach	Dimension(s) of focus	Summary of findings
Fumasoli, Barbato & Turri (2019)	England and Italy	Organisational Identity and sensemaking. Comparative case studies to develop a conceptual framework	Organisational dimension influence on strategic positioning processes. Three focal points constituting a meso focussed analysis: organisational structure, identity, and centrality (location).	Challenging existing polar theoretical understandings of university positioning (environmental determinism versus managerial rationality) by positing a meso-intervening (organisational) filtering dimension.
Barbato & Turri (2019)	England and Italy	Institutional positioning. Longitudinal cluster analysis and Euclidean squared distance.	Positional paths	Clustering at different periods demonstrated both convergence and differentiation processes within the same HE system (hidden by analysis at the level of the entire HE system). English and Italian institutions becoming more homogeneous in terms of research intensity and increasingly differentiated in relation to their internationalization.
Bowl (2018)	England and New Zealand	Institutional theory; Cross-country comparative textual analysis	Key words and statements signifying marketisation, differentiation and equality	A discourse of 'distinctiveness' is employed across the board all four universities examined, with some difference observed when compared by ranking. Differentiation claims focussed at global levels, however national policies appear have some influence over public presentation. Equality unlikely to be stimulated by marketised system.
Huisman (2015)	Europe	Case study using European Microdata Collection dataset of European HEIs. Stirling (2007) properties.	Broad exploration of operational challenges of measuring diversity.	Perimeter issues are central to measuring diversity; the measurement of diversity is vulnerable to the choice of (statistical) diversity measures; outliers significantly impact upon measurement outcomes
Nokkala & Diogo (2020)	Europe	Institutional logics (Thornton and Ocasio 1999), and Hüther and Krücken's (2016) concept of nested organisational fields. Small-n case study, and, comparative design.	Organisational context through research group profiles as a heuristic device. Examines groups' self-understandings about their operational context .	Group segmentation and profiles influenced by their perceived collaborative, competitive and organisational environments. Research fields are dynamic and tend to differentiation (ref: Clark, 1983), and internal dynamics in each field are also different.
Uslu (2018)	Europe	Thematic analysis and node mapping. Phenomenological approach	Strategic actions (governance and decision making; quality assurance; learning and teaching; research; internationalisation; service to society; within institutional evaluation reports of EU Association	Strategies have similarities not only with universities from other European countries but also from outside of Europe, however strategic perspectives greatly differ in terms of their local, national, and international circumstances. Environmental factors lead to differences in strategic actions.

Author(s) (year)	Jurisdiction /system(s)	Framework/approach	Dimension(s) of focus	Summary of findings
Mampaey (2016)	Flanders (Belgium)	Comparative case study. Scandinavian institutionalism (differential responses to institutional forces) as counterweight to neo institutional theory. Publicly available documents (plans, reports, brochures) and semi-structured interviews	Approaches to socio-demographic diversity.	Universities not trapped in conformity, but rather signal compliance with institutionalised expectations but through organisation-specific definitions they in some ways reshape prototype/expectations. Translation of expectations result from power processes within the organisation.
Paradeise & Thoenig (2013)	France, Italy, Switzerland, and the United States.	Developing a theoretical framework (typology) challenging 'iron-cage' conceptualisation. Draws upon organisational sociology. Interviews, document, and thematic content analysis	Status related dimensions of quality and excellence; through four ideal-typical institutional profiles	Standardisation does not imply homogeneity. Diversity and standardisation co-exist. Local orders are proactive actors interpreting global influences for their own positioning and relative to their own internal circumstances and instrumentation.
Erhardt & von Kotzebue (2016)	Germany	Content analysis of the full sample of German higher education institutions' mission statements, using Aaker's (1997) 'brand personality scale'.	(Corporate) Brand personality as reflected in mission statements to explore horizontal as opposed to vertical differentiation	Low degree of differentiation, with few positioning in terms of unique characteristics. Cause assumed as lack of awareness of logic of horizontal differentiation and unique positioning opportunities.
Kosmützky & Krücken (2015)	Germany	Discourse analysis: combined hermeneutic sequential analysis and content analysis	Mission statements as organisational instruments used to develop individual profiles and brand	Higher education institutions find themselves having to evince that they are a university. Through institutionalised norms, but at the same time position into specific niches. Therefore mission statements convey institutional and organizational specificities at the same time. Analysis suggests an "either/or" choice is not a viable conclusion in this case.
Jungblut (2017)	Germany	Quantitative content analysis: frequency, followed by coding using Morphew's (2016) categories, then clustering using Fisher (1922) test	Mission statements by group and correlation to success in national Excellence Initiative and Competition for Teaching Excellence	Universities have somewhat differentiated mission statements that can be clustered in three distinct groups. Differentiation mainly limited to two key tasks of teaching and research, and no clearly observable link between the differentiation observed and the two national initiatives.

224

Author(s) (year)	Jurisdiction /system(s)	Framework/approach	Dimension(s) of focus	Summary of findings
Teichler (2010)	Germany, Japan, and the United Kingdom	Secondary analysis of comparative surveys (1992-2007)	Analysis range defined as Professors at research-oriented universities from the three countries, with a focus upon strategic options in various areas of their professional life: time budget; preferences (research/teaching); orientation (theory/practice)	Teaching and research orientations and teaching and research activities tend to converge for the group and countries of focus. Finds professors have room to shape their role, either more strongly towards research or towards teaching
Cattaneo et. al (2018)	Italy	Secondary data analysis - descriptive statistics - applying diversification index (inverse of the Herfindahl index); and specialisation index, supported by regression tests	Relationship between the competition and programmatic diversification strategies (breadth, range, and form of degree areas)	Significance of geographic factor - local rather than national competition influences programmatic diversification. Relationship found to be quadratic/U-shaped trend (more competition resulting in increased specialisation, but reverses at a threshold). More extreme levels of competition leads to isomorphism.
Rossi (2009b)	Italy	Quantitative analysis of secondary data using cluster analyses and (i) Specialisation index; (ii) Diversification index; (iii) Differentiation index. Theoretical framework not articulated.	Competition and relationship to universities' horizontal differentiation as represented by disciplines taught	Competition not necessarily stimulating horizontal differentiation, however confounded findings due to the coexistence of pressures towards diversification and specialisation. Increased competition for enrolments however appears to potentially affect diversification strategies by inducing the following of short-term dynamics of student demand.
Rossi (2009)	Italy	Secondary data analysis using distributions, clustering and correlation indexes. Theoretical framework not articulated, but short reference to new public management influences.	Relationship between structural and strategic features of universities— size, age, and missions—and success in securing research funds	Strategic prioritisation upon a research mission at an institutional level correlated to higher funds per researcher, from different sources. Older and larger institutions differ to more recently founded institutions who tends toward undergraduate teaching. Universities display some coherent institutional behaviours despite academic freedom and new public management.
Rossi (2010)	Italy	Quantitative analysis of secondary data using cluster analyses and (i) Specialisation index; (ii) Diversification index; (iii) Differentiation index. Theoretical framework not articulated.	Effects of massification, privatization, increased competition for students and for research funds explored through diversity of organisational features: (i) size; (ii) specialization; and (iii) mission orientation over period 2000-2007	Process of massification has affected all institutions in the system. Disciplinary specialisations have tended to converge (specialization in the social sciences and arts and humanities, at the expense of the technical and natural sciences), while modes of course delivery have increased. Concludes that competitive funding mechanisms could help explain convergence. Increased differentiation has taken place in terms of mission orientation.

Author(s) (year)	Jurisdiction /system(s)	Framework/approach	Dimension(s) of focus	Summary of findings
Salini & Turri (2015)	Italy and UK	Resource dependence theory. Statistical analysis of revenue. Three way multidimensional-scaling method.	Revenue data as a robust indicator (institutions capacity to attract external financial resources which shows how that institution works)	Article mainly testing of a methodological approach: argues for the potential of revenue data for measuring differentiation how this differentiation changes over time
Kitigawa & Oba (2010)	Japan	Tensions between external drivers - excellence and diversity. Institutional isomorphism and the growth of competition and evaluation mechanisms. Institutional surveys exploring university governance	Government policies related to excellence and funding distribution.	Government reform and funding distribution inhibits diversity by leaving little room for choice, making existing differences between universities less substantial.
Frølich et. al (2013)	N/A	Institutional theory as departure point, with new focus on micro-foundation development through institutional pluralism, sensemaking and strategy-as-practice (Jarzabkowski 2003) perspectives. Attempts a theory-grounded reinterpretation of institutional transformation.	Strategising (strategy and strategy processes)	Contribution to connecting analytical bridges between environmental changes and organisational dynamics. Provides potential theoretical underpinning and methodological considerations for future research.
Fumasoli & Huisman (2013)	N/A	Conceptual framework developed focusing on institutional positioning as link between institution/organisational level and the system environmental level. Organisational identity and strategic choice perspectives, contributing higher levels of agency to institutionalist perspectives.	Niche dimensions: core activities, education, research and service to society (third mission activities) - resources and support activities	Institutional positioning suggested as a determinant of levels of diversity in a system, and as way forward for research on institutional diversity and a means of dealing with contradictory research findings. Institutional positioning as a key mechanism through which system diversity emerges through seeking and location in resource niches
Horta, Huisman, Heitor (2008)	N/A	Analysis of the factors that drive and inhibit diversity: isomophism; academic drift; role of states and markets	Research funding mechanisms	Institutional diversity in higher education can be achieved by mix of state and market steering through competitive funding mechanisms for academic research (however not on the education side). Competition acts to differentiate between institutions according to capabilities

Author(s) (year)	Jurisdiction /system(s)	Framework/approach	Dimension(s) of focus	Summary of findings
Teichler (2006)	N/A	Outlines variety of factors which contribute to growing complexities in higher education as they relate to examinations of diversity	Particularly looked at the way previous work has examined the topic and concepts and frameworks which emerged. Shows that attributing causality is very fraught given underlying variables - e.g. globalisation/int cooperation - with the resulting implication being decreasing predictability of results	As long as we assumed that a limited number of underlying forces determine the structural development of higher education, we were in the position to develop relatively bold concepts about the causes and the consequences of certain patterns of the higher education systems. The more we become aware of a growing complexity of underlying forces, the less we can trust in simple concepts of causes and effects.
van Vught (2008)	N/A	Open systems, organisational theory: population ecology; resource dependency; institutional isomorphism. Coleman's (1990) corporate actors concept	System level - Birnbaum's (1983) external diversity. Level of uniformity in the environment of higher education institutions and the level of influence of academic norms and values	Development of a conceptual framework for the study of diversity.
Widiputera et. al (2015)	Netherlands	Composite indicators: Herfindhal index, Gini coefficient, Theil entropy and Birnbaum (1983) six measures, applied to data from Dutch Ministry of Education	External diversity (differences between institutions) through student numbers by discipline and program type	Increasing diversity at masters and first year programs. The number of students increased which is assumed to have significant influence upon this increase in diversity.
Morphew, Fumasoli, Stensaker (2016)	Northern Europe and North America	Pratt and Foreman's (2000) frames: compartmentalization, deletion, integration, or aggregation as organisational responses.	Strategy analysis of 19 North American and Northern European universities to determine how public and private identities of their missions are situated.	North American universities loosely couple strategic objectives addressing separate stakeholders linked to their missions. Northern European universities tend to prioritise around concepts of 'research excellence.' Difference observed attributed to: unique histories, policy changes, governance, including very different accreditation traditions.

Author(s) (year)	Jurisdiction /system(s)	Framework/approach	Dimension(s) of focus	Summary of findings
Weingarten et. al (2013)	Ontario, Canada	Government discussion paper using quantitative data comparison	Dimensions of differentiation examined: comprehensiveness and research activity (income proxy; graduate student cohort; citation analysis)	Proposes approaches to the development of a differentiation framework for the university sector by Government, based on clustering of institutions
Antonowicz (2013)	Poland	Thomas' (1987) world polity, convergence theory and path dependence. Heinze and Knill's (2008) two models of convergence: vertical (sigma convergence) and horizontal (delta convergence).	Impact of transnational trends on national systems	Higher education faces political, economic, and institutional pressures to evolve toward uniformity. While dynamics of post-Soviet change in Poland were resisted by academics, political will facilitated move to self-governance in context of growth and competition ('uncontrolled social and economic processes')
Vlaceanu & Hancean (2012)	Romania	Institutional analysis. Alternative models of prediction tested: 1) Concurrent model (filtering effect of internal formal and informal structures limits impact of external variables and results in differentiation) and 2) Predictive model (institutional arrangements and external selective incentive criteria expected to increase differentiation).	External environment, system, and policy reform (selective incentives) and critical resources (students, funding, legitimacy, and reputational sources)	Theoretically, as opposed to empirically, claim predictive model has higher probability (institutional differentiation will result) The concurrent model's prediction cannot be supported theoretically.
Coello, Simon-Martin & Sanchez-Molero (2018)	Spain	Secondary data analysis. No theoretical frame explicitly provided though analysis utilises concept of new public management.	Mission statements through basic functions of teaching, research, service to society, and internationalisation for: diversity by university creation dates; and reflection of new public management discourse.	University mission statements varied in length and scope, with fewer mentions of research than teaching functions. Suggestion that many Spanish universities retain a very classical conception of a university's functions, given a lack of references to internationalisation; public service and management.
Lepori, Huisman & Seeber (2013)	Switzerland	Organisational forms (segregation and blending processes) within institutional theory and organizational ecology	Quantitative investigation of binary system: implications of regulatory and institutional frameworks for community structure and evolution. Characteristics of products and services offered: educational profile; student profile; research involvement; international orientation; knowledge exchange.	Confirm that in Swiss binary context segregation and blending processes take place. Regulatory and policy settings conductive to establishing distinct profiles for universities of applied sciences. However normative distinctions and competitive behaviours considered also to play important part.

Author(s) (year)	Jurisdiction /system(s)	Framework/approach	Dimension(s) of focus	Summary of findings
Moodie (2015)	UK, US & Australia	Relative standard deviation applied to government statistical data sets	Institution enrolment size and proportions of postgraduate, fulltime, and international students	Less variety amongst institutions in the United Kingdom than in Australia, which in turn has much less variety than the United States. Extent of government involvement in higher education is not as important for institutional variety as the form that it takes.
Huisman & Mampaey (2018)	United Kingdom	Institutional theory and resource dependency, adding Kotler and Fox's (1995) branding/marketing dimensions for education institutions.	Welcome addresses as key marketing instruments (2005 and 2015)	University images appear fairly similar. Older and prestigious institutions tend to show less distinctive elements than younger and less prestigious institutions. Finding not supported regarding trends over time (proposition being that university images become more similar for older and prestigious universities than for younger and less prestigious universities)
Seeber, Barberio, Huisman & Mampaey (2017)	United Kingdom	Organisational identity: institutional fields and legitimacy, and the idea of optimal (competitive) distinctiveness borrowing from resource dependence theory. Descriptive statistics	Factors effecting mission statements, conceived as institutional identity narratives and attributes (competence and social justice; disciplinary profile; geographic proximity; and organisational forms)	Lower reputation universities now also make claims of competence, but at the same time highly reputed universities claim quality in a comparative – competitive way to preserve their distinctiveness. Sameness and difference observed explained as direct attempts to balance similarity to a reference group and distinctiveness within a field.
O'Connell (2015)	United Kingdom	Concept of object within Engestrom's (2005) Activity Systems Theory	Critical discourse analysis applied to global university rankings & policy-oriented text produced by Universities UK	Narrowing of discourse resulting from global rankings and a loss of distinctiveness in institutional identities of the most research-intensive institutions. But challenges rankings as having singular consequences. Commonality of concerns (in relation to research funding policy, higher education funding models and student fees), which however are contextualized in different ways and express different strategies for social change.
Purcell, Beer & Southern (2015)	United Kingdom/England	Content analysis of 128 mission statements. Kim and Mauborgne's (2005) 'red and blue ocean' framework.	Positioning, leadership, governance, and management.	72 of the institutions examined determined as similar, with 32 'specialist' universities deemed as having mission statements which were distinct in terms of subject specialism
Zha (2009b)	US, Canadian, German, Japanese, Korean and Chinese systems	Resource dependency; institutional isomorphism; and neo-institutionalism with a global organisational allomorphic perspective. * Draws upon the glonacal agency heuristic	Functional and operational global institutional archetypes (mass tertiary education; professional specialialised higher education and research; and research intensive)	Higher education institutions are neither becoming strictly homogeneous and isomorphic at a national or global level, nor highly differentiated at the local-organizational level. Rather they are variants (not different forms) of a very limited number of institutional archetypes.

Author(s) (year)	Jurisdiction /system(s)	Framework/approach	Dimension(s) of focus	Summary of findings
Eckel (2008)	USA	Massification and concomitant ideals evident in USA: Jeffersonian ideals of limited government and freedom of expression; capitalism and rationality of competition and the market; and opportunity and social mobility	Prestige and effectiveness indicators.	Varies between jurisdictions within the country with the conclusion that public policy and balance with market forces plays the most important role in differentiation of missions. Appropriate policy levers can foster diversity, however a fine line exists to where it can hamper it.
Harris & Ellis (2020)	USA	Institutional theory and Birnbaum's (1983) typology.	(i) Spread across institutional types: A larger quotient means less diversity; (ii) Level of clustering in top 10% of institutional types: A larger quotient means less diversity; (iii) Level of clustering in institutional types with a single institution: A smaller quotient means less diversity.	Despite vast changes since Birnbaum's original study, the trends toward homogenization has continued, with institutional diversity decreasing from 1989 to 2014 on all three indices explored.
Morphew (2009)	USA	Institutional theory as an alternate to population ecology - though applying Birnbaum's method - an organisations survival is tied to perceptions of its legitimacy. Academic drift.	Trends in revenue streams (diversification) and institutional types over time	Number of unique institutional types increased, but total number increased at far greater rate resulting in clustering. Academic drift is occurring - emulation of the elite by those lower in rank. Movement toward less institutional diversity results from professionalisation and need to obtain resources of legitimacy by adopting similar approaches. In addition Oliver (1991) concept of balance is introduced - some organisations (where professionalisation features) balance or compromise in their responses to competing demands of external constituents, which incorporates normative notions.
James (2009)	Wales	External drivers of missions, the market, government policy and public funding. Neutral view approach taken to missions as genuine reflections.	Mission statements and elements within them, and regional level policy statements	Congruence of missions is evident in elements relating to excellence, research and a commitment to Wales, with markets a significant driver of missions however welsh missions demonstrate diversity, with no two institutions showing the same elements. The findings do not indicate that mission diversity is threatened by policy or market forces

Appendix B: Features and research activity of Australian universities mapped to Marginson & Considine's (2000) institutional typology

Australian universities have been clustered in various ways throughout the literature, and are currently self-organised into well-known interest group affiliations: the Group of Eight, who self-identify as Australia's leading 'research intensive' universities; the Australian Technology Network, who claim a focus on practical application and partnerships; Innovative Research Universities, research-intensive institutions who were established during the 1960s and 70s; and the Regional Universities Network, headquartered in regional Australia[55]. Groupings as well as allowing institutions to effectively represent their interests collectively, can help to facilitate research and analysis by allowing for the controlling of important factors, for example age and profile (Williams, 2010).

Used crudely, however, for the purposes of case selection, such classifications can be problematic given that they may disguise significant internal variety, an issue particularly pertinent to studies of institutional diversity (Huisman et al., 2015). The aforementioned groupings are further limited in their usefulness for such a purpose, as they do not cover all Australian universities (with 16 institutions currently unaffiliated with any of the four groups).

Marginson and Considine (2000) proposed a typology of the Australian sectors universities which combines institutional age, broad types and other features. Their approach clustered Australian universities within the following four groups:

- *Sandstone or Brick*: comprising the Group of Eight plus the University of Tasmania, all large institutions founded prior to World War One, along with three commensurately large 'redbricks' founded in the 1940s and 50s;

- *Gumtrees*: universities established post-war from the early 1960s and mid 1970s and pre-Dawkins era, so named given their surrounds which are typified by native flora;

- *Unitechs*: institutions strong in technological areas who prior to Dawkins reforms were large institutes of technology;

- *New universities*: Mainly established after 1987, the post-Dawkins era, including those institutions formed out of what were colleges of advanced education, and regional universities.

Research activity

Given the focus of this thesis upon the academic research function of universities, research activity

---

[55] An additional group existed from 2002-2007 of ten institutions who had received accreditation since 1970, however this has since disbanded.

and its variability between institutions represented another important consideration. While regulatory requirements and prevailing approaches mean that all universities in Australia are *research universities*, Goedegebuure& Schoen (2014) contend that the most significant differentiator between them is research *intensiveness*. Their analysis of Commonwealth Research Block Grant[56] distribution showed that approximately 75% of research funding was allocated to the Group of Eight, followed by a second grouping of eight 'with far less success', and finally 11 institutions who received 'little', and 14 'virtually no' competitive income. Applying the Marginson and Considine typology and performing a similar contemporaneous analysis demonstrates comparable results. The below table uses data extracted from online annual reports of each institution, as well as three years of publicly available block grant data (which has been averaged for income to provide a single figure per institution to produce a potentially more reliable measure, given smaller institution incomes show relatively high variability between individual years [57]).

These figures show a correlation between institutional size, age and proportion of research income and higher degree research reported by institutions. The oldest group, established between 1850-1949, received over 70% of research income (though this may in part be explained by discipline break up, given their dominance in high cost discipline fields such as physics and medicine (Coaldrake and Stedman, 2013)) and housed over 50% of the sectors research students despite only making up 21.95% (9/41) of the overall sectors institutions. The newest and youngest group despite being the largest, making up 36.59% (15/41) of the sector by number of institutions, received by far the lowest proportion of research income at just over 5%, housing just over 10% of research students.

---

[56] Block grant allocations are a useful proxy measure of research activity, given the formulae which determined them at this time used research output measures including grant income (though this could debatably be considered an input as opposed to an output), research publications and higher degree research student load and completions.

[57] Reported research figures taken from Department of Education annual reports (accessed online)

University	Type	Year of est. (Uni status)	Students	Staff	Research (HDR) Students	Annual research income (3 year average)
University of New England	Gumtree	1954	11,659	1,231	765	$25,547,281
Macquarie University	Gumtree	1964	28,691	2,358	2,227	$45,997,930
University of Newcastle	Gumtree	1965	25,582	2,635	1,766	$87,469,544
Flinders University	Gumtree	1966	16,428	2,055	1,514	$57,430,961
James Cook University	Gumtree	1970	16,471	1,857	1,009	$44,307,218
Griffith University	Gumtree	1971	33,058	3,564	1,947	$67,528,701
Murdoch University	Gumtree	1973	16,392	1,397	1,259	$26,093,390
Deakin University	Gumtree	1974	35,272	3,167	1,173	$41,816,172
University of Wollongong	Gumtree	1975	23,502	2,250	1,985	$55,532,167
University of Divinity^	N/A	2012	682	152	105	$2,400,102
Charles Sturt University	New Unis	1989	22,018	2,092	456	$11,807,323
University of Western Sydney	New Unis	1989	32,912	2,697	1,516	$20,428,809
University of Canberra	New Unis	1990	11,731	932	568	$16,139,954
Victoria University	New Unis	1990	20,013	1,465	1,070	$13,131,443
Australian Catholic University	New Unis	1991	21,519	1,597	455	$8,487,611
Edith Cowan University	New Unis	1991	17,232	1,462	778	$15,898,715
Central Queensland University	New Unis	1992	12,300	1,034	535	$8,053,781
Swinburne Uni of Technology	New Unis	1992	22,131	1,440	1,236	$21,434,579
University of Southern Qld	New Unis	1992	14,385	1,371	496	$8,505,260
Southern Cross University	New Unis	1994	9,148	857	416	$13,305,800
University of Ballarat/Federation	New Unis	1994	9,759	1,040	386	$3,557,904
University of the Sunshine Coast	New Unis	1994	7,962	821	392	$5,681,902
Charles Darwin University	New Unis	2004	6,132	597	359	$39,455,885
Bond University	Private	1987	5,495	594	281	$4,042,001
University of Notre Dame	Private	1989	9,127	656	270	$1,021,769

Australian National University	Redbrick	1946	15,587	3,753	3,999	$225,324,807
University of New South Wales	Redbrick	1949	39,597	6,119	6,623	$324,562,670
Monash University	Redbrick	1958	52,992	6,261	6,803	$301,647,331
University of Sydney	Sandstone	1850	43,265	6,175	9,101	$347,247,555
University of Melbourne	Sandstone	1853	42,637	6,855	7,978	$375,600,288
University of Adelaide	Sandstone	1874	21,386	3,382	4,158	$178,143,797
University of Tasmania	Sandstone	1890	18,901	2,426	1,868	$88,244,526
University of Queensland	Sandstone	1909	39,963	6,816	5,709	$362,781,492
University of Western Australia	Sandstone	1911	21,093	3,756	3,405	$207,196,337
La Trobe University	Unitech	1967	27,436	2,604	1,960	$48,666,879
Curtin University of Technology	Unitech	1986	35,310	3,232	2,697	$66,088,666
University of Technology, Sydney	Unitech	1988	27,747	2,483	1,871	$39,230,126
Queensland Uni of Technology	Unitech	1989	34,740	3,751	2,524	$84,864,664
University of South Australia	Unitech	1991	22,495	2,642	1,732	$63,002,193
RMIT University	Unitech	1992	45,475	2,866	2,205	$50,293,836

	Weighted HDR Student Total (sector % proportion)	Annual research income 3yr average (sector % proportion)
Sandstone/Redbrick total	49,644 (57.98%)	$2,410,748,803 (70.72%)
Gumtree total	13,645 (15.94%)	$451,723,364 (13.25%)
Unitech total	12,989 (15.17%)	$352,146,364 (10.33%)
New universities total	8,794 (10.27%)	$189,181,001 (5.55%)
Private total	551 (0.64%)	$5,063,770 (0.15%)
Sector Total	85,623	$3,408,863,301

Appendix C: Semi-structured interview protocol

The below protocol was utilised for the two sets of interviews conducted as part of the thesis. As semi-structured interviews, the below topics and example questions were starting points, with each interview following a course determined during the course of the interview and based in the participants reflections and contributions.

Two important differences between the two sets of interviews must be noted:

(i) University of Sydney interviewees were offered the option of anonymity, which was followed for all applicants in the final write up, as some participants chose this option. Moreover, de-identifying participants was carefully considered and applied given the single case study approach;

(ii) Experienced sector leaders all consented to being identified. Quotes provided within the eventual thesis were provided to them in advance of their inclusion, seeking permission for their use. These interviews were also semi-structured; however, questions were framed around propositions deriving from the research seeking to be tested, and thereby the interviews did have a greater degree of consistency than those from the University of Sydney participants. Information provided to participants.

What is the research study about?

You are invited to take part in this research study. You have been invited because you have been identified as likely having experience in institutional research strategy development or implementation. The research study aims to explore institutional diversity in Australian higher education research. It aims to contribute to unresolved questions around institutional diversity within Universities, and to better understand the factors which influence it. The latter is particularly important, given that institutional diversity makes up a key underlying principle within Australian higher education policy.

Do I have to take part in this research study?

Participation in this research study is voluntary. If you don't wish to take part, you don't have to. Your decision will not affect your relationship with The University of New South Wales.

If you decide you want to take part in the research study, you will be asked to:

- Sign the consent form;

- Keep a copy of this Participant Information Statement.

What does participation in this research require, and are there any risks involved?

If you decide to take part in the research study, you will be asked to take part in an in-depth interview with the researcher. The interview will last approximately 45-60 minutes and cover a series of topic areas related to research planning and strategizing and your experience of them. With your permission, the interview will take place either by phone or at your workplace at a time convenient to you and will be recorded and transcribed for use by the researcher. [Case institution interview participants] All data will be de-identified, and you will not be named in the final thesis or any publications resulting from it.

Aside from giving up your time, we do not expect that there will be any risks or costs associated with taking part in this study.

Will I be paid to participate in this project?
There are no costs associated with participating in this research study, nor will you be paid.

What will happen to information about me?

By signing the consent form you consent to the research team collecting and using information about you for the research study. We will keep your data for 7 years in total. We will store information about you at a server at the University of New South Wales. Your information will only be used for the purpose of this research study and it will only be disclosed with your permission.

It is anticipated that the results of this research study will be published and/or presented in a variety of forums. In any publication and/or presentation, information will be published, in a way such that individuals will not be identifiable <u>unless you specifically agree to be identified by indicating this in writing</u>. Being identified is OPTIONAL – there is a section at the end of this consent form to state whether you wish to be identified or not.

You have the right to request access to the information about you that is collected and stored by the research team. You also have the right to request that any information with which you disagree be corrected. You can do this by contacting a member of the research team.

The audiotaped digital recordings are for the purposes of the research study. After the interview we will transcribe and then delete your digital recordings. We will keep transcriptions for the required 7-year period. We will store information about you at a server at the University of New South Wales. Your confidentiality will be ensured by de-identification of the transcribed material.

Case study participant interview topic areas

Topic area	Example questions and probes
1. Introduction to the research project, and participant information and consent.	• Overview of the research project aims and approach. • Participant consent discussion/form and approach to ethics.

	• Allowance for participant questions or requests for more information.
2. Participant experience, context, and interaction with research strategy and positioning.	• Could you describe your role and responsibilities at the University?
	• In what ways does your role intersect with research strategy? (e.g. aware of/involved in development and/or implementation (university/faculty/school)?)
	• What forms of research strategy and positioning are you aware of?
	• Could you share any reflections you have on the University's approach to developing its most recent research strategy / mission-based compact / internal university compacts? (involvement in or experience of consultation?)
	• In what ways do the different forms/institutional layers of strategy interact?
	• How are strategies and institutional positions operationalised?
3. Determinants of university strategy and positioning	• What were some of the inputs or considerations which were important when developing institutional strategy / compacts? (Probe for perspectives from the university/faculty/school/personal levels, and also reflecting on global, national, and local).
	• Looking back after the final strategy/compact, what do you think were the factors that influenced what eventuated? (Potential prompts/probes: External & internal influences - government policy/funding; competitor institution strategies; external measures/rankings; historical contexts/identities; existing or developing new academic interests/strengths; professional staff; senior executive team).
	• How important are locational factors as determinants of research planning and activity?
4. Relationships and interactions within the university across different layers and areas.	• Could you describe how institutional research strategy here relates to plans and/or activity at more local levels (i.e. faculties or departments or at an individual level)?

	• What is your understanding of internal university compacts, and how were they developed/implemented?
	• What are your views on how unified this organisation is toward common goals? How is such unification sought and how effective are efforts to foster such commonality?
5. Perspectives on institutional diversity and related sector level policy and programs	• Is institutional diversity an appropriate principle for design and configuration of the Australian higher education sector?
	• What is your view on the extent to which Australian universities should aim for distinctiveness (or research focus/specialisation in research areas and strengths as opposed to comprehensiveness)?
	• How can Government policy and programs best stimulate institutional diversity?
6. Wrap up and thanks	• Is there anything else you'd like to share or think is worth discussing?
	• Wrap up and thanks.

Experienced sector leader interviews

Additional information provided:

Six propositions are seeking to be tested, which have been formulated from a whole of sector analysis using mission-based compacts, and the development of a case study exploring one university and its research strategy and positioning at greater depth. For each proposition, background and explanation from the research will be provided. All comments you may have on them are welcome e.g., the proposition may be reflective of your own experiences in the sector; you might challenge them; think they do not hold true in your own experience; provide nuance you believe it might be missing etc.

Item	Discussion points
Introducing the research project, and providing participant information regarding protocol and consent	- Background of the research and topic area Description of research stages undertaken and explanation of the current stage and approach to testing propositions. - Participant consent and approach to ethics. - Permission to record. - Opportunity to ask questions/seek clarity.

Proposition 1: Australian universities seek to differentiate (or portray difference), however, the things that they focus upon when it comes to their research strategies and planning at an institutional level, converge upon a narrow and similar set of aims, approaches, and messages.

Proposition 2: When seeking to gain an in-depth understanding of the way Compacts were put together within the University of Sydney, the finding was of very limited levels of engagement and involvement in the process. The exercise was seen as a regulatory type requirement with limited utility, and only a very small number of people were involved in it. Are these limited involvement and utility perspectives shared by others, or could they be a peculiarity of the University of Sydney case?

Proposition 3: Location and place based influences or determinants appear to be one potential differentiator for institutional research approaches or areas of focus in the Australian context.

Proposition 4: Both empirical components (Compacts and strategy development at the case org) appeared to show universities - even our oldest and one of the largest - as relatively passive and responsive to external factors, and not particularly empowered or seeking to influence or drive agendas. This was a different story when it came to the dynamics within the institution, where there were complex drivers and the much clearer exercising of influence in multidirectional (not just top-down) ways.

Proposition 5: Australian universities may look homogenous, in particular with regard to their research strategies and plans, but the deliberate crafting of institutional messages for particular purposes may mask what is at a micro 'on-the-ground' level, internal complexity and diversity.

Proposition 6: While institutional diversity is potentially an important consideration for a sector in terms of educational configuration, it is not as relevant when it comes to academic research, which (even if institutions describe their approaches to it in very homogenous ways) may – given the unique features of research - tend toward diversity.

| Wrap up and thanks | Is there anything else you'd like to share or think is worth discussing? Wrap up and thanks. |

Appendix D: Matrix of Guba & Lincoln (1994) research paradigms

	Positivism	Post-positivism	Critical theory et. al	Constructivism
Ontology	Realism: existence of discoverable true reality, driven by natural laws.	Critical realism: existence of objective reality which is imperfectly discoverable.	Historical realism: 'virtual' form of reality shaped by social, political, cultural etc. factors.	Relativist: Multiple realities socially and experientially/cognitively constructed, and local and specific in nature.
Epistemology	Dualist and objectivist: Independence of investigator (uncovering reality) and object.	Modified dualist and objectivist: Replicated findings are possibly true but open to falsification. Reality approximated.	Transactional and subjectivist: Interactive nature of observed and observer, with values of observer influencing enquiry.	Transactional and subjectivist: Knowledge interactively created as investigation proceeds.
Methodology	Experimental and manipulative: Empirical verification of hypotheses. Validity through control procedures.	Modified experimental and manipulative: critical multiplism form of triangulation. Increased utilisation of qualitative techniques in natural settings.	Dialogic and dialectical: Transactional inquiry and dialectical dialogue to transform misapprehension.	Hermeneutical and dialectical: Constructions elicited through interaction, with consensus construction distilled
Aim and nature of knowledge created	Explanation, prediction and control. Verified hypotheses, knowledge accretion.	Explanation prediction and control. Non-falsified hypotheses, knowledge accretion.	Critique and transformation. Structural and historical insights, knowledge grows and changes as ignorance is eroded.	Understanding. Reconstructions ending in consensus. Knowledge accumulates in relative sense through improved constructions.

Appendix E: Thematic analysis – compact themes and example underpinning codes and features

Theme	Example codes	Illustrative quotes	Features and observed relationships of the theme
Research strengths, concentration and focus areas	Established/emerging strengths; selectivity; targeted; strategic /priority areas	"The chief characteristics of research at ANU are its focus, concentration and quality" [ANU p.7] "Purposefully and transparently resourcing areas of research strength expected to be highly ranked in ERA" [CSU p.34]	• Pursued by all types/sizes of institutions in terms of research • Framed around contributing to broader goals (in some cases seems resource driven) • Strong relationship to status seeking, quality and excellence, and critical mass & capacity building • ERA mechanism provides popular tool for operationalising • Comprehensiveness is an teaching/discipline side concept, not a research one
Size, growth and improvement	Performance; metrics; improve capacity building; critical mass; progress; scale	"our strategy is to focus on our strengths and build internationally competitive areas that will support future growth" [Flinders p.33] "ACU will acquire the capacity for research on a larger scale" [ACU p. 39]	• Normative expectation to continually grow and improve (status quo not acceptable) • Partially government driven (i.e. compulsory ERA areas committed to improvement required) • Related to all other identified themes • Role of data and KPIs/widespread institutional use; quantity vs quality (alternatives to growth)
Funding & resourcing	Investment; grants; costs; program; support; resources facilities; commercial	"Diversify research funding sources through building and enhancing select key international and national partnerships with universities, industry, government and philanthropic sources" [ANU p.36]	• Reliance on government but seen as a liability (especially by smaller institutions) • Largely student/education side focussed but heavy interrelation with/impact upon research • Cost pressures (reduced government $) alongside large investments (i.e. health and medical) • Differentiation sought (e.g. philanthropy, industry engagement, commercialization)
Status & recognition	Profile; leading/best; aspiration; reputation; distinguished; award	"to be national research leaders in areas relevant to our communities and to be recognised internationally in areas of research strength" [CSU p.8]	• Pervasive status economy; Related to institutional identities (rationales for status) • External measures of variable acceptance and buy in, but used for PR purposes and benchmarking • Link to differentiation (and clear adaption of status goals/claims to institutional circumstances)
Excellence & global standards	World leading; world class; benchmarking; internationally competitive; ERA	"we were able to point to both Excellence in Research Australia results and those for the Academic Ranking of World Universities leading to the conclusion that we were placed 'firmly in the elite group of Australian research universities'" [Macquarie p.7]	• Strong link to status and recognition issues & used as an adjective to denote significance • ERA highly prominent mechanism/validity tool • Influence upon internal decision making strong (but some indications of bottom up influence and resistance also)
Collaborative & multidisciplinary approaches	Collaboration; cross-institution/faculty; whole-of-university; partnership (internal)	"Key actions include programs to drive collaborative and multidisciplinary research in line with the three Grand Challenges" [UMELB p.35]	• Common aims for cross-institutional research which brings together disciplines • Traversing of institutional boundaries • Linked to increasingly complex issues or societal level challenges of significant potential impact • Targeted resources and investments by institutions to stimulate desired collaboration
External partnerships and engagement	Impact; benefits; dissemination; collaboration; community; industry	UTS is highly engaged with its communities. The main strategic focus is on industry and the professions, with a strong reputation for relevance, research with impact and being a genuine and highly valued partner" [UTS p.8]	• Linked to all other themes & happening at all glonacal levels of scale • Government imperative vs seeking institutional self-reliance (link to resources) • Dissemination and impact narratives (incl. attempts to frame how impact is defined and rewarded)

Thematic analysis using layers of the glonacal agency heuristic

- Clear interactivity between all layers
- Observing determinants and intentionality is problematized by confounding language ('responsive to' vs 'consistent with')
- Nature and purpose of compacts as a national government mechanism (responsiveness and limitations of analysis)

Glonacal layer	Illustrative example(s)	Observed features
Global	"Fundamental changes in the research environment, both in Australia and internationally, require new approaches to achieve and sustain research excellence in Australia's universities" [USYD p.37]	• Significance represented in larger scales (relatable to growth imperative and institutional identities) • Contributing to global issues through research (linked to thematic constructs for research) • Internationalisation agendas – engagement and revenue related
National	"We will look to Government to foster a stable and supportive policy and funding environment that minimises regulatory burden and that supports competitiveness and our ability to align institutional strategy with governmental objectives" [RMIT p.8]	• Heavy featuring of government & policy in responses though not directly acknowledged as a driver • Apparent state of reliance by institutions on variable government decisions + they feel powerless over • Institutional agency appears contingent upon resourcing • National priorities absent, but potential influence on use of thematic constructs to frame focus areas • Very strong external national link when it comes to course/discipline decisions • Resistance to government also evident
[Regional]	"CQUniversity will become a research-focused university, understanding and exploiting its 'power of place' to contribute to stronger, more vibrant communities and local economies through the engaged research it undertakes" [CQU p.9] "The University's goal is to improve regional "wellbeing" and drive regional economic, social and landscape rejuvenation" [Ballarat p.22]	• Definitional lack of consistency for use of 'region' (local, state, metro area, national, supra-national) • Power of place concept – regional issues (local version) driving claims of differentiated focus areas. Diverse needs of local industries coupled with funding diversification push. • Linked to identity, in particular self-identified regional institutions • Strong link to idea of communities • Health and medical also has a strong link to regional issues
Local (Intra-institutional)	"Developing meaningful measures of engagement for the University's faculties and research concentrations and include "enterprise metrics" in the targets provided to academic units" [UTAS p.24] "new plans are being developed in consultation with a wide cross section of the University's many stakeholders, including the University Senate, Academic Council, faculties and schools, students and alumni" [UWA p.7]	• Evidence agency is pluralistic - extent of multi layer planning, as well as strategic consultation efforts • Historical/tradition tropes and values used by institutions • Operational choices represent institutional agency, but with normative constraints • Researcher micro level agency potentially constrained, as institutions are by external factors

Appendix F: Component parts of mission-based compact 2014-2016 agreements

CONTEXT
A: Policy Setting
B: The Purpose and Effect of this Compact
C: Establishment of the Compact
D. The Principles of Commonwealth Funding Support
E. The Structure of this Compact
Part 1: Focus & Mission
THE UNIVERSITY'S MISSION AND STRATEGIC PRIORITIES
1.1 The purpose of the University's Mission
1.2 The University's Mission and Strategic Priorities (^Individually tailored by University)
Part 2: ABORIGINAL AND TORRES STRAIT ISLANDER ACCESS AND OUTCOMES
2.1 Commonwealth Objectives
2.2 University Strategies (^Individually tailored by University)
2.3 Performance Indicators and Targets (^Individually tailored by University)
Part 3: INNOVATION AND ENGAGEMENT
3.1 Innovation
3.1.1 Commonwealth objectives
3.1.2 University strategies (^Individually tailored by University)
3.1.3 Performance indicators and targets (^Individually tailored by University)
3.2 Industry and Skills
3.2.1 Commonwealth objectives
3.2.2 University strategies (^Individually tailored by University)
3.3 Engagement
3.3.1 Commonwealth objectives
3.3.2 University strategies (^Individually tailored by University)
3.3.3 Performance indicators and targets (^Individually tailored by University)
Part 4: TEACHING AND LEARNING
4.1 Student enrolments
4.1.1 Commonwealth objectives
4.1.2 University strategies (^Individually tailored by University)
4.2 Quality
4.2.1 Commonwealth objectives
4.2.2 University strategies (^Individually tailored by University)
4.3 Equity
4.3.1 Commonwealth objectives
4.3.2 University strategies (^Individually tailored by University)
4.3.3 Participation and Social Inclusion Targets (^Individually tailored by University)
4.4 Teaching and Learning Infrastructure
4.4.1 Commonwealth objectives
4.4.2 University strategies (^Individually tailored by University)
Part 5: RESEARCH AND RESEARCH TRAINING
5.1 Research performance and research capability
5.1.1 Commonwealth objectives
5.1.2 University strategies (^Individually tailored by University)
5.1.3 Performance indicators and targets (^Individually tailored by University)
5.2 Research training
5.2.1 Commonwealth objectives
5.2.2 University strategies (^Individually tailored by University)
5.3 Performance indicators and targets (^tailored by University)
Part 6: GENERAL PROVISIONS
6.1 Compact Review
6.2 Privacy and information sharing
6.3 Changing the Compact
6.4 Notices
6.5 Dictionary

Appendix G: Flyvberg's (2006) five misunderstandings of case study research and alternate propositions

Conventional Wisdom (Misunderstanding)	Alternate Revised Proposition
General, theoretical (context-dependent) knowledge is more valuable than concrete practical (context-dependent) knowledge	Predictive theories and universals cannot be found in the study of human affairs. Concrete, context-dependent knowledge is therefore more valuable than the vain search for predictive theories and universals.
One cannot generalise on the basis of an individual case; therefore, the case study cannot contribute to scientific development	One can often generalize on the basis of a single case, and the case study may be central to scientific development via generalization as supplement or alternative to other methods. But formal generalization is overvalued as a source of scientific development, whereas 'the force of example' is underestimated.
The case study is most useful for generating hypotheses; that is, in the first stage of a total research process, while other methods are more suitable for hypotheses testing and theory building	The case study is useful for both generating and testing of hypotheses but is not limited to these research activities alone.
The case study contains a bias toward verification, that is, a tendency to confirm the researcher's preconceived notions	The case study contains no greater bias toward verification of the researcher's preconceived notions than other methods of inquiry. On the contrary, experience indicates that the case study contains a greater bias toward falsification of preconceived notions than toward verification.
It is often difficult to summarise and develop general propositions and theories on the basis of specific case studies	It is correct that summarizing case studies is often difficult, especially as concerns case process. It is less correct as regards case outcomes. The problems in summarizing case studies, however, are due more often to the properties of the reality studied than to the case study as a research method. Often it is not desirable to summarize and generalize case studies. Good studies should be read as narratives in their entirety.

Appendix H: Comparison of case study approaches: Yin, Stake & Merriam (adapted from the work of Yazan, 2015)

	Yin	Stake	Merriam
Epistemological orientation	Not articulated but inferred to be positivistic	Constructivism and existentialism (non-determinism)	*Constructivism*
Case study designs	Four types: (i) single holistic design; (ii) single embedded design; (iii) multiple holistic design; (iv) multiple embedded design Five-part composition: - questions; propositions; unit(s) of analysis; logic linking data to propositions; criteria for interpreting findings	Flexible design, built from research questions but allowing for changes throughout: - Holistic (considering the interrelationship between the phenomenon and its contexts); - Empirical (basing the study on their observations in the field); - Interpretive (intuition; research basically as a researcher-subject interaction); - Emphatic (reflecting the vicarious experiences of subjects).	*Step by step design process:* *(i) literature review;* *(ii) constructing a theoretical framework;* *(iii) identifying research problem;* *(iv) crafting and refining research questions;* *(v) selecting the purposive sample*
Data	Qualitative & quantitative. *Multiple sources of evidence* which triangulate. Six source types: documentation; archival records; interviews; direct observations; participant observation; and physical artifacts,	Qualitative only. Broader definition of data than Yin - observation, interview, and document review (but including informal and 'impressionistic' data which distinguishes from Yin)	*Qualitative only.* Comprehensive procedural guide to data collection which includes advice on effective interviews and use documents.
Analysis of data	Five Techniques: (i) pattern matching; (ii) explanation building; (iii) time-series analysis; (iv) program logic models; and (v) cross-case synthesis.	Simultaneous data collection and analysis. Two techniques: Categorical Aggregation and Direct Interpretation	*Simultaneous data collection and analysis.* Six analytic strategies: (i) ethnographic analysis; (ii) narrative analysis; (iii) phenomenological analysis; (iv) constant comparative method; *(v) content analysis;* and (vi) analytic induction.
Data validation	Construct validity (through triangulation of multiple sources, chains of evidence, and member checking), internal validity (through the use established analytic techniques such as pattern matching), external validity (through analytic generalization), and reliability (through protocols and databases).	Four strategies for triangulation: (i) data source triangulation; (ii) investigator triangulation; (iii) theory triangulation; and (iv) methodological triangulation.	Six strategies to enhance internal validity: (i) *triangulation;* (ii) member checks; (iii) long-term observation; (iv) peer examination; (v) participatory research; *and* *(vi) disclosure of researcher bias.*

			Reliability & external validity: *- explanation of investigator's position with regards to the study;* *- use of thick description;* *- triangulation, and* *- use of an audit trail.*

Appendix I: Post restructure University of Sydney (faculties, schools, centres, networks and research groupings)

^ denotes an area named in the University of Sydney mission-based compact response
* indicates areas mentioned within the 2016-2020 University Strategy

Faculty /University School	Schools	Research Centres/Institutes/Groups	Research Networks/Groups
Faculty of Arts & Social Sciences*	School of Economics School of Languages & Cultures School of Literature, Art & Media School of Philosophical and Historical Inquiry School of Social & Political Sciences Sydney School of Education and Social Work	Australian Archaeological Institute at Athens Centre for Classical & Near Eastern Studies of Aust. Centre for Educational Measurement and Assessment Centre for International Security Studies Centre for Research on Learning and Innovation Centre for Time Creativity Research, Engaging the Arts, and Transforming Education (CREATE) Centre Institute of Open Adoption Studies LCT Centre for Knowledge-Building Power Institute Foundation for Art and Visual Culture Research Centre for Children and Families Sydney Asia Pacific Migration Centre Sydney Centre for the Foundations of Science	Ancient North Africa Research Network Angkor Research Program Arts and Creative Education Research Network Athlete Development and Performance Network Australasian Humour Studies Network Biopolitics of Science Research Network Buddhist Texts Research Group Comparative & Intnl. Education Research Network Education Policy Research Network Global Middle Ages in Sydney Global Social Justice Network Human Animal Research Network Indigenous Research Collaboration Laureate Research Program in International History Law and Society Research Network Malaysia and Singapore Society of Australia

		Sydney Centre for Language Research	Modern and Contemporary Literature and Culture
		Sydney Institute for Community Languages Education	Motivation, Engagement & Individual Choice Pathways
		Social Sciences & Humanities Advanced Research Centre	Nation Empire Globe Research Cluster
		The Medieval and Early Modern Centre	Near Eastern Archaeology Foundation
			Screening the World Research Group
			Silk Road Studies
			Social & Educational Participation Research Network
			Social Policy Research Network
			Sydney Cybersecurity Network
			Sydney Democracy Network
			Sydney Digital Humanities Research Group
			Sydney Intellectual History Network
			Sydney Social Justice Network
			Sydney Uni Research Community for Latin America
			The Novel Network
			Tom Austen Brown Research
			Teaching English to Speakers of Other Languages
Faculty of Business*^	('Disciplines') Accounting Business Analytics Business Information Systems Business Law Finance	Institute of Transport and Logistics Studies	Women, Work and Leadership Research Group Body, Heart and Mind in Business Research Group Business & Labour History Research Group Business Financing and Banking Research Group Co-operatives Research Group Consumer Insights Research Group

	International Business Marketing Strategy, Innovation and Entrepreneurship Work and Organisational Studies Institute of Transport and Logistics Studies		Digital Disruption Research Group Emerging Market Internationalization Research Group Future Transport Research Group Communications & Technology for Society Research Group Time Series and Forecasting Research Group Methodological and Empirical Advances in Financial Analysis Group Organizational Discourse, Strategy & Change Group Migrants@ Work Research Group
Faculty of Engineering*^	School of Aerospace, Mechanical and Mechatronic Engineering School of Biomedical Engineering School of Chemical and Biomolecular Engineering School of Civil Engineering School of Computer Science School of Electrical & Information Engineering	Australian Centre for Field Robotics (ACFR) ARC Training Centre for the Australian Food Processing Industry Centre for Advanced Materials Technology Centre for Advanced Structural Engineering Centre for Excellence in Advanced Food Enginomics Centre for Distributed & High Performance Computing Centre for IoT and Telecommunications Centre for Future Energy Networks Centre for Robotics and Intelligent Systems Sydney Centre in Geomechanics and Mining Materials Centre for Sustainable Energy Development	(Research Themes) Complex Systems Data Science & Computer Engineering Energy, resources and the environment Food products, process and supply chain Healthcare engineering Infrastructure and Transport Internet of Things Robotics & Intelligent Systems

		Centre for Wind, Waves and Water UBTECH Sydney Artificial Intelligence Centre	
Faculty of Medicine & Health*	Sydney Dental School Sydney Medical School School of Medical Sciences Sydney Nursing School Sydney Pharmacy School Sydney School of Public Health Sydney School of Health Sciences	Boden Collaboration for Obesity, Nutrition and Exercise and Eating Disorders Bosch Institute Centre for Education and Research on Ageing Centre for Disability Research and Policy^ Institute for Musculoskeletal Health John Walsh Centre for Rehabilitation Research Menzies Centre for Health Policy^ NHMRC Clinical Trials Centre Pain Management Research Institute Poche Centre for Indigenous Health^ Save Sight Institute Sydney Health Ethics	(Clinical Schools) Central Clinical School Children's Hospital Westmead Clinical School Concord Clinical School Nepean Clinical School Northern Clinical School Sydney Adventist Hospital Clinical School Westmead Clinical School The Broken Hill University Department of Rural Health^ School of Rural Health (Dubbo/Orange) The University Centre for Rural Health [plus membership of over 30 other medical networks, collaborations and groupings]
Faculty of Science*	School of Chemistry School of Geosciences School of History and Philosophy of Science School of Life and Environmental Sciences School of Mathematics and Statistics School of Physics School of Psychology Sydney School of Veterinary Science	Centre for Complex Systems Centre For Medical Psychology And Evidence-Based Decision Making (CMPED) Centre for Veterinary Education Institute of Medical Physics Institute of Photonics and Optical Science Key Centre for Polymers and Colloids	

		Marine Studies Institute Psycho-Oncology Co-operative Research Group (PoCoG) The University of Sydney Institute of Agriculture Sydney Institute for Astronomy	
	*School of Architecture, Design & Planning**	(Research Areas) Architectural Design Architectural Theory and History Architectural Science Design Lab Urbanism	(Laboratories) Design and Modelling Fabrication Lab Lighting Lab Indoor Environmental Quality Lab Spatial Audio and Acoustics Lab
	*School of Law**	Australian Centre for Climate and Environmental Law Centre for Asian and Pacific Law in the University of Sydney (CAPLUS) Julius Stone Institute of Jurisprudence Ross Parsons Centre for Commercial, Corporate and Taxation Law Sydney Centre for International Law Sydney Health Law Sydney Institute of Criminology	(Research Themes) Asian and Islamic law Children, youth and families Citizenship, migration and refugees Commercial and international commercial law Constitutional and administrative law Corporate, securities and finance law Criminal law, justice and criminology Environmental law and climate change Health law, governance and ethics Human rights and development

			Intellectual property, media and privacy law
			International law
			Justice, legal process and the profession
			Jurisprudence and legal theory
			Labour, employment and anti-discrimination law
			Legal history
			Private law: tort, contracts, equity and property
			Taxation
	Conservatorium of Music*		(Research Areas) Artistic Research Music Education Music Scholarship Research Unit for Music Diversity
Other Cross-Faculty & Institutional Level Collectives	(Externally Funded Centres) *ARC Centres of Excellence:* Children and Families over the Life Course Cognition and its Disorders Engineered Quantum Systems History of Emotions Integrative Brain Function Particle Physics at the Terascale Population Ageing Research Quantum Computation & Comm. Technology Translational Photosynthesis	(University Research Centres) Brain and Mind Centre*^ Cancer Research Network*^ China Studies Centre*^ Charles Perkins Centre*^ Marie Bashir Institute* Centre for Translational Data Science* Sydney Environment Institute*^ Sydney Nano*^ Sydney Southeast Asia Centre*^ Sydney Policy Lab*	('Other flagship initiatives') Australian Centre for Microscopy & Microanalysis* Cardiovascular Initiative Drug Discovery Initiative John Grill Centre for Project Leadership^ Lambert Initiative for Cannabinoid Therapeutics Mathematical Research Institute National Centre for Cultural Competence Planetary Health Platform Sydney Food and Nutrition Network Sydney Institute of Agriculture

	ARC Industrial Transformation Research Hubs: Legumes for Sustainable Agriculture		The Matilda Centre
			The University of Sydney Centre in China
	Basin Geodynamics & Evolution of Sedimentary Systems		United States Studies Centre^
			Westmead Applied Research Centre
	Food Safety in Fresh Produce Industry		
	CubeSats, UAVs, and Applications		
	Innovative BioEngineering		
	Data Analytics for Resources and Environment (DARE)		
	NHMRC Centres of Research Excellence: Tuberculosis Control		
	Optimise Sleep		
	Brain Ageing & Neurodegeneration		
	Adolescent Health		
	Melanoma		
	Indigenous Health		
	WHO Collaborating Centre for Physical Activity, Nutrition and Obesity		
	WHO Collaborating Centre for Strengthening Rehabilitation Capacity in Health Systems		

References

Adams, J. (2013). The Fourth Age of Research. *Nature,* 497 (May 2013), pp. 557-560

Agee, J. (2009). Developing qualitative research questions: a reflective process. *International Journal of Qualitative Studies in Education*, 22(4), pp. 431-447

Allen Consulting (2009) *The indirect costs associated with university research funded through Australian Competitive Grants*, Final Report to the Department of Innovation, Industry, Science and Research (July 2009)

Amenta, E., & Ramsey, K. (2010). Institutional Theory. In K. Leicht & J. Jenkins (Eds.), *Handbook of Politics: State and Society in Global Perspective, Handbooks of Sociology and Social Research* (pp. 15-39). LLC: Springer

Antonowicz, D. (2013). External Influences and Local Responses, in Eva Egron-Polak, Jürgen Kohler, Sjur Bergan and Lewis Purser (eds) L*eadership and Governance in Higher Education. Handbook for Decision-makers and Administrators*. Berlin: RAABE Academic Publishers, Vol. 3, 2013, pp. 59-77

Australian Research Council ARC (2014). *Excellence in Research for Australia: ERA 2015 Submission Guidelines*. Commonwealth of Australia

Awbrey, S. (2007). The Dynamics of Vertical and Horizontal Diversity in Organization and Society. *Human Resource Development Review, 6*(1), pp.7-32

Aydinoglu, A. U., Allard, S., & Mitchell, C. (2016). Measuring Diversity in Disciplinary Collaboration in Research Teams: An Ecological Perspective. *Research Evaluation, 25*(1), pp. 18-36. doi: 10.1093/reseval/rvv028

Baldridge, J., Curtis, D., Ecker, G., & Riley, G. (1977). Diversity in Higher Education: Professional Autonomy. *The Journal of Higher Education, 48*(4), pp. 367-388

Barbato, G & Turri, M. (2019) What do positioning paths of universities tell about the diversity of higher education systems? An exploratory study, *Studies in Higher Education*, DOI: 10.1080/03075079.2019.1619681

Bazeley, P., & Richards, L. (2000). *The Nvivo Qualitative Project Book*. Sage Publications, London

Beerkens, M. (2012). Competition and Concentration in the Academic Research Industry: An Empirical Analysis of the Sector Dynamics in Australia 1990-2008. *Science and Public Policy, 40*(2), pp. 157-170. doi: 10.1093/scipol/scs076

Birnbaum, R. (1983). *Maintaining Diversity in Higher Education*. Jossey-Bass Inc. San Francisco, California

Bleiklie, I. (2001). *Towards European Convergence of Higher Education Policy*? Accessed online

Bosch, A., & Taylor, J. (2011). A Proposed Framework of Institutional Research Development Phases. *Journal of Higher Education Policy and Management, 33*(5), pp. 443-457. doi: 10.1080/1360080x.2011.585742

Bowen, G. A. (2009). Document Analysis as a Qualitative Research Method. *Qualitative Research Journal, 9*(2), pp. 27-40. doi: 10.3316/qrj0902027

Bowl, M. (2018) Differentiation, distinction and equality – or diversity? The language of the marketised university: an England, New Zealand comparison, *Studies in Higher Education*, 43(4), pp. 671-688

Bradley, D. (2008a). *Review of Australian Higher Education*, Final Report. Commonwealth of Australia, December *2008*

Bradley, D. (2008b). *Review of Higher Education*, *Discussion Paper.* Commonwealth of Australia June 2008

Bradmore, D. J., & Smyrnios, K. X. (2009). The Writing on the Wall: Responses of Australian Public Universities to Competition in Global Higher Education. *Higher Education Research & Development, 28*(5), pp. 495-508. doi: 10.1080/07294360903161154

Braun, V. & Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, pp. 77-101

Brenner, N. (2001). The Limits to Scale? Methodological Reflections on Scalar Structuration. *Progress in Human Geography, 25*(4), pp. 591-614

Cai, Y., & Mehari, J. (2015). The Use of Institutional Theory in Higher Education Research. In J. Huisman & M. Tight (Eds.), *Theory and Method in Higher Education Research Iii* (Vol. 3, pp. 1-25). Bingley: Emerald

Carnegie Commission (1973). *Higher Education: Who Pays? Who Benefits? Who Should Pay?* McGraw-Hill (June 1973)

Cattaneo, M. Horta, H. Malighetti, M. Meoli, M. & Paleari, S. (2018): The relationship between competition and programmatic diversification, *Studies in Higher Education*, 44(7), pp. 1222-1240. DOI: 10.1080/03075079.2018.1428947

Clark, B. (1983 & 1986). *The higher education system: Academic organization in cross-national perspective*. University of California Press, Berkeley

Clark, B. (1996). Diversification of Higher Education: Viability and Change. In V. Meek, L. Goedegebuure, O. Kivinen & R. Rinne (Eds.), *The Mockers and Mocked: Comparative Perspectives on Diversity, Differentiation and Convergence in Higher Education* (pp. 16-25): Oxford: Pergamon

Clark, B. (1998a). Diversity and Australian Higher Education. In V. Meek & F. Wood (Eds.), *Managing Higher Education Diversity in a Climate of Public Sector Reform* (pp. 189-215). DEETYA, Canberra

Clark, B. (1998b). The Entrepreneurial University: Demand and Response. *Tertiary Education and Management, 4*(1), pp. 5-16

Clark, B. (2003) Sustaining change in universities: continuities in case studies and concepts, *Tertiary Education and Management* 9 p. 99-116

Clark, B. (2004). Delineating the Character of the Entrepreneurial University. *Higher Education Policy, 17*(4), pp. 355-370. doi: 10.1057/palgrave.hep.8300062

Clarke, J., Thomas, P., & Wallace, I. (2001). *How Should Diversity in the Higher Education System Be Encouraged,* Position Paper for the Business/Higher Education Round Table Summit Task Force (accessed online)

Clarke, V., & Braun, V. (2013). Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning. *Psychologist*, 26(2), pp. 120-123

Clegg, S., & Stevenson, J. (2013). The interview reconsidered: Context, genre, reflexivity and interpretation in sociological approaches to interviews in higher education research. *Higher Education Research & Development*, 32(1), pp. 5-16

Coaldrake Review (2018) *Discussion paper for review of Higher Education Provider Category Standards*, Department of Ecucation, Skills and Employment. Accessed online

Coaldrake Review (2019) *Final recommendations of the panel for the Higher Education Provider Category Standards*, Department of Ecucation, Skills and Employment. Accessed online

Coaldrake, P., & Stedman, L. (2013). *Raising the Stakes: Gambling with the Future of Universities*. University of Queensland Press, St Lucia, Queensland

Coates, H., Dobson, I., Edwards, D., Friedman, T., Goedegeburre, L., & Meek, L. (2009). The Attractiveness of the Australian Academic Profession: A Comparative Analysis *Research Briefing*. LH Martin Institute, ACER, Educational Policy Institute

Coates, H., Edwards, D., Goedegebuure, L., Thakur, M., van der Brugge, E., & Van Vught, F. (2013). Profiling Diversity of Australian Universities. *Research Briefing, L.H Martin Institute,* June 2013, pp. 1-31

Codling, A., & Meek, L. (2006). Twelve Propositions on Diversity in Higher Education. *Higher Education Management and Policy, 18*(3), pp. 1-24. doi: 10.1787/17269822

Coello, A. Simon-Martin, J & Sanchez-Molero, G (2018) Mission statements in Spanish universities, *Studies in Higher Education*, 45:2, 299-311, DOI: 10.1080/03075079.2018.1512569

Cohen, M. & March, J. (1974) *Leadership and Ambiguity: The American College President*, McGraw-Hill, New York

Collyer, F. M. (2015). Practices of Conformity and Resistance in the Marketisation of the Academy: Bourdieu, Professionalism and Academic Capitalism. *Critical Studies in Education, 56*(3), pp. 315-331. doi: 10.1080/17508487.2014.985690

Commonwealth of Australia (2002). *Varieties of Excellence: Diversity, Specialisation and Regional Engagement*, Department of Education (July 2002), Canberra

Commonwealth of Australia (2009). *Mission-Based Compacts for Universities - A Framework for Discussion*. Department of Education, Employment and Workplace Relations and Department of Innovation, Industry, Science and Research (July 2009), Canberra

Commonwealth of Australia (2014). *Boosting the Commercial Returns from Research* Canberra, October 29th 2014. Accessed online

Corley, K. (2004). Defined by Our Strategy or Our Culture? Heirarchical Differences in Perceptions of Organizational Identity and Change. *Human Relations*, 57(9), pp. 1145-1177

Cowburn, S. (2005). Strategic Planning in Higher Education: Fact or Fiction? *Perspectives: Policy and Practice in Higher Education, 9*(4), pp. 103-109. doi: 10.1080/13603100500357324

Creswell, J. (2003). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches* (Second Edition). Sage Publications, London

Creswell, J. & Miller, D (2000). Determining validity in qualitative inquiry. *Theory into practice*, 39(3), pp. 124-130

Croucher, G., & Woelert, P. (2015). Institutional Isomorphism and the Creation of the Unified National System of Higher Education in Australia: An Empirical Analysis. *Higher Education, Published online 23 June 2015*. doi: 10.1007/s10734-015-9914-6

Centre for the Study of Higher Education (CSHE 2013). *Tertiary Education in Australia*. University of Melbourne

Davis, G. (2017). *The Australian Idea of a University*, Melbourne University Press, Carlton, Victoria

Dawkins, J. (1988). *Higher Education: A Policy Statement*. Department of Employment, Education and Training: Australian Government Publishing Service, Canberra

Deephouse, D. (1999), To be different, or to be the same? It's a question (and theory) of strategic balance. S*trat. Mgmt. J.*, 20: pp. 147-166

Deephouse, D & Suchman, M. (2008). Legitimacy in Organizational Institutionalism. *The Sage Handbook of Organizational Institutionalism*. 49. 10.4135/9781849200387.n2.

Denham, B. (2005). What Is a University in the 21st Century? *Higher Education Management and Policy, 17*(2), pp. 9-28. doi: 10.1787/17269822

Denzin, N. & Lincoln Y. (1994). *Handbook of qualitative research*. Sage, Thousand Oaks, California

Department of Education & Training (2015) *Review of Research Policy and Funding Arrangements Report*, November 2015, Commonwealth of Australia, Canberra

Diezmann, C. (2018) Understanding research strategies to improve ERA performance in Australian universities: circumventing secrecy to achieve success, *Journal of Higher Education Policy and Management*, 40:2, pp. 154-174, DOI: 10.1080/1360080X.2018.1428411

Dill, D., & Teixiera, P. (2000). Program Diversity in Higher Education: An Economic Perspective. *Higher Education Policy, 13*, pp. 99-117

DiMaggio, P. & Powell, W. (1983) The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields, *American Sociological Review*, Vol. 48 (April), pp. 147-160

Durkheim, É. (1893). *The Division of Labor in Society* (1964 edition) Free Press, Collier Macmillan

Eckel, P. D. (2008). Mission Diversity and the Tension between Prestige and Effectiveness: An Overview of Us Higher Education. *Higher Education Policy, 21*(2), pp. 175-192. doi: 10.1057/hep.2008.2

Erhardt, D., & von Kotzebue, A. (2016). Competition Unleashed: Horizontal Differentiation in German Higher Education. *Tertiary Education and Management*, pp. 1-26. doi: DOI: 10.1080/13583883.2016.1233993

Fairweather, J. (2000). Diversification or Homogenization: How Markets and Governments Combine to Shape American Higher Education. *Higher Education Policy*, 13, pp. 79-98

Ferlie, E. Musselin, C. & Andresani, G. (2008). The Steering of Higher Education Systems: A Public Management Perspective. *Higher Education, 56*(3), pp. 325-348. doi: 10.1007/sl0734-008-9125-5

Filippakou, O., Salter, B., & Tapper, T. (2012). The Changing Structure of British Higher Education: How Diverse Is It? *Tertiary Education and Management, 18*(4), pp. 321-333. doi: 10.1080/13583883.2012.704064

Flyvbjerg, B. (2006). Five Misunderstandings About Case-Study Research. *Qualitative Inquiry, 12*(2), pp. 219-245. doi: 10.1177/1077800405284363

Flyvbjerg, B. (2011). Case Study. In N. Denzin, & Lincoln, Y (Ed.), *The Sage Handbook of Qualitative Research* (pp. 301-316). Thousand Oaks: Sage

Forsyth, H. (2014). *A History of the Modern Australian University*. NewSouth Publishing, Sydney, New South Wales.

Frølich, N., Huisman, J., Slipersæter, S., Stensaker, B., & Bótas, P. C. P. (2013). A Reinterpretation of Institutional Transformations in European Higher Education: Strategising Pluralistic Organisations in Multiplex Environments. *Higher Education, 65*(1), pp. 79-93. doi: 10.1007/s10734-012-9582-8

Frølich, N, Stensaker, B. & Huisman, J. (2017) Understanding Strategy Practices in Universities, in *Managing universities : policy and organizational change from a Western European comparative perspectiv*e (Bleiklie eds.). pp.167-188

Fumasoli, T., Barbato, G. & Turri, M. (2019) The determinants of university strategic positioning: a reappraisal of the organisation. *High Educ*. https://doi.org/10.1007

Fumasoli, T. Gornitzka, Å & Maassen, P. (2014). University Autonomy and Organizational Change Dynamics. *ARENA Working Paper series*. Accessed online

Fumasoli, T., & Huisman, J. (2013). Strategic Agency and System Diversity: Conceptualizing Institutional Positioning in Higher Education. *Minerva, 51*(2), pp. 155-169. doi: 10.1007/s11024-013-9225-y

Fumasoli, T., & Lepori, B. (2010). Patterns of Strategies in Swiss Higher Education Institutions. *Higher Education, 61*(2), pp. 157-178. doi: 10.1007/s10734-010-9330-x

Fumasoli, T., Pinheiro, R., & Stensaker, B. (2014a). Strategizing Identity in Higher Education *ISL Working Paper* (Vol. 2014: 3): Department of Political Science and Management, University of Agder

Fumasoli, T., Pinheiro, R., & Stensaker, B. r. (2014b). *Strategizing Identity in Higher Education*. University of Agder, *3*

Giddens, A. (1984). *The Constitution of Society: Outline of the Theory of Structuration*: Univ of California Press

Goedegebuure, L., Coates, H., Van der Lee, J., & Meek, L. (2009). Diversity in Australian Higher Education: An Empirical Analysis. *Australian Universities Review, 51*(2), pp. 49-61

Goedegebuure, L., Lysons, A., & Meek, L. (1993). Diversity in Australian Higher Education. *Higher Education, 25*(4), pp. 395-410

Goedegebuure, L. Massaro, V. Meek, L. & Pettigrew, A. (2017) A Framework for Differentiation, in V*isions for Australian Tertiary Education* (eds. James, French and Kelly). Melbourne Centre for the Study of Higher Education, University of Melbourne

Goedegebuure, L., & Schoen, M. (2014). Key Challenges for Tertiary Education Policy and Research – an Australian Perspective. *Studies in Higher Education, 39*(8), pp. 1381-1392. doi: 10.1080/03075079.2014.949542

Golafshani, N. (2003). Understanding Reliability and Validity in Qualitativecresearch. *The Qualitative Report, 8*(4), pp. 597-607

Graham, S. W., & Donaldson, J. F. (2020). Academic leaders' response to the volatility of higher education: the influence of institutional logics. *Studies in Higher Education*, 45(9), 1864-1877.

Group of Eight (2008). The International Tendency to Concentrate Research Capability. *G08 Backgrounder, November 2008*. Accessed online

Group of Eight (2010). *G08 Backgrounder 15 - Inquiry into International Research Collaboration*. October 2010. Accessed online

Guba, E., & Lincoln, Y. (1994). Competing Paradigms in Qualitative Research *Handbook of Qualitative Research 2* (pp. 163-194). Sage Publications

Guri-Rosenblit, S., Šebková, H., & Teichler, U. (2007). Massification and Diversity of Higher Education Systems: Interplay of Complex Dimensions. *Higher Education Policy, 20*(4), pp. 373-389. doi: 10.1057/palgrave.hep.8300158

Hannan, M. & Freeman, J. (1977) The Population Ecology of Organizations, *American Journal of Sociology* 82(5), pp. 929-964

Hannan, M. & Freeman, J. (1989). Where do organizational forms come from? *Social Forum* 1(1): pp. 50–72

Harland, T. (2014). Learning About Case Study Methodology to Research Higher Education. *Higher Education Research & Development, 33*(6), pp. 1113-1122. doi: 10.1080/07294360.2014.911253

Harman, G. (2001). Academics and Institutional Differentiation in Australian Higher Education. *Higher Education Policy, 14*, pp. 325-342

Harris, M.S., Ellis, M.K. (2020) Measuring changes in institutional diversity: the US context. *High Educ* 79, pp. 345–360. https://doi.org/10.1007/s10734-019-00413-4

Hartley, M., & Morphew, C. (2008). What's Being Sold and To What End? A Content Analysis of College Viewbooks. *Journal of Higher Education*, 79(6), pp. 671-691

Hazelkorn, E. (2009a). Rankings and the Battle for World-Class Excellence: Institutional Strategies and Policies. *Higher Education Management and Policy, 21*(1). doi: 10.1787/17269822

Hazelkorn, E. (2009b). Rankings and the Battle for World-Class Excellence: Institutional Strategies and Policy Choices. *Higher Education Management and Policy, 21*(1), pp. 55-76

Herod, A. (2010). *Scale*: Taylor and Francis.

HESA (2003) *Higher Education Support Act*, Parliament of Australia. Accessed online

Holmwood, J. (2014). From Social Rights to the Market: Neoliberalism and the Knowledge Economy. *International Journal of Lifelong Education, 33*(1), pp. 62-76. doi: 10.1080/02601370.2013.873213

Horta, H., Huisman, J., & Heitor, M. (2008). Does Competitive Research Funding Encourage Diversity in Higher Education? *Science and Public Policy, 35*(3), pp. 146-158. doi: 10.3152/030234208x299044

Hughes, M., & Bennett, D. (2013). Survival Skills: The Impact of Change and the Era on Australian Researchers. *Higher Education Research & Development, 32*(3), pp. 340-354. doi: 10.1080/07294360.2012.684211

Huisman, J. (1998). Differentiation and Diversity in Higher Education Systems. In J. C. Smart (Ed.), *Higher Education: Handbook of Theory and Research*, Vol. XIII (pp. 77-110). Springer. https://doi.org/10.1007/978-94-011-3971-7_3

Huisman, J. (2000). Higher Education Institutions: As Different as Chalk and Cheese? *Higher Education Policy, 13*, pp.41-53

Huisman, J., Lepori, B., Seeber, M., Frølich, N., & Scordato, L. (2015). Measuring Institutional Diversity across Higher Education Systems. *Research Evaluation, 24*(4), pp.369-379. doi: 10.1093/reseval/rvv021

Huisman, J. Mampaey, J. (2018). Use your imagination: What UK universities want you to think of them. *Oxford Review of Education*. pp. 1-16. doi10.1080/03054985.2017.1421154.

Huisman, J., Meek, L., & Wood, F. (2007). Institutional Diversity in Higher Education: A Cross-National and Longitudinal Analysis. *Higher Education Quarterly, 61*(4), pp. 563-577

Huisman, J, Norgård, J, Gulddahl-Rasmussen, J & Stensaker, B (2002). Alternative universities revisited: a study of the distinctiveness of universities establiished in the spirit of 1968, *Tertiary Education and Management*, vol. 8, no. 3, pp. 316-332

Huisman, J., & Tight, M. (2015). *Theory and Method in Higher Education Research* (Vol. 1): Emerald Group Publishing

ISCED (2011) UNESCO *International Standard Classification of Education*. United Nations Educational, Scientific and Cultural Organization. Accessed online

James, H., & Huisman, J. (2009). Missions Statements in Wales: The Impact of Markets and Policy on Congruence between Institutions. *Journal of Higher Education Policy and Management, 31*(1), pp. 23-35. doi: 10.1080/13600800802559229

Jencks, C., & Riesman, D. (1968). *The Academic Revolution*. Doubleday

Jones, S., Torres, V., & Arminio, J. (2006). *Negotiating the Complexities of Qualitative Research in Higher Education*. Routledge, London

Jongbloed, B. (2003). Marketisation in Higher Education, Clark's Triangleand the Essential Ingredients of Markets. *Higher Education Quarterly, 57*(2), pp. 110-135

Jungblut, J (2017) All different? All equal? – Differentiation of universities' mission statements and excellence initiatives in Germany, *Science and Public Policy*, Volume 44, Issue 4, August 2017, pp. 535–545

Karmel, P. (1998). Funding Mechanisms, Insitutional Autonomy and Diversity. In V. Meek & F. Wood (Eds.), *Managing Higher Education Diversity in a Climate of Public Sector Reform* (pp. 45-65). DEETYA, Canberra

Katz, J., & Martin, B. (1997). What Is Research Collaboration? *Research Policy, 26(1), pp. 1-18* doi.org/10.1016/S0048-7333(96)00917-1

Kenno, S. Lau, M. Sainty, B. & Boles, B (2020) Budgeting, strategic planning and institutional diversity in higher education, *Studies in Higher Education*, DOI: 10.1080/03075079.2019.1711045

Kitagawa, F., & Oba, J. (2010). Managing Differentiation of Higher Education System in Japan: Connecting Excellence and Diversity. *Higher Education, 59*(4), pp. 507-524. doi: 10.1007/s10734-009-9262-5

Kitagawa, F. (2003), New Mechanisms of Incentives and Accountability for Higher Education Institutions: Linking the Regional, National and Global Dimensions, *Higher Education Management and Policy*, vol. 15(2)

Kosmützky, A. (2012). Between Mission and Market Position: Empirical Findings on Mission Statements of German Higher Education Institutions. *Tertiary Education and Management, 18*(1), pp. 57-77. doi: 10.1080/13583883.2011.617466

Kosmützky, A., & Krücken, G. (2015). Sameness and Difference. *International Studies Of Management & Organization*, 45, pp. 137–149

Krücken, G. and Meier, F. (2006). Turning the university into an organizational actor. *Globalization and organization: World society and organizational change*, Oxford University Press (pp.241-257)

Krücken, G. (2011) A European Perspective on New Modes of University Governance and Actorhood. *Research & Occasional Paper Series*: CSHE.17.11. Accessed online

Kvale, S. (1996) *InterViews—An introduction to qualitative research interviewing*. Sage, Thousand Oaks, California

Kvale, S., & Brinkmann, S. (2009). *Interviews: Learning the Craft of Qualitative Research Interviewing* (2nd Edition ed.). Sage, California

Kyburz-Graber, R. (2004). Does Case-Study Methodology Lack Rigour? The Need for Quality Criteria for Sound Case-Study Research, as Illustrated by a Recent Case in Secondary and Higher Education. *Environmental Education Research, 10*(1), pp. 53-65. doi: 10.1080/1350462032000173706

Larkins, F. (2013a). Era 2012 (Part 1): Responses and Performances Compared to Era 2010. In L. M. Institute (Ed.), *Australian Higher Education Research Policy Analysis*. Centre for the Study of Higher Education: University of Melbourne

Larkins, F. (2013b). Era 2012 (Part 2): Discipline Research Profile Changes from 2010 to 2012. In L. M. Institute (Ed.), *Australian Higher Education Research Policy Analysis*. Centre for the Study of Higher Education University of Melbourne.

Lepori, B. (2016). Universities as hybrids: Applications of institutional logics theory to higher education. In *Theory and method in higher education research*. Emerald Group Publishing Limited.

Lepori, B., Huisman, J., & Seeber, M. (2013). Convergence and Differentiation Processes in Swiss Higher Education: An Empirical Analysis. *Studies in Higher Education, 39*(2), pp. 197-218. doi: 10.1080/03075079.2011.647765

Levins, R. (1968). *Evolution in Changing Environments*, Princeton University Press, New Jersey

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry* (Vol. 75): Sage

Lindblom, C. (1990). I*nquiry and change*. Yale University Press

Lindsay, A., & Neumann, R. (1987). University Research in Flux: Policy Debate in Australia. *Higher Education, 16*(4), pp. 433-448

Macfarlane, B. (2015). Dualisms in Higher Education: A Critique of Their Influence and Effect. *Higher Education Quarterly, 69*(1), pp. 101-118. doi: 10.1111/hequ.12046

Machado-da-Silva, C, Guarido Filho, E and Rossoni, L. (2006) Organizational Fields and the Structuration Perspective: Analytical Possibilities (2006) 3(2) BAR, *Brazilian Administration Review* 32

Macklin, J. (2006). *Australia's universities: building our future in the world*, Australian Labor Party Discussion Paper. [Accessed online](#)

Mahat, M. (2014). *Strategizing Excellence and Diversity in Australian Higher Education*. Paper presented at the EAIR 36th Annual Forum, Essen, Germany

Mahat, M. & Goedegebuure, L. (2016). *Strategic Positioning in Higher Education: Reshaping Perspectives*. 10.1108/S2056-375220160000002011

Maling, J., & Keepes, B. (1998). The Australian Higher Education Sector: Sought or Neglected? In V. Meek & F. Wood (Eds.), Managing Higher Education Diversity in a Climate of Public Sector Reform (pp. 29-44). DEETYA, Canberra

Mampaey, J. (2016). Are Higher Education Institutions Trapped in Conformity? A Translation Perspective. *Studies in Higher Education*, pp. 1-13. doi: 10.1080/03075079.2016.1242566

Marginson, S. (1997). Steering from a Distance: Power Relations in Australian Higher Education. *Higher Education, 34*, pp. 63-80

Marginson, S. (1998). Competition and Diversity in the Reformed Australian Higher Education System. In V. Meek & F. Wood (Eds.), *Managing Higher Education Diversity in a Climate of Public Sector Reform* (pp. 81-96). DEETYA, Canberra

Marginson, S. (1999a). Diversity and Convergence in Australian Higher Education. *Australian Universities Review, 1*, pp. 12-23.

Marginson, S. (2002). Education in the Global Market: Lessons from Australia. *Academe, 88*(3), pp. 22-24.

Marginson, S. (2007a). The Public/Private Divide in Higher Education: A Global Revision. *Higher Education, 53*(3), pp. 307-333. doi: 10.1007/s10734-005-8230-y

Marginson, S. (2007b). University Mission and Identity for a Post Post-Public Era. *Higher Education Research & Development, 26*(1), pp. 117-131

Marginson, S. (2008). *Clark Kerr and The Uses of the University*. Centre for the Study of Higher Education (CHSE) Ideas and Issues in Higher Education seminar (15 December 2008)

Marginson, S. (2011). Higher Education and Public Good. *Higher Education Quarterly,* Vol. 65, No. 4, October 2011, pp. 411-433

Marginson, S. (2013). The Impossibility of Capitalist Markets in Higher Education. *Journal of Education Policy, 28*(3), pp. 353-370. doi: 10.1080/02680939.2012.747109

Marginson, S. (2014). University Research: The Social Contribution of University Research *The Future of the Post-Massified University at the Crossroads* (pp. 101-117): Springer

Marginson, S., & Considine, M. (2000). *The Enterprise University: Power, Governance and Reinvention in Australia*: Cambridge University Press

Marginson, S., & Rhoades, G. (2002). Beyond National States, Markets, and Systems of Higher Education: A Glonacal Agency Heuristic. *Higher Education, 43*, pp. 281-309.

Marginson, S., & van der Wende, M. (2007). Globalisation and Higher Education. In O. Publishing (Ed.), *OECD Education Working Papers No. 8*

Ministerial Council on Education, Employment,Training and Youth Affairs (MCEETYA) (2007), *National Protocols for Higher Education Approval Processes* (October 2007), Canberra

Meek, L. (1991). The Transformation of Australian Higher Education from Binary to Unitary System. *Higher Education, 21*, pp. 461-496

Meek, L. (2000). Diversity and Marketisation of Higher Education: Incompatible Concepts? *Higher Education Policy, 13*, pp. 23-39

Meek, L., Goedegebuure, L., & Huisman, J. (2000). Understanding Diversity and Differentiation in Higher Education: An Overview. *Higher Education Policy, 13*, pp. 1-6

Meek, L., Goedegebuure, L., Kivenen, O., & Rinne, R. (1996). *The Mockers and the Mocked: Comparative Perspectives on Differentiation, Cenvergence and Diversity in Higher Education* (Vol. Issues in Higher Education). IAU Pergamon Press, Oxford

Meek, L., & O'Neill, S. (1996). Diversity and Differentiation in the Australian Unified National System of Higher Education. In V. Meek, L. Goedegebuure, O. Kivinen & R. Rinne (Eds.), *The Mockers and Mocked: Comparative Perspectives on Diversity, Differentiation and Convergence in Higher Education* (pp. 60-78): Pergamon, Oxford

Meek, L., & Wood, F. (1998). *Managing Higher Education Diversity in a Climate of Public Sector Reform*: Department of Employment, Education Training and Youth Affairs. Commonwealth of Australia, Canberra

Merriam, S. & Tisdell, E. (2016) *Qualitative research : a guide to design and implementation*, Fourth edition., Jossey-Bass, San Francisco, California

Meyer, J. & Rowan, G. (1977). Institutionalized organizations: Formal structure as myth and Ceremony, *American Journal of Sociology* 83

Mignot-Gérard, S. (2003), "Leadership" and "Governance" in the Analysis of University Organisations: Two Concepts in Need of De-construction, *Higher Education Management and Policy*, vol. 15(2)

Marquis, C. & Tilcsik, A. (2013) Imprinting: Toward a Multilevel Theory, *The Academy of Management Annals*, 7:1, pp. 195-245, DOI: 10.1080/19416520.2013.766076

Marshman, I., & Larkins, F. (2020) *Modelling Individual Australian Universities Resilience in Managing Overseas Student Revenue Losses from the COVID-19 Pandemic*. Accessed online

Miles, M., & Huberman, M. (1994). *Qualitative Data Analysis : An Expanded Sourcebook* (Vol. 2nd Edition). Sage Publications, Thousand Oaks

Mintzberg, H. (1987). The Strategy Concept I: Five Ps for Strategy, *California Management Review*, Vol. 30, issue 1, pp. 11-24

Mintzberg, H. (1994). *The Rise and Fall of Strategic Planning*. New York: The Free Press

Moodie, G. (2015). How Different Are Higher Education Institutions in the Uk, Us and Australia? The Significance of Government Involvement. *Higher Education Quarterly, 69*(1), pp. 3-36. doi: 10.1111/hequ.12052

Morphew, C. (2000). Institutional Diversity, Program Acquisition and Faculty Members: Examining Academic Drift at a New Level *Higher Education Policy, 13*, pp. 55-77

Morphew, C. (2009). Conceptualizing Change in the Institutional Diversity of U.S. Colleges and Universities. *Journal of Higher Education, 80*(3), pp. 243-269

Morphew, C., Fumasoli, T., & Stensaker, B. (2016). Changing Missions? How the Strategic Plans of Research-Intensive Universities in Northern Europe and North America Balance Competing Identities. *Studies in Higher Education*, pp. 1-15. doi: 10.1080/03075079.2016.1214697

Morphew, C., & Hartley, M. (2006). Mission Statements: A Thematic Analysis of Rhetoric across Institutional Type. *The Journal of Higher Education, 77*(3), pp .456-471

Neave, G. (1996). *Homogenization, Integration and Convergence: The Chesire Cats of Higher Education*. Pergamon Press, Oxford

Neave, G. (2000). Diversity, Differentiation and the Market: The Debate We Never Had but Which We Ought to Have Done. *Higher Education Policy, 13*, pp. 7-21

Nokkala, T., Diogo, S. (2020) Institutional perspectives in transition: research groups' profiles and embeddedness in organisational and national context. *High Educ* 79, pp. 515–532. https://doi.org/10.1007/s10734-019-00421-4

Norton, A. (2014). Mapping Australian Higher Education. *Grattan Institute, October 2014*

Nowell, L., Norris, J. White, D. & Moules, N. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16(1)

O'Connell, C. (2015). An Examination of Global University Rankings as a New Mechanism Influencing Mission Differentiation: The Uk Context. *Tertiary Education and Management, 21*(2), pp. 111-126. doi: 10.1080/13583883.2015.1017832

Organisation for Economic Co-operation and Development (OECD) (2011). Issue Brief: Public Sector Research Funding *OECD Innovation Policy Platform,* Accessed online

Olssen, M., & Peters, M. A. (2007). Neoliberalism, Higher Education and the Knowledge Economy: From the Free Market to Knowledge Capitalism. *Journal of Education Policy, 20*(3), pp. 313-345. doi: 10.1080/02680930500108718

Orton, J., & Weick, K. (1990). Loosley Coupled Systems: A Reconceptualisation. *Academy of Management Review, 15*(2), pp. 203-223

Owen, G. (2014). Qualitative Methods in Higher Education Policy Analysis: Using Interviews and Document Analysis. *The Qualitative Report, 19*, pp. 1-19

Paradeise, C., & Thoenig, J.-C. (2013). Academic Institutions in Search of Quality: Local Orders and Global Standards. *Organization Studies*, 34(2), pp. 189–218. https://doi.org/10.1177/0170840612473550

Parsons, T. Platt, G.M (1973) *The American University*, Harvard University Press

Patton, M (2002). *Qualitiative Research & Evaluation Methods*, 3rd Edition, Sage Publications, California

Pfeffer, J. & Salancik, G. (1974). Organizational Decision Making as a Political Process: The Case of a University Budget. *Administrative Science Quarterly*, 19(2), pp. 135-151

Piché, P. G. (2015). Institutional Diversity and Funding Universities in Ontario: Is There a Link? *Journal of Higher Education Policy and Management, 37*(1), pp. 52-68. doi: 10.1080/1360080x.2014.991537

Pinheiro, R., Charles, D., & Jones, G. A. (2016). Equity, Institutional Diversity and Regional Development: A Cross-Country Comparison. *Higher Education, 72*(3), pp. 307-322. doi: 10.1007/s10734-015-9958-7

Portnoi, L., & Bagley, S. (2011). Global Competition in Higher Education: Strategies in a Glonacal Context. *World Studies in Education, 12*(2), pp. 5-33

Pritchard, R., Klumpp, M., & Teichler, U. (2015a). The Challenges of Diversity and Excellence *Diversity and Excellence in Higher Education: Can the Challenges Be Reconciled?* Sense Publishers: Springer

Pritchard, R., Klumpp, M., & Teichler, U. (2015b). *Diverse and Excellence in Higher Education: Can the Challenges Be Reconciled?* Sense Publishers, Rotterdam

Punch, K. F. (2013). *Introduction to Social Research: Quantitative and Qualitative Approaches*, Sage, California

Purcell, W. M., Beer, J., & Southern, R. (2015). Differentiation of English Universities: The Impact of Policy Reforms in Driving a More Diverse Higher Education Landscape. *Perspectives: Policy and Practice in Higher Education*, pp. 1-10. doi: 10.1080/13603108.2015.1062059

Raudla, R., Karo, E., Valdmaa, K., & Kattel, R. (2015). Implications of Project-Based Funding of Research on Budgeting and Financial Management in Public Universities. *Higher Education, 70*(6), pp. 957-971. doi: 10.1007/s10734-015-9875-9

Rossi, F. (2009a). Increased Competition and Diversity in Higher Education: An Empirical Analysis of the Italian University System. *Higher Education Policy, 22*(4), pp. 389-413. doi: 10.1057/hep.2008.33

Rossi, F. (2009b). Universities' Access to Research Funds: Do Institutional Features and Strategies Matter? *Tertiary Education and Management, 15*(2), pp. 113-135. doi: 10.1080/13583880902869596

Rossi, F. (2010). Massification, Competition and Organizational Diversity in Higher Education: Evidence from Italy. *Studies in Higher Education*. 35. pp. 277-300. 10.1080/03075070903050539#.UayM7eukDQ5

Rowley, J. (2002). Using Case Studies in Research. *Management Research News, 25*(1), pp. 16-27. doi: 10.1108/01409170210782990

Saldaña, J. (2009). *The Coding Manual for Qualitative Researchers*. Sage Publications, Thousand Oaks, California

Salini, S., & Turri, M. (2015). How to Measure Institutional Diversity in Higher Education Using Revenue Data. *Quality & Quantity*. doi: 10.1007/s11135-015-0196-y

Salmi, J., & Saroyan, A. (2007). League Tables as Policy Instruments: Uses and Misuses. *Higher Education Management and Policy, 19*(2), pp. 31-68

Sam, C., & van der Sijde, P. (2014). Understanding the Concept of the Entrepreneurial University from the Perspective of Higher Education Models. *Higher Education, 68*(6), pp. 891-908. doi: 10.1007/s10734-014-9750-0

Schneiberg, M. (2007) What's on the path? Path dependence, organizational diversity and the problem of institutional change in the US economy, 1900–1950, *Socio-Economic Review*, Volume 5, Issue 1, January 2007, pp. 47–80, https://doi.org/10.1093/ser/mwl006

Seawright, J. & Gerring, J., 'Case Selection Techniques in Case Study Research: A Menu of Qualitative and Quantitative Options' (2008) 61(2) eawright, Jason and Gerring, John, 'Case Selection Techniques in Case Study Research: A Menu of Qualitative and Quantitative Options' (2008) 61(2) *Political research quarterly* 294

Seeber, M., Cattaneo, M., Huisman, J., & Paleari, S. (2016). Why Do Higher Education Institutions Internationalize? An Investigation of the Multilevel Determinants of Internationalization Rationales. *Higher Education, 72*(5), pp. 685-702. doi: 10.1007/s10734-015-9971-x

Seeber, M. Barberio, V. & Huisman, J. & Mampaey, J. (2017). Factors affecting the content of universities' mission statements: an analysis of the United Kingdom higher education system. *Studies in Higher Education*. 10.1080/03075079.2017.1349743

Sheil, T. (2010). Moving Beyond University Rankings: Developing a World Class University System in Australia. *Australian Universities Review, 52*(1), pp. 69-76

Simons, H. (2009). *Case Study Research in Practice*, Sage Research Methods. Accessed online

Skolnik, M. (1986). Diversity in Higher Education: The Canadian Case. *Higher Education in Europe, 11*(2), pp. 19-32. doi: 10.1080/0379772860110205

Skolnik, M. (2013). An Historical Perspective on the Idea of Institutional Diversity and Differentiation in Ontario Higher Education. *College Quarterly, 16*(2)

Skop, E. (2015). Conceptualizing Scale in the Science of Broadening Participation of Underrepresented Groups in Higher Education. *The Professional Geographer, 67*(3), pp. 427-437

Slaughter, S., & Leslie, L. (1997). *Academic Capitalism: Politics, Policies, and the Entrepreneurial University*: Johns Hopkins University Press

Slaughter, S., & Rhoades, G. (2004). *Academic Capitalism and the New Economy: Markets, State and Higher Education*. The Johns Hopkins University Press, Baltimore

Sörlin, S. (2007). Funding Diversity: Performance-Based Funding Regimes as Drivers of Differentiation in Higher Education Systems. *Higher Education Policy, 20*(4), pp. 413-440. doi: 10.1057/palgrave.hep.8300165

Stadtman, V. A. (1980). *Academic adaptations*. Jossey-Bass, San Fransisco

Stake, R. E. (2013). *Multiple Case Study Analysis*: Guilford Press

Stensaker, B. (2014). Organizational Identity as a Concept for Understanding University Dynamics. *Higher Education, 69*(1), pp. 103-115. doi: 10.1007/s10734-014-9763-8

Stensaker, B., Fumasoli, T. (2017) Multi-level strategies in universities: Coordination, contestation or creolization? *Higher Education Quarterly*, 71(3)

Stirling, A. (2007). A General Framework for Analysing Diversity in Science, Technology and Society. *J R Soc Interface, 4*(15), pp. 707-719. doi: 10.1098/rsif.2007.0213

Strike, T., & Labbe, J. (2016). Exploding the myth. In R.M.O. Pritchard, A. Pausits, & J. Williams (Eds.), *Positioning higher education institutions*, pp. 125–140. doi:10.1007/978-94-6300-660-6_7

Taylor, J. (2003). Institutional Diversity in Uk Higher Education: Policy and Outcomes since the End of the Binary Divide. *Higher Education Quarterly, 57*(3), pp. 266-293

Taylor, J. (2006). Managing the Unmanageable: The Management of Research in Research-Intensive Universities. *Higher Education Management and Policy*, 18(2), pp. 1-25. doi: 10.1787/17269822

Teichler, U. (2006). Changing Structures of the Higher Education Systems: The Increasing Complexity of Underlying Forces. *Higher Education Policy, 19*(4), pp. 447-461. doi: 10.1057/palgrave.hep.8300133

Teichler, U. (2008). Diversification? Trends and Explanations of the Shape and Size of Higher Education. *Higher Education, 56*(3), pp. 349-379. doi: 10.1007/s10734-008-9122-8

Teichler, U. (2010). The Diversifying Academic Profession? *European Review, 18*(S1), S157. doi: 10.1017/s1062798709990378

Thornton, P., Ocasio, W., & Lounsbury, M. (2012). *The Institutional Logics Perspective: A New Approach to Culture, Structure and Process.* Oxford University Press on Demand

Thornton, P. H., Ocasio, W., Greenwood, R., Oliver, C., Suddaby, R., & Sahlin, K. (2008). Institutional logics. *The Sage handbook of organizational institutionalism*.

Tight, M. (2014). Theory Development and Application in Higher Education Research: The Case of Academic Drift. *Journal of Educational Administration and History, 47*(1), pp. 84-99. doi: 10.1080/00220620.2015.974143

Trow, M. (1973). *Problems in the Transition from Elite to Mass Higher Education*. Berkeley, California: Carnegie Commission on Higher Education

Universities Australia (UA 2014). University Research - Policy Considerations to Drive Australia's Competitiveness. *Universities Australia, November 2014*

Uslu, B. (2018) Strategic actions and strategy changes in European universities: clues from institutional evaluation reports of the European University Association, *European Journal of Higher Education*, 8(2), pp. 215-229, DOI: 10.1080/21568235.2018.1432370

Vaira, M. (2004). Globalization and Higher Education Organizational Change: A Framework for Analysis. *Higher Education, 48*(4), pp. 483-510

Valimaa, J. (1998). Culture and Identity in Higher Education Research. *Higher Education, 34*, pp. 119-138

van Vught, F. (1996). Isomorphism in Higher Education? Toward a Theory of Differentiation and Diversity in Higher Education. In V. Meek, L. Goedegebuure, O. Kivinen & R. Rinne (Eds.), *The Mockers and Mocked: Comparative Perspectives on Diversity, Differentiation and Convergence in Higher Education* (pp. 42-58): Pergamon, Oxford

van Vught, F. (2007). *Diversity and Differentiation in Higher Education Systems*. Paper presented at the CHET Anniversary Conference, Cape Town

van Vught, F. (2008). Mission Diversity and Reputation in Higher Education. *Higher Education Policy, 21*(2), pp. 151-174. doi: 10.1057/hep.2008.5

Van Vught, F., & Huisman, J. (2013). Institutional Profiles: Some Strategic Tools. *Tuning Journal for Higher Education, 1*

Vidovich, L. (2004). Global–National–Local Dynamics in Policy Processes: A Case of 'Quality' Policy in Higher Education. *British Journal of Sociology of Education, 25*(3), pp. 341-354. doi: 10.1080/0142569042000216981

Vidovich, L. (2007). Removing Policy from Its Pedestal: Some Theoretical Framings and Practical Possibilities. *Educational Review, 59*(3), pp. 285-298. doi: 10.1080/00131910701427231

Vidovich, L. (2014). Policy Research in Higher Education: Theories and Methods for Globalising Times. *Theory and Method in Higher Education Research*, 9, pp. 61-79

Watt, D. (2007). On Becoming a Qualitative Researcher: The Value of Reflexivity. *Qualitative Report, The, 12*(1), pp. 82-101

Weaver-Hightower, M. (2008). An Ecology Metaphor for Educational Policy Analysis: A Call to Complexity. *Educational Researcher*, 37(3), pp. 153-167

Weber, M (1923) *Economy and Society* (re-published 1968) University of California Press, Berkeley, California

Weick, K. (1976). Educational Organizations as Loosely Coupled Systems. *Administrative Science Quarterly, 21* (March 1976).

Weingarten, H., Hicks, M., Jonker, L., & Liu, S. (2013). *The Diversity of Ontario's Universities: A Dataset to Inform the Differentiation Discussion*. Higher Education Quality Council of Ontario, Toronto

Widiputera, F. De Witte, K. Groot, W. & Maassenvandenbrink, H. (2017). Measuring Diversity in Higher Education Institutions: A Review of Literature and Empirical Approaches. *IAFOR Journal of Education*. 5. 10.22492/ije.5.1.03

Williams, R. (2010). Research Output of Australian Universities: Are the Newer Institutions Catching Up? *Australian Universities Review, 52*(1), pp. 32-36

Yazan, B. (2015) Three Approaches to Case Study Methods in Education: Yin, Merriam, and Stake, *The Qualitative Report 2015,* Vol. 20, No. 2 pp. 134-152

Yielder, J. & Codling, A. (2004). Management and Leadership in the Contemporary University. *Journal of Higher Education Policy and Management, 26*(3), pp. 315-328. doi: 10.1080/1360080042000290177

Yin, R. (2003). *Case Study Research: Design and Methods*. Beverly Hills (3rd Edition ed.), Sage Publications, Thousand Oaks, California

Yin, R. (2011). *Qualitative Research from Start to Finish*. Guildford Press, New York

Zha, Q. (2008). Diversification or Homogenization: How Governments and Markets Have Combined to (Re)Shape Chinese Higher Education in Its Recent Massification Process. *Higher Education, 58*(1), pp. 41-58. doi: 10.1007/s10734-008-9180-y

Zha, Q. (2009). Diversification or Homogenization in Higher Education: A Global Allomorphism Perspective. *Higher Education in Europe, 34*(3-4), pp. 459-479. doi: 10.1080/03797720903356628