Knowledge Brokering: Bridging the gap between academia and policy making in Australia?

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School of Political Science and International Studies
Abstract
Knowledge brokering is showing significant potential as a means of increasing the use of research in policy making. Using research to inform policy making is critical to achieving policies that are ‘evidence-based’ and result in policy outcomes that have greater potential to address the ‘wicked’ social problems that governments are facing. Research provides governments with the knowledge to make sense of policy problems, develop policy solutions and evaluate their effectiveness. Despite extensive attention given to better understanding the barriers and facilitators to research utilisation, the use of research to inform policy decisions remains elusive.

Advocates of a close relationship between the ‘two communities’ of policy makers and researchers believe this relationship is the key to effective policy formulation based on sound research. Knowledge brokering is emerging as a promising means of linking, and facilitating exchange, to form effective relationships between the ‘two communities’ of academics and policy makers, building on interactive models of the policy making process. More specifically, knowledge brokering is the human component of knowledge mobilisation, using relationships to move knowledge between policy makers and academics. In doing so, knowledge brokering works to overcome the barriers that hinder research utilisation.

While there has been an increased interest in the past decade in understanding and defining the activities of knowledge brokering, the role and effectiveness of knowledge brokering in moving research into the policy making process is unclear. Furthermore, much of the focus in the literature to date is on knowledge brokering activities carried out by individuals, but the dependence of these knowledge brokering activities on the organisational context in which these individuals operate has largely been ignored in the literature. Hence, the study of knowledge brokering organisations may be very important in understanding how knowledge can be effectively transferred between knowledge producers and users.

To address the research problem, two separate yet related research components were undertaken, and these research components are described across three core sections of this thesis. Part A of the thesis provides the essential conceptualisation and operationalisation of the research questions based on current debates within the extant literature on knowledge mobilisation and knowledge brokering. Part B of the thesis analyses surveys and in-depth interviews with policy officials and social scientists to make conclusions on the perceived need for, and existence of, knowledge brokering roles and activities in the movement of knowledge into the policy making process in
Australia. A typology of organisations that operate in a knowledge brokering capacity in Australia has been developed. Part C adopts a multiple-case study design to investigate one type of entity operating in a knowledge brokering role within key public policy areas in Australia – research-focused intermediary organisations. While very few studies of this model of organisational knowledge brokering exist, their potential is acknowledged in the literature. In doing so, the research explores the role and activities of research-focused intermediary organisations, and draws conclusions on their role and effectiveness in moving research into the policy making process.

The research undertaken for this thesis shows there is a notable movement toward knowledge brokering activities in the social sciences within Australia. It has reconfirmed the potential and need for knowledge brokering activities that facilitate knowledge mobilisation between policy makers and academics. The research indicates that organisational knowledge brokering, and in particular research-focused intermediary organisations, offer the greatest potential for building a culture in academic and policy institutions that supports the use of research in policy making, and thereby show potential in policy agenda setting. The most substantial contributing factor to the development of this culture is capacity building, one of the core functions of knowledge brokering. Research-focused intermediary organisations are best placed to achieve long term and sustained use of research in policy making because they have the attributes, including adequate resources, required to extend and promote capacity building activities.

The contribution of this research to the extant body of knowledge on knowledge brokering has three elements. Firstly, in looking in detail at organisational models of knowledge brokering and in particular research-focused intermediary organisations, it provides a more detailed account of this model than is found in existing literature. Secondly, using a framework of activities undertaken within knowledge brokering, it draws conclusions on where the focus should be to achieve effective utilisation of research in policy making. Finally, the overview of the varying types of organisational knowledge brokering activity confirms its diversity, using Australian examples, and provides a strong foundation for further empirical work on the broader activity of knowledge brokering and, in particular, organisational forms of knowledge brokering.
Declaration by author

This thesis is composed of my original work, and contains no material previously published or written by another person except where due reference has been made in the text. I have clearly stated the contribution by others to jointly-authored works that I have included in my thesis.

I have clearly stated the contribution of others to my thesis as a whole, including statistical assistance, survey design, data analysis, significant technical procedures, professional editorial advice, and any other original research work used or reported in my thesis. The content of my thesis is the result of work I have carried out since the commencement of my research higher degree candidature and does not include a substantial part of work that has been submitted to qualify for the award of any other degree or diploma in any university or other tertiary institution. I have clearly stated which parts of my thesis, if any, have been submitted to qualify for another award.

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Publications during candidature

Oral Conference Presentations


Bell, Jennifer (2014). The potential of knowledge brokering intermediary organisations in increasing social science research utilisation: three cases studies from Australia. In: Australian Political Science Association Conference 2014, Sydney NSW Australia, 28 September - 1 October 2014.


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No publications included.
Contributions by others to the thesis

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- Professor Paul Boreham for input into the conception and design of the project, critical revision and feedback on drafts of the chapters and thereby the contribution to the interpretation of the findings.
- Dr Adrian Cherney for input into the conception and design of the project, including key data from the ARC Linkage project to include in the findings.
- Stefanie Plage for the thematic coding of the qualitative data from the interviews conducted with policy officials and academics for ARC Linkage Project.
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- Jenny van der Arend for continued scholarly discussion on the wider research utilisation ‘problem’ and interpretation of findings.
- Jacinta Finger for significant assistance in the final editing and proof reading of the thesis.

Statement of parts of the thesis submitted to qualify for the award of another degree

None
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Fields of Research (FoR) Classification
FoR code: 1605, Policy and Administration, 60%
FoR code: 1606, Political Science, 40%
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<tbody>
<tr>
<td>ABCRC</td>
<td>Australian Biosecurity Cooperative Research Centre</td>
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<td>ABS</td>
<td>Australian Bureau of Statistics</td>
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<tr>
<td>ACARA</td>
<td>Australian Curriculum and Assessment Reporting Authority</td>
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<td>ACNC</td>
<td>Australian Charities and Not-for-profits Commission</td>
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<td>ACOSS</td>
<td>Australian Council of Social Services</td>
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<td>AHHA</td>
<td>Australian Healthcare and Hospitals Association</td>
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<td>AHURI</td>
<td>Australian Housing and Urban Research Institute</td>
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<td>AIC</td>
<td>Australian Institute of Criminology</td>
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<td>AIFS</td>
<td>Australian Institute of Family Studies</td>
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<tr>
<td>AIHW</td>
<td>Australian Institute of Health and Welfare</td>
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<td>ANROWS</td>
<td>Australian National Research Organisation for Women’s Safety</td>
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<tr>
<td>ANU</td>
<td>Australian National University</td>
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<td>ANZSOC</td>
<td>Australia and New Zealand School of Government</td>
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<tr>
<td>APHCRI</td>
<td>Australian Primary Health Care Research Institute</td>
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<td>APO</td>
<td>Australian Policy Online</td>
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<td>ARACY</td>
<td>Australian Research Alliance for Children and Youth</td>
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<td>ARC</td>
<td>Australian Research Council</td>
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<tr>
<td>BOSCAR</td>
<td>Bureau of Crime Statistics and Research</td>
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<tr>
<td>CAEPR</td>
<td>Centre for Aboriginal Economic Policy Research</td>
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<tr>
<td>CAP</td>
<td>Centre for American Progress</td>
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<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
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<tr>
<td>CERF</td>
<td>Commonwealth Environment Research Facility</td>
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<tr>
<td>CFHI</td>
<td>Canadian Foundation for Healthcare Improvement</td>
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<td>CHSRF</td>
<td>Canadian Health Services Research Foundation</td>
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<td>COAG</td>
<td>Council of Australian Governments</td>
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<td>CO-OPS</td>
<td>Community-based Obesity Prevention Sites</td>
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<td>CRC</td>
<td>Cooperative Research Centre</td>
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<td>CRIAH</td>
<td>Coalition for Research to Improve Aboriginal Health</td>
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<td>CSIRO</td>
<td>Commonwealth Scientific and Industrial Research Organisation</td>
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<td>DEC</td>
<td>Department of Education and Communities</td>
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<td>DEEDI</td>
<td>Department of Employment, Economic Development and Innovation</td>
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<td>DEEWR</td>
<td>Department of Education, Employment and Workplace Relations</td>
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<td>Acronym</td>
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<tr>
<td>DET</td>
<td>Department of Education and Training</td>
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<td>EPI</td>
<td>The Economic Policy Institute</td>
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<td>ERA</td>
<td>Excellence in Research for Australia</td>
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<tr>
<td>FACS</td>
<td>Department of Family and Community Services</td>
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<td>FaHCSIA</td>
<td>Department of Families, Housing, Community Services and Indigenous Affairs</td>
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<tr>
<td>HARC</td>
<td>Hospital Alliance for Research Collaboration</td>
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<td>HEN</td>
<td>Health Evidence Network</td>
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<td>HMAC</td>
<td>Housing Ministers’ Advisory Committee</td>
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<td>IAC</td>
<td>Industries Assistance Commission</td>
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<td>ICAC</td>
<td>Independent Commission Against Corruption</td>
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<td>ISCRR</td>
<td>Institute for Safety, Compensation and Recovery Research</td>
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<tr>
<td>ISSR</td>
<td>Institute for Social Science Research</td>
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<tr>
<td>KM</td>
<td>Knowledge Management</td>
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<td>KTA</td>
<td>Knowledge to Action</td>
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<tr>
<td>LINKS</td>
<td>Learning, Innovating, Networking, Knowing and Supporting</td>
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<tr>
<td>MJOS</td>
<td>Many Jurisdictions, One System</td>
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<tr>
<td>NATSEM</td>
<td>National Centre for Social and Economic Modelling</td>
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<tr>
<td>NCVER</td>
<td>National Centre for Vocational Education Research</td>
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<td>NDARC</td>
<td>National Drug and Alcohol Research Centre</td>
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<td>NRM</td>
<td>Natural Resource Management</td>
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<td>NGO</td>
<td>Non-Governmental Organisation</td>
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<td>NSW</td>
<td>New South Wales</td>
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<td>PPIC</td>
<td>Public Policy Institute of California</td>
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<td>PRWG</td>
<td>Policy Research Working Group</td>
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<td>REA</td>
<td>Rapid Evidence Assessment</td>
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<td>RAE</td>
<td>Research Assessment Exercise</td>
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<td>RADAR</td>
<td>Researcher Accessible Database for the Allocation of Reviews</td>
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<td>RBO</td>
<td>Research Brokering Organisation</td>
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<td>REACH</td>
<td>Regional East African Community Health</td>
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<td>REF</td>
<td>Research Excellence Framework</td>
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<td>Research Utilisation</td>
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<tr>
<td>SCIH</td>
<td>Standing Committee on Indigenous Housing</td>
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<td>SEARCH</td>
<td>Study of Environment on Aboriginal Resilience and Child Health</td>
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<tr>
<td>SPEAR</td>
<td>Social Policy Evaluation, Analysis and Research Centre</td>
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<td>Acronym</td>
<td>Full Name</td>
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<tr>
<td>SPRC</td>
<td>Social Policy Research Centre</td>
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<tr>
<td>STEM</td>
<td>Science, Technology, Engineering and Mathematics</td>
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<td>SURE</td>
<td>Secure Unified Research Environment</td>
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<td>TAC</td>
<td>Transport Accident Commission</td>
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<td>UNSW</td>
<td>University of New South Wales</td>
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<td>University of Queensland</td>
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<td>WHO</td>
<td>World Health Organisation</td>
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Part A – Conceptualisation and operationalisation

Part A of this thesis contains three chapters and provides the essential conceptualisation and operationalisation of the research questions based on current debates within the extant literature on knowledge brokering. In doing so, it develops the starting point from which this thesis is able to build upon and add to the literature in this area. As such, Chapter One introduces the research problem and poses questions that the research will answer. Chapter Two provides a critical review of the literature on knowledge brokering, with an identification of the key gaps and associated research problems that exist. How these problems are operationalised for the purpose of this research is then discussed in Chapter Three. Accordingly, Chapter Three outlines the research methods to be used to understand and answer the research questions posed and developed in Chapters One and Two.

Chapter One - Introduction

The use of research in policy making has long been an area of interest for academics, policy makers and practitioners alike. Research can provide an important element for policy decision making, informing key decision makers on appropriate courses of action and providing insight into possible outcomes to avoid policy decisions being made ‘blindly’ with unforeseen and potentially detrimental outcomes. Despite the apparent desire to use research more in policy making, there is a frequent acknowledgement that a significant gap exists between research producers and research users due to a wide range of interconnected and complex cultural, structural and individual factors, which act as barriers to more effective research utilisation. A solution to bridging this gap remains elusive, despite a greater understanding of the factors facilitating and constraining research use. The interest in strategies that frame and deal with how knowledge can be translated and transferred effectively between the two groups emanates from this desire to find a solution.

The literature on the integration of research, policy and practice is extensive yet muddled – a ‘messy business’ as described by Graham, Tetroe, and Gagnon (2009, p. 314) - compounded first and foremost by the wide-ranging terms to describe the process of moving knowledge into policy and practice (Graham et al., 2006). Terms such as knowledge translation and knowledge transfer are used interchangeably with other terms such knowledge sharing, knowledge exchange, and knowledge mobilisation. For example, knowledge translation has been discussed extensively in the

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1 Goethe and Saunders (1906)
literature and is used to describe a range of activities including applied health research, dissemination, linkage and exchange and implementation research, amongst others (in Graham, Tetroe, & Group, 2007, p. 13). Some have difficulties with the term knowledge transfer, particularly in relation to social science research, suggesting that knowledge interaction or knowledge intermediation might be better as it acknowledges the complex and contested nature of applied social research (Davies, Nutley, & Walter, 2008). Furthermore, knowledge transfer implies a unidirectional process between knowledge producers and stakeholders. Alternatively, knowledge exchange lends itself to a more collaborative two-way approach and is a more preferred term by organisations such as the Canadian Health Services Research Foundation (CHSRF), a leading organisation in formalising knowledge brokering roles. Knowledge mobilisation is a more encompassing term to describe the movement of knowledge between research users and research producers, implying the versatility of knowledge itself, as well as implications for the co-production of knowledge, rather than its dependency on key stakeholders. As such, for the purpose of this thesis, the term knowledge mobilisation is the preferred term in discussing the movement of knowledge into action, while acknowledging that many terms are used interchangeably in the literature and by knowledge producers and knowledge users, yet have the same general meaning when discussing the integration of research, policy and practice.

Knowledge brokering, as a knowledge mobilisation strategy, has been identified as having potential to bridge the divide between research producers and research users. Knowledge brokering is a distinct form of knowledge mobilisation, at its core involving the linkage of people and the relationships they form. Knowledge brokering includes ‘all the activity that links decision makers with researchers, facilitating their interaction so they are able to better understand each other’s goals and professional cultures, influence each other’s work, forge new partnerships, and promote the use of research-based evidence in decision-making’ (Lomas, 2007, p. 131). Relationships and linkages between research producers and research users will not happen organically. What differentiates knowledge brokering from other knowledge mobilisation strategies is its focus on the human component of knowledge mobilisation where an entity, either an individual or an organisation, facilitates the two-way transfer and exchange of knowledge between stakeholders.

The interest in knowledge brokering emerges within an understanding that moving evidence into the policy sphere is very much a social process, with interactions and relationships constituting key factors in determining how evidence is communicated and applied (Nutley, Walter, & Davies, 2007). The common theme underlying this understanding is that sustaining interactive, collaborative, cooperative, networking and two-way communicative strategies are the most
effective for the two-way transfer of knowledge between knowledge producers and users, as opposed to more passive models of knowledge dissemination such as publishing a report, or presenting research results to peers at academic conferences.

Despite the frequent acknowledgement in the literature of the potential of knowledge brokering, it is equally acknowledged that the role, scope and effectiveness of knowledge brokering, and in particular organisational forms of knowledge brokering, are little understood (Cooper, 2014; Newman, 2014; Traynor, DeCorby, & Dobbins, 2014). More specifically, what has not been sufficiently answered in the literature is what strengths the organisational models of knowledge brokering offer over other models of knowledge brokering and why. This includes where they are positioned (whether in policy, in academia or somewhere in between). Furthermore, while the literature is growing, only limited investigation has been carried out on the key aspects of knowledge brokering activities more generally\(^2\). This thesis addresses this gap in the literature, with a focus on the Australian context.

In light of these observations, the key question I have investigated is:

- What forms of knowledge brokering are the most appropriate for facilitating the utilisation of social science research in policy making in Australia?

Several subsidiary research questions considered were:

- What is the demand for knowledge brokering activities amongst Australian policy makers and academics?

- What are the varying types of organisational knowledge brokering models that currently exist in the social sciences in Australia?

- How effective are these models in facilitating the utilisation of social science research in policy making?

- In relation to the experience and perspectives of research-focused intermediary organisations as one type of organisational knowledge brokering:

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\(^2\) For examples of empirical studies which looked at knowledge brokering see CHSRF (2003); Dobbins et al. (2009b); Dobbins et al. (2009a); Lavis, Robertson, Woodside, McLeod, and Abelion (2003); Rigby (2005); Robeson, Dobbins, and DeCorby (2008); Traynor et al. (2014). For studies specifically of organisational knowledge brokering see Frost et al. (2012), Cooper (2014).
Chapter One - Introduction

- How do they view their knowledge brokering role in terms of effectively bridging the gap between policy makers and academics in terms of both ‘cultural’ differences and contextual factors?
- What are the critical qualities and processes of research-focused intermediary organisations?
- How do they see their ongoing role in terms of opportunities, barriers and challenges?
- What benefits do research-focused intermediary organisations offer over other models of organisational knowledge brokering?

The literature suggests that knowledge brokering is an effective strategy to improve research utilisation, particularly and critically through the capacity building component of knowledge brokering activities. Research-focused intermediary organisations as an organisational form of knowledge broker, are particularly well placed to deliver effective knowledge brokering activities and offer considerable advantages over other forms of both individual and organisational knowledge brokering activities. Their positioning outside policy and academia makes them somewhat protected from the pressures specific to policy makers and researchers which have been widely discussed in the literature. This positioning provides structural support for knowledge brokering activities to be effective.

Two discrete yet connected research components have been undertaken to explore the role of knowledge brokering in research utilisation, using an Australian context.

Firstly, to assess the perceived demand for knowledge brokering roles and associated activities, analysis of interviews with public policy officials and academics has been undertaken to provide insight into the perceived need for, and value of, such knowledge brokering activities in moving research into the policy-making process. The data sources for this component of the research comprised a survey of Australian policy officials, interviews with Australian policy officials, a survey of Australian social scientists and interviews with Australian social scientists.

In light of the findings from this component of the research, an overview of knowledge brokering activities in practice within Australia has been conducted. Detailed desk research has been carried out to identify the range of organisations and individuals who undertake knowledge brokering activities to various degrees. This research forms the basis of a typology of knowledge brokering...
organisations, using an existing framework of knowledge brokering activity to assess and identify differences between the varying types.

For the second core research component, a multiple-case study design has been employed, focusing on one form of organisational knowledge brokering – research-focused intermediary organisations. Very few studies exist on this model of organisational knowledge brokering yet its potential has been acknowledged in the literature (Cooper, 2014). Drawing on three case studies from Australia, the analysis develops our understanding of this particular type of knowledge brokering entity. The significance of the analysis of this type of organisational knowledge brokering entity lies in developing a better understanding of the success factors and challenges that these organisations face, and the benefits of this knowledge brokering model over other types.

This research is significant given that little exploration of knowledge brokering roles and specific organisations that operate in the space between academia and policy in an Australian context has been carried out. The overview of varying types of knowledge brokering activity within Australia will also provide a strong foundation for further empirical work on the broader activity of knowledge brokering and its role in moving knowledge into the policy-making process. The focus on research-focused intermediary organisations will highlight key success factors and challenges that organisations of this type face, and the strengths of this model of knowledge brokering over other models of organisational knowledge brokering.

1.1 Outline of research problem

1.1.1 Research utilisation, evidence-based policy making and the role of evidence in policy making

Improving the use of research based evidence in policy making is not a new idea (Nutley et al., 2007). The earlier substantive literature tended to frame the research-policy relationship in terms such as ‘research utilisation’ or ‘knowledge utilisation’ with key authors including Carol Weiss (1977; 1979), Nathan Caplan (1979), Robert Yin (1981) and Robert Rich (1991). More recent scholarly discussion has tended to frame research use in the context of the evidence-based policy making movement. Indeed, the phrase ‘evidence-based policy making’ has entered the public policy lexicon and is now a key characteristic of 21st century government discourse, initially in the United Kingdom (UK), and now in other governments across the world (David, 2002, p. 213). It is part of the wider public sector administration modernisation agenda evident in many western governments in the past two decades, with policy makers working toward greater efficiency in delivering public services and searching for ‘best value’ in policy effectiveness. Key outcomes of
this agenda include the increased use of performance indicators and program evaluations. While there are many possible reasons for the recent revival of an ‘evidence-based’ approach to policy making (see, for example, Carson (2003), for a summary of these reasons relating to a range ideological, governance, legitimacy of government, public sector managerialism and economic elements), it is generally agreed that the term was popularised after 1997 as a result of the UK Labour government’s commitment to policy reform under the ‘new labour’ rhetoric, linked to its assertion that ‘what matters is what works’. Indeed, the need for policy decisions to be based on sound social science research evidence was explicitly stated in the UK’s Modernising Government White Paper (Cabinet Office, 1999) and elaborated by the then Minister for Education:

‘Social science should be at the heart of policy making. We need a revolution in relations between government and the social research community – we need social scientists to help to determine what works and why, and what types of policy initiatives are likely to be most effective. And we need better ways of ensuring that those who need such information can get it quickly and easily’ (Blunkett, 2000).

Following suit in Australia, evidence-based policy has become a key feature of Australian public policy discourse in recent decades. For example, it was explicitly stated by the two previous Labor administrations, under the then Prime Minister Kevin Rudd in an address to senior public servants – ‘evidence-based policy making is at the heart of being a reformist government’ (Rudd, 2008 in Banks, 2009b) and more recently by the then Prime Minister Julie Gillard in her ‘Closing the Gap’ speech to parliament in February 2011 – ‘[Closing the Gap] is evidence-based, accountable and transparent’ (2011). Under Prime Minister Tony Abbott there was seemingly a rejection of the rhetoric of evidence-based policy, but this has been revived with the current Prime Minister Malcolm Turnbull in an address in March 2015, stating ‘We need an evidence-based, spin-free, fair dinkum debate about the Budget position and what we should do to fix it’ (Turnbull, 2015).

The underlying normative assumption of the research utilisation literature is noted by Weiss (1977), as ‘using social science research for public policy making is a good thing. Use is good, more use is better, and increasing the use of social research means improving the quality of government decisions’. Weiss’ comment presents an idealised view on how policy should be made in an increasingly complex social world. It moves away from ideologically driven policy decision making and is regarded by some as a suitable approach in an environment of high fiscal constraints and
‘wicked’ social problems, that is, those social problems considered complex, unpredictable, open ended, or intractable (Head & Alford, 2015, p. 712), where information is crucial in helping decision makers decide on whether to take a course of action or not.

Advocates of a close relationship between research evidence and decision making believe that it is critical for effective policy making in an environment where governments need to handle an extensive range of increasingly complex responsibilities. The stakes are high given that the wellbeing of society and its citizens is, at least in part, dependent on good policy decisions made by governments. It is particularly in the social sciences that research-based evidence may be able to make some difference to how governments handle an extensive range of increasingly complex responsibilities (Weiss, 1977). Conversely, poor policy decisions can have catastrophic outcomes. There are many examples where policies and professional practices based primarily on values or intuition, poorly thought out and implemented have proven to be ineffective or harmful (Cooper, 2010a; Estabrooks, Thompson, Lovely, & Hofmeyer, 2006; Lemieux-Charles & Champagne, 2004; Nutley et al., 2007).

In reality, however, using research evidence in policy decision-making is uneven and contested, and a full understanding of the issues surrounding the use of evidence in policy-making shows that it is a highly complex area of study taking into account many considerations including how policy decisions are made and broader epistemological considerations on the contestability of social science knowledge. Research by Kingdon (1984, 2011) and many other authors has highlighted that policy making ‘involves a complicated, almost subjective calculus that weighs a number of competing factors including values, career aspirations, media attention, and the voters views, among many others. While research can and does play an important role in policy making, it is often subordinate to other, more salient, factors’ (Bogen Schneider & Corbett, 2010, p. 9). Research often needs to fall within the ‘muddy waters’ that underlie other policy decisions, along with other competing interests. Various theories have been developed to explain the policy-making process, including the role of research in this process, and these are discussed in section 2.2.1.1 of this thesis.

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3 For further explanation and discussion of wicked problems see Head and Alford (2015); Rittel and Webber (1973).
4 In referring to social sciences, this broadly covers disciplines outside the natural sciences. These include education, economics, anthropology, sociology, criminology, geography, political science, social work and psychology.
5 For further critical discussions and overviews of the debate on evidence-based policy see, for example, Banks (2009a); Cherney and Head (2010); Clarence (2002); Greenhalgh and Russell (2009); Hammersley (2005); Head (2010a, 2010b); Head (2015); Levin (2004); Majone (1989); Marston and Watts (2003); Maynard (2007); Nutley, Walter, and Davies (2008); Sanderson (2011); Solesbury (2002).
In considering the influence of research on the policy process, there is a delineation between research, evidence and knowledge and their place in the policy process, such that ‘research is usually conceived as being only one part of evidence’ and in turn, ‘research and evidence both sit as only part of wider knowledge’ (Nutley et al., 2007, p. 20). Knowledge relevant to the policy process includes political knowledge, scientific rigorous knowledge, professional-managerial knowledge (or tacit knowledge) and client and stakeholder knowledge (Head, 2010a; Nutley et al., 2007). Furthermore, the literature on policy advisory systems highlights the complexity and multiplicity of information sources for policy development, both informal and formal, of which academic research is just one (see, for example, Craft & Howlett, 2013), and the configurations of these policy advisory systems vary significantly by country (Howlett & Newman, 2010).

Much attention has been given to mapping research use within government (see for example Amara, Ouimet, & Landry, 2004; Cherney & McGee, 2011; Landry, Amara, & Lamari, 2001b; Landry, Lamari, & Amara, 2003). However there are also extensive concerns with the determinants of research use and subsequently how research use can be improved. It is in relation to the latter question that notions of knowledge mobilisation and indeed knowledge brokering have largely emerged.

Furthermore, many criticisms are directed against the rationalist assumptions of evidence-based policy making. The criticisms focus on the contestability of social science knowledge, which it is argued, is inherently varied, complex, and value based (Marston and Watts, 2003). Furthermore, the rationality principle of evidence-based policy making tends to imply the need for elitism or ‘technocratic politics’, which may be less appropriate in an increasingly complex political and social environment (Sanderson, 2002, 2009). While there is relatively little outright rejection of the term ‘evidence-based’, many would prefer a softer, more subtle assertion such as ‘evidence-informed’ policy which takes into consideration the reality that research evidence is just one of many important factors influencing policy (Head, 2008; Nutley et al., 2007; Solesbury, 2002).

There is a wider context within the higher education sector shaping the interest and demand for such roles as a knowledge broker. Knowledge brokering sits within the concept of knowledge production and its use, and the shift from ‘Mode 1’ to ‘Mode 2’ forms of knowledge production (Gibbons et al., 2004) that is apparent in the university sector today, with the increased emphasis on the need to demonstrate impact. Characteristics of Mode 1 forms of knowledge production are linear, typically academic in orientation, homogeneous, hierarchical and original in form; whereas Mode 2 knowledge is non-linear, reflexive, transdisciplinary, transient and more socially accountable.
Indeed, the application of research evidence is now becoming institutionalised within the university sector. The need to demonstrate research quality and impact was manifested in the introduction of Research Quality Framework (RQF) in 2005, replaced in 2010 by the Excellence in Research for Australia (ERA) initiative, both being frameworks by the Australian Research Council (ARC) to measure research quality and impact. The Australian Research Council (ARC) is one of two Australian government agencies responsible for the allocation of research funding to academics and researchers. It covers all disciplines with the exception of clinical and medical research, which is governed by the ARC’s counterpart, the National Health and Medical Research Council (NHMRC).

More recently, the release of the Australian Government’s National Innovation and Science Agenda in December 2015, encourages greater engagement between universities and industry, including the introduction of performance metrics for universities to measure their impact and engagement with industry (Australian Government, 2015b). The trend towards these institutional measures in Australia mirrors similar moves in the British higher education sector where the Research Excellence Framework (REF), as the successor to the Research Assessment Exercise (RAE), is concerned with assessing the quality of research and research impact in UK higher education institutions.

Furthermore, key evidence presented at the wrong time will not have an effect, as Banks (2013) indicates in relation to public inquiries. In general, information aiming to be an influence on policy making is subject to the stricture that ‘the right thing at the wrong time is the wrong thing…’ (Banks, 2013, p. 10). Other political conditions include the length of time to the next election when issues of a sensitive nature are bound to be problematic closer to the end of an election cycle, regardless of the strength of the evidence.

1.1.2 Theories of underutilisation

Despite the various criticisms of the use of research, it remains an ideal within policy making. Hence an understanding of the barriers and challenges to research use, and how these barriers can be overcome remains salient. Theories of underutilisation prominent in the literature cover the limitations and complexities of scientific knowledge (with social science knowledge in particular presenting epistemological challenges), the nature of the social problems being addressed, the non-rationality of policy making which does not lend itself to the inclusion of rational-based evidence and the lack of democratic institutional structures for integrating knowledge and power.
These perspectives highlight issues that are structural and inherently difficult to overcome.

A further prominent perspective, discussed in the literature, highlights the disparity between research producers and users as a key barrier to research utilisation. The challenges that exist include:

- differing timeframes for results with researchers requiring longer timeframes to produce quality research while policy makers require shorter timeframes to meet the demands of the policy making process;
- differing languages for communication with researchers using highly technical, inaccessible and expert language while policy makers require short messages to the point;
- differing priorities for knowledge with researchers giving most attention to theory, concepts, methodology and data collection while policy makers require information on feasibility, implementation, benefit and relevance;
- differing work environments with researchers working in a culture of validity of research results, peer-esteem and citation count reward systems, sources of funding, focus on excellence with relatively little incentive for researchers to conduct applied research for government and industry, whereas policy makers are practically-focused, more interested in the human consequences of decision-making, influenced by political, social and economic forces, in an environment of frequent personnel changes and restructuring and where any decisions made are the result of the input of many actors; and
- The receptiveness of non-academic organisations to external (for example, academic) research.

Other specific barriers to the use of research reported in the literature include the lack of availability and access to research, the lack of relevant research, having no time or opportunity to use research evidence, policy makers’ not being skilled in research methods and the costs involved in the activities associated with using research in policy (Oliver, Innvar, Lorenc, Woodman, & Thomas, 2014, p. 5).
Many of these challenges are played out under the banner of the frequently discussed Two Communities theory (or metaphor) (Caplan, 1979) which explains underutilisation in terms of the gap, or ‘great divide’ (Weiss, 1977), that exists between knowledge producers and users in terms of their core values, norms and beliefs. The theory holds that the relationship between researchers and policy makers is shaped by the differing ‘worlds’ in which they live, with conflicting values, differing reward systems and different languages (Caplan, 1979). This, in turn, leads to a lack of communication and interaction between the two and therefore to low levels of knowledge utilisation. Encouraging the use of research evidence in policy and practice therefore requires strategies to close the cultural gaps between the differing communities, while maintaining a “respect for their differences” and “a commitment to their shared agenda” (Shonkoff, 2000, p. 182). Given the substantial differences between the two cultures, it has been suggested that a third or outside actor is best placed to drive the translation, transfer and uptake of research (Ward, House, & Hamer, 2009c). It is here where knowledge brokering, or the work of ‘knowledge brokers’, has been suggested as a facilitator of linkage and exchange between knowledge producers and knowledge users, and the element that can better bridge the divide between the two communities.

Given that the Two Communities theory is receiving some criticism within the literature (Newman, 2014), the argument that knowledge brokering can bring together two differing communities is less convincing and in need of subtle reframing. Indeed, empirical evidence suggests that knowledge producers and knowledge users are not as separated as frequently assumed. There is a level of common ground and sharing of similar goals (Newman, 2014), yet the institutional and cultural constraints on policy and academia are not conducive to genuine collaboration. So while knowledge brokering, or the work of knowledge brokers, and in particular organisational forms of knowledge brokering are needed, it is less to overcome entrenched differences that exist between the two groups, but more to provide the space for common goals to be developed and therefore mutual understandings to be realised and built upon.

Strategies to facilitate knowledge mobilisation and the absorption of knowledge are developing at a fast pace given the current information overload that is characteristic of recent decades. This information overload is central to discussions of Open Access, Big Data and Open Data, and organisations are responding in a variety of ways to these challenges. It is no coincidence that the increasing activity of knowledge brokering is now emerging as a response to the increasing need for

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6 Further discussion on the Two Communities theory see Caplan (1979); CHSRF (2004); Edwards (2004); Gibson (2003); Hanney (2004); Holzer (2007); Lamari, Landry, and Amara (2013); Landry et al. (2003); Lewig et al. (2006); Lomas (2007); Mulgan (2006); Shonkoff (2000); Solesbury (2002).
information to be filtered. Conditions are conducive for an intermediary role, in the form of a knowledge broker, to emerge.

1.1.3 Knowledge brokering as a means of overcoming underutilisation?

The idea of a knowledge broker has emerged from an understanding in the literature over the past ten years that moving evidence into the policy sphere is very much a social process, with interactions and relationships being key factors in determining how evidence is communicated and applied (Nutley et al., 2007). More specifically, knowledge brokering is less about transferring information or research findings, but more about interactive processes between the two groups so that they can co-produce feasible and research-informed policy options (van Kammen, de Savigny, & Sewankambo, 2006, p. 608). Furthermore, there is an increasing recognition of the role of relationships in supporting the joint exploration and creation of knowledge to inform policy making and practice. The literature identifies a number of facilitators to research utilisation, including collaborations and relationships between policy makers and researchers, in addition to access to and improved dissemination of research (Oliver, Innvar, et al., 2014, p. 4). Other empirical research shows that one predictor of research utilisation is the investment in linkage and exchange activities between research producers and users (Cherney, Head, Boreham, Povey, & Ferguson, 2012), and over long periods of time (Zuzovsky, 1994). This gives additional weight to the importance of the use of a knowledge broker to facilitate sustained interaction between research users and research producers.

There is a wider philosophical basis for the potential efficacy of knowledge brokering, as a deliberative model of knowledge mobilisation which promotes exchanges and cooperation between various parties throughout the research process (Gauvin, 2010, p. 1). In the first instance it emphasises the importance of the principles of openness and ‘connectivity’, highlighting the need to maximise the number of channels and links for communication and dialogue and to encourage ‘conversation’ on both an intra- and inter organisational basis (Rosenthal (2002) in Sanderson (2009, p. 714)). This emphasis on connectivity links back to the principles of democracy supporting an open, pluralistic, participatory model of policy making (Sanderson, 2009, p. 714) and Majone’s deliberative, communicative conception of policy making (Majone (1989) in Sanderson (2009, p. 714)). A further perspective is that free and open communication is the basis for the ideal model of the resolution of social problems, an idea developed by Dewey and then later by Jürgen Habermas (Habermas, 1996; Rosenthal, 2002). More broadly, this emphasis on free and open communication resonates strongly with the notion that complex social problems are best addressed through participatory collaboration, partnering and devolution (Head, 2010a, p. 22). Within this
context, knowledge brokering is clearly a move away from a technocracy or top-down style of governance to more open, communicative and deliberative ways of acting.

The role for brokers of knowledge is considered by Pielke (2007) in offering suggestions for improving the role of science advisors in politics and policy making. He offers a typology of four possible choices a scientist makes when engaging with politics and policy making – the Pure Scientist (presenting information with little interest in the decision-making process), the Science Arbiter (a resource for decision-makers if required), the Issue Advocate (aligning themselves with a particular political agenda or interest group), or the Honest Broker (offering information to expand or clarify the scope of choice in a way that allows the decision-maker to reduce choice based on their own preferences and values) (Pielke, 2007, pp. 1-2). It is the latter which most obviously aligns itself with ideas of knowledge brokering more generally, yet the emphasis of Pielke’s work is in the need for the engagement of science with policy, whatever form that may take.

Some see knowledge brokering as a characteristic of knowledge-based ‘postmodern’ professionals, working independently, outside formal organisational structures and increasingly becoming critical, especially in knowledge-intensive sectors such as the social sciences (as opposed to ‘modern’ professionals who typically were internal agents or employed by an expert organisation (Kakihara & Sorenson, 2002). In relation to the social sciences, knowledge brokering is emerging as a new profession in the space between academia and policy makers.

Of particular interest to the research reported in this thesis are research-focused intermediary organisations as one type of organisational knowledge brokering entity. Given they have a clear mandate in bringing together research producers and users, they may offer particular benefits to the research underutilisation ‘problem’ over other knowledge brokering types yet little empirical research has been conducted specifically looking at these types of organisations and their role in overcoming the barriers to research utilisation⁷.

Knowledge brokering as an activity faces many challenges. A key criticism of knowledge brokering, as with many of the strategies proposed as effective means to close the research policy gap, is that while it may go some way in bridging the gap between research producers and users, the structural barriers to research use noted above are too much for any one strategy to succeed.

⁷ See Frost et al. (2012), Cooper (2014)
My own research is not claiming that knowledge brokering is the solution to the problem of how to increase research uptake by policy makers where conflicting values and practices overshadow this intent. However, knowledge brokering may be one strategy which, when used in certain contexts, will contribute substantially to the desired outcome of improving research uptake.

1.2 Conceptualisation and Scope of the research

Knowledge brokering itself is ill-defined and this is evident from the range of terms and roles that are used interchangeably in the literature (discussed in detail in Section 2.1 of this thesis). For the purpose of this research, knowledge brokering will be defined as ‘all the activities that link decision makers with researchers, facilitating their interactions so that they are able to better understand each other’s goals and professional cultures, influence each other’s work, forge new partnerships and promote the use of research-based evidence in decision-making’ (Lomas 2007, p3).

A useful conceptualisation of intermediaries or knowledge brokers is that adopted by Cooper (2010a, p. 8) for her own research into knowledge mobilisation intermediaries and this is what my research has also used as a conceptualisation of ‘what is knowledge brokering?’ That is, the knowledge brokering role is ‘proactive’; it involves connections and collaborations between people (in this case academics and policy makers), networks and organisations; and finally that the work of the broker adds value. These defining elements of knowledge brokering are also mentioned in other literature (e.g. Bammer, Michaux, & Sanson, 2010; Head, 2015). My conceptualisation of knowledge brokering does not include ‘passive’ forms of knowledge management, for example, reliance on Google search engines or reliance on the knowledge management activities of organisational librarians.

Among the activities constituting knowledge brokering in the literature, my research will be primarily concerned with knowledge brokering that link academic social scientists with policy-makers. However, there is a large body of literature exploring the relationship with a third important element – professional practice. While elements of the discussion are obviously relevant to the relationship between research and practice, this link is beyond the scope of the current investigation. That said, in describing barriers and patterns of usage relevant to knowledge brokering, it could be anticipated that these are generic components that could be applied to understanding the linkages between other stakeholders such as practitioners, and this will be drawn upon where relevant.
Furthermore, the focus of the research is on the activity of ‘knowledge brokering’ as opposed to the role of a ‘knowledge broker’. This distinction between the activity and an entity itself has been noted in the literature and is appropriate for the research contained within this thesis.

Finally, the research undertaken in this thesis focuses on the utilisation of social science research. As mentioned, the social sciences broadly cover disciplines outside the natural sciences. These include education, economics, anthropology, sociology, criminology, geography, political science, social work and psychology. Nevertheless, much of the literature on the integration of research and policy, knowledge mobilisation and knowledge brokering comes from the public health and clinical practice sector. This healthcare literature will be drawn on extensively, where relevant, but the key focus will be on what can be applied to the social sciences and how social science research can be more readily adopted in policy decision-making.

1.3 Structure of thesis

This thesis is structured into four parts.

Part A – ‘Conceptualisation and operationalisation’, provides an overview of the research problem (Chapter One); a critical review of the current published work on knowledge brokering, highlighting the core models developed within the literature (Chapter Two); and a detailed account of the various methods used for each component of the research that follows in subsequent chapters (Chapter Three).

Part B – ‘Assessing the knowledge brokering ‘landscape’’, is comprised of three chapters. Chapters Four and Five provide an empirical analysis of the current experiences with knowledge dissemination and translation, and the perceived demand for knowledge brokering activities using survey data and face-to-face interviews with public policy officials and academics. Chapter Six constructs a typology of knowledge brokering individuals and organisations that operate within an Australian context.

Part C – ‘A focus on research-focused intermediary organisations’, is comprised of two chapters. The focus of Chapter Seven is on the detailed description of three case studies of research-focused intermediary organisations within Australia, namely the Australian Housing and Urban Research Institute (AHURI), the Australian Research Alliance for Children and Youth (ARACY), and the Sax Institute. The chapter provides important background and contextual information on the
development of these organisations and their knowledge brokering activities. It also provides some
discussion on the strengths and challenges that each of these organisations face. Chapter Eight
provides a discussion of this form of organisational knowledge brokering and explores the patterns
of knowledge brokering activities of these organisations. It also highlights the essential qualities,
benefits and challenges of this organisational model of knowledge brokering.

The final chapter – Chapter Nine – ‘Conclusions’, provides an analysis and discussion of the
findings from the research more broadly and how they relate to the research questions, drawing
together the various elements of the research and drawing conclusions on knowledge brokering to
add to the growing literature in this area.

In the next chapter I turn to a detailed critical analysis of the contemporary literature on knowledge
brokering in order to frame the research for the thesis.
The potential of knowledge brokering as a strategy for improving research utilisation in policy making has been discussed in Chapter One. As mentioned, despite the arguments in favour of knowledge brokering, it is well recognised in the literature that the role, scope and effectiveness of knowledge brokering, and in particular, organisational forms of knowledge brokering, are little understood (see for example Newman, 2014; Traynor et al., 2014). More specifically, the following critical elements have not been adequately addressed in the literature:

- The literature highlights that knowledge brokers can be organisations rather than individuals (see, for example, Oldham & McLean, 1997; Robeson et al., 2008) but very few studies focus on organisational forms of knowledge brokering. Indeed, the literature search uncovered only one large scale empirical study that investigated the scope and nature of Research Brokering Organisations (RBOs) within the Canadian education sector specifically (Cooper, 2014). Another recent study investigated two case studies of organisational knowledge brokerage in two countries (Lenihan, 2015). What has been little explored, however, is the extent and development of organisational forms of knowledge brokering, the key activities undertaken, and the strengths of organisational models of knowledge brokering compared with other models of knowledge brokering.

- While the literature on knowledge brokering is growing, only limited empirical investigation has been carried out to date on key aspects of knowledge brokering activities within the Australian context. The existing research conducted primarily takes the form of case studies (for example Allender et al. (2011); Bammer et al. (2010); (De Leeuw, McNess, Crisp, & Stagnitti, 2008); De Leeuw, McNess, Stagnitti, and Crisp (2007); Redman, Jorm, and Haines (2008)). There has not been a foundational study to identify the expanse of knowledge brokering activities within Australia, and whether they are best situated within government, within academia or somewhere in between. Mapping these activities and actors would provide a critical basis for further research, both for use in Australia and in the study of knowledge brokering more generally.

- The core literature on knowledge brokering has been concentrated primarily within the public health sector (see for example Dobbins et al., 2009a; Urquhart, Porter, & Grunfeld, 2011; Ward, Smith, House, & Hamer, 2012; Willems, Schroder, van der Weijden, & Visser-Meily, 2012; Wright, 2013; Ziam, Landry, & Amara, 2009) and education (see for example Centre for Educational Research and Innovation, 2007; Cooper, 2014; Honig, 2004; Lavis, 2006; Levin, 2011). There has been little attention paid to other social science policy areas such as housing.
• There is little understanding of the role that policy context plays in determining the success of knowledge brokering initiatives, although there is a clear acknowledgement that organisational context plays a critical part in research utilisation (Dobrow, Lemieuxcharles, Black, & Goel, 2006; Jacobson, Butterill, & Goering, 2003; Landry et al., 2001b). Indeed, empirical studies\(^8\) of knowledge brokering generally agree that knowledge brokering is contextual, complex and diverse (Conklin, Lusk, Harris, & Stolee, 2013).

• Existing studies have looked at the views of policy officials and Australian social scientists on research utilisation more broadly (see, for example, Cherney, Head, et al. (2012); Cherney, Head, Povey, Ferguson, and Boreham (2015). However, there is little literature focusing specifically on the knowledge mobilisation and dissemination activities of these parties and their attitudes towards, and perspectives on, such activities.

• Little evidence exists regarding the specific activities and configurations of organisational knowledge brokering that may provide the greatest likelihood of policy decisions being informed by the best possible use of evidence. Existing frameworks provide some descriptions on where knowledge brokering fits as part of a wider knowledge transfer initiative and the processes of knowledge brokering, but there is little in the way of insights into which specific activities of knowledge brokering, in particular those carried out by research-focused intermediary organisations, are most effective.

The research for this PhD thesis helps address these identified gaps in the literature.

The literature on knowledge brokering is highly fragmented and difficult to analyse in any systematic manner. These challenges are acknowledged in the literature (Mitton, Adair, McKenzie, Patten, & Perry, 2007) and account for the lack of a ‘common view’ on how knowledge brokering can be optimised to achieve research utilisation. This is partly due to the highly context-dependent nature of knowledge brokering which has also been also reported in the literature. What works well in one situation will not work well in another and the literature has not attempted with any great success to provide a solid universal framework for knowledge brokering activities. For example, knowledge brokering is explored and applied through various theoretical perspectives in the literature such as the diffusion of innovation literature (Hargadon, 2002), social networking theory (Crona & Parker, 2011; Wadhwa, Heidl, & Phelps, 2012), communities of practice (Wenger, 1998), absorptive capacity (Cohen & Levinthal, 1990) and the role of knowledge brokering and evidence in theories of the policy making process (e.g. Fafard, 2008; Howlett, Mukherjee, & Koppenjan, 2015; Sabatier, 1988). It is also applied in a range of sub-disciplinary areas including

\(^8\) For empirical studies of knowledge brokering see p2 of this thesis.
organisational management (e.g. Hargadon, 2002), and Natural Resource Management (NRM) (e.g. Prager, 2010), and across sectors such as Education (e.g. Cooper, 2014; Levin, 2013), Public Health and clinical practice (e.g. Armstrong, Waters, Roberts, Oliver, & Popay, 2006; Fafard, 2008; Frost et al., 2012; Glegg & Hoens, 2016), Agriculture (e.g. van den Ban & Hawkins, 1996) and International Development (e.g. Jones, Jones, & Shaxson, 2012). One body of literature has framed knowledge brokering as an explicit part of a wider knowledge mobilisation or Knowledge to Action (KTA) model or strategy (see Lavis et al., 2003; Levin, 2011); other literature has looked at the functions, role domains, processes and strategies of knowledge brokering whether it be individual or organisational to create ‘models’ of knowledge brokering (see Cooper, 2014; Glegg & Hoens, 2016; Jones et al., 2012; Lusk & Harris, 2010; Oldham & McLean, 1997; Ward, House, & Hamer, 2009a). Other literature explores knowledge brokering at the level of individual professional roles, highlighting what qualities and characteristics knowledge brokers require to operate effectively (see Knight & Lightowler, 2010; Traynor et al., 2014; van Kammen, de Savigny, et al., 2006). A further small but growing body of literature involves empirical studies that aim to assess the efficacy of knowledge brokering as a knowledge translation and exchange intervention (see Dobbins et al., 2008; Dobbins et al., 2009b; Gerrish et al., 2011).

Against such a fragmented backdrop, this chapter does not attempt to provide a systematic review of all theoretical perspectives, all models and activities, all frameworks across all disciplines and sectors. Rather, it highlights the key arguments and findings of the literature on knowledge brokering, with respect to the core issues outlined above. In doing so, it considers the varying definitions and terms that are used to describe knowledge brokering. It briefly tracks the history of knowledge brokering as a knowledge mobilisation strategy in the literature. It provides a critical account of knowledge brokering through a review of the prominent theories concerned with knowledge mobilisation. It examines key models and frameworks of knowledge mobilisation activities where knowledge brokering has been explicitly included as a knowledge mobilisation strategy. It also considers the various roles and effectiveness of knowledge brokering activities, albeit based on a small but growing amount of empirical data. In particular, the role of organisational knowledge brokering and the current understanding and empirical work in this respect is assessed. This analysis of the literature provides the framework for the development of a typology of knowledge brokering activities by both individuals and organisations, and an analysis of their activities. It also identifies a framework for analysing the work of knowledge brokering organisations within Australia. Further, it provides a framework for the analysis of the case study data from which conclusions may be drawn on the effectiveness of knowledge brokering activities, and in particular organisational forms of knowledge brokering.
2.1 What is knowledge brokering?

2.1.1 Definition, associated terms and scope of knowledge brokering

The term knowledge brokering is ill-defined and this is evident in the range of definitions, terms and concepts that are used interchangeably in the literature. It is widely acknowledged that it is a difficult concept to precisely define and this is illustrated by the numerous definitions of the term in the literature. It is also acknowledged that knowledge brokering is a term now used for everything which does the function a disservice (Anonymous, 2014).

Drawing on the literature to arrive at a definition for the purpose of this research, knowledge brokering broadly encompasses two elements. Firstly, knowledge brokering relates to the transfer of knowledge between two parties. This transfer is a two-way process so that there is, in reality, a co-production of knowledge that can be used in the complex policy-making decision process. Secondly, and most critically, it has to have a human element to be considered knowledge brokering. Knowledge brokering is the human component of knowledge transfer where individuals facilitate the transfer of knowledge between two parties. Knowledge brokering is different from ‘researcher-push’ or ‘policy-maker pull’ strategies to close the gap between research and policy. At its core, it is concerned with interactive processes between the two groups so that they can co-produce feasible and research-informed policy options (van Kammen, de Savigny, et al., 2006, p. 608).

The much cited definition of knowledge brokering in the literature comes from the Canadian Health Services Research Foundation (CHSRF), now called the Canadian Foundation for Healthcare Improvement (CFHI), one of the first organisations to institutionalise a role for knowledge brokering.

“Knowledge brokering links researchers and decision makers together, facilitating their interaction so that they are able to better understand each other’s goals and professional culture, influence each other’s work, forge new partnerships, and use research-based evidence. Brokering is ultimately about supporting evidence-based decision-making in the organisation, management, and delivery of health services.

Knowledge brokering brings people—health services researchers, decision makers, practitioners, and policy makers—together to build relationships among them.

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9 For some definitions of knowledge brokering see CHSRF (2003); Lomas (2007); Sousa (2008); Urquhart et al. (2011); van Kammen, de Savigny, et al. (2006)
Individuals working as brokers have broad skills that include a thorough understanding of Canada's healthcare system and knowledge of marketing and communications, as well as the ability to:

- link people together and facilitate their interaction;
- find academic research and other evidence to shape decisions;
- assess evidence, interpret it, and adapt it to circumstances;
- identify emerging management and policy issues which research could help solve; and
- create knowledge networks.

To find a Knowledge Broker\textsuperscript{10}, look for someone who has a network of contacts in various professions throughout the health services system, who can link people and facilitate their interaction.” (CHSRF, 2003, p. i).

It is a distinct form of knowledge mobilisation, involving the linkage of people and relationships. The broker role is focused on bringing people together. Similarly, knowledge brokers are described as those within an organisation whose jobs are to build bridges to overcome the cultural gap between researchers and decision makers (in Tsui, 2006, p. 25). As mentioned in Section 1.2, Cooper (2010a, p. 8) highlights a useful conceptualisation of intermediaries or knowledge brokers and that is what she has adopted for her own research into knowledge mobilisation intermediaries. The role is ‘proactive’; it involves connections and collaborations between people (in this case academics and policy makers), networks and organisations; and finally that the work of the broker adds value.

Knowledge brokers can be in formal or informal roles but both are of equal interest. Indeed, it has been highlighted that knowledge brokering can occur without individuals solely dedicated to the task and it is often unrecognised and unplanned activity (CHSRF, 2003). The characteristics of knowledge brokering noted above are considered to be generic across both formal and informal knowledge brokering roles and processes.

Across the literature, elements of a knowledge brokering role can be seen in a range of activities – this is reflected in the extensive array of terms used within the literature that are closely linked and used sometimes interchangeably with ‘knowledge brokering’. These include intermediaries
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(Levin, 2004; Sin, 2008), policy entrepreneurs (Edwards, 2004; Kingdon, 2011), boundary spanner (Ward et al., 2009a; Williams, 2002), research translators (Ward et al., 2009a), champions (Cherney & Head, 2010), boundary objects (Kimble, Grenier, & Goglio-Primard, 2010), liaison officers (Tetroe et al., 2008), conduits (De Leeuw et al., 2008; De Leeuw et al., 2007), third space professionals (Whitchurch, 2009), innovation brokers (Horne, 2008), boundary organisations (Crona & Parker, 2011), consultants (Hargadon, 2002), diffusion fellows (Rowley, 2012), and knowledge exchange professionals (Knight & Lightowler, 2010). The scope of knowledge brokering can range from individuals to groups and/or organisations and even countries (Oldham & McLean, 1997; Robeson et al., 2008, p. 79).

As Cooper (2010a, p. 8) notes ‘part of the confusion surrounding intermediaries or knowledge brokers is that virtually all types of individuals and organisations are mentioned in the literature: charitable foundations, different kinds of research centres, government agencies, bridging organisations, professional organisations, individual researchers, media organisations (for example publishers), think tanks, lobbyists, policy entrepreneurs, libraries, educational and technical institutes, community based organisations, grass roots organisations, local resource centres, and non-governmental organisations (NGOs)’. Feldman, Nadash, and Gursen (2001) further highlight entities that undertake an intermediary role, these being government agencies, foundations, university research centres, for-profit and not-for-profit research centres, individual researchers, bridging organisations, and constituent organisations.

The range of organisations that undertake some form of knowledge brokering activities is immense and this appears not to be limited to a particular sector or organisational type. For example, within the children and youth space, there are many advocacy organisations that commission their own research and carry out extensive dissemination activities. Similarly, think tanks could be considered knowledge brokers given the extensive array of relationship building and research dissemination activities they undertake. Indeed think tanks have been conceptualised as knowledge brokers or intermediaries in the literature (Smith, Kay, & Torres, 2013). More generally, a small amount of literature has discussed the role of non-academic organisations as potential intermediaries, for example, Nutley et al. (2007, p. 250) consider the role of ‘specific government agencies, charitable foundations, think tanks and professional organisations’.

Others have noted that students themselves across all disciplines can be important individual knowledge brokers (Meagher, Lyall, & Nutley, 2008). They can be located in an intermediary organisation outside existing structures or networks, or at the centre of a network (Jackson-Bowers,
Kalucy, & McIntyre, 2006), within government, within academia or external to both. This complexity contributes to the confusion around defining, understanding and studying knowledge brokering. This uncertainty has been observed in other studies (Feldman et al., 2001).

What is clear from the literature on knowledge brokering is that the role is highly dependent on the context in which the knowledge brokers operate and it is acknowledged that the brokering process is at the centre of a variety of activities from priority setting, research production, synthesis, dissemination and research use capacity. This dependency on contextual factors dictates to a large extent the activities they undertake and the associated opportunities, challenges and barriers they face. In this way, they cannot be divorced from the challenges and opportunities that others in the same context would face. For example, an academic may take on the role of knowledge broker as an aspect of their job, but has similar incentives to other academics such as the need to attract funding and improve citation counts which impact the choice of relationships they wish to foster.

It is only in relatively recent times that knowledge brokering roles have been structured and formalised into specialised professional positions and/or organisational functions. Formal professional knowledge brokering positions have been rare, instead being an add-on to, or a by-product, of existing professional roles (CHSRF, 2003). Despite this progression towards structured and formalised knowledge brokering roles, informal knowledge brokering activities and roles continue to flourish, both within formalised organisations and informally across a wide range of individuals and organisations. Furthermore, it is important to highlight that the specific roles of an effective knowledge broker are not static, but are likely, in some cases, to be fluid, context-dependent and needs driven, and as such may continue to involve informal knowledge brokering activities (Sin, 2008, p. 98). Indeed it has been noted that informal knowledge brokering activities may be more significant than formal means (Faulkner and Senker (1995); in Meagher et al. (2008)). While the primary focus of this research are professionals and organisations who have a more formal knowledge brokering role, it is also of interest and equally relevant to investigate how knowledge brokering activities have arisen in a certain context outside formal arrangements, who has initiated these activities, why were they needed in this situation and who undertook the role. This is a more informal process, more likely to be need-driven as part of the policy process.

In summary, the expansive maze of the knowledge brokering literature is obvious. The definition and scope of what is considered knowledge brokering varies and in many ways, where knowledge brokering starts and where it ends is subjective, context dependent and highly ambiguous. This results in challenges to this as an area to study, particularly when there is a need to draw
conclusions on the effectiveness of knowledge brokering. Despite this, the repeated calls in the literature to investigate the potential of knowledge brokering and the continued interest amongst academics, policy makers and practitioners alike, support the need to overcome these challenges.

It is useful to briefly look at the historical context of the concept of knowledge brokering in the literature from both a philosophical standpoint on knowledge production and the relationship with knowledge users, as well as the development of the concept across differing disciplines. Both make an important contribution to the understanding of knowledge brokering as it is thought of today, specifically in the social sciences where the focus of this research lies.

2.1.2 A brief history of knowledge brokering in the literature

Before the turn of the millennium, the literature on knowledge brokering was evident but sporadic, primarily introducing the role of a knowledge broker as a possible solution to the greater movement of research into policy, through the focus on linkage and exchange activities. Little empirical research had been conducted at that stage and there were few case studies highlighting the dynamics of knowledge brokering in practice. The next ten years, however, saw a large increase in the interest in knowledge brokering as means of mobilising knowledge. By 2009-2010 there was a huge increase in the amount and quality of literature looking in detail at knowledge brokering in practice, highlighting key success factors, empirical research and attempts at evaluating how it may work. As a proxy indicator of the increase in the amount of literature on the topic, a search of the terms ‘knowledge broker’ and ‘knowledge brokering’ of the Web of Science database resulted in 375 times that the term had been cited in articles published in 2014 compared with 10 times in articles published in 2000. Broadly, there seemed to be a large increase in the identification of these types of roles and indeed an increase in these mediating or ‘bridge-building’ roles around this time.

Taking a disciplinary perspective, it can be shown that many theories on knowledge brokering originate from within the organisational management literature. Early literature from this perspective describes the need for an intermediary body, individual or activities to be able to move knowledge between two disparate groups of stakeholders (Hargadon & Sutton, 1997). Related to this view was an interest in knowledge brokering in project management literature. As a cross-disciplinary area, the literature here covered sectors such as engineering and information technology (Hargadon, 1998; Holzmann, 2013).

The link into the public health literature came via the foundational literature on knowledge brokering out of Canada, building on the experience of the CHFI (previously the CHSRF, as
mentioned above), an organisation, established in 1996, dedicated to providing healthcare policy makers and decision makers with the robust accessible research they needed to make evidence-informed improvements to healthcare financing, management and delivery. Key literature included that by Jonathan Lomas, a previous director of the organisation, who highlighted the need for ‘linkage and exchange’ (Lomas, 2000b) to improve research utilisation. Indeed his work is often cited in core literature on knowledge brokering within the social sciences.

It is also noted that the concept of knowledge brokering developed in the field of knowledge management. In the 1990s there was shift in thinking in the knowledge management field from an emphasis on codification and classification to how knowledge and evidence can be shared and transferred through interpersonal approaches (Jackson-Bowers et al., 2006, p. 3).

A notable proportion of the literature on knowledge brokering, and indeed more broadly, the integration of research, policy and practice, has been situated within clinical and public health settings (see for example, Bornbaum, Kornas, Peirson, & Rosella, 2015; Glasgow & Emmons, 2007; Glegg & Hoens, 2016; Green, 2008; Green, Glasgow, Atkins, & Stange, 2009). Little has been conducted in the social sciences. The use of social science research in particular has received some attention empirical in the last decade in Canada (see, for example, Landry et al., 2001b) and more recently in Australia (see, for example, Cherney et al., 2015; Cherney & McGee, 2011), but empirical research specifically looking at examples of knowledge brokering within the social sciences is limited. A recent study by Cooper (2014) looking at knowledge mobilisation intermediaries in the education sector in Canada is one of the only studies within the social sciences to date which has focused on knowledge brokering, and in particular organisational forms of knowledge brokering.

Empirical research on knowledge brokering has primarily used qualitative research methods in the form of case studies and interviews (Holzmann, 2013), and focused on the ‘traditional’ interpretation of knowledge brokering as first and foremost a core knowledge management role (identified by Meyer and Ward) with less focus being given to their role as linkage and exchange agents or capacity builders. It also has varied between the place of knowledge brokers as individuals, groups or organisations (Holzmann, 2013). More recently, studies set within the public health sector, have looked in detail at a knowledge brokering intervention to assess its effectiveness (see, for example, Dagenais, Laurendeau, & Briand-Lamarche, 2015; Dobbins et al., 2009a).
Overall, there has been a wide range of disciplinary areas that have looked at knowledge brokering and all have their associated history with only a small amount of cross-over evident. At the time of writing, no significant work has been carried out to synthesise existing knowledge brokering literature across disciplinary areas and over time. Therefore, there is significant scope, despite the context dependent nature of knowledge brokering, to carry this out with the aim of identifying relevant and appropriate theories, frameworks and practices. This information could then be synthesised to create a more coherent body of knowledge on the practice of knowledge brokering. This is outside the scope of this thesis but should be noted as a significant area for future study.

2.2 The case for knowledge brokering

2.2.1 Benefits of knowledge brokering in various theoretical perspectives

As indicated above, knowledge brokers are conceptualised as a means of facilitating interaction between two disparate groups of actors – research producers and research users – with the ultimate aim of increasing research utilisation. Looking at knowledge brokering through various theoretical perspectives highlights the potential benefits of knowledge brokering. Knowledge brokering can be viewed through the perspectives as being a potential means of improving the role of evidence and research in how policy is made and associated theories. Other theoretical perspectives place knowledge brokers at the centre of social networks, and knowledge brokers as innovation agents.

2.2.1.1 The place of knowledge brokering in theories of the policy-making process

Various theoretical frameworks have been used to explain the policy making process, with research and evidence occupying different roles depending on the explanatory emphasis of the theory.

Lomas and Brown (2009) provide a useful framework to examine existing theories of the policy-making process and the role and place of research in these processes, grouping theories into four categories based on their defining features. The role of research differs for each category and therefore the role of knowledge brokering in mobilising knowledge will vary dependent on the perspective of each category.

The rational actor stages models (for example, Dror, 1964, 1983) highlights sequential stages of identifying problems, assembling options, calculating relative costs and benefits, choosing and implementing the best option, and monitoring and evaluating the results (Lomas & Brown, 2009, p. 914). In these models, research can play a role in all stages in a direct and systematic way, though the role of knowledge brokering is less clear.
The messy, constrained world models of policy recognise the haphazard way in which policy is developed in contrast to the rational actor models. These models cover key works from Lindblom (1959, 1979) in which he describes policy being made through a succession of incremental changes informed by the lessons of past decisions (Cairney, 2012). Frameworks such as Kingdon’s (1984, 2011) ‘multiple policy streams’ or Cohen’s (1972) ‘garbage can model’ were developed to provide some order amongst the chaos, but offer no privileged role for research (Lomas & Brown, 2009, p. 915). Of note is the part played by policy entrepreneurs, who Kingdon sees as having a key role in bringing together the three streams of problem identification, the availability of a policy solution, and the motivation and opportunity for policymakers to turn it into policy. Policy entrepreneurs have particular synergies with knowledge brokers in their function of bringing together knowledge and key actors to influence policy decision-making and change.

The interaction models (Caplan, 1979; Davies et al., 2008; Lavis et al., 2002) see the policymaking process as a long series of prolonged interactions between and within competing interests, from which may emerge feasible and acceptable policy. A prominent approach situated within the interaction models is the Advocacy Coalition Framework (Sabatier, 1988) which views the policy process as a competition between coalitions of actors who advocate beliefs about policy problems and alternatives. These models broadly recognise the dispersed and fragmented nature of the evidence, relying therefore on access to knowledge through trusted and ongoing relationships with the research community. Researchers use the structures and processes that routinely link researchers with policymakers, either face-to-face or through intermediaries such as knowledge brokers (Lomas & Brown, 2009, p. 915). Policy network theories of policy making also fall under the interaction category of models, where the emphasis is on the configurations of individuals and organisations engaged in a policy sector (Dowding, 1995; Marsh & Smith, 2000) In this way, knowledge brokers play a key role in creating and sustaining the networks with an emphasis on linkage and exchange activities (Howlett et al., 2015).

Finally, the policy as augmentation models (Dobrow, Upshur, & Goel, 2004; Gibbons et al., 2004; Greenhalgh & Russell, 2006) focus on the content of the communication of knowledge, highlighting the importance of language in framing debates in which all evidence is contestable.

Theories of multi-level governance also highlight the role of a knowledge brokering arrangement in providing linkages between multiple levels of governance, either across the various layers of actors
of a sector, or across levels of government, such as in Australia’s federal system (Hill & Hupe, 2006; Lynn, Heinrich, & Hill, 2001).

Knowledge brokering can play varying roles across these models, particularly in respect of the ‘interaction models’ where their linkage and exchange activities are emphasised as a means of mobilising knowledge for policy use, and in policy as ‘augmentation models’ where they can play a key role in the content and messages of the knowledge to be mobilised into policy decision-making processes. Furthermore, they have the potential to play a key role in multi-level governance arrangements where they can provide linkages across levels of government and across actors within a sector.

2.2.1.2 Social network perspective of knowledge brokering

The literature assesses the role of knowledge brokers positioned at the centre of a network, as opposed to an organisational location such as an organisation itself or an individual within an organisation. Much has been published on this social network perspective of knowledge brokering in an attempt to understand the knowledge brokering role and the benefits it may bring.

‘The network perspective of knowledge brokering derives from research in both social network theory and actor network theory’ (Hargadon, 2002, p. 53). At its base is the idea that the ‘larger social structure creates the pre-conditions for innovation by isolating potentially valuable ideas, artifacts and people within ‘small worlds’. When these resources move, in combination with others, into other domains, they become novel for their unfamiliar origins and valuable for their established elements’ (Hargadon, 2002, p. 55). ‘Research has generally relied on a social network perspective to explain how organisations benefit by transferring solutions across domains. By bridging otherwise disconnected domains, brokers benefit by moving resources from one group to another’ (Hargadon, 2002, p. 55).

Hargadon (2002, p. 56) highlights that a ‘network perspective depicts brokers as conduits linking multiple domains (or communities), and knowledge brokering as a strategy for pursuing weak ties across many domains rather than strong ties within just a few’. Knowledge brokering, however, at its core does not only involve transferring ideas across domains but is heavily involved in building relationships and networking. ‘From a network perspective therefore, brokers overcome the structural isolation between domains’ (Hargadon, 2002, p. 56). Hargadon (2002, p. 50) presents a process model of knowledge brokering set within the management literature, linking organisational learning and innovation through five steps – Access, Bridging, Learning, Linking and Building. At
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...each step, there is a variation on resources and its movement between two domains, based on various phases of recognition of what is of value to each domain, actions by individuals within the organisation, and ultimately how support structures are then built around this to achieve innovation. When brokers transfer ideas across domains, they must also overcome the cognitive constraints that exist in the domains from which knowledge comes and to which it is applied (Hargadon, 2002, p. 56). This is very appropriate given the ‘cultures’ in which academic researchers and policy makers are said to exist, characteristic of the two communities theory discussed in Chapter One. Knowledge brokers often recognise, at least implicitly, that their network position enables them to overcome the local beliefs and actions of any one domain (Hargadon, 2002, p. 56). Of importance in this perspective is the recognition that while knowledge brokering is a mechanism for transferring knowledge or ideas across domains, once those ideas reach the domain they are intended for, there is no guarantee that the ideas will be taken up. Other factors, including organisational culture, and in the case of public policy, political constraints, come into play at this point. Brokers have some advantage in having good knowledge of how to manoeuvre through these constraints, but even this is limited, given they are part of a broader system. Stages three to five of Hargadon’s process model relate to these internal organisational factors.

Various models of knowledge brokering are based on this network positioning of knowledge brokers (see Table 2.1 for more details on these models).

2.2.1.3 Knowledge brokering to help innovation

Conceptualising knowledge brokering as a critical means for assisting an organisation to innovate has also been emphasised in the literature (Berwick, 2003). Rogers’ Diffusion of Innovation Theory is one of the principal theories applied to understanding the factors that impact research utilisation. Nutley et al. (2007, p. 59) highlights this connection stating that the use of evidence can be one indicator of an organisations’ ability to innovate. Furthermore, research use may be more about transformation than straightforward application. As stated in Ziam et al. (2009), the role of brokers goes beyond intermediation since it contributes to innovation by facilitating the integration of knowledge (Cillo, 2005; Hargadon, 2002). ‘In this perspective, brokers are true innovators since they identify, process and use the ideas developed in differing fields to the advantage of their organisation’ (Cillo, 2005; Cohen & Levinthal, 1990; Hargadon & Sutton, 1997; in Ziam et al., 2009). The innovation literature describes the differences between two groups as being the difference between two ‘domains’. The concept of domains describes sets of resources that are densely connected within but loosely connected across domains (Hargadon, 2002, p. 53).
In the organisational learning literature there is a focus on the adoption of external knowledge and its diffusion with an organisation. As Huber (1991, p. 89), states: ‘an organisation learns if any of its units acquires knowledge that it recognises as potentially useful to the organisation’ (in Hargadon, 2002, p. 42). Critical to the link between knowledge brokering and innovation is the need to ‘disentangle the extant knowledge learned in the context of one domain in order to see how it could be valuable in another’. In this perspective, knowledge brokers take on the role of ‘problem solvers’. Furthermore, ‘in knowledge brokering organisations, the activities that turn past learnings into raw materials for future innovations become more central and visible because these organisations experience the diversity of ideas, artifacts, and people in different domains, and are often able to identify valuable new combinations of these resources’ (Hargadon, 2002, p. 46).

Though more generally linked to management science, Rogers’ Diffusion of Innovation Theory is closely aligned with knowledge sharing and how information is diffused through an organisation, which is at the core of the knowledge brokering role and has been seen as a possible theory to apply to knowledge brokering (Tsui, 2006). The theory is made up of a five stage innovation-decision process through which a decision making unit (for example, an individual, group, organisation) moves from being aware of an innovation to confirming the decision to adopt or reject an innovation (Rogers, 2003; Tsui, 2006, p. 15).

Underlying the theory is the concept that knowledge sharing is an active process, as opposed to a passive one where knowledge is just available and will be found and taken up by interested stakeholders. Knowledge brokering can therefore be a critical strategy to facilitate this take up of knowledge (Tsui, 2006) by spreading ideas from one person or unit to another thereby creating an environment that stimulates innovation (Hargadon & Sutton, 2000; Smith, 2001) in CHSRF (2003, p. 1).

At an organisational level, Greenhalgh, Robert, MacFarlane, Bate, and Kyriakidou (2004) note the importance of a knowledge brokering role, or boundary spanners, in innovation, where there are organisations to promote and support the development and execution of boundary spanning roles, these organisations are more likely to become aware of and assimilate innovations quickly (Greenhalgh et al., 2004, p. 603).

While the literature on innovation is primarily situated in business management science, the link to the public sector and the importance of collaboration in innovation, has been made clear by some scholars of public policy (Bommert, 2010). The need for a new form of public sector innovation is
evident, it is argued, to address increasingly complex societal issues, or wicked problems (Bommert, 2010). Knowledge brokers fit into the idea that implementation and diffusion is facilitated. In particular, given the innovation problem and the distribution of innovation assets, external actors might be better positioned to implement and diffuse the innovation (Bommert, 2010).

This research explores the placement of knowledge brokers and assists in the development of a wider understanding of how innovation, facilitated through a knowledge broker, can be enhanced.

### 2.2.2 Criticisms and challenges of knowledge brokering

While the potential of knowledge brokering has been noted in the literature, this knowledge transfer strategy has also been criticised and challenged in the literature. One of the main criticisms of knowledge brokering, as with many of the strategies professing to be able to close the research policy gap, is that knowledge brokering is not the overall panacea to the problem of research underutilisation.

> ...at best [knowledge brokering] can only represent a partial solution to addressing the research-policy gap. Practical questions arise around institutional disincentives to engagement so that even if epistemic boundaries are mediated through knowledge brokering, research commissioners and providers seem trapped in performance management system, framed by misaligned time horizons for each that means they work against each other so that the diffusion of evidence is stymied. (Currie & Lockett, 2011, p. 1)

One of the few empirical studies of knowledge brokering conducted by Dobbins et al. (2009a) further confirms the more subtle impact that it could make as opposed to a full blown ‘answer to all the problems’. In her study, knowledge brokering was one of three knowledge translation strategies evaluated. The findings showed that knowledge brokering did not appear to be effective in promoting evidence-informed decision-making overall, although when an organisational research culture was perceived as low, there appeared to be a trend toward a positive effect of the knowledge brokering intervention on the incorporation of research evidence into public health policies and programs. However the organisational context needs to be considered when implementing knowledge brokering interventions to have the greatest likelihood of success in promoting evidence-based policies and programs.
Other challenges of knowledge brokering arise around the lack of empirical research and conceptual frameworks relating to the practice and activities of knowledge brokering and knowledge brokers (Dobbins et al., 2009a; Edwards, 2004). This includes questions regarding where knowledge brokers are most effectively situated, for example, inside of government, academia or external to both, and whether they need specialist knowledge in the field they work in or whether they could be a generalist with certain knowledge brokering skills, such as skills in synthesising, interpreting and applying research to user contexts, communication, networking, mediation and the ability to develop trusting and positive relationships, amongst many skills. With respect to the latter, there is conjecture around which skills are most effective, and the barriers knowledge brokers face.

Furthermore, as suggested by Contandriopoulos, Lemire, Denis, and Tremblay (2010, p. 464), although ‘conceptually appealing, presentations of the knowledge brokering model often fail to discuss the practical difficulties of such a role in communication networks in which numerous sources of information are competing, polarisation and politics matter, and information is unlikely to be neutral, objective data but, rather, bundled action proposals’. A further assertion is that ‘the brokers’ structural position inside organisations is likely to limit their actual interventional capacity to contexts with low polarisation and significant user investment’ (Contandriopoulos et al., 2010, p. 464).

There is some empirical evidence suggesting that the use of knowledge brokers, while appearing to be an effective strategy for knowledge mobilisation, remains sensitive to the context of where they are used. This is critical for their success in increasing the uptake of research into policy – that is, what works in one situation may not work in another, dependent on a range of factors such as the policy and organisational context (Dobbins et al., 2009b; Greenhalgh et al., 2004; Jacobson et al., 2003).

Sin (2008, p. 98) offers a cautionary note about the use of intermediaries as follows:

*It is meaningless, however, to discuss intermediaries as an amorphous monolithic entity. Instead, the evidence-based policy and practice enterprise should engage in sustained discussion around the identification of who intermediaries may be, why they may play brokerage roles in particular contexts, how they perform such roles and what their impact may be. It is likely that roles and functions may be fluid and context-dependent. A greater understanding of such intermediaries and the roles they perform will be beneficial to a more sophisticated understanding of the process of linking evidence to policy and practice.*
It is also noted that an intermediary role is not always needed. An assessment by Newman, Biedrzycki, Patterson, and Baum (2011) of a case study of a research–policy actor partnership based in South Australia, found that the success of their project was due to the coming together of researchers and policy actors who had good social and communication skills, a respect for what each other could contribute to the project and a willingness to see benefits in ‘cultural diversity’. That is, a decision-relevant culture among researchers and research-attuned culture among policy actors. The role of an intermediary was not needed for the success of the initiative (Newman et al., 2011, p. 89). While this example may negate the need for a knowledge brokering entity, it does however highlight the ‘functional’ role of knowledge brokerage as part of a wider system (and not necessarily a tangible entity, whether that be an individual or an organisation) (De Leeuw & Wise, 2015).

Ward et al. (2009a, p. 273) identify a number of challenges of knowledge brokering and this is consistent across the literature. These challenges are:

- Across all the functions of knowledge brokering which she discusses, that is, knowledge management, linkage and exchange, and capacity building, the time and resources needed to engage in these activities are prohibitive. That said, the literature seems to suggest that there is no need or perhaps there is no ‘market’ for an individual being solely dedicated to the knowledge brokering task, regardless of the activities they undertake. This gives rise to the suggestion that the unit of analysis when studying knowledge brokering should not be individual roles, but should be organisational structures who operate as knowledge brokers (discussed further below).
- There is a lack of distinction between knowledge brokering roles, with the roles often being undertaken in combination with others.
- The range of skills that brokering requires, and how this varies depending on the types of activities undertaken.
- The lack of knowledge about how it works, what contextual factors influence it and how effective it is. The reasons for this lack of evidence includes a general lack of agreement on the key functions and skills of brokers, the range of brokering models and the practice of combining aspects of different models within one brokering intervention.
- The difficulties in evaluating knowledge transfer and knowledge brokering given the complexities of their role, in respect of social activities.
Other challenges of knowledge brokering include the ambiguity of the role, particularly at the individual level, given the vagueness and lack of clarity that exists for such roles (Chew, Armstrong, & Martin, 2013).

Despite these challenges and criticisms, the interest in knowledge brokering has not waned and such roles continue to be developed, supported by continued calls within the literature for further research on knowledge brokering. The number of challenges and unanswered questions relating to knowledge brokering that remain in the literature only serve to add weight to an area as an essential focus for further study.

2.3 Existing frameworks and models of knowledge brokering

The role of a knowledge broker has been seen through a range of perspectives and frameworks in the literature. The majority of these perspectives look at the specific activities that knowledge brokers may undertake, and the theoretical models to knowledge mobilisation or knowledge transfer. The following section covers the range of frameworks that exist for evaluating knowledge brokering and types of activities that knowledge brokers may undertake within these wider knowledge mobilisation or knowledge transfer theoretical models.

While there is no clearly defined theoretical framework for studies of knowledge brokering, the practice situates itself within theories and associated frameworks of knowledge mobilisation or knowledge transfer. However, within these frameworks, the use of a knowledge broker is not always explicit. In some cases, it is clear that some entity or specific activity is being used to facilitate knowledge mobilisation, but the term knowledge broker or something similar has not been used. In these instances, knowledge brokering activities facilitate the entire knowledge mobilisation process, or they perform one specific role as part of the knowledge mobilisation process. Various systematic reviews of knowledge mobilisation frameworks have already been conducted (Contandriopoulos et al., 2010; Davison & National Collaborating Centre for Determinants of Health, 2013; Mitton et al., 2007; Ward et al., 2009c) but research which identifies and reviews only those containing a knowledge brokering mechanism is a notable gap in the literature. There is significant scope therefore to conduct such an exercise but it is beyond the scope of this thesis.

2.3.1 Existing models of knowledge brokering

Models of knowledge brokering have been developed across a range of sectors and are covered in the literature. The extent and diversity of these models again highlights the fragmented state of the
literature on knowledge brokering and the highly contextual nature of knowledge brokering initiatives. Lusk and Harris (2010), Cooper (2012) and Jackson-Bowers et al. (2006) provide an existing synthesis of knowledge brokering models described in the literature, drawing on Australian and international examples. Based on these existing syntheses, fourteen models of knowledge brokering have been identified. These are listed in Table 2.1 below.
<table>
<thead>
<tr>
<th>Models of Knowledge Brokering Activities</th>
<th>Literature</th>
<th>Summary points</th>
</tr>
</thead>
</table>
| Capacity Building Model                 | Ward et al. (2009a) |  • Focuses on fostering self-reliance in both researcher and decision-maker  
• Based on Oldham and McLean’s (1997)’s *social change framework*. |
| Consulting Model                        | Sax Institute - [https://www.saxinstitute.org.au/](https://www.saxinstitute.org.au/) |  • Knowledge brokers are independent consultants, used as part of their Evidence Check program, supporting policy makers commissioning syntheses of research evidence to inform policy  
• Sin (2008, pp. 92-96)  
• Five consultancy approaches to knowledge brokering: (1) Cross-pollinators; (2) Matchmakers; (3) Translators and processors; (4) Multiple dissemination routes; and (5) Articulators of user perspective. |
|                                          | Jacobson, Butterill, and Goering (2005, p. 306) |  • Six stage model of consultancy that could be applied to different roles that knowledge brokers could play in user organisations: (1) Pre-entry; (2) Entry; (3) Diagnosis; (4) Intervention; (5) Exit; and (6) Post-exit  
• This model involves four types of work: business work (budgeting and hiring), project management work, substantive work (gathering, synthesising, and applying knowledge) and political work (interpersonal and political context). |
| Linkage and Exchange Model               | Lomas (2000b) |  • Decision-making is seen as a process, not a product, where knowledge brokers working with researchers and decision makers reconcile the lack of connection between these ‘two worlds’, build relationships and mobilise action  
• Ward et al. (2009a)  
• Focuses on the development of positive relationship between researchers and decision makers where knowledge brokers act as intermediaries or linkage agents  
• Based on Oldham and McLean’s (1997) *transactional framework*. |
|                                          | Australian Primary Health Care Research Institute (APHCRI) - [http://aphcri.anu.edu.au/](http://aphcri.anu.edu.au/) |  • Uses the basis of the 'Linkage and Exchange Model'  
• Engages range of stakeholders including policy, provider, academic and consumer communities throughout the process with a focus on capacity building. |
| LINKS Model (learning, innovating, networking, knowing and supporting) | Bingham and Stevenson (2004) |  • Focuses on developing networks of individuals interested in specific topics related to improving the quality of care and caring experience  
• Individuals join a LINKS group to provide expertise, share knowledge and promote best practices. |
### Knowledge Exchange Team Model


- A knowledge brokering service in support of a network of organisations, facilitated by brokers who provide "readily available evidence to support decision making".
- Core activities include maintenance of data sets, knowledge synthesis and document management thereby aligning more closely with knowledge management principals.

### Knowledge Management Model

**Ward et al. (2009a)**

- Focus on the creation, diffusion and use of knowledge and sees brokering as a way of facilitating or managing these activities.
- Based on Oldham and McLean’s (1997) *knowledge system framework*.

### Knowledge Networks Model

**Canadian Public Health Network**

- Combines network theory with linkage and exchange,
- Engagement of knowledge brokers (or ‘animateur’) to develop a virtual network of researchers, policy makers and practitioners through communities of practice. The knowledge broker role is considered crucial with respect to network development.

### Australian Biosecurity Cooperative Research Centre (ABCRC) Scoped Model

- A four level model for knowledge brokering
  - *network based*: networks responsible for increasing coordination across the system and brokering with a system’s lens (the big picture)
  - *project based*: members of a research project team, working with researchers and end users to match research and needs
  - *program based*: brokering linking and coordinating programs
  - *issues based*: champion particular issues, coordinating responses in educational and research programs, facilitating responsiveness to high priority issues

### Cooperative Research Centre (CRC) for Freshwater Ecology

**Lusk and Harris (2010)**

- Example - Canadian Mental Health and Dementia Health Care Systems
- Research project based – knowledge brokering that maximises the impact of individual or collaborative research and education projects on policy and practice
- Network based – knowledge brokering that facilitates knowledge sharing, use and reuse

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11 The CRC for Freshwater Ecology was in operation from 1993 to 2005. It was succeeded by the eWater CRC in September 2005.
<table>
<thead>
<tr>
<th>Model</th>
<th>Literature Source</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Many Jurisdictions, One System (MJOS) Model</td>
<td>Elford (2005)</td>
<td>Follows a First Nation way of learning known as &quot;Learn by who is beside you&quot;. The model attempts to reconcile and &quot;harmonise&quot; the divide between traditional knowledge of the First Nations’ people of Canada and western knowledge as it relates to the health care system. Four stakeholder groups are identified: 1) Indigenous / First Nation knowledge keepers; 2) health care researchers and academics; 3) interdisciplinary practice health care providers; and 4) policy makers/managers.</td>
</tr>
<tr>
<td>Practice Enhancement Achieved through Knowledge Model</td>
<td>Duncan and Langlais (2005)</td>
<td>A seven step knowledge brokering program to enhance care provider participation in evidence-based decision and policy making facilitated by two knowledge brokers based in community care / long term care and acute care services. This model facilitates timely, up-to-date information to assist care provider participation in evidence-based practice, enhanced patient care and safety and improved team cohesiveness.</td>
</tr>
<tr>
<td>Producer Push Model</td>
<td>Lavis et al. (2003)</td>
<td>Five factor knowledge management organising framework: (1) the message; (2) the target audience; (3) the messenger; (4) the knowledge transfer process and supporting communications infrastructure; and (5) evaluation. Researchers working through credible and trusted intermediaries (knowledge brokers) as messengers (factor 3) might address researchers’ time constraints, limited interest of, and skills applicable to knowledge management.</td>
</tr>
<tr>
<td>Rapid Response Units Model</td>
<td>WHO (2006)</td>
<td>Use a rapid response unit model for their Health Evidence Network (HEN), which they refer to as 'demand brokering' or 'health intelligence'. Through a website, HEN brokers requests by mobilising a team of appropriate specialists who provide synthesised evidence in an externally peer reviewed report.</td>
</tr>
</tbody>
</table>
| Synthesis Model | van Kammen, Jansen, et al. (2006) | • An example of organisational knowledge brokering - Netherlands Organisation for Health Research and Development (ZonMw).  
• Facilitates an interactive process by conducting a synthesis of relevant studies and convening a collaborative event between researchers and user groups. |
| The Regional East African Community Health (REACH) Policy Initiative | • A dedicated organisational brokerage, with a mandate to strengthen national and regional capacity for knowledge mobilisation through synthesising relevant research findings as related to policy needs; communicating and advocating effective policy briefs; monitoring the impact of policy change; and formulating research priorities based on policy concerns. |
| User Pull Model | Clark and Kelly (2005) | • Example – the Scottish Government  
• Engaging two types of knowledge brokers to maintain networks and communities of practice to gather research to support policy development and implementation:  
  • ‘Brokercrats’ embedded in the government with the capacity to identify opportunities for evidence to inform or contribute to the policy cycle.  
  • Specialist knowledge brokers who work outside the constraints of the government, and whose focus is on knowledge transfer. |
| Context-Complexity Model | Cillo (2005) | • Based on (1) cognitive distance between the contexts; and (2) the complexity of the knowledge to be transferred.  
  • Information-Broker (low distance/low complexity): core function is transfer, sporadic interaction among groups.  
  • Knowledge Coder (high distance/low complexity): core function is knowledge codification, sporadic interaction among groups;  
  • Integrated Knowledge Broker (low distance, high complexity): core functions are access and transfer, continuous interaction, knowledge transferred by directly interacting with two parties;  
  • Pure Knowledge broker (high distance, high complexity): core functions are access, recombination and transfer, involves continuous interaction. |

(adapted from Cooper, 2012, p. 9; Jackson-Bowers et al., 2006, p. 3; Lusk & Harris, 2010, pp. 12-14)
In summary, knowledge brokering models vary considerably, as illustrated by the summation of the models in this section. The variation in their work is dictated by the differing perspectives on which methods of knowledge transfer and therefore research utilisation is best achieved, for example, whether that be by focusing on collaborative experiences, or by emphasising knowledge management strategies. The models are all of significant interest, yet evaluations of their effectiveness have not been conducted and may never be given the various challenges that exist in evaluating knowledge brokering more generally, first and foremost the highly context dependent nature of knowledge brokering activities and the difficulties is identifying outcome measures. Furthermore, while they have been reported here as divergent models, in reality, there is likely to be considerable overlap between them or movement between various models in response to the needs of research users. That said, they are of interest at least as case studies of innovative ways for bringing together two misaligned groups for a common purpose. More broadly, the ubiquitous presence of these models in terms of country/ location and sector also illustrates the widespread perceived value that a knowledge brokering mechanism, in whatever form that is, may bring.

2.3.2 Knowledge brokering roles and activities

The roles and activities of knowledge brokers have been well documented in the literature though this varies by individual and organisation. Ward, House, and Hamer (2009b) identify three types of activities or roles that knowledge brokers, both individuals or organisations, take on to a greater or lesser extent (Ward et al., 2009b). These descriptions build upon Oldham and McLean (1997) three frameworks for thinking about knowledge brokering specifically within the public sector and have been briefly introduced in Table 2.1 above. Described in more detail, these are:

- **Knowledge management** – organising large amounts of research and knowledge in a way that is accessible to users. This model focuses on the creation, diffusion and use of knowledge and sees brokering as a way of facilitating or managing these activities. It is closest to the private sector view of knowledge brokers as knowledge managers. The description of this model is based on the early work of (Oldham & McLean, 1997) known as the knowledge system framework. This function has been a core focus of a lot of the activity in relation to knowledge brokering, primarily as a response to the large amounts of research evidence available but with only limited accessibility or relevance in terms of such things as language and infrastructure to support this.

- **Relationship building** – more focus on linkage and exchange and networking. The linkage and exchange model focuses on the ‘development of positive relationship between researchers and decision makers’ whereby ‘knowledge brokers act as intermediaries or linkage agents, using interpersonal contracts to stimulate knowledge exchange, the development of new research and
the application of solutions’ (Ward et al., 2009b, p. 271). The description of this model is based on the early work of Oldham and McLean (1997) known as the transactional framework. As stated in Ward et al. (2009a, p. 271), it is based on an understanding that involving decision makers in the research process is the best predictor of research use (Lomas, 2000a), direct one-to-one conversations are the most efficient for transferring research (Lomas, 2000a), and that networks, partnerships and collaborations can enhance successful knowledge exchange (Greenhalgh et al., 2004).

- Capacity building – developing capacity within government to take on board and understand research as well as developing capacity within the research sector itself. This model focuses on ‘fostering self-reliance in both researcher and decision maker, in order to develop the knowledge transfer and communication skills of the researcher, and the analytical and interpretive skills of the decision maker’ (Ward et al., 2009a, p. 272). The description of this model is based on the early work of Oldham and McLean (1997) known as the social change framework.

While these activities have been identified, what is also noted is that ‘the boundaries between them are often blurred and many brokering project combine elements of all three types to meet the needs of research and decision makers’ (Ward et al., 2009a, p. 274). Indeed in a study of knowledge brokering in the case of advanced practice nursing, knowledge brokering ‘extends beyond the knowledge management, linkage and capacity building identified in the literature as being the main ‘types’ to include active processes of problem solving and facilitating change’ (Gerrish et al., 2011, p. 2013). This research also confirms the fluidity of the knowledge brokering role being dependent on the work context (Gerrish et al., 2011).

Across the literature, specific roles of the knowledge broker have been observed. These can be classified using the three core activities that Ward identifies and the key roles are summarised in Table 2.2.

Table 2-2 - Specific roles of knowledge brokers

<table>
<thead>
<tr>
<th>Knowledge management</th>
<th>Relationship building</th>
<th>Capacity building</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitates the identification, access, assessment, interpretation and mobilisation of research evidence into local policy and practice</td>
<td>Develops mutual understanding of goals and cultures between research producers and end users</td>
<td>Assess end users (either individuals or organisations) to identify their strengths, knowledge and capacity for evidence informed decision making</td>
</tr>
<tr>
<td>Synthesising local data with general</td>
<td>Collaborates with end users</td>
<td>Work to facilitate</td>
</tr>
</tbody>
</table>
and specific research knowledge to assist users in translating the evidence into locally relevant recommendations for policy and practice

| Tailoring key messages from research evidence to the local/regional perspective, while also ensuring the ‘language’ used in meaningful for different end users | to identify issues and problems for which solutions are required | organisational change

| Promote exchange of knowledge such that researchers and users become more appreciative of the context of each other’s work. | Build rapport with target audiences and to assist them to incorporate research evidence in their policy and practice decision | Eliminate environmental barriers to research-informed decision making

| Forge new connections across domains | Promote an organisational culture that values the use of the best available evidence in policy and practice

| Creating networks of people with common interest | Focus on ensuring adequate support, both political and infrastructure, for evidence-informed decision making is available.

(Summarised from Bornbaum et al., 2015; Dobbins et al., 2009a; Gerrish et al., 2011; Murphy, Wolfus, & Lofters, 2011; van Kammen, de Savigny, et al., 2006)

In environmental policy decision making, Michaels (2009) highlights six functions of knowledge intermediaries and how these function may be employed in responding to different types of environmental policy problems or policy settings. Jones et al. (2012, p. 132) build on these functions using the context of knowledge intermediaries in international development. These six functions are:

- **Informing** – disseminating content to targeted decision makers and decision influencers, making information easily accessible and digestible. Examples include fact sheets, websites, research synopses, databases, and end-of-project seminars.
- **Consulting** – seeking out known experts to advice on problems specified by the user of knowledge, identifying who would benefit from expert advice, what advice is needed and the most appropriate forms of communication. Examples include project or programme advisory committees, focus groups, LinkedIn, and meetings.
- **Matchmaking** – actively networking, introducing each side to people or organisations in other knowledge domains; identifying the expertise needed, who can provide it and how best to foster communications; and helping policy makers think more broadly about a topic. Examples include departmental expert advisory committees, general conferences, university internships in government, and mapping the evidence base for an issue.
• Engaging – helping frame the discussions and issue to bring a common understanding to the
decision-making process; and ensuring that all appropriate actors are involved as needed to
provide knowledge to the decision-making process. Examples include contracted research
programmes, electronic knowledge networks, working groups, wikis, citizen juries, and focus
groups.

• Collaborating – helping both parties jointly frame the process of interaction and negotiate the
substance of the issue to address a distinct policy problem. Examples include joint agreements
where the emphasis is on equality in the relationship between actors, such as memoranda of
understanding, joint agreements, and communities of practice

• Building adaptive capacity – deepening the collaborative relationship to the extent that all
parties jointly frame the issue; broadening organisational capacity of organisations to adapt to
multiple issues simultaneously. Examples include co-management arrangements, joint fact-
finding and co-production of knowledge.

These factors constitute a spectrum of knowledge brokering functions moving from ‘simply
providing information’ to ‘fully engaging with the process of social learning and transformation,
building the capacity of all institutions to adapt to changing environments and new issues’ (Jones et
al., 2012, p. 131). These factors are further reflected in Najam’s (1995) set of five ‘critical’
variables (the ‘5C Protocol’) to explain the success or failure of policy implementation. Knowledge
brokering activities come into play at each variable. These five variables are: the Content (how it
is problematised), the Context (how policy moves through institutions), the Commitment (of those
carrying out the implementation), the Capacity (administrative capacity to carry out the
implementation), and the Clients and Coalitions (whose interests are enhanced or threatened)
(Najam, 1995, p. 35).

Moreover, these frameworks have synergies with the three-prong framework discussed in Ward et
al. (2009a) highlighted above, given the acknowledgement of the diversity of knowledge brokering
functions (away from just knowledge management activities).

Ward’s framework for thinking about the activities and role of knowledge brokering has been used
as the framework for the analysis of the data collected for this research, both in identifying the
various organisations that carry out knowledge brokering activities and in analysing the detailed
case studies. While other frameworks, such as that in Jones et al. (2012) provide more categories of
activities, Ward’s framework is a catch all framework that identifies the core activities that
knowledge brokers undertake and is a useful first step providing a top-level mapping of the Australian ‘landscape’ in terms of organisations that operate as knowledge brokers.

2.3.3 **Skills required by knowledge brokers**

The core task of knowledge brokers is to establish and maintain links between researchers and their audience via the appropriate translation of research findings ((Lomas (1997); in Meyer (2010, p. 119)). To be able to do this, individuals acting in a knowledge brokering role need to have specific core technical and personal attributes. Many of these are supporting a ‘cultural’ shift in thinking that is said to be evident between researchers and end-users, whether policy makers or practitioners, that is a key barrier to knowledge or evidence uptake (Dobbins et al., 2009a). Furthermore, attributes need to be developed according to the context, dependent on the policy area, and the requirements of the evidence producers and evidence users.

Generally, the core attributes regardless of the context are summarised in Table 2.3.

**Table 2-3 - Attributes required by knowledge brokers**

<table>
<thead>
<tr>
<th>Technical Attributes</th>
<th>Personal Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expertise from both end users and researchers domains</td>
<td>Skilled mediator</td>
</tr>
<tr>
<td>Expertise in gathering evidence</td>
<td>Team builder</td>
</tr>
<tr>
<td>Expertise in critically appraising evidence, Strong skills in synthesising large</td>
<td>Flexible</td>
</tr>
<tr>
<td>amounts of information</td>
<td>Diplomatic</td>
</tr>
<tr>
<td>Strong skills in interpretation and application of research in terms of the bigger</td>
<td>Excellent business skills</td>
</tr>
<tr>
<td>picture</td>
<td></td>
</tr>
<tr>
<td>Creating networks of people with common interests</td>
<td>Excellent communication skills</td>
</tr>
<tr>
<td>Organising and managing joint forums for policymakers and researchers</td>
<td>Developing/ building trusting and positive relationships</td>
</tr>
<tr>
<td>Setting agendas and common goals</td>
<td>Superior interpersonal skills</td>
</tr>
<tr>
<td>Signalling mutual opportunities</td>
<td>Motivational skills</td>
</tr>
<tr>
<td>Clarifying information needs</td>
<td></td>
</tr>
<tr>
<td>Commissioning syntheses of research of high policy relevance</td>
<td></td>
</tr>
<tr>
<td>Packaging research syntheses and facilitating access to evidence</td>
<td></td>
</tr>
</tbody>
</table>
### Strengthening capacity for knowledge mobilisation

- Communicating and sharing of advice
- Monitoring impact on the know-do gap

(Adapted from Dobbins et al., 2009a; Gerrish et al., 2011; Murphy et al., 2011; Phipps & Morton, 2013; van Kammen, de Savigny, et al., 2006).

#### 2.3.4 A focus on organisational forms of knowledge brokering

The literature makes a distinction between two levels of knowledge brokering – at the organisational level and the individual level. Much of the literature describes knowledge brokering activities that an individual may undertake. This emphasis on individual knowledge brokering is beneficial and unavoidable given that individuals are doing the work ‘on the ground’. However, there is little point in discussing them without considering the organisation within which they are situated. This understanding of individual knowledge brokers being set within a wider system or organisation is noted in the literature (see Contandriopoulos et al., 2010). Indeed, individuals who undertake knowledge brokering activities do so within a wider organisation that is also placed at the interface between policy and academia (or at least in some part operate in this space). Within these organisations, there are typically individuals who take on key knowledge brokering roles or ‘lead’ the knowledge brokering activities, whether that be a formal or informal role. Therefore, as a unit of analysis, the organisational level knowledge brokering seems more relevant than the individual level knowledge brokering, or at least looking at individual-level knowledge brokering cannot be looked at without also looking at the organisation within which it sits. Indeed the call for further research on organisations and systems and how these impact on the use of research has been argued in the literature (Belkhodja, Amara, Landry, & Ouimet, 2007; Nutley et al., 2007).

Organisational models of knowledge brokering offer various advantages in knowledge brokering. There has been some acknowledgement of these organisations. For example, Hoffman and Røttingen (2014) note that, knowledge brokering organisations typically enjoy significant autonomy from their politically-led ministries.

> Indeed, they are often completely separate from ministries of health or function as semi-protected arms-length bodies with clear mandates, independence and legal safeguards from political actors. The result is better technical work that strengthens political decision-making by providing higher-quality independent scientific advice.
**Political processes are free to be managed by politically astute staff, and technical work can be commissioned and guided towards areas of highest political priority**

(Hoffman & Røttingen, 2014, p. 190)

Furthermore, Oliver, Innvær, Lorenc, Woodman, and Thomas (2014) writing on the prominent London School of Economics blog on the Impact of Social Sciences noted that various countries have ‘tried creating formal organisations and spaces for relationships to flourish’, highlighting the Brookings Institution in the US, the Sax Institute in Australia and the Centre for Science and Policy in Cambridge, UK, but acknowledges that their potential to changing stereotypes and behaviours of policymakers and academics remains to be seen.

Nevertheless, only limited empirical research exists on knowledge brokering organisations. A study by Cooper (2014) on Canadian Research Brokering Organisations (RBOs) in the Canadian Education sector is one of the only study of its kind specifically examining the existence and activities of knowledge brokering intermediary organisations. The results from this study highlight a typology of knowledge brokering organisations, organisational features of these organisations, and eight core brokering functions. The study uses a promising evaluative tool to assess knowledge mobilisation efforts of organisations across sectors through systematic website analysis (see Levin and Qi (2013) and is the only one of its kind to assess knowledge brokering organisations in this manner. Another study by De Leeuw et al. (2007), through the use of case studies, evaluates organisations that work at the interface of research, policy and practice, based on seven conceptual categories of theoretical frameworks addressing the nexus between research, policy and practice.

The framework used to conceptualise research mediation or knowledge brokering for this study is that developed by Cooper (2012) based on Levin (2004's) model of research impact. This conceptualisation delineates between research producers, research users and intermediaries (e.g. Research Brokering Organisations). This is a useful conceptualisation that builds on Caplan’s Two Communities theory discussed in Chapter One. Intermediaries, the focus of the study, can be organised in terms of type of organisation (government, not-for-profit, profit and membership), organisational features (mission, scope, target audience, size, resources, and membership composition) and knowledge mobilisation processes (strategies, functions and dissemination mechanisms). Furthermore, the eight brokering functions identified in the study were linkage and partnerships, awareness, accessibility, engagement, capacity building, implementation support, organisational development and policy influence (Cooper 2014). A matrix was used to analyse the activities of these knowledge brokering organisations through investigation of their websites.

Chapter Two – The literature on knowledge brokering
A study by Honig (2004), of intermediary organisations in education in the US highlights at least five dimensions that define the differences among intermediary organisations – the levels of government (or types of organisations) between which they mediate, their membership, their geographic location, the scope of their work, and their funding/revenue sources. The primary functions of the intermediary organisations under investigation were knowledge of sites\textsuperscript{12} and policy systems, regular meetings, documentation and dissemination of information, simplified information about experience, ongoing knowledge building processes, social and political ties to sites and policy systems, translation of sites’ demands into actionable terms, providing buffers for sites, providing administrative infrastructure, promoting site and central office systems for resource allocation, increasing staff time dedicated to support, management of standards and accountability (Honig, 2004). The study also identifies some enablers and constraints of these functions of intermediary organisations. Perhaps most critically, the intermediary organisations at the focal point of the study faced considerable fiscal constraints and diminishing independence over time, which ultimately led to their closure.

A further study by Lavis et al. (2003) surveyed the directors of applied health and economic/social research organisations in Canada. The aim of the study was to assess the extent to which Canadian research organisations were transferring research knowledge and to examine whether each sector such as health versus the economic/social policy sector or target-audience orientation explained any variation in their responses.

A recent case study investigation of two examples of organisational knowledge brokerage suggests that three primary factors help such organisations connect evidence successfully to policy makers: the organisation’s credibility based on independence, neutrality, reputation, trust, transparency, and the quality of its methods and evidence; the utility of the research it produces, based on transferability, timing, stakeholder involvement and resonance with policy makers; and the communication of that research in terms of effectiveness, dissemination, presentation and translation for policy makers (Lenihan, 2015, p. 122).

More generally however, the literature on organisational forms of knowledge brokering is limited. Even more scarce are large-scale empirical studies that look specifically at these organisational forms of knowledge brokering, with the study by Cooper (2014) being the only one available at the

\textsuperscript{12} ‘Sites’ in this instance refer to school-community partnerships which are formal collaborations between schools and other youth-serving organisations typically in schools’ neighbourhoods (Honig, 2004, p. 68)
time of writing. Given this fact, there is considerable scope for more research in this area, and the research contained in this thesis will go some way to addressing this gap.

2.4 Australian perspectives

The literature on knowledge brokering from an Australian perspective is growing but remains limited. Existing studies are primarily case studies with only limited reliance on other empirical methods to discuss the activities and benefits of knowledge brokering efforts within Australia. This however is reflective of the wider literature on knowledge brokering where case studies dominate and where little quantitative research has been conducted due to the problems noted previously. Overall there is an absence of widespread investigation and analysis of the types and forms of organisations that undertake a knowledge broker role to help assist research utilisation, apart from those mentioned in section 2.3.5.

These case studies within Australia typically cover the description of the use of a knowledge broker as part of a knowledge mobilisation or exchange strategy for a specific initiative, for example, for the Community-based Obesity Prevention Sites (CO-OPS) Collaboration of three Australian universities (Allender et al., 2011), for National Resource Management (NRM) (Land and Water Australia, 2006); the use of a knowledge broker for the Evidence Check programme for the Sax Institute, a public health research institute based in Sydney, NSW (Campbell, Donald, Moore, & Frew, 2011; Campbell & Rubin, 2005; Redman et al., 2008), a professional peer support network initiative for smaller and less resourced Intensive Care Units (ICU) in NSW (Rolls, Kowal, Elliott, & Burrell, 2008). Of note is a book of various cases of knowledge brokering activities within the children and youth sector in Australia (Bammer et al., 2010).

Other literature from Australia acknowledges the need for a knowledge brokering role in varying contexts (Biggs & Stickney, 2011; Bowen & Hyde, 2008; Hickey, Forest, Sandall, Lalor, & Keenan, 2013; Holzer, Lewig, Bromfield, & Arney, 2007), based on empirical research (Cherney, Head, et al., 2012) and various proposed models of knowledge brokering (ANZSOG, 2007; Khennavong & Dietrich, 2011). Moreover, what lacks investigation is the views of Australian policy officials and academics on knowledge mobilisation more broadly, and their perspectives on the need for a knowledge brokering mechanism to facilitate knowledge mobilisation.

Further research on knowledge brokering intermediary organisations in Australia requires a foundational exercise to ‘map the territory’ to not only understand the demand for knowledge
brokering activities amongst policy officials and academics but also understand the current supply of knowledge brokering entities and organisations.

2.5 Summary

In summary, this chapter has highlighted a number of gaps in the literature that this research will address. Specifically, there is little understanding of the views and activities of policy officials and academics with a particular focus on knowledge mobilisation more generally, or the application of the mechanisms of knowledge brokering to improved research utilisation from an Australian perspective. Furthermore, there has only been limited focus within the literature on organisational forms of knowledge brokering in Australia, the activities they undertake and various configurations of their core activities, and the strength of various organisational forms of knowledge brokering over other forms.

The following chapter provides a detailed description of the methods applied in this research to gain an enhanced understanding of the perspectives of Australian policy officials and academics on knowledge mobilisation. The chapter also describes the methods used to identify knowledge brokering organisations within Australia, develop a typology of knowledge brokering organisations, and explore three case studies from Australia of knowledge brokering intermediaries.
Chapter Three – Research Design and Methods

3.1 Introduction
This chapter describes and explains the methods used for each component of the research. A range of methods were employed to answer the research questions. The research on knowledge brokering within Australia is somewhat of a blank slate given that little empirical research currently exists. The present research provides a holistic view on knowledge brokering within Australia which other researchers may use as a foundation for further research.

3.2 Overall research design

The overall research design is illustrated in Figure 3.1, outlining the various components of the present research, the aim of each component, and the associated chapter in this dissertation. This schema provides a clear synopsis of the research design and map of the thesis structure for Part B and C which presents the results of the research.

Figure 3-1 - Overall research design

<table>
<thead>
<tr>
<th>Research Component</th>
<th>Aim</th>
<th>Data Sources</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perspectives of Australian policy officials and social scientists on knowledge translation and knowledge brokering</td>
<td>Understand perspectives on knowledge translation, and the demand for a knowledge brokering mechanism</td>
<td>ARC Linkage Project on Research Utilisation – survey and in-depth interviews with policy officials and social scientists</td>
<td>Chapters 4 &amp; 5</td>
</tr>
<tr>
<td>2. Identification and development of typology of organisational knowledge brokering in Australia</td>
<td>Foundational exploration of the types of institutional knowledge brokering intermediaries in Australia</td>
<td>Large-scale desktop review of websites and other literature</td>
<td>Chapter 6</td>
</tr>
<tr>
<td>3. Multiple case studies – three case studies of research-focused intermediary organisations</td>
<td>To look at research-focused intermediary organisations in detail</td>
<td>Interviews with key stakeholders, website reviews, academic and grey literature</td>
<td>Chapters 7 &amp; 8</td>
</tr>
</tbody>
</table>

The three research components are now described in turn below.
3.2.1 Perspectives of Australian policy officials and social scientists on knowledge mobilisation and knowledge brokering

One of the core components of this research is an analysis of the perspectives of Australian policy officials and social scientists on knowledge mobilisation and knowledge brokering. This research aims to address the paucity of exploration of the current activities and perspectives on knowledge mobilisation more broadly, and where knowledge brokering as a form of knowledge mobilisation may be regarded as a solution by Australian policy officials and social scientists.

The data used for this component of the research was drawn from a broader, now completed ARC Linkage project ‘The Utilisation of Social Science Research in Policy Development and Program Review’ examining research utilisation within Australia. Linkage projects are collaborative endeavours between higher education researchers and other organisations, including industry and public sector end-users, in order to apply advanced research knowledge to problems.

This project used a mixed method approach in the form of an online survey and face-to-face interviews with Australian policy officials and social scientists. The quantitative survey served to provide the research with a greater breadth of understanding of the views of social scientists and policy makers on elements related to research utilisation, including strategies to improve research utilisation such as linkage and exchange and knowledge brokering activities. The qualitative approach served to provide context for, and allow the gathering of a richer understanding of the ‘how’ and ‘why’ questions pertaining to the results of the quantitative views on research utilisation and associated elements. Finally, the mixed method approach served to triangulate results and improve the reliability and validity of the data collected.

The details of the method, survey instrument design, sampling, analysis and limitations of the research are summarised hereunder, with more detailed information provided in Appendix A of this thesis and in publications arising from the project including Cherney, Head, et al. (2012); Cherney, Head, Boreham, Povey, and Ferguson (2013); Cherney et al. (2015); Cherney, Povey, Head, Boreham, and Ferguson (2012); Head, Ferguson, Cherney, and Boreham (2014); and van der Arend (2014); and at the ARC Linkage project website (https://www.issr.uq.edu.au/ebp-home).

The project involved four phases:
A targeted survey of policy-relevant personnel within public sector agencies in Australia whose responsibilities covered human service policies and programs was undertaken from late 2011 – early 2013. A total of 2084 public servants from ten central agencies and eleven line agencies at both the state and national level participated in the survey. The survey was not conducted simultaneously across these twenty-one agencies and had to be staggered, due to the time it took to broker access to relevant departments. Hence the survey commenced in November 2011 and closed in March 2013. Individual agencies ran the survey for differing amounts of time, from a minimum of two weeks to a maximum of two months, dependent on internal circumstances. Scope of staff invited to participate in the survey included Australian Public Service (APS) level 6 or equivalent (which excluded clerical workers and personnel assistants), to the most senior management roles, who might have experience or involvement in: policy advice, policy development, research, evaluation, data collection or analysis, service or program planning, service design and delivery.

In-depth interviews with policy officials were undertaken following the survey’s completion within each agency. Each agency was invited to identify and nominate a number of senior staff in relevant positions who were willing to participate in an in-depth interview. In addition, a number of current and former senior public servants, including some in partner or collaborating agencies, were identified by the project team and directly contacted with an invitation to participate in an interview. The interview questions expanded on the survey themes relating to the influence of research and evidence in policy decision-making, the uptake of academic research, research collaborations, and the role of networks and processes to facilitate the use of research. A total of 126 interviews were conducted from July 2012-December 2013.

A targeted online survey of Australian social scientists was undertaken from late 2010 to early 2011. The survey was first piloted among Fellows of the Academy of the Social Sciences in Australia (ASSA) in September-October 2010. It is estimated that nearly 500 members were sent the survey and 81 surveys were completed, with a response rate of about 17 percent. A database was established of Australian academics who had secured at least one Australian Research Council (ARC) grant (Discovery or Linkage grants) between 2001 and 2010 within the field of social and behavioural science. Using this database, a web link to the survey was sent via email to 1,950 academic researchers between November 2010 and February 2011. The same reminder email was sent twice during this period and the survey closed in May 2011. A total of 612 completed surveys were received, which constitutes a response rate of 32 percent. When the main academic survey (which contained no substantive changes) was combined with the ASSA pilot, the final total included 693 responses. In part because more experienced academics are likely to be more
successful in obtaining ARC grants, the resulting data set was skewed towards those in senior academic positions (associate professors or professors) and those occupying teaching and research positions (as opposed to research-only positions).

*In-depth interviews with* a selection of academic respondents (n=100) were completed from September 2011 – March 2013. The academic survey included an invitation for survey respondents to participate in an interview, if requested. These in-depth interviews, based on the main survey themes, aimed at obtaining a deeper understanding of academics’ experiences of research collaborations with policy-makers and practitioners. 236 respondents indicated that they were willing to be interviewed with these potential interviewees being initially contacted in September 2011. A further 53 academics were identified as potential interviewees based on their background and experience, and were also invited to participate in an interview, whether or not they had completed the survey.

The majority of the interviews of both policy officials and academics were conducted by senior members of the project team with a small number conducted by myself and other members of the project team. The majority of the interviews were conducted face-to-face, with a small proportion carried out via telephone where it was not possible to arrange a face-to-face interview. The length of the interviews varied from 45 minutes to an hour and a half. In general, those chosen for interview were more experienced and interested in policy research and did not constitute a random sample.

*Development of data collection instruments*

The survey instrument was based on a number of validated items and scales derived from previous studies (for example, Belkhodja et al, 2007; Hall and Jennings, 2010; Howlett and Wellstead, 2011; Howlett and Newman, 2010; Knott and Wildavsky, 1980; Landry et al, 2003; Ouimet et al, 2009) and was designed to test and further develop these existing items and scales in an Australian context.

The data from the pilot study of ASSA members was analysed prior to the roll-out of the main survey in order to further test the validity of the scales that were to be employed. This was both a pre-test and a pilot of the survey instrument that confirmed the validity of the measures. The results from the pre-testing/pilot phase did not suggest the need for other than minor editing of some lead-in questions to make them clearer.
The interview schedule developed for the in-depth interviews was based on core themes identified in the literature in relation to the use of evidence in policy. These core themes were then discussed in detail amongst the project team members and adjustments and additions to these themes were made to the interview schedule as a result where necessary. Further discussions were held on the themes and questions covered in the initial interviews conducted amongst both groups, and minor adjustments were made accordingly. The design of the interview schedule was sufficiently anchored to ensure key themes were covered in the discussion, yet also to allow freedom for any other themes or lines of enquiry to be explored.

Across the study of policy officials (both the survey and interviews), in addition to questions relating to themes such as policy and research skills, development and training, general attitudes toward research, access and use of research from a range of sources with a focus on academic research, a number of survey items and interview themes directly related to views and perspectives on knowledge mobilisation and knowledge brokering, and the existence and use of knowledge brokers. These included the existence of those within the organisation who collate and disseminate research and create linkages with outside research organisations. The survey of policy personnel contained 160 individual questions\textsuperscript{13}, of which 21 were of direct relevance to my research.

Similarly, across the two phases of the study of Australian social scientists, in addition to questions relating to themes on experience of working with external partners, methods of dissemination, perceived barriers to research transfer to end users, benefits resulting from collaborations with external partners, the challenges of research partnerships, and the use and impact of research produced by respondents, a number of survey items and interview themes directly focused on knowledge mobilisation, and on the need, existence of, and use of knowledge brokers. The survey of Australian social scientists contained 130 individual questions\textsuperscript{14}, of which 19 were of relevance to my research.

The questions asked of both policy officials and Australian social scientists allowed me to answer the research questions identified from the literature review relating to their perceived views on knowledge mobilisation and the nature of knowledge brokering activities specifically. This

\textsuperscript{13} The survey of policy officials contained 37 themed questions, though some of these questions had up to 15 individual survey items. The count of 160 individual questions noted here includes all questions including all the individual survey items.

\textsuperscript{14} The survey of social scientists contained 26 themed questions, though some of these questions had up to 15 individual survey items. The count of 130 individual questions noted here includes all questions including all the individual survey items.
approach would then set the context for scoping the current practices and activities of knowledge brokering in an Australian context.

**Analysis**

All in-depth interviews with policy officials and Australian social scientists were transcribed to provide an accurate record of the discussion. Transcriptions were then reviewed and edited where necessary by the project team member who had conducted the interview to ensure quality and accuracy of the transcription.

The analysis of the qualitative interview data was carried out through the qualitative data analysis software package NVivo. The purpose of this analysis was to determine the current knowledge mobilisation activities and perspectives on knowledge mobilisation amongst which policy officials and academics and extent to which they perceived there to be a need for a knowledge brokering mechanism. The analysis of the interviews allowed some further insights for the typology developed in Chapter Six of this thesis.

Interviews were loaded into NVivo with initial thematic coding carried out by a research assistant coding all the interviews conducted for the project. Existing literature and associated theories of research utilisation, and established barriers and facilitators to research utilisation, were used to develop these initial themes to form a coding framework. Members of the project team also carried out coding on a smaller number of the interviews and results were compared and discussed with the broader project team to ensure consistency of understanding and accuracy of coding. Adjustments were made to the coding framework throughout the coding process and following discussions with project members.

From the initial coding, two themes of ‘knowledge brokering’ and ‘knowledge transfer and translation’ were of direct relevance to this research. The initial thematic coding was also used as a basis for identifying organisations with whom policy makers and academics had partnered, other relevant stakeholders and non-government or non-academic knowledge providers. Other analysis undertaken outside of this initial coding was to search for terms including ‘knowledge broker’, ‘broker’, ‘brokering’, ‘bridge’, ‘knowledge transfer’, ‘knowledge translation’ and various configurations of these terms. Further analysis was carried out on these initial themes, to identify sub-themes relevant to this research, including current knowledge translation and knowledge brokering activities and practices, perceptions of knowledge mobilisation and knowledge brokering,
practical barriers to knowledge mobilisation activities and suggestions for specific knowledge brokering activities.

The analysis of the quantitative survey data was carried out using the social science statistical package, SPSS, and identified the perspectives of policy personnel and Australian social scientists on a number of survey items directly relating to knowledge mobilisation and knowledge brokering.

Multivariate analysis and regression analysis were carried out on the data to better understand the relationship between variables measuring the value in knowledge mobilisation, barriers to undertaking knowledge mobilisation activities and the existence of knowledge brokering roles on research utilisation.

Limitations

The limitations of the sampling and data for this component of the research have been detailed in publications arising from the project (see, for example, Cherney, Head, et al., 2012; Cherney et al., 2015) and are detailed further in Appendix A of this thesis. These limitations are the following:

- In sampling respondents for the surveys, the research team was not able to access lists of relevant personnel to sample. Instead, the project recruitment strategy directed participating agencies to identify relevant personnel who met agreed criteria on position level, and in order to maintain respondent confidentiality the contact officer in each agency maintained control over internal email lists through which targeted staff received access to the electronic survey instrument. The adherence of the agencies to this recruitment strategy varied, constrained by reasonable concerns expressed by participating government departments about providing staff listings to the research team, which they regarded as potentially threatening the anonymity of the survey. Furthermore, there were variations in level of focus and effort by agency contact members to identify in-scope positions. This is a reality of working with government departments with variable levels of commitment to research partnerships (Cherney, 2013). That said, the methods used in the project were approved by the University of Queensland Ethics Committee and by participating agencies. Furthermore, every effort was made by the research team to ensure that only in-scope personnel participated, which included information inserted in the emails sent to staff and in the electronic survey itself about the aims of the project, definitions of relevant terms, and a detailed list of positions that were in-scope.
• The 2084 respondents (across both policy officials and academic surveys) who voluntarily completed the survey cannot be taken to be a representative cross-section of the total public service, nor even of the policy-relevant sections of the public service. There are some variations in total survey responses received across the 21 agencies, which does raise the possibility of bias in the representativeness of responses across different social policy domains. The largest response rates were from Commonwealth departments, while some of the responses from particular state government departments were somewhat low (see Table A in Appendix A). Given that, this research is not attempting to make comparisons across levels of government nor draw conclusions about why organisational variations exist, the analysis includes results from all 21 agencies. The findings from this study are enriched by the diversity of the respondents from multiple policy and programme domains across federal and state government, as well as agencies of different sizes and levels of responsibility, rather than limited to a single organisational context (see also Landry et al, 2003).

• The survey data are based on self-reports of government personnel, which can be subject to social desirability biases as respondents may inflate their responses to certain items such as the value given to research evidence when making policy decisions. The survey was also completed by agencies at slightly different periods of time and it was difficult for the research team to control the influence of internal organisational reforms or broader political events on how participants answered particular questions.

The relevant limitations for my research is that data used was not specifically collected to look at knowledge mobilisation activities and knowledge brokering, but rather to understand research utilisation more broadly. As I did not conduct the majority of the qualitative interviews, it was not possible to direct lines of questioning further into knowledge mobilisation and knowledge brokering. In this respect, more detailed understanding of knowledge mobilisation and knowledge brokering cannot be garnered from the existing data available; instead the data can only be used as an indicator of their perspectives on these elements. So while there is a slippage then between the intent of this broader project research, and the specific intent of my research, the depth and breadth of data available through the broader project still provides critical insights into the views of policy officials and academics pertinent to my research themes.

Moreover, there may be a further level of bias in the sample, given that those invited to participate in the survey were selected on the basis of their participation in ARC Linkage projects in the past (for the academic survey) and the willingness of policy officials to be interviewed on the topic of
evidence-based policy making (self-selection for the survey component). It is possible that participants in the study may have had a predisposition toward wanting to see the gap between research and policy closed, and may therefore have been predisposed to be supportive of knowledge mobilisation strategies such as knowledge brokering.

3.2.2 Development of typology of intermediary organisations in Australia

In developing a typology within a largely under-researched area, particularly within Australia, it was necessary to carry out a large-scale scoping exercise of knowledge brokering activities, processes and organisations. From this exercise, analysis and categorisation of knowledge brokering organisational models was carried out, culminating in the creation of a typology of knowledge brokering organisations.

A system of classification or typology is useful to a field of study in its developmental stages and where some order is required to be able to study the area in more depth, ultimately giving way to empirically based findings and theoretical understandings. They are a useful tool for a descriptive study focusing on the various patterns that exists within a certain area of study. A typological analysis is a sound strategy for descriptive qualitative data analysis where the goal is the development of a set of related but distinct categories within a phenomenon that discriminate across the phenomenon (Ayres & Knafl, 2008). They form a sound basis from which to then select case studies, based on particular characteristics.

As noted by Klotz (2008, p. 56)…

‘Typologies provide a fruitful path between the extremes of unattainable universal generalisation and idiosyncratic contextualisation. One of the advantages of a typology is that it offers an escape from the search for a crucial case or an elusive paired comparison by offering the possibility of comparing one or more cases against an ideal. [Adjectives often attached to concepts] can easily be turned into descriptive or analytical typologies that differentiate forms of a phenomenon. And these typologies can be linked to constitutive or causal claims. One might explore a number of cases to illustrate the full range or concentrate on one cell, depending on the research question.

In this research, the typology frames the descriptive question of ‘What types of knowledge brokering organisational models currently exist between academia and policy making in the social
science in Australia?’ The typology constitutes a suitable framework from which appropriate case study selection is possible.

Comparisons are inherent in the creation of a typology and were necessary for this component of the research. Comparisons are particularly useful in social science as ‘it is possible through comparison and control to acquire relatively objective knowledge about the social world’ (Bechhofer & Paterson, 2000). Furthermore, ‘comparison is unavoidable in social science’ partly because ‘comparison is a fundamental aspect of cognition, and much research procedure codifies and formalises that cognitive process’ (Bechhofer & Paterson, 2000). Comparisons also foster an awareness of a range of variations that would not be apparent from focusing on a single case (Adler, 1997).

The typology aims to create order in an area of research in development where a more nuanced understanding of the role played by the varying intermediary organisations that undertake knowledge brokering activities is needed. Given the varying organisations identified in the literature as undertaking some form of knowledge brokering, such an exercise helps to clearly identify what is meant by an intermediary research body. Cooper (2014) states similar justifications for her study on education RBOs in Canada. From this basis further understanding and evaluation of knowledge brokering activities including what is effective in what context, can occur.

While categorisation of the various forms of knowledge brokering organisations is useful for this purpose, it also acknowledges that knowledge brokering activities can be fluid and ambiguous, and setting them within a particular category may be problematic. That said, it is useful at this stage to be able to draw comparisons across organisations and the typology allows this to be undertaken.

In this research, the typology ‘maps out the terrain’ in terms of organisations that undertake knowledge brokering activities in key social policy sectors that utilise social science research within Australia. There has been a lack of widespread scoping of such organisations in Australia to date. The categorisation of these organisations in this manner in this research forms a foundation for the study of the ‘craft’ of knowledge brokering. It also produces a solid base for scoping the varying types and models of organisational knowledge brokering in Australia. This allows organisations that undertake knowledge brokering activities to identify other similar organisations, paving the way for increased networking, learnings, and possible collaborations.
The process for creating the typology involved the identification of an organising framework for the typology development using existing literature, identification of the important sources of commonality and variation that occur in the data set, further identification of patterns of similarity and difference and then a reconstruction of the various types and model cases (Ayres & Knafl, 2008). The literature offers a basis for the development of a typology of research intermediaries in Australia.

*Search strategy for organisational knowledge brokers*

A search strategy for identifying organisations that may operate as ‘knowledge brokers’ in some capacity such was undertaken, similar to that carried out by Cooper (2014) on RBOs across Canada. The conceptual framework used to study these RBOs in Canada is a useful framework for studying intermediaries in an Australian context. The methods applied in my research builds on the procedure used by Cooper (2014).

Stage 1 involved creating a list of organisations that may undertake knowledge brokering or knowledge transfer within a social policy area in Australia. This process was informed by the literature which has indicated that one of the problems in studying knowledge brokering is that there is a range of organisations which may fall under the label of ‘research broker’ or ‘knowledge broker’. Thus, knowledge brokering could include charitable foundations, different kinds of research centres, government agencies, bridging organisations, individual researchers, think tanks, lobbyists, policy entrepreneurs, libraries, educational and technical institutes, and NGOs.

This listing of possible groupings of organisations was used as a basis for the search criteria. Extensive web searches of such organisations were conducted to obtain lists of possible organisations that fall into these categories and may undertake knowledge brokering activities. The majority of the desk research was undertaken in the period January to March 2014; with searches verified and finalised in December 2015 and January 2016.

Searches of other policy resources such as newsletters and publications from Australian Policy Online (APO) were also carried out. Australian Policy Online (APO) ‘is a research database and alert service providing free access to full text research reports and papers, statistics and other resources essential for public policy development and implementation in Australia and New Zealand’ (APO, n.d.). It was established in 2002 by the Institute for Social Research at Swinburne University, and presents government and government agency publications as well as academic,
NGO and other research. APO is a good resource for identifying sources of evidence policy makers and others relevant stakeholders may use and was a relevant source to identify organisations that provide evidence and research to policy makers. In addition, the literature on knowledge brokering and knowledge mobilisation revealed other organisations not identified as part of this search.

Some specific groupings required more detailed search strategies given the size of the sector. For example, in sourcing possible not-for-profit and charity organisations, a listing was sourced from the Australian Charities and Not-for-profits Commission (ACNC) and cross-checked against searches of individual charities. Only large scale charities which are likely to have research capacity were included, that is, those considered ‘large’ according to the ACNC tier system. Charities considered large are those with annual revenue of $1m or over. Schools, colleges, hospitals, churches and other organisations obviously not in a research-to-policy role were removed from the list. This list was supplemented by searches of other charity lists such as ProBono and Connecting Up. The final list of examples of possible charities involved in a research-to-policy role was created which was a good representation of larger charities and non-for-profit organisations in Australia.

Organisations were assessed against the similar criteria to those used by Cooper (2014):

- Key stakeholders/ target audience – they connected research producers and research users. In this instance research users needed to include policy officials or government.
- Mission statements/strategic goals of organisation – these are stated clearly on the websites of most organisations. Those organisations with a mission statement or objective clearly indicating the organisations’ role in using evidence to bring about policy change were of relevance to this research.
- Undertake a program of knowledge transfer – this may not be explicitly stated, however from the website it will be clear that at least some knowledge transfer activities are undertaken but the knowledge transfer program may vary.

In addition, analysis of interviews with policy officials and academics that were conducted for the wider ARC Linkage project on Research Utilisation revealed other organisations that were not found as part of the web searches. This data also served to validate the organisations that had been found as part of the web searches. Lists were cross-checked through various sources to ensure validity of the sources. The listing of examples of the various types of organisational knowledge brokering is provided in Appendix B.
Extensive consideration was given to using the evaluative tool used in the study by Cooper (2014) as part of my assessment of the knowledge brokering organisations identified in the typology. A number of factors precluded the use of this evaluative tool at this stage. Firstly, there is no definitive listing of organisations within various sectors that operate in a knowledge brokering capacity to draw from in Australia, like the list of educational intermediaries Cooper accessed for her research. Given the cross-disciplinary and holistic review of the existence of such organisations there were too many to be able to identify all organisations, across all sectors and across all jurisdictions. It follows then that there were too many to apply the evaluative tool. In addition, the research described within this thesis is the first of its kind to evaluate the broad landscape of organisations that operate in Australia in a knowledge brokering capacity of some form. This is an important first step on which more detailed investigation could be carried out, but is outside the scope of the research for this thesis.

The use of the evaluative tool at a later stage, and with a more definitive list of knowledge brokering organisations for differing sectors, would be very beneficial to this area of study and provides ‘the picture’ from Australia, and indeed would be a response to the calls from Cooper (2014) for more research using the evaluative tool and framework used in her research.

**Limitations**

The strategy for selection of those to be included in the list was not based on strict probability sampling. Given the difficulty in identifying all organisations who may undertake knowledge brokering activities, the selection served to identify the full spectrum of organisations that may undertake such activity, rather than create a definitive list of all organisations. As a result, the listing provided in Appendix B is indicative rather than definitive. In doing so however, this research can form the basis for further study on the varying types of knowledge brokering organisations and where more purposeful sampling and investigation can occur.

**3.2.3 Case studies**

The final stage of the research was to undertake an analysis of case studies of one type of organisational knowledge brokering – research-focused intermediary organisations. Literature on the use of case studies as a research method highlights the strengths and weaknesses of this approach when employed in particular situations. It is acknowledged that there is a sense that there is a level of fatigue or disillusionment with this method and in particular, the use of single case study approaches within the public policy area of study. However, given the study of organisational
models of knowledge brokering is in its relative infancy, the use of case studies is highly appropriate. Further, the use of case studies in the context of this research, which is set within the context of a wider literature base on knowledge brokering, is justified.

**Why a case study approach?**

Using case studies to conduct a detailed investigation into examples of research-focused intermediary organisations is appropriate for a number of reasons. First and foremost, as continually mentioned in this thesis, the research on knowledge brokering intermediary organisations in Australia is virtually a ‘blank slate’ with little empirical research having been conducted.

More generally, the point of the case study is to take a broad worldview, in keeping with the philosophy that emerged during the 20th century that sought to understand phenomena not as many disconnected parts but rather as interconnected elements. This is particularly useful when looking at influences on knowledge brokering intermediary organisations given the many facets and complexity of this area of study, in particular the highly contextual nature of knowledge brokering models and activities.

A useful definition of a case study is the following:

> ‘A case study is an in-depth exploration from multiple perspectives of the complexity and uniqueness of a particular project, policy, institution, programme or system in a ‘real life’ context. It is research-based, inclusive of different methods and is evidence-led. The primary purpose is to generate in-depth understanding of a specific topic (as in a thesis), program, policy, institution or system to generate knowledge and/ or inform policy development, professional practice and civil or community action’ (Simons, 2009, p. 21).

The core benefit of the case study is that it allows the researcher to draw rich, interconnected information from this singular focus (the case in question) and derive unique insights from the analysis that follows. In considering a range of definitions of a case study, what unites them is a commitment to studying the complexity that is involved in real situations and defining the case study other than by methods (Thomas, 2011, p. 10). A case study typically investigates one case or a small number of cases. The data is collected and analysed about a large number of features of
each case. The case study is highly detailed, garnering a thorough understanding of the organisation in question. By drilling down into the details of the organisation, it allows a three dimensional and multifaceted view of the organisation to be created. Overall it is the study of naturally occurring cases where the aim is not to control variables, where quantification of data is not a priority and where many methods and sources of data are used to look in detail at relationships and processes (Thomas, 2011, p10). Given the complexity of knowledge brokering and in particular organisational models of knowledge brokering, the exploratory nature of the field of study and the highly contextual nature of knowledge brokering, using thick, descriptive case studies is worthwhile. Indeed, the context-dependent knowledge derived from case studies is acknowledged by Flyvbjerg (2006) to be critical in gaining an expert understanding of existing phenomena.

Why a multiple-case study approach?

A multiple-case study approach was chosen for this research as it is considered more compelling and the overall study is therefore regarded as being more robust (Yin, 2003).

The case studies have been carefully chosen using a theoretical replication as they hope to show contrasting results which have been predicted explicitly at the outset of the investigation (Yin, 2003, pp. 46-53). In this instance, various models of knowledge brokering are said to work better than others. In particular, intermediaries outside of government or research are sometimes seen as having strengths that other models do not, for example, neutrality, specialised field and skills and having the advantage of being relatively immune to the influences and incentives of both research users and research producers.

Of interest to the research is how the need for an organisational model of knowledge brokering came about in a specific context and an explanatory case study allows operational links to be traced over time (Yin, 2003). The research is hoping to answer ‘how’ or ‘why’ a knowledge brokering model has worked (or not) and a case study serves to illuminate these reasons. Related to this, the research sought to ask: was there an acknowledged gap or lack of a mechanism for bringing together researchers users and producers that these organisations were then said to fill? Why was this organisational model of knowledge brokering chosen? And how and why did they achieve success with this organisational model of knowledge brokering?

The approach undertaken in this research includes a historical analysis of the work of each of the organisations, which is typical in case study research. Many of the same techniques are used for the
case study research, as in a historical research approach, but other sources of evidence are added, including interviews of the persons involved in the events. The case study’s unique strength is its ability to deal with a full variety of evidence – documents, articles, interviews and observations (Yin, 2003). Extensive documentary analysis of grey literature has been undertaken of the case studies’ annual and financial reports and websites, and other relevant literature. The aim of the case study is to highlight the various influences, success factors and problems that may occur in a particular knowledge brokering model – they provide some helpful insights into the contexts of where knowledge brokering occurs and what can work well in what situation. The literature highlights the importance of context in how a knowledge brokering model may work (see, for example, Greenhalgh et al., 2004) and a case study is ideal to use in this situation as the research is aiming to deliberately explore contextual conditions (Yin, 2003).

Reason for choice of case studies

Thomas (2011) discusses varying reasons why a case may be chosen and this has been reflected in the research. These are:

- be a good example of the analytical frame from which I am viewing knowledge brokering activities;
- demonstrate something interesting in terms of the analysis because of its peculiarity; and
- be an example of an analytical focus that arises by virtue of your personal experience.

The three cases studies chosen for the research are:

- the Australian Housing and Urban Research Institute (AHURI), an independent network research organisation promoting housing and urban development policy based on sound research evidence;
- the Australian Research Alliance for Children and Youth (ARACY), a national collaboration of researchers, policy makers and practitioners concerned with improving the wellbeing of children and youth in Australia; and
- The Sax Institute – a NSW public health research institute aiming to improve the use of research in health policy making.

Full details of the reasons for choosing the particular cases are discussed in Chapter Six but more broadly, the cases chosen are unique examples of research-focused intermediary organisations. Furthermore, none of the three case studies chosen for the research have been viewed previously through a knowledge brokering perspective (although AHURI and ARACY were explored in De
Leeuw et al. (2007)), and indeed a number of the key individuals interviewed as part of the research were not aware of the term and how it could be applied to their organisation. Overall, these particular organisations are examined through the lens of the extent to which they may be considered as a knowledge broker in the context of moving research into public policy, regardless of whether they perceive themselves as a ‘knowledge broker’.

Sources of data for the case study

A range of sources were used for the case studies. These are listed below with full details of how the data was sourced detailed in the subsequent section.

- Extensive desk top review of organisational documents including website content, annual reports and financial reports.
- Interviews with key individuals involved in the organisations – this included staff of the organisation, other stakeholders and policymakers where possible.
- Data collected from policy officials and Australian social scientists as part of the wider ARC linkage project on research utilisation (detailed previously).
- Academic literature on knowledge brokering organisation where particular organisations were mentioned.

Extensive desk top review of organisational documents

An extensive review of documents produced by the case study organisations was carried out to gain an accurate and detailed picture of the organisations from their establishment to the present. These documents included annual reports, financial reports, newsletters, strategic documents and papers produced as well as website content. These were sourced from the organisation’s website or directly from key contacts within the organisation. A detailed timeline of the development of each of the organisations was created, including key activity each year, board members, membership numbers and funding received.

Elite interviews with key individuals

For each case study, interviews were conducted with relevant employees from the organisation as the first point of call. Some of these interviews are considered elite interviews using Harvey’s (2011) definition of elite interviewees as those that occupy senior management and Board level positions, and therefore key decision-making roles within the organisations. In all cases, at least
one interviewee was extensively involved in the establishment of the organisation. This included current or former Board members. This was a deliberate sample selection as they were able to provide a good account of why the need for such an organisation was recognised, what gap the organisation would fill, a description of the original organisational model and why it was felt that this model would be the best approach. Furthermore, in all cases the CEO or the head of the organisation was interviewed.

Typically, a number of challenges are faced in sampling and conducting elite interviews (Aberbach & Rockman, 2002; Berry, 2002; Goldstein, 2002; Harvey, 2011), including securing the interview itself, establishing rapport and eliciting the desired information. To mitigate these challenges, various strategies were undertaken. These include:

- providing detailed information on initial contact on who I am, which institution I am affiliated with including supervisor details, the nature of my research, the expected length of time of the interview, how the data will be used and whether the interviewee wished to remain anonymous or be attributed. In all cases, flexibility in date, location and time was offered.
- use of open-ended questions throughout the interview.
- non-defensive tone and approach more generally, appreciating the role and giving due respect to the position held by the interviewee, whilst ensuring the interviewee felt as comfortable as possible in discussing various elements.
- considerable background research into both the organisation and the interviewee was conducted prior to each interview in order to gain the interviewee’s respect and trust.
- follow-up thank you emails and further contact where possible was made to provide an update on the thesis and when results may be available.

Initial contact with elite interviewees was made directly or brokered through my principal supervisor. Other interviews were conducted with key employees occupying a central role in the knowledge translation and exchange activities of the organisation.

In addition, where possible, interviews were conducted with research users who work with the organisation on a regular basis. They were expected to be able to provide a critical, unbiased and ‘outsider’ perspective of the work the organisation does in ultimately moving research into policy or practice.

The full schedule of interviews for each case study is detailed in Table 3.1 below.
Table 3-1 - Schedule of case study interviews

<table>
<thead>
<tr>
<th>No. of interviews</th>
<th>Case study 1 - AHURI</th>
<th>Case study 2 - ARACY</th>
<th>Case study 3 – Sax Institute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key internal staff</td>
<td>2</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Key external stakeholder - Academic</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Key external stakeholder - Policy</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>

Ensuring that a wide range of stakeholders, policymakers and staff were included in the case studies gave strength to the validity and reliability of the information obtained. Interviewing only staff and key stakeholders with a vested personal and professional stake in the organisation would have given a biased view of the organisation. Interviews were conducted over the period of 2012-2013. The interviews detailed above supplemented the information obtained through analysis of the documents described above, and other secondary sources of information which provided specific details of the organisation. Fundamentally, the interviews were a secondary source of information for the case study as not all elements of the organisation and their strengths, weaknesses, and challenges faced could be garnered from these stakeholders. Further their individual views on the organisation are less of interest than an understanding of the model as a whole.

Ethics approval was given to the research in accordance with the guidelines of the University of Queensland Human Research Ethics Committee. All interviewees were provided with an information sheet outlining details of the research, and a consent form to be signed prior to the interview commencing. All interviews were carried out at the individual’s place of work, or if this was not possible, via telephone. The length of the interviews ranged from 45 minutes up to an hour and a half. All were recorded and transcribed for accurate recall of the discussion held.

Data collected as part of ‘research utilisation’ project

In addition, the case studies draw on data collected from public servants and academics surveyed and interviewed as part of the wider ARC Linkage project examining research utilisation to which this PhD is connected (described in section 3.2.1). As part of the analysis, a search of mentions of each case study organisation was carried out. Responses to the open-ended question as part of the survey of policy officials for the same project were analysed in a similar way. Other interviews with policy officials were searched for spontaneous mentions of each case study organisation, regardless of what sector they were from. The NVivo software package was used to aid in the analysis.

Academic literature on the particular knowledge brokering case study in question.
A number of academic articles had been published on some of the case study organisations, detailing elements of their work. These were also an important source of information from which further details of the organisation were sourced. However, none of these articles took a perspective of the organisation as a knowledge broker. These articles are referenced as necessary throughout the case study component of the thesis.

*Interview schedule*

The literature review and typology development illuminated the various knowledge brokering models that may occur and allowed for a more precise development of the interview schedule, shaped around these models. It allowed the development of more insightful questions about how the model was developed and the various functions of the model.

In conducting the interviews for the case studies, a ‘grounded theory’ approach to the interviewing was adopted to allow for themes to emerge spontaneously. A definition of grounded theory provided by Martin and Turner (1986, p. 141), quoted in Fernández (2004, p. 43) is that grounded theory is an ‘inductive theory discovery methodology that allows the researcher to develop a theoretical account of the general features of the topic while simultaneously grounding the account in empirical observations of data’. It ‘gets through and beyond conjecture and preconception to exactly the underlying processes of what is going on’ (Glaser, 1998, p. 5). Furthermore, ‘in grounded theory everything is integrated; it is an extensive and systematic general methodology (independent of research paradigm) where actions and concepts can be interrelated with other actions and concepts’ (Fernández, 2004, p. 43). This was an appropriate approach to take given the field of study such as knowledge brokering which is emerging and where little theory exists.

Accordingly, a basic interview schedule was developed and amended as the interviews progressed depending on emerging themes or the context of the interviews.

In general, the interview schedule covered the following core themes of:

- History of the organisation, including its establishment and development. In particular it was of interest to understand what the identified need was or issue that the organisation arose from and why the organisational approach in response to this was chosen.
- The evolution of the organisation in terms of its processes, how the organisation is currently operating and how it is currently positioned.
• Outcomes and evaluation – how successful has the organisation been in improving research utilisation? How would you measure its success?

Interview protocols were adapted based on the individual being interviewed. For example, the interviews with key current and more recently employed staff within the organisation covered in detail elements of their particular role, with less emphasis on organisational history and evolution.

Analysis of the case study data

The grounded theory approach was also applied to the analysis. The interviews with key individuals associated with the organisation were analysed as they progressed. Initial thematic coding was carried out on the preliminary interviews and an initial coding framework was developed. This framework was adapted and modified as other themes emerged on analysis of the remaining interviews. Cross-checking and validity of relevant information garnered from the interviews with key stakeholders against the information obtained from other sources was carried out on continual basis. The NVivo software package was used to aid in the analysis.

Based on the emerging themes from an understanding of the case study from the data collected, the structure of the case study analysis adopted the following framework:

• Background information, following the historical development of the organisation:
  o Pre-establishment
  o Establishment/ developmental phase
  o Consolidation phase
  o Diversification
• Policy context, which was important in understanding the impact of the wider policy area in the development of and the activities of the intermediary organisation.
• Governance arrangements, including membership of the Board.
• Reflections on the knowledge brokering role that the organisation holds including key success factors and barriers and challenges faced.
• Knowledge brokering activities undertaken, more specifically, using Ward et al.’s (2009a) framework of the three core activities of knowledge management, linkage and exchange and capacity building.
In analysing the organisational grey literature such as annual and financial reports and website material, a detailed timeline for each organisation was created mapping such elements as the year established, core activities and developments, board members, operating profit and funding sources.

**Limitations**

There are number of limitations of adopting a case study approach.

The inherent problem of the case study approach is one of generalisation. The normative implication of this criticism as it applies to my research is: can the findings from these case studies be generalised to other research-focused intermediary organisations? Flyvbjerg (2006) challenges this criticism of case studies, highlighting that generalisation that can indeed occur from strategically selected case studies, particularly in the social sciences, and further that formal generalisation is ‘overrated as the main source of scientific progress’ (Flyvbjerg, 2006, p. 226), given the range of ways in which knowledge is gained and accumulated. This notion of ‘strategically selected case studies’ underpins the selection of the case studies for this research, that is, which case studies will highlight how organisational knowledge brokering activities are best placed to bridge the gap between research and policy?

Moreover, as a response to the generalisation ‘problem’ of case studies, Simons (2009, p. 164) suggests alternative ways of thinking about ‘generalisation’ when conducting case study research. Of relevance to my research are the cross-case generalisations that can be made through identification of common issues in each of the cases and the interconnecting themes between them. In moving from case to case, it is possible to re-examine the themes emerging in different contexts to see what is constant and what differs between the cases. From this analysis it is then possible to derive general propositions across the cases studies. These propositions are not formal generalisations to a wider population but their meaning is grounded in these particular cases (Simons, 2009, p. 164). Case studies can also provide process generalisations, which highlights the processes that can be transferable even when the cases are different in content and context (Simons, 2009, p. 166). The analysis of the processes and activities across each of the case studies of research-focused intermediary organisations allowed for an understanding of the patterns of activities they undertake, the differing organisational elements they offer, and the context in which they were established.

In addition, these are relatively new and unique organisations, specifically developed to link researchers and policy makers, and only a small number of these organisations exist in Australia.
Therefore, the in-depth understanding of these three organisations delivered through the use of the case study approach makes a significant contribution to the study of knowledge brokering. A case study which looked at a scenario in which a research-focused intermediary organisation had ceased operation, and why, would have provided additional perspective to this research. However, there were no organisations identified as part of the desktop research that had ceased operation and who could have been used as a case study.

Further, there were some instances in which it was not possible to secure interviews with both research-producing and research-using stakeholders of the organisation. As these interviews were to be used as a secondary source of information on the model itself, this is less problematic. Where it was not possible to secure interviews with some key external stakeholders, other sources were used to gain the alternative perspectives on the organisation including the views of policy personnel and social scientists taken from the wider ARC project.

3.3 Summary

In summary, Chapter Three of this thesis presents a description of the research design and methods used to answer the research questions, including details of the data collection methods, sample selection, design of the data collection tools and the approach to data analysis.

The research is comprised of three components, with each being discussed in detail in this chapter. The first component draws on four sets: survey data from policy officials across a selection of Australian public service agency; in-depth interviews with policy officials from similar agencies; survey data from Australian social scientists; and in-depth interviews with Australian social scientists. The data from this component of the research is used to investigate the current experiences and attitudes of policy officials and academics in respect to knowledge mobilisation and knowledge brokering. Using a mixed method approach to understanding these perspectives is most appropriate given the complexity of the topic, the exploratory nature of the research and the existence of various limitations associated with the research. Such an approach addresses most of the significant concerns about validity and reliability in the data collected.

The second component explores the types of knowledge brokering entities that exist in Australia to create a typology of knowledge brokering organisations. Such a large-scale exploration that maps the types and forms of knowledge brokering entities that operate at the research policy interface in Australia is useful as a foundational exercise exploring knowledge brokering activities, roles and their ultimate potential in moving research into the policy making process.
From this mapping exercise, it was possible to select organisations to investigate further in the third research component, comprising a multiple case study of one type of knowledge brokering entity - research-focused intermediary organisations. The three case studies chosen for this component serve to highlight the potential of organisational forms of knowledge brokering and the dynamics of their role and activities.

The chapter has also addressed various limitations of the research. For the survey and interviews these limitations included some of the methodological challenges which impacted on response rates and sample representativeness, as well as those related specifically to investigating my specific questions on knowledge mobilisation and knowledge brokering using data from a project that had a broader focus. The limitations of typology develop flowed from the difficulties in identifying and sampling all possible organisations that operate at the research-policy interface. Finally the limitations of the case studies included the problem of generalisation. Various analytical approaches and the use of multiple data sources served to alleviate many of the limitations of the research to provide greater credibility of the research outcomes.

Part B and C and Chapters Four to Eight of this thesis now present the results of each component of the research described above.
“Medicine, as a social science, as the science of human beings, has the obligation to point out problems and to attempt their theoretical solution: the politician, the practical anthropologist, must find the means for their actual solution.”

Part B – Assessing the knowledge brokering ‘landscape’ in Australia

As a precursor to understanding various models of knowledge brokering, there is a need to understand the demand or perceived need for such a mechanism amongst research producers and research users within an Australian context.

The literature has extensively discussed the problem of the underutilisation of research in policy making and practice. More commonly this is framed under the ‘Two Communities’ theory of underutilisation which highlights the differences in culture that are said to exist between research users and research producers as the main barrier to research utilisation. Despite criticisms of the ‘Two Communities’ theory to explain research underutilisation (see Newman, 2014), the potential of knowledge brokering as a means of overcoming these barriers continues to achieve considerable prominence in the literature (see Chapter One and Two of this thesis).

The perspectives of research users and research producers on knowledge mobilisation and the potential of a knowledge brokering mechanism in bridging this divide and improving research utilisation, has been little explored. Given these two groups are core to the ‘problem’ of underutilisation, their perspectives on attitudes to knowledge mobilisation and the desire for some mechanism to overcome these barriers is worthy of more detailed exploration. Indeed, is there any point in creating knowledge brokering roles or organisations if the demand for such a role does not exist within the potential beneficiaries? There is only a modest amount of empirical investigation into the perspectives of these groups in the Australian context, and specifically research that focuses on knowledge mobilisation; and research that has been conducted with the knowledge brokers or intermediaries themselves. The majority of the empirical research conducted with research users or research producers on research utilisation has not specifically focused on activities, attitudes and perspectives of knowledge mobilisation and knowledge brokering.

Chapter Four and Chapter Five of this thesis addresses this gap, investigating the current knowledge mobilisation activities of Australian policy official and social scientists, their views and desires with

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15 Rudolph Virchow (1848) – Quoted in an essay by Karen Hitchcock for The Monthly, September 2015 (Hitchcock, 2015). Rudolph Virchow is considered one of the 19th century’s foremost leaders in medicine and pathology. He was also a public health activist, social reformer, politician and anthropologist. In particular he was an advocate for the link between health and an individual’s economic and social conditions, and the role of social science, and indeed politics, in medicine (McNeely, 2002; Schultz, 2008).
respect to knowledge mobilisation, and the need for a knowledge brokering mechanism to overcome the various barriers to research utilisation cited in the literature. In doing so, these chapters will provide important contextual information for the further investigation of knowledge brokering within Australia. To note, what has been extensively investigated in the literature are the facilitators, barriers and challenges to research utilisation amongst research users and producers (see for example Cherney et al., 2015; Cherney, Povey, et al., 2012; Hemsley-Brown, 2004; Lamari et al., 2013; Landry et al., 2003). This chapter concentrates on knowledge mobilisation and the mechanism of knowledge brokering as one knowledge mobilisation strategy.

The data for this analysis is drawn from the ARC linkage project ‘The Utilisation of Social Science Research in Policy Development and Program Review’. Details of the data collection method used and sample descriptives from this study are provided in Chapter 3 – Research Design and Methods.

The qualitative and quantitative results for each community – policy officials and academics - were combined for each group. This enabled me to look at each community as a whole to provide a complete picture of each group’s perspective. In this way, the qualitative data enhances or compliments the data from the survey and adds to the richness and the validity of the results.

Following these two chapters, and informed by the information garnered through analysis of the views of policy officials and social scientists, Chapter Six provides an overview of the various organisations that undertake knowledge brokering activities as part of their work, organised into a typology of knowledge brokering organisations.
Chapter Four - Perspectives on knowledge mobilisation and knowledge brokering mechanisms amongst Australian policy officials

The findings from the survey of policy officials reported in this chapter relate to current knowledge mobilisation activities, including the existence of staff with a knowledge brokering role, the perceived value that a knowledge brokering role may bring (including the impact of staff with knowledge brokering expertise on research utilisation and research culture, shown to be a predictor of research utilisation), and suggestions for specific models of knowledge brokering. The collation and dissemination of research (or knowledge management) and performing linkage and exchange activities are two of the core roles of a knowledge broker identified in the literature (Ward et al., 2009a). The importance of these questions was to allow analysis of whether the existence of such roles had any impact on research use or research culture within the department. Some analysis of the differences between federal and state agencies, and central and line agencies is also shown. The findings from the semi-structured interviews with policy officials mirror these themes and provide further explanation on why certain trends may exist. These survey results and supporting themes from the semi-structured interviews with policy officials are covered in the following sections.

4.1 Current knowledge mobilisation and knowledge brokering activities

4.1.1 Types of specific knowledge mobilisation and knowledge brokering activities undertaken

The semi-structured interviews amongst policy officials provided some insights into the types of knowledge mobilisation or knowledge brokering activities they undertake, whether it is a formal or informal part of their role. These broadly cover the three core activities of knowledge brokering – knowledge management, linkage and exchange and capacity building.

Knowledge management activities mentioned include active dissemination of research such as research reports, summaries of research reports in the form of research newsletters or bulletins/memos/briefings (sent to policy individuals within the department or for Ministers particularly), ‘horizon scanning’ documents, organising regular research seminars where experts come to discuss the latest findings of a particular policy area within the department (either academic or departmental speakers) and other internal presentations by research staff. Other work involves the synthesis of research to produce such outputs as literature reviews. Subscription to various newsletters such as the APO was also mentioned.
They'll have a variety of academics. It's usually half a day or a full day, and they'll present their paper, they'll present the research, and then they'll open it up for questions...I really found it to be quite effective from a policy point of view.

(State, Line agency)

I keep my eyes open on research databases and other useful publications. When I find stuff that I find really interesting it's not too great and long-winded or long that I think the college and the schools might find interesting or sometimes amusing or pertinent, I'll flick that stuff out too.

(State, Line agency)

As part of this knowledge management work, policy officials would refer to relevant websites and newsletters or following reports and other outputs by academics who have a reputation in their policy field.

....when he puts something out we all look at it, because he’s well known, he does a lot of work in this space, some of his pieces of research have actually been directly useful to us...There's probably a handful of names that we all tend to keep an eye on and see what's been put out, and then circulate.

(Commonwealth, Line agency)

A wide range of activities relating to linkage and exchange/ relationship building with external partners was mentioned across the interviews. Such activities included both formal and informal forums. Formal forums which helped facilitate networking and relationship building opportunities included attendance at conferences, public lectures, and government organised forums, meetings, committees, seminars and workshops. In other cases, it involved managing and developing relationships with funding bodies such as the ARC or with stakeholders, for example, a CRC.

[Public lectures (after work hours) seem to be increasing in popularity within our division/team. I believe these are excellent forums for universities to connect with policy officers. They generally cram into a 60 minute talk what would take a policy officer hours to get their heads around on their own.

(Open-ended response from public servant survey)
So we have a social policy research seminar held about every year, where we invite researchers to come and talk to us. That’s where we try to link, I guess, our policy staff and our program staff and make them aware of what research is being undertaken that might be of interest to them.

(Commonwealth, Line agency)

Informal methods of knowledge mobilisation included building on personal acquaintances and well established personal networks within the sector, direct phone calls via previous personal connections or reputation, lunches, meetings, networking or dialogue facilitated through formal conferences and other forums. Opportunities to develop personal relationships with academia depended on the role that policy officials had.

A lot of what goes on is presumably much more informal and based on personal connections and events of various sorts.

(State, Line agency)

It’s probably people that you know. If I’m thinking about something, I’m more likely to pick up the phone and ring someone and go oh, I don’t even know how to start this conversation, but what about X. So I’m probably likely to be more influenced by that sort of thing.

(State, Line agency)

We’d talk about things. We’d talk about things we didn’t know. We’d have people from the department come to lunch. I’d go and talk to ministers. I’d talk to bureaucrats. I’d go to conferences and over a cup of coffee stuff would come up.

(Commonwealth, Central agency)

If you go into each area of the department there would be quite deep and personal connections. So my early childhood policy people would have personal connections to Australia's best researchers.

(Commonwealth, Line agency)

I do have a pretty strong network of academic colleagues that I interact with on a more informal basis.

(State, Line agency)
Related to these observations, and mentioned frequently, was the importance of building up relationships with academics over a long period of time, with long-term sustained interaction being seen as critical to the work of policy officers, and particularly research officers, in the use of research in policy making.

Finally, in terms of capacity building, policy officials noted that research training courses were sometimes held internally, or in rare cases they were given funding to attend research conferences or research training. Other approaches included asking staff to summarise key papers or finding research on specific areas thereby engaging staff in the research and policy area and building research capacity.

[A] large part I suppose of what I try and do with my capacity building approaches, like the working parties conducting literature reviews into topics of strategic significance to the department. Because basically what I do there is to get everyone to agree on a research question and then I get our library to do a literature search in relation to that question. Then I get people to select papers that they would like to read and summarise and that's something that gets us engaged in the actual research and I think it's something that's really important and very, very helpful.

(State, Line agency)

4.1.2 Existence of ‘knowledge brokering’ roles in the public service

4.1.2.1 Individual roles

The survey posed four questions to policy officials relating to the existence of knowledge brokering roles within their departments and the regularity of contact with individuals in this role. Table 4.1 provides a summary of the responses to the question of whether there were people in their department, agency or unit whose role was to collate and disseminate research findings among staff; and whether there were people in their department whose role was to link staff to researchers outside the public service, the regularity of use of these personnel and which departments had more of an emphasis on these types of roles.

It is important to note that these are only proxy measures of the existence of a knowledge broker. Given the ambiguity of the term and the activities that are involved in knowledge brokering it would be difficult to ask directly to public servants ‘Do you have a knowledge broker who works in
your department?’ as it is likely that they would not understand what this role would entail, or it would be unlikely that there would be a person dedicated to this role. Furthermore, the dissemination role of knowledge brokers is only one component of their role (see Ward et al 2009) so the result for this question does not fully encompass the entirety of a knowledge brokering role. That said, it could be said it is the core role of the knowledge broker, particularly in this instance, and someone who policy personnel would go to for research information internally.

The survey results showed that just under half (49%) of all policy officials identified that their agency had staff with a dedicated knowledge management role. The existence of linkage staff was even less prevalent (27%). A notable proportion of respondents were not aware whether such roles existed, particularly linkage staff (43% ‘Don’t know’ for linkage staff; 24% ‘Don’t know’ for knowledge management staff”). Where these staff existed, usage of them was irregular (73% and 77% indicating they used such knowledge management and linkage staff respectively ‘From time to time’ or ‘A few times during the year’).

The results show that staff with a knowledge management role are more prevalent in line agencies as opposed to central agencies (52% versus 41% respectively). Similarly, for linkage staff, these roles were more prevalent in line agencies as opposed to central agencies (30% versus 21% respectively). This suggests that those in the business of providing front-line services to the general public rely more on the use of evidence to make complex decisions in the delivery of on-the-ground public services. This could also suggest that line agencies have more of a role of bringing in research in certain policy areas and feeding this research up to central agencies. Central agencies are more likely to refer to line agencies for specific research or would outsource the evidence requirements. There were no significant differences when comparing federal and state agencies’ procurement of linkage roles, but there was when looking at the existence of knowledge management roles (federal 54% versus state 45%).

Table 4-1 - Existence of staff with knowledge management or linkage role

<table>
<thead>
<tr>
<th></th>
<th>Total n=2084</th>
<th>Commonwealth n=765</th>
<th>State n=1320</th>
<th>Central n=657</th>
<th>Line n=1427</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge management staff</td>
<td>49%</td>
<td>54%*</td>
<td>45%</td>
<td>41%</td>
<td>52%*</td>
</tr>
<tr>
<td>Regular use16</td>
<td>27%</td>
<td>24%</td>
<td>28%</td>
<td>16%</td>
<td>30%</td>
</tr>
<tr>
<td>Linkage staff</td>
<td>27%</td>
<td>29%</td>
<td>26%</td>
<td>21%</td>
<td>30%*</td>
</tr>
<tr>
<td>Regular use3</td>
<td>23%</td>
<td>20%</td>
<td>26%</td>
<td>20%</td>
<td>24%</td>
</tr>
</tbody>
</table>

16 Combined responses to ‘Most months’, ‘Most weeks’, ‘Multiple times a week’, taken as a proportion of those who said there is a person in their agency responsible for collating and disseminating research findings amongst staff/ linking staff to researchers outside the public service.
The interviews with policy personnel revealed that some clearly identify themselves as having a knowledge brokering role. While this is not defined as part of their job description, their role and position in the department places them in a position between academics and other policy makers in a bridge building role. Their activities vary but, to more or less an extent, they carry out the activities identified by Ward et al. (2009a) - knowledge management, linkage and exchange, and capacity building. As such, as part of the analysis, a system of classification was imposed on the interviews conducted, classifying interviews in one or a combination of roles such as information provider, knowledge broker, advisor and policy maker. Those identified as a ‘knowledge broker’ were based on their self-identification and perception of being in such a role, or that they were in a position where they had access to academic knowledge and to policy procedures, along with being involved in activities that included knowledge transfer. From an analysis of the interview, 29 of the 126 interviews conducted self-identified themselves as a knowledge broker of type.

When reviewing the job titles of those individuals classified as knowledge brokers, none of these positions were formal ‘knowledge broker’ positions. They were typically researchers (managers, directors) within government research units as opposed to policy officers. In this way, while the existence of formal knowledge brokering roles is seemingly less prevalent, researchers within government take on this informal and undefined role to a great extent and could be considered one and the same. The literature acknowledges this dual role, stating that it is rare that knowledge brokering roles, whether individual or organisational, have a clearly defined title of ‘knowledge broker’ (Lightowler & Knight, 2013), but they have an informal (and equally important role) in the diffusion of research within their department. Individuals in this type of role have had at least some postgraduate academic experience, with most having completed a PhD. Furthermore, they were typically located in line agencies, or in the central agencies of the Productivity Commission or the Australian Bureau of Statistics (ABS), which have a more obvious knowledge management function compared with other central agencies. This suggests these agencies have a more ‘research friendly’ culture.

* $p < 0.05$ (Pearson chi-squared test of independence)

17 Examples include Section Manager, Research Strategies and Publications, Strategic Policy and Research Branch; Director – Strategic Research; Manager – Research and Development; Manager – Evidence and Modelling Unit, Principal Advisor – Research.

18 Although the Productivity Commission and the ABS are central agencies, they have a core function in providing information and advice to other central agencies.
I mean I get regular calls from areas across the department wanting help with finding evidence or information on particular topics and issues. As I said, to which I'm acting as knowledge broker in a way. That's in response to queries that I might get. At the same time, I look to share across the branch, the group and other people across the network that I know of things they come across, I think might be interesting - of interest to them....As I said, to which I'm looking to broker that knowledge in that way.

(Commonwealth, Line Agency)

Well my current role is that I support the research strategies across [department] and part of that is providing secretariat for our research and evaluation committee, which it has a governance role and the research and evaluation committee's objectives are to support the department to develop and implement excellent social policies and to support the government to actually influence public debate and to build capacity in the research community and across [department] as well.

(Commonwealth, Line Agency)

I see myself now primarily still as a researcher, and having to champion research within a large department, which is not easy.

(State, Line Agency)

In our group, we have four or five people who we would call researchers and [have a title of] research in my division. We've got policy analysts and so forth. The researchers wouldn't do research like you - like an academic. It's just not that. What they do is - if you like - the brokering with ARC, any cooperative research things that we want to be in, literature searches, gathering of researchers to help us inform a discussion, so it's a different nature.

(State, Line Agency)

From this perspective, it could be said that knowledge brokering roles, in whatever form they take, seemingly only exist within an organisation already positively predisposed to using research. That said, the activities of the knowledge broker serve to enhance this positive research culture. Either way, organisational support for the use of evidence in policy is critical. Knowledge brokering roles are then both a symptom of this culture as well as a means of strengthening this culture in the long term.
In some cases, linkage and exchange activities were carried out in more data intensive policy areas such as health. In health, where there may be a health statistics unit or something similar, research officers and some policy officers act as knowledge brokers between the analytical division and the policy unit. In this way, a policy official, taking on knowledge brokering activities, is able to foster interdepartmental relationships through steering groups and interdepartmental committees and other mechanisms.

### 4.1.2.2 Organisational

The interviews with policy officials highlighted various organisational models of knowledge brokering that exist within government. These included small organisational units that have a specific knowledge management role as well as entire agencies that have a key function in linking research and policy decision making.

Firstly, clearinghouses and the role they play in the dissemination of research and evidence were mentioned by a number of interviewees.

> An innovative model has been the number of [department]-funded clearing houses that we now have, which do actually, with their summaries of policies, they actually do actually identify from synthesising a range of research, they actually identify what policy implications are and what the policy issues might be. That's certainly been very useful to influence program development across the departments and across other Australian Government agencies.

> [The clearinghouse] role is to collect, catalogue, analyse, synthesise and disseminate valid and reliable information, which can help people accessing that to make evidence-based decisions. So a clearinghouse will typically provide [the department] with high quality policy relevant analysis and synthesis of research and stimulate informed debate and disseminate high quality, accessible, timely and audience-appropriate information throughout the sector. So users may include researchers, policy makers, program project staff, politicians and their advisors, service providers, practitioners and field workers, clients and service users.

(Commonwealth, Line Agency)
The existence of librarians or a departmental library was also mentioned by some interviewees. However, in nearly all cases, although it was seen to be positive mechanism, it was the first thing to be removed in the face of budgetary constraints.

"There is another side for wanting a library...it's like an academic having bookcases. You have those, it shows that you are serious about your information, evidence, research and so on. From quite a different angle and in fact practically the most important one, libraries provide a way of getting hold of source material we can't easily otherwise get and they can be very effective and are very effective in doing searches and so on for us."

(Commonwealth, Line agency)

"But the library itself has been a victim of the most recent cuts, and is now back to basically - you want it, here's the list, find it yourself. They can't do that anymore. So all of that's now been lost."

(State, Line agency)

"Also I mentioned there's a librarian we have on staff who both receives the paper journals on every kind of area you can possibly imagine, and they have a very strong filtering role and also a dissemination role."

(State, Line agency)

Other specific knowledge management resources were mentioned, for example, the Clinician’s Knowledge Network, Queensland Health’s clinical and research information service for clinicians. However, for resources such as this to be used effectively by policy staff, further distilling of the information is required for use in policy decisions.

Specific organisational research units were also mentioned, such as data intensive performance monitoring units within government.

"I think you would perhaps reflect the units like those research evaluation, even performance monitoring and reporting units within government, often become the bridge between the policy makers and the ministers and the researchers and the non-government organisations and all that kind of thing."

(Commonwealth, Central Agency)
The model of research services within government at the time of the interviews varied. Some interviewees spoke about the presence of a central research evaluation unit for the department they were in. There were suggestions that previously, this model had focused on distinct research and evaluation teams throughout the department that were program driven as opposed to departmental driven.

Policy officials also identified entire departments or agencies as having a knowledge brokering role. This primarily related to two specific central agencies – the Productivity Commission and the ABS.

The Productivity Commission is the government’s primary advisory body and, in this capacity, has a knowledge brokering and bridging type of role\(^\text{19}\). Indeed as stated by one policy official:

\[\ldots\text{some of the other agencies, like the Productivity Commission who have stronger links into academia, act as a bit of a bridge. We work with the Productivity Commission and they get academics involved, for instance.}\]

\[\text{(Commonwealth, Central Agency)}\]

Similarly, the ABS has a role in knowledge mobilisation and dissemination that is valued amongst policy officers. One policy official working in the ABS noted the knowledge management and relationship building role of the ABS in a description such as this below.

\[\text{So the other role we played was to access other research on behalf of the department and for that we had to maintain enough expertise in the areas that we were tapping into, so historical or mathematical, social sciences, human performance. We needed to maintain enough expertise to get the research questions right, to understand the quality of the information we were getting back and how it could be exploited. So effectively we became the agent for the policy makers.}\]

\[\text{So the other end of relationships was to make those relationships so that we were seen as a trusted source of advice from a range of organisations. If a university paper was to lob on my colleague’s desks, it’s typically [farmed] to me and going, what can we do with this? We put ourselves into that position of being their broker into the research organisations. So this looks fantastic. Yes it does but they haven’t done this,}\]

\[^{19}\text{Further details of the Productivity Commission and the ABS are provided in section 6.1.2.}\]
they haven’t done that. It’s in this context. It has to be translated to this. This aspect’s great. This aspect, be cautious about. We were in that trusted position. So that’s what in-house research organisations I think should aspire to. To be the central [node] in a network of researchers. Not doing all the research but they have to have the skills to be able to build the partnerships with the university or other research institutions.

The broader capacity building role of the ABS was also noted by an ABS employee.

In a sense they're trying to help the department to be more statistically literate. I think literate in several senses; one is knowing the sources of the information, because we publish so much that it's probably fair to say that not everyone is aware of what we publish. So when they're looking for statistical information, the statistical officer will say well we already collected it in the ABS, there's no need to collect it yourself and just go here and you'll get it.

Finally, other more formal arrangements included dedicated divisions within government. For example, there was mention of the The Bastow Institute of Educational Leadership, a specific branch within the Early Childhood and School Education Group at the Victorian Department of Education and Training dedicated to improving the quality of school leadership and management in Victorian schools. It has developed innovative ways of brokering research between practitioners and academics, such as providing research summaries, online blogs, Podcasts and monthly newsletters. There is an emphasis on the language of any dissemination activity to be written in an engaging manner, neither academic nor bureaucratic, but something that educational practitioners can engage with and find interesting. While the focus of the Bastow Institute is more on practitioners than policy officials, it still offers significant instruction and value as one example of a knowledge brokering organisation with varying knowledge brokering and knowledge mobilisation activities.

4.2 The need for knowledge brokering activities

A number of survey items directly related to the perceived challenges that policy officials face in knowledge mobilisation and where gaps existed for the type of skills that knowledge brokers or those involved in knowledge brokering activities may possess (see Chapter Two). These challenges related to an individual’s capacity to take on and translate research, organisational factors as well as perceived constraints of academics.
4.2.1 Individual constraints to knowledge mobilisation

The survey of policy officials highlighted a number of constraints that individuals experience relating to the relationship building component of knowledge mobilisation, the lack of research ‘savvy’ skills and the time that staff may have to dedicate to relevant research studies. Analysis of the results reveals core gaps that a knowledge brokering role or mechanism may fill. These are summarised in Table 4.2 below.

Just over half (56%) of policy officials agreed that there was insufficient time to read relevant research studies. Those in departments with linkage staff were less likely to agree with this statement (50%). Only small proportions of respondents agreed that they lack the expertise in how to apply the results of research studies (11%) or that they did not have the necessary skills to interpret statistical analysis results (16%), suggesting that the existing level of skills in actually using and interpreting research results is high amongst policy officials.

Table 4-2 - Agreement with statements regarding skills of policy officials

<table>
<thead>
<tr>
<th>Statement (Strongly agree/Agree)²⁰</th>
<th>Total n=2084</th>
<th>Commonwealth n=765</th>
<th>State n=1320</th>
<th>Central n=657</th>
<th>Line n=1427</th>
<th>KM Staff n=1012</th>
<th>Linkage Staff n=558</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is not enough time in the day or week to read relevant research studies</td>
<td>56%</td>
<td>53%</td>
<td>57%</td>
<td>54%</td>
<td>56%</td>
<td>53%</td>
<td>50%*</td>
</tr>
<tr>
<td>I lack expertise in how to apply the results of research studies</td>
<td>11%</td>
<td>9%</td>
<td>13%</td>
<td>7%</td>
<td>14%*</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td>I do not have the necessary skills to interpret results from statistical analysis</td>
<td>16%</td>
<td>15%</td>
<td>17%</td>
<td>10%</td>
<td>18%*</td>
<td>16%</td>
<td>16%</td>
</tr>
</tbody>
</table>

* p < 0.05 (Pearson chi-squared test of independence)

The qualitative interviews reveal similar frustrations in terms of time constraints both in reading and ‘digesting’ research and then translating this into policy discussions and deliberations to produce well-informed policy outcomes.

²⁰ The response categories for these questions were presented on a five point likert scale, as follows - 1 = Strongly agree, 2 = Agree, 3 = Neutral, 4 = Disagree, 5 = Strongly disagree. Respondents also had a ‘Does not apply’ option. The results shown are the combined of 1- Strongly agree and 2 – Agree.
We put out series in the past to try to put [research] into discrete bites which senior people might be able to digest. I always find it interesting that senior people always say, oh, we love research and we want research, but very few people actually take the time to read research.

(State, Line agency)

I think that's what everyone grapples with at the moment is the amount of information and research, and people are time poor.

(Commonwealth, Line agency)

So the digestion or translation of research into policy is often a constrained step because of partly just your own time more than anything else, no matter how good the research is.

(State, Line agency)

Many public servants don't have the time or expertise to digest academic publications.

(Open-ended response from public servant survey)

### 4.2.2 Organisational constraints

The survey of policy officials highlighted the organisational constraints that limit knowledge mobilisation activities. These four measures are discussed further below (see section 4.3.2) as indicators of a department’s research culture and are 1) the use of research is a low priority of my unit; 2) staff are not encouraged to use research evidence; 3) there is little opportunity to build relationships with researchers outside the public service; and 4) my department has no formal processes to translate academic research into policy.

When looking at these survey items overall and by federal versus state, and central versus line agencies, the results follow a similar pattern to the previous results shown in this chapter. These are shown in Table 4.3.

Just over half (52%) of the respondents agreed that there was little opportunity to build relationships with researchers outsider the public service. Policy officials in state agencies were more likely to agree with this statement compared with those in federal agencies (56% versus 47% respectively). Interestingly, levels of agreement with this statement were lower for those policy officials who had
knowledge management staff (46%) and linkage staff (33%) in their department, suggesting these roles are an important mechanism for building relationships.

Another key finding from the survey of policy personnel which has been reported elsewhere (Head et al., 2014) is that a significant proportion of policy personnel (36%) agreed that their agency lacked processes for ‘translating’ external research for agency needs. A comparison of federal versus state and central agencies versus line agencies reveals that state agencies are more likely to indicate that their department does not have formal processes to translate academic research (39% versus 30% for federal) with no notable difference when comparing central versus line agencies.

Smaller proportions were in agreement that: ‘the use of research is a low priority of my unit’ (19%) or that ‘staff are not encouraged to use research evidence’ (15%), suggesting that interest in research is high but the act of integrating it into everyday working practice is difficult to achieve. Policy personnel in line agencies (17%) were more likely to agree with the latter statement compared to those in line agencies (10%).

Table 4-3 - Level of agreement with research culture indicators

<table>
<thead>
<tr>
<th>Statement (Strongly agree/ Agree)</th>
<th>Total n=2084</th>
<th>Commonwealth n=765</th>
<th>State n=1320</th>
<th>Central n=657</th>
<th>Line n=1427</th>
<th>KM Staff n=1012</th>
<th>Linkage Staff n=558</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is little opportunity to build relationships with researchers outside the public service</td>
<td>52%</td>
<td>47%</td>
<td>56%*</td>
<td>51%</td>
<td>53%</td>
<td>46%</td>
<td>33%</td>
</tr>
<tr>
<td>My department has no formal processes to translate academic research into policy</td>
<td>36%</td>
<td>30%</td>
<td>39%*</td>
<td>37%</td>
<td>35%</td>
<td>27%</td>
<td>22%</td>
</tr>
<tr>
<td>The use of research is a low priority of my unit</td>
<td>19%</td>
<td>21%</td>
<td>18%</td>
<td>22%</td>
<td>18%</td>
<td>14%</td>
<td>11%</td>
</tr>
<tr>
<td>Staff are not encouraged to use research evidence</td>
<td>15%</td>
<td>13%</td>
<td>15%</td>
<td>10%</td>
<td>17%*</td>
<td>12%</td>
<td>8%</td>
</tr>
</tbody>
</table>

*p < 0.05  (Pearson chi-squared test of independence)

Other challenges faced in implementing knowledge mobilisation activities were noted in the qualitative interviews. For example, the challenges of information overload or not knowing that current findings exist was noted in the interviews. Furthermore, the skills required to condense, evaluate, synthesise and critique large amounts of information were perceived to be lacking.

21 See the response categories for survey items displayed in Table 4.2.
amongst policy officials. This observation further supports the need for a role such as a knowledge broker or staff with a dedicated knowledge brokering function to address this skills gap.

...But there's this notion, too, to a certain extent, we're all drowning in this information...

(State, Line agency)

I think the thirty-something, twenty-something generation, which are now increasingly being brought up within this worldwide web environment, and this huge amount of information, I think this ability to synthesise and to critique, I don't think it's there.

(State, Line agency)

Others mentioned a lack of a joined-up approach across departments which act as a hindrance to research getting to the right policy decision makers that are involved in a particular policy issue.

We don't promote research very well in government. Even like, just a piece of work like I was talking about before where you get a piece of research done on testing a pilot idea. It doesn't get distributed throughout the departments so other people can go okay, so how does this actual value add to what we're doing?

(State, Line agency)

Finally, fiscal constraints were also mentioned. Although it would appear that many of these knowledge mobilisation and transfer activities were valued, they were typically the first things to be cut from departmental budgets.

Well, as soon as the training budget fell away - which is what really happened - engaging ideas was cut, so I could preserve the ability of staff to go to the conferences and meet with other people interstate. Then the travel budget was cut, so we could only send someone if, like [name], they were so well recognised nationally that they were an invited speaker. Then in the end, the whole training budget just vanished and I couldn't even cover that.

(State, Line Agency)

I think it's a really important thing that we're aware of what's going on out there so that we can be aware of the latest research that's there so that we're constantly
reflecting. We do get things sent to us from our research area, which is useful and I really welcome that. But we don't have anyone within our team to [help staff access and use research], which would be good, but we don't.

(State, Line Agency)

When I've worked in the indigenous area we actually had capacity within our admin function that they would actually go out and scan those sort of sites and pick it off and distribute it around to the team so that was already good, and this unit now has started a horizon scanning function so we've got a team that does horizon scanning and they look at some of those sort of website things...The trouble is those sort of functions are really good and really, really useful but when you're put under the pinch those are the first to go.

(State, Line Agency)

4.2.3 Constraints associated with academia

Alternatively, some of the challenges that policy officials face in terms of carrying out knowledge mobilisation activities relate to the work of the academics themselves. These are shown in Table 4.4 below.

Just under half of all policy officials surveyed showed a level of agreement with three statements relating to the ability of academic researchers to communicate research findings.

More specifically, 44% of policy officials believe that academic researchers lack expertise in how to communicate their research to policy makers or practitioners, or believe they do not make enough effort to initiate contact with policy makers; while a slightly higher proportion (47%) believe that academic researchers do not make enough effort to disseminate their research to policy makers or practitioners. Policy officials in state departments were more likely to agree with this latter statement compared to their counterparts in federal department (51% versus 40% respectively). Similarly, policy officials in state departments were more likely to agree that academic researchers do not make enough effort to initiate contact with policy makers compared with those in federal departments (49% versus 36% respectively). This is an interesting finding given that state policy officials were more likely to have linkages with academics than commonwealth policy officials, indicating that the model of linkage is more likely to be ‘user-pull’ as opposed to ‘producer-push’. Based on the findings, policy officials are proactive in both establishing linkages with academics as
they see the value in academic research to improving policy making, and are also proactive in looking for academic research via a range of means.

Table 4-4 - Agreement with various statements relating to academic researchers

<table>
<thead>
<tr>
<th>Statement (Strongly agree/ Agree)</th>
<th>Total n=2084</th>
<th>Commonwealth n=765</th>
<th>State n=1320</th>
<th>Central n=657</th>
<th>Line n=1427</th>
<th>KM Staff n=1012</th>
<th>Linkage Staff n=558</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack expertise in how to communicate their research to policy makers or practitioners</td>
<td>44%</td>
<td>42%</td>
<td>45%</td>
<td>45%</td>
<td>43%</td>
<td>45%</td>
<td>45%</td>
</tr>
<tr>
<td>Don’t make enough effort to initiate contact with policy makers</td>
<td>44%</td>
<td>36%</td>
<td>49%*</td>
<td>43%</td>
<td>45%</td>
<td>43%</td>
<td>42%</td>
</tr>
<tr>
<td>Don’t make enough effort to disseminate their research to policy makers or practitioners</td>
<td>47%</td>
<td>40%</td>
<td>51%*</td>
<td>47%</td>
<td>47%</td>
<td>47%</td>
<td>46%</td>
</tr>
</tbody>
</table>

* p < 0.05 (Pearson chi-squared test of independence)

In the context of the survey results shown above, some of the qualitative comments highlight the importance of an academic being able to communicate complex issues in language and words that resonate with the particular professional realm of the policy officer or practitioner. As the results have shown, academics have been said to lack the skills to be able to communicate their research in an accessible way or just do not communicate their research at all.

Really, for me, that comes down to communication. Often what I've experienced with policy and program staff, when we have an academic delivers the final draft of a report, they end up going, what does this mean?

(State, Line agency)

So the product is typically much less useable than it could be and the product is sort of thrown back and somebody within a government department has to kind of translate it into something that might be useful...But it's really inefficient; it would be much better if the academics actually produced something which didn't have to be translated or rely on somebody being capable of translating it.

(State, Central agency)

22 See the response categories for survey items displayed in Table 4.2.
Policy officers - they might read the executive summary and a conclusion but they won't read anything in between because they won't understand it. The language is too foreign to them.

(State, Line agency)

Some very general comments were made relating to the challenges faced with respect to knowledge mobilisation. Mirroring the survey results, the challenges related to both academics as well as policy officials and covered such elements as the lack of motivation to undertake knowledge mobilisation work and the lack of knowledge mobilisation skills.

I still don't think the academic community can understand fully, or is particularly adept necessarily, at being able to get that knowledge transfer bit right. Government has to get better, too, in being able to convey to them how to do that...some of it, too, is laziness on their part. People aren't prepared to sit down and read and digest some this material, which does take time. There's always a bit of a disconnect and a disjuncture between the academic world and the policy world. I always just keep harping that the world in here is actually very simple...

(State, Line Agency)

The only thing I would say, I think we've talked a lot about in terms of the skills of people to use and translate data and evidence into practice. I would say on both sides of the academia and of the policy makers that it's still a skill that people don't necessarily have.

(State, Line Agency)

We do need to do better in terms of bridging that translation and trying to get researchers to understand what our needs are.

(State, Line Agency)

I think the challenge for the dry academic research stuff is that often I think academic it can be a fairly cloistered or closed world, and there's some of that assumption that the research will speak for itself when actually it doesn’t. The research needs to be sold or communicated and you need to think about how it can be implemented.

(State, Line Agency)
So you always have to translate any work that comes through into advice for decision makers. I think that's often the part of the process that isn't understood by people who haven't worked in government, there is translation work.

(State, Line Agency)

4.3 The case for a knowledge brokering mechanism

4.3.1 Impact of knowledge broker on research use directly

Of core interest to this thesis is the relative strength of the impact of knowledge brokering roles or linkage staff on reported levels of research use. In order to explore this question, a logistic regression model using the dependent variable of research use was analysed.

The dependent variable measure of research use was based on questions asking policy officials whether they had used academic products or outputs to understand policies and programs in their field in the last 12 months. This is one measure of research utilisation that has been used by others (Cherney et al., 2015) and is an alternative to the Research Utilisation (RU) scale used by Landry (Landry, Amara, & Lamari, 2001a) and the three types of research use - instrumental, political and conceptual - identified by Weiss (1977). The benefit of using this measure over other measures is that it is important to be as factual as possible when asking policy officials their level of engagement with research outputs, and to use a timeframe that is not too long to better enable recall of certain activities (Ouimet et al., 2010).

The dependent variable (research utilisation) was measured dichotomously and a binary logistic regression model was used to explore the existence of a knowledge broker (disseminator or linkage agent) as predictor, while including a number of control variables such as position and education.

The independent variables concerned with the existence of a knowledge broker or linkage staff were created for both of the relevant dichotomous variables. The results show that the existence of staff

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23 The dependent variable (research utilisation) was measured using an identical method to that used in Cherney et al. (2015) as indicated above. The measure of research utilisation was divided into a dichotomous variable (0 = Don’t consult academic research and 1 = consult academic research). More specifically this was created from two items measured on a 4-point scale, ranging from 1 (never) to 4 (frequently): (1) in the past 12 months, I have used journal articles and books produced by academics to understand policies and programs in my field; (2) in the last 12 months, I have used research reports produced by academics to understand policies and programs in my field. Respondents that scored a 1 or a 2 for either question were recorded as 1, and all other responses were recorded as 0.
in knowledge management roles and linkage staff significantly increased the odds of research utilisation (see Table 4.5 below).

**Table 4-5 - Effect of knowledge broker roles on research utilisation**

<table>
<thead>
<tr>
<th>Effect on Research Utilisation</th>
<th>Research Utilisation</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existence of Knowledge Broker</td>
<td>0.35**</td>
<td>(0.12)</td>
</tr>
<tr>
<td>Existence of Linkage Staff</td>
<td>0.58***</td>
<td>(0.15)</td>
</tr>
<tr>
<td>Line agency</td>
<td>-0.48***</td>
<td>(0.13)</td>
</tr>
<tr>
<td>State</td>
<td>-0.09</td>
<td>(0.13)</td>
</tr>
<tr>
<td>Education Level - Advanced diploma</td>
<td>0.91**</td>
<td>(0.31)</td>
</tr>
<tr>
<td>Education Level - Bachelor</td>
<td>1.13***</td>
<td>(0.21)</td>
</tr>
<tr>
<td>Education Level - Graduate diploma</td>
<td>1.18***</td>
<td>(0.23)</td>
</tr>
<tr>
<td>Education Level - Post grad degree</td>
<td>1.67***</td>
<td>(0.22)</td>
</tr>
<tr>
<td>Position - Senior executive</td>
<td>-0.23</td>
<td>(0.24)</td>
</tr>
<tr>
<td>Position - Manager</td>
<td>-0.44***</td>
<td>(0.13)</td>
</tr>
<tr>
<td>Position - Data analyst</td>
<td>-0.92***</td>
<td>(0.17)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.25</td>
<td>(0.21)</td>
</tr>
</tbody>
</table>

Observations 2084  
Pseudo R2 0.079  
chi2 174.50

Standard errors in parentheses

*p < 0.05, ** p < 0.01, *** p < 0.001

This finding is further supported when looking at ‘instrumental’ research use (as opposed to conceptual and symbolic – identified by Weiss (1977)). A core finding reported from the same empirical studies amongst policy officials (Head et al., 2014) show that having specific staff whose role is to link policy officials to researchers outside the public service significantly increases the odds that academic research will be used to shape and inform policy decision making (this being instrumental research use). This is confirmed in other studies which show the importance of formal linkage arrangements in research utilisation (Belkhodja et al., 2007).

### 4.3.2 Impact of the knowledge broker on research culture as a predictor of research use

One of the three core functions of knowledge brokering is that of capacity building and the research suggests that this is where the core value of knowledge brokering lies. In particular, the role it plays in improving research culture which has been shown to be a determinant of research use. The

---

24 0 = No or Unaware of knowledge broker; 1 = Yes - Existence of knowledge broker; 0 = No or Unaware of linkage staff; 1 = Yes - Existence of linkage staff.
importance of research culture to the uptake of research has been shown in previous studies (Cherney et al., 2015) and has also been suggested as part of the knowledge brokering literature with empirical studies suggesting that knowledge brokering activities improve research culture within an organisation (Ward et al., 2009a). Analysis of the results of the survey of policy officials supports this hypothesis and provides further insight into the relationship between knowledge brokering, research culture and research utilisation.

Four items directly relating to research culture have been reported on above (see section 4.2.2). The four measures are: 1) the use of research is a low priority of my unit, 2) staff are not encouraged to use research evidence, 3) there is little opportunity to build relationships with researchers outside the public service; and 4) my department has no formal processes to translate academic research into policy.

The mean score of these research culture indicators was then used to create one index of research culture which was used as the dependent variable. The research culture dependent variable is that used for other results from the same empirical study and reported elsewhere (Head et al., 2014). Note that the index created for the study by Head et al. (2014) was created using a factor analysis of six possible items relating to accessing and using research. Following the factor analysis this reduced to four items which made up the ‘Lack a Research Culture’ index. This index is what has been used for my research with permission. More specifically, this index explores the organisational work culture around accessing and using research evidence in day-to-day activities. This index is comprised of the four items above that range on a 5-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree). These four items loaded on a 1-factor structure with factor loadings ranging from 0.73-0.83 and a Cronbach’s alpha of 0.79.

Given the dependent variable (research culture) was continuous, a multiple linear regression model was used to explore the existence of a knowledge broker (disseminator or linkage agent) as a predictor of research culture. Again, as for the analysis of the role of knowledge brokers (disseminator or linkage agent) discussed above, control variables of position and education were included in the model.
A check on the multicollinearity (or the correlation between predictors) of the predictors, to assess the stability of the model, was conducted by looking at the Variance Inflation factors (VIF)\textsuperscript{25}. Multicollinearity can be problematic where predictors are highly correlated with other predictors in the model as it makes the model unstable and difficult to interpret. The model has a mean VIF of 2.12 which is relatively low, signalizing a stable model. The resulting model of this analysis is shown in Table 4.6.

\textbf{Table 4-6 - Effect of knowledge broker roles on research culture}

<table>
<thead>
<tr>
<th>Effect on Research Utilisation</th>
<th>Lack a research culture</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existence of Knowledge Broker</td>
<td>-0.26***</td>
<td>(0.04)</td>
</tr>
<tr>
<td>Existence of Linkage Staff</td>
<td>-0.44***</td>
<td>(0.04)</td>
</tr>
<tr>
<td>Line agency</td>
<td>-0.07</td>
<td>(0.04)</td>
</tr>
<tr>
<td>State</td>
<td>-0.01</td>
<td>(0.04)</td>
</tr>
<tr>
<td>Education Level - Advanced diploma</td>
<td>-0.02</td>
<td>(0.11)</td>
</tr>
<tr>
<td>Education Level - Bachelor</td>
<td>-0.19*</td>
<td>(0.08)</td>
</tr>
<tr>
<td>Education Level - Graduate diploma</td>
<td>-0.13</td>
<td>(0.09)</td>
</tr>
<tr>
<td>Education Level - Post grad degree</td>
<td>-0.26**</td>
<td>(0.08)</td>
</tr>
<tr>
<td>Position - Senior executive</td>
<td>-0.38***</td>
<td>(0.07)</td>
</tr>
<tr>
<td>Position - Manager</td>
<td>-0.15***</td>
<td>(0.04)</td>
</tr>
<tr>
<td>Position - Data analyst</td>
<td>-0.13*</td>
<td>(0.06)</td>
</tr>
<tr>
<td>Constant</td>
<td>3.33***</td>
<td>(0.08)</td>
</tr>
</tbody>
</table>

| Observations | 2055 |
| Adjusted $R^2$ | 0.135 |

Standard errors in parentheses

\( \text{***} p < 0.001, \text{**} p < 0.01, \text{*} p < 0.05\)

As can be seen, the existence of a knowledge brokering agent, either as a disseminator or linkage agent, lowered the odds that the department was lacking in a research culture, suggesting they play a role in improving research culture. While this is an encouraging finding, causality is not clear with other contributing factors impacting on this result. For example, it is possible that these positions exist within the department because it has made a dedicated decision on resourcing such staff and building a culture that supports evidence-informed policy decision making in the first place. The literature discusses what leads organisations to have a positive research culture, in particular leadership that is ‘sympathetic’ to the use of research in policy making. However, it could equally be said, that the existence of such positions supports and enhances a positive research culture.

\textsuperscript{25} The VIF is the factor by which the standard errors (or variances) are inflated, as the variances of the estimated coefficients are inflated when multicollinearity exists. So a high VIF (typically VIF above 10 is considered ‘high’) indicates that severe multicollinearity exists and needs addressing, whereas a lower VIF (4 or below) is acceptable.
which in turn then leads to greater research utilisation. Either way, the existence of knowledge brokering staff has a positive impact on, or is a positive indicator of, research use, either directly or indirectly due to the impact of such positions on research culture within the organisation.

4.3.3 Suggestions for specific knowledge brokering activities

The survey of policy officials asked a number of questions relating to the requirement or need for research to be produced in a form that is easy to understand. Survey participants were asked to rate these on a five point scale from low priority to high priority. These are shown in Table 4.7 below. The results are interesting when you look at the proportion of respondents who gave an attribute high priority (score of 5). Around three in five policy officials place a high priority on knowledge mobilisation elements such as research reports providing brief summaries of key findings (60%), research findings being written in a clear style (56%) and research findings being available at a time when decisions need to be made (63%). This increases to nearly nine in ten for each of these strategies when including the results for those who also said a ‘moderate priority’ (88%, 87% and 87% respectively). These knowledge mobilisation strategies are given significantly higher priority amongst those policy officials working in state or line agencies compared with those working in Commonwealth or central agencies.

Overall these findings suggest that policy officials are looking to these types of knowledge mobilisation strategies, and require research results to be presented in an easily accessible and readable form, whether it is provided by an academic or an intermediary.

Table 4-7 - Priority given to knowledge mobilisation strategies

<table>
<thead>
<tr>
<th>Priority given to...</th>
<th>Total n=2084</th>
<th>Commonwealth n=765</th>
<th>State n=1320</th>
<th>Central n=657</th>
<th>Line n=1427</th>
<th>KM Staff n=1012</th>
<th>Linkage Staff n=558</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research reports provide brief summaries of key findings</td>
<td>60%</td>
<td>51%</td>
<td>65%*</td>
<td>51%</td>
<td>63%</td>
<td>64%*</td>
<td>67%*</td>
</tr>
<tr>
<td>Research findings are written in a clear style</td>
<td>56%</td>
<td>48%</td>
<td>61%*</td>
<td>49%</td>
<td>60%*</td>
<td>58%</td>
<td>60%</td>
</tr>
<tr>
<td>Findings are available at a time when decisions need to be made</td>
<td>63%</td>
<td>57%</td>
<td>66%*</td>
<td>58%</td>
<td>65%*</td>
<td>65%</td>
<td>64%</td>
</tr>
</tbody>
</table>

* p < 0.05 (Pearson chi-squared test of independence)

26 The response categories for these questions were presented on a five point likert scale, as follows - 1 = High priority, 2 = Moderate priority, 3 = Neutral, 4 = Low priority, 5 = Not a priority. Respondents also had a ‘Does not apply’ option.
27 Only the proportion of policy officials who gave an attribute high priority is shown as this is where the differences are the most notable. Combining ‘high’ and ‘moderate’ priority shows less notable results.
The interviews with policy officials further confirmed the need for research to be produced in a manner that can be easily read and consumed by policy officials and decision-makers.

*I know that elected officials are extremely impatient with material that's not easily digestible.*

(State, Line Agency)

*I think that my expectation is always that there are always the two layers. There's the layer that the academics are trained in, to have that astute rigor, if you like, of working through thought processes. But the product, the second layer for consumption needs to be a distillation. What does all that thinking mean from a lay point of view or how can it be understood within the broader context?*

(State, Line Agency)

Specific suggestions included ‘fact sheets’ and half page summaries with bullet points with a focus on outcomes and implementation rather than details of methods and specific results.

*If there is a presentation, that could be a one page, a one slide, on methods. The ministers are not researchers; they're not interested in learning about methodology. They're interested in knowing that or being confirmed or affirmed that the methodology is rigorous, is balanced, taken into account the client's voice. They're interested in those qualities or elements but they're not interested in quasi experimental method, what are the advantages, what are the disadvantages?*

(State, Line Agency)

*It's like where the report's easily written and is written in plain English. Given that it's something that we might want to then use as part of a decision process that might involve significant amounts of money, it's useful if it's something that can be explained to ministers and directors general quickly, easily and this might sound really - we joke about this, but pictures help… [Pictures and diagrams] are usually the quickest way that you can get a minister's head around the topic, get them onside.*

(State, Line Agency)
...there's got to be some willingness to say well if I've got to present this to the Premier for example, he's not going to want to read 20 pages. He wants to read two and if they're not willing to work on that with me then I'll want to be able to do it myself from their work.

(State, Central Agency)

The cross-pollination or cross-fertilisation of ideas held by academics and policy makers was mentioned consistently in the interviews. The movement of individuals between the two worlds facilitates the movement of knowledge (and thereby can be considered a type of knowledge brokering activity). This mobility or inter-change was seen as providing considerable benefits for both academics and policy officials. Specific strategies frequently mentioned were secondments and/ or exchanges between academia and policy makers. Furthermore, there were seen to be core benefits in employing individuals in the public service who had worked in academia and would therefore be highly research literate as well as have established personal networks within academia. More generally, the idea that ‘getting inside’ the working world of the other was of great benefit to encouraging greater understanding of each other’s environment thereby improving research understanding and uptake. This was also mentioned consistently amongst academics interviewed for the same project (see section 5.4).

Having a larger number of people with skills and experience in each environment would be of benefit to both. These barriers could be overcome through a number of relatively straightforward initiatives. Governments could engage more graduates or early-career academics on short-term projects in policy evaluation, under terms which explicitly allow subsequent publication of some findings in academic journals.

(Open-ended response from public servant survey)

There's probably alternative ways of out posting our staff to universities or vice versa, bringing university researchers here... It would give academics a flavour for the environment we're working in so I think it will work well both ways...We would have - not only that but we would also build up our internal research capability by having academics working next to us in our office. So it's win win.

(Commonwealth, Line agency)

So that cross fertilisation of ideas I think is something that would be nice to aspire to.

(State, Central Agency)
Public policy research is essentially an applied discipline. It's not like theoretical physics. It's an applied discipline. The reason why you do it deep down inside is because you care about the outcomes and you want to do this work that will have influence. So you've got to make sure it's implementable or at least it's relevant to implementation. I think the only real way that people get that understanding is by going and doing it.

(Commonwealth, Central agency)

The survey also included a further indicator of the importance of the linkage and exchange component of knowledge mobilisation. Just under two third of policy officials interviewed (62%) indicated their work area placed importance on the involvement in forums/networks that share research. This was significantly higher for state and line agencies (68% and 69% respectively) when compared with commonwealth and central agencies (52% and 46% respectively). Agencies with linkage staff placed a higher importance on such forums/networks.

Table 4-8 - Importance given to methods of sharing research

<table>
<thead>
<tr>
<th>Importance given to… (Very important/important) 28</th>
<th>Total n=2084</th>
<th>Commonwealth n=765</th>
<th>State n=1320</th>
<th>Central n=657</th>
<th>Line n=1427</th>
<th>KM Staff n=1012</th>
<th>Linkage Staff n=558</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involvement in forums/networks that share research</td>
<td>62%</td>
<td>52%</td>
<td>68%*</td>
<td>46%</td>
<td>69%*</td>
<td>66%</td>
<td>71%</td>
</tr>
</tbody>
</table>

*p < 0.05  (Pearson chi-squared test of independence)

4.3.4 Benefit of intermediary knowledge brokering mechanism

How knowledge brokering activities could be fostered more effectively also emerged as a theme in the interviews. First and foremost, the perceived role domain of academics was highlighted by a number of policy officials. It emerged that academics are not best placed to communicate and ‘sell-on’ research findings in a manner that is usable for research users. Indeed there was little expectation amongst some policy officials that the role of academics was to apply the findings of their academic research to decision-making processes. Instead this role is for someone with an understanding of the complexities of the policy-making process within a given context. In this

28 The response categories for this question were presented on a five point Likert scale, as follows - 1 = Very important, 2 = Important, 3 = Neutral, 4 = Unimportant, 5 = Very unimportant. Respondents also had a ‘Does not apply’ option. The results shown are the combined of 1- Very important and 2 - Important.
respect, the emphasis is on the skills and expertise of an individual. A policy official could fill this role, but other individuals or entities with this expertise could also take on this role.

*I'd be a bit worried if we expected academics to do that because there are lots of things that go into that condensing material to the one and a half page brief. A lot of it is about making decisions about what's important internally and in relation to other policies, all of that kind of stuff which you wouldn't expect an academic to be aware of. So while I'm all for brevity and conciseness, I don't know that that's the role of the academic.*

(State, Line Agency)

*I think the translating of academic language and academic ideas into a public sector setting is what my job is and it's not your job.*

(State, Line Agency)

Secondly, as a solution to this problem, there was an acknowledgement that a third party or intermediary was needed to overcome the gap between policy and academia. It was suggested that there was a role for external consultants as the mechanism for bringing stakeholders together and ‘bridging the gap’.

*I think often too the people who are doing the research aren't the people who are good at really disseminating it...researchers are good at the detailed research report, but aren't good at saying well this is what this means for a policy change. Often they're not the appropriate person, so it's that knowledge brokerage role isn't it that's there.*

(Commonwealth, Central Agency)

*A lot of times - if a piece of academic research isn't going to have a conclusion it needs a - sorry it's wrong to say it doesn't have a conclusion. If it's not going to have a course of action or a program impact or some sort of analysis of what happens next, then that's fine if you want to leave your academic research pure or if departments aren't interested in it. But then it needs an intermediary or an interface to say this is what we've got. This is what it means. This is what we do next. I think quite often that middle step is missing.*

(State, Line Agency)
We probably need intermediaries because the academics are not necessarily having the skills to convert it into the right language. I mean clearly some people do but as an absolute cohort issue maybe not.

(Commonwealth, Line Agency)

We certainly recognise that it would be useful if we can use knowledge brokers as an intermediary to develop relationships and networks that support the exchange of insights about policy priorities and evidence gaps, including facilitating secondments for researchers and academics to build expertise.

(Commonwealth, Line agency)

As part of this solution, others suggested developing long term relationships and broader networks between policy officials and academics. These were seen to be critical for effective knowledge brokering and represents a significant component of the knowledge brokering activities acknowledged in the literature (see Ward et al., 2009a). This is a fundamental strength of an organisational knowledge brokering model and represents an advantage over other forms of knowledge brokering. If as organisation has built up a reputation as the ‘go-to’ facility for research in a particular sector, and has the supporting organisational structures and therefore capacity to maintain strong links and relationships over an extended period of time, it is preferred.

‘...the idea that there's a semi-autonomous body which is responsible for collecting data and then reporting on it. I think what it means is that the specialists who are away from the hurly burly of delivering policy outcomes and indeed service outcomes, are in a better position to think about where the sector's going, and they are probably the [leg point] for evidence and from universities.

(State, Central Agency)

Look my view is that research officers and librarians are people that sit at the periphery of a process and they're not going to change anything. You've got to have I think more substantive grants to take those things forward. Libraries and research officers have got a role to play don't get me wrong but you've got to put, I think, in place something a bit - that's perceived as being a bit more high powered if you really want to drive that sort of change.

(Commonwealth, Central Agency)
4.4 Summary

The analysis of the survey data and qualitative interviews of policy officials has revealed specific issues relating to knowledge brokering and knowledge mobilisation. These include the existence of knowledge brokering personnel and knowledge brokering activities within government and the impact this has on the presence of a positive research culture, and therefore the utilisation of research. The challenges faced in terms of knowledge mobilisation and knowledge brokering were also highlighted. Perhaps most significantly, the analysis of the survey data ascertained that knowledge brokering can help bridge the gap between academics and policy makers and that policy officials have suggestions regarding the type of knowledge brokering activities that would facilitate greater research utilisation.

In summary, the results show that policy officials do undertake knowledge mobilisation and knowledge brokering activities and these activities are varied, spanning knowledge management, linkage and exchange and capacity building practices. Within the Australian public service, individual policy officials, typically research officers, act as knowledge brokers between knowledge producers and policy decision makers, though the prominence of such roles and their use appears to be low. Organisational forms of knowledge brokers also exist in the public service in the form of such things as clearinghouses, departmental libraries, and research units as well as dedicated divisions within government and specific government agencies. Overall, there is a high level of skill and expertise in consuming, translating and interpreting research amongst policy officials and therefore, a positive inclination to use research. Many policy officials place a high level of importance in being involved in forums or networks that share research and give high priority to research results being provided in brief, clear and timely manner. There were consistent suggestions that opportunities for exchanges between policy and academia to enable a better understanding of each other’s worlds would benefit the two communities.

The data also illustrates the individual and organisational challenges that impede knowledge mobilisation and knowledge brokering activities, and therefore hinder research uptake. These challenges are difficult to overcome. The perceived lack of time coupled with the lack of opportunities to build relationships outside the public service, and the minimal formal processes available for translating academic research into policy present as the core deterrents to undertaking knowledge mobilisation practices. While knowledge management staff and linkage staff do exist, they are not widely used and do not hold significant prominence amongst policy officials. Furthermore, academics are not strongly perceived by policy officials as having the skills or
motivation to actively disseminate their research, nor are they regarded to be best placed to communicate their research findings.

Based on these results, the case for knowledge brokering mechanisms to overcome these challenges is promising. Where knowledge management staff or linkage staff existed within a government agency, this was shown to increase the odds of both research utilisation directly, and be an indicator of a culture that supports the use of research. More broadly, the case for an organisational knowledge brokering mechanism or system support for knowledge mobilisation is particularly strong. While governmental knowledge managers (both individual researchers and departmental libraries or clearinghouses) are seen as beneficial approaches, more is needed to bring about real change in the use of research. In general, there was acknowledgement that a formal third party or intermediary that sits outside the constraints of academia or policy may be the most effective in bridging the gap between the two communities because of their capacity to undertake specific knowledge mobilisation and knowledge brokering activities.

Equally important is to understand the perspectives of academics in relation to similar themes. These are described in the next chapter.
Chapter Five - Perspectives on knowledge mobilisation and knowledge brokering mechanisms amongst Australian social scientists

The survey of Australian social scientists covered a number of core themes directly relating to knowledge mobilisation. The survey included patterns of activity in terms of academics’ experiences in disseminating research, the level of importance they attribute to dissemination activities, and the constraints experienced in conducting knowledge mobilisation. While the survey cannot shed light on the perspectives of social scientists on knowledge brokering specifically, it does highlight the nature of knowledge brokering activities undertaken by academics and the need for activities outside the traditional academic role to facilitate the movement of research findings between academia and policy. The results from the survey on these aspects are provided below with supporting analysis from the interviews with Australian social scientists.

The interviews with Australian social scientists highlighted a range of perspectives on knowledge mobilisation and provide an indication of how knowledge brokering activities might prove beneficial in improving knowledge mobilisation and, as a consequence, research utilisation. Many of the themes that emerged from the interviews complemented the findings from the survey and served to add depth and a greater understanding of the quantitative results. The interviews with these respondents explored a number of areas in relation to communicating and disseminating their research to government and non-government agencies.

The section below provides an analysis of the survey results and the in-depth interviews. In analysing the survey results of social scientists an important profiling question asked respondents to identify whether their position was primarily in a university teaching and research department, a university research centre or institute or another type of research centre or institute. This is relevant to the type of responses they would be likely to provide relating to knowledge mobilisation and dissemination activities. For example, university research centres or institutes have an applied focus and therefore could be expected to have a more positive disposition toward, or requirement to undertake more dissemination activities than those in standard university teaching and research departments. Accordingly, the proportion of respondents in these positions were – University Teaching and Research Department (67%); University Research Centre or Institute (26%); Other Research Centre/ Institute (7%). Some comparative analysis of these groups of respondents has been carried out as part of this research.
5.1 Current knowledge mobilisation and knowledge brokering activities

5.1.1 Types of specific knowledge mobilisation and knowledge brokering activities undertaken by social scientists

A number of the survey questions measured the extent of the academics’ knowledge mobilisation activities and, more specifically, their experience in disseminating their research to non-academic end users. The results for these items are shown in Table 5.1 below.

There is a high level of dissemination activity amongst those academics interviewed for the survey. Nearly nine in ten (88%) have had, to at least some extent, experience in disseminating their research to non-academic end users. Undertaking dissemination activities is higher amongst those academics based in university research centres and institutes (96%) than those in positions within university teaching or research departments (85%). Similarly 81% of academics said that the organisation within which they are located (faculty, school, research centre/ institute) has experience in research dissemination to non-academic end-users. This was higher amongst those within university research centre/ institutes (89%) compared to those in positions in university teaching or research departments (78%).

Table 5-1 - Extent of research dissemination activity

<table>
<thead>
<tr>
<th>Research dissemination (Great/ Some extent)</th>
<th>Total n=693</th>
<th>Position in University Teaching/ Research Dept n=462</th>
<th>University Research Centre/ Institute n=182</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have experience in disseminating my research to non-academic end-users</td>
<td>88%</td>
<td>85%</td>
<td>96%*</td>
</tr>
<tr>
<td>My faculty/ school/ research centre institute has experience in research dissemination to non-academic end-users</td>
<td>81%</td>
<td>78%</td>
<td>89%*</td>
</tr>
</tbody>
</table>

* p < 0.05  (Pearson chi-squared test of independence)

The qualitative responses from academics mentioned a range of dissemination activities used to disseminate their research to a non-academic audience, either as part of or in addition to the

Note that this is likely to be skewed given that the academics who participated in the survey were those who had been involved in ARC Linkage projects where dissemination activity is more likely to occur given the nature of Linkage projects which inherently encourage closer connections between policy and academia.

The response categories for these questions were presented on a five point likert scale, as follows - 1 = To a great extent, 2 = To some extent, 3 = Neutral, 4 = Very little, 5 = Not at all. The results shown are the combined of 1- To a great extent, and 2 – To some extent.
dissemination work required or stipulated for a specific ARC Linkage project or consultancy work. Direct briefings to policy makers such as formal seminars, presentations, workshops, or being invited as guest speakers or presenters at government events (for example, formal breakfasts) were mentioned by some of the academics. Informal interactions were also mentioned frequently by academics interviewed for the project. Informal interactions in particular were considered very powerful in getting research translated for use in policy discussions.

We did a workshop seminar with people there from the Commission and from Prime Minister and Cabinet from finance who were interested in issues to joining up, shared outcomes, the finance people and how do you structure the money and others. That's great because those people might not even necessarily talk to each other and they may not ever talk to us, but there was a person that we know who brought that group together. That's a really great way to start dissemination of ideas. Those people will come back to you. You just keep the conversation going.

(Academic, University Teaching/Research Department)

So I think that that in itself is a whole new area, I think, around how do we do that translation? We need to do it across so many different media because look, most people under 30 don't read newspapers. They don't. It's all online so how do you communicate in all sorts of ways around, well this is this piece of research and this is why it's important to you.

(Academic, University Teaching/Research Department)

Other activities directed toward policy makers include policy briefs and submissions to parliamentary enquiries or royal commissions. These are often typically shorter than standard academic reporting or journal articles, yet highlight the key research outcomes which are of particular pertinence to the issue at hand.

I've done a couple of other...Senate enquiry kind of submissions; you can write short pieces for them. One thing which has become clear to me is once you've done one, you get on their list and they, then, tell you what there is and seek submissions.

(Academic, University Teaching/Research Department)

So when the Productivity Commission inquiry was announced, [we] put in a submission, but prior to putting in our submission we were actually contacted by the chair of the inquiry saying we know you two are doing research on [sector]; will you
come and talk to us. I spent an hour and a half with them beforehand, off the record, backgrounding stuff, before the inquiry actually started.

(Academic, University Teaching/ Research Department)

Speaking at industry conferences where there would be a large attendance of policy makers and practitioners, as opposed to primarily academic conferences, were also mentioned as an opportunity to disseminate research effectively to a non-academic audience.

Other specific research mobilisation products were also mentioned, like industry or policy-orientated journals, magazines or newsletters released by the academic institution or research institute. The use of the media such as television, high profile newspapers and radio were also mentioned by many academics when speaking about their dissemination activities. This includes social media methods such as blogging and the use of Twitter. The Conversation website, and the strength of this website as a tool to disseminate the research, or at least provide intellectual commentary, was mentioned by a number of academics in the interviews. The use of these mediums, particularly mainstream media, was used particularly when there existed little other opportunity to ‘reach’ policy makers directly through formal or informal linkage activities.

*The rise of The Conversation website I think has been very important.*

(Former Academic)

A lot of the media coverage is generated from the media that report me or report the research. But I do see Op-Ed as something that again goes back to my role as saying, I'm a bridge.

(Academic, University Teaching/ Research Department)

Many of those people help us so it's right to feedback into media. So that's from television. So I've done Insight a couple of times. In the morning, the show with Kochie and Mel, I've done a couple of times.

(Academic, University Teaching/ Research Department)

Quite often it might result in a submission to a parliamentary inquiry or something of that nature.

(Academic, University Research Centre/ Institute)
Those in research institutes note other strategies taken up as part of their wider knowledge mobilisation model. These include capacity building in the form of such things as training and education programs.

_Some of our work is more consulting focused but our third component is education and training. So we have a graduate certificate program for community practitioners and we also do quite a lot of one off training. That is a great forum for us to draw upon our research to get straight to practitioners._

(Academic, University Research Centre/Institute)

### 5.1.2 Existence of knowledge brokering roles

#### 5.1.2.1 Individual

As found in the interviews with policy officials, the academic interviewees revealed that a certain subgroup of academics are particularly encouraging of knowledge mobilisation and proactively undertake associated activities. In this way, they themselves could be considered knowledge brokers of a sort. These individuals operate as policy entrepreneurs or academic entrepreneurs in that they actively go outside the ‘traditional’ academic role and undertake a high level of communication and dissemination activity, not just to policy officials but in general. They also actively engage in linkage and exchange activity with policy officials. The existence of policy entrepreneurs and their role in the policy making process has been identified by Kingdon (2011)\(^{31}\).

Note that policy entrepreneurs or academic entrepreneurs differ from public intellectuals. The latter was mentioned throughout the interviews with academics but the work of public intellectuals is more centred on making contributions to the public discussions on various policy issues. They would be typically featured in the media, writing op-ed pieces and for online blogs and may have their own blog and have a very public ‘face’ for a policy issue. Examples of public intellectuals mentioned from the academic interviews include Professor Tim Flannery, Professor Denis Altman and Professor Fiona Stanley. Professor Tim Flannery is arguably one of Australia’s most prominent environmentalists and climate change activists; Professor Denis Altman is a prominent writer and academic on gay rights; and Professor Fiona Stanley is a prominent epidemiologist and child health researcher. What differentiates public intellectuals from policy entrepreneurs or academics entrepreneurs is their greater emphasis on public dissemination, sometimes in conjunction with or

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\(^{31}\) See section 2.2.1.1 and section 6.2.1 for a further discussion of the role of policy entrepreneurs.
sometimes at the expense of creating direct linkage and exchange activities and opportunities with policy officials.

From the research conducted for this thesis, the characteristics or criteria used to identify which academics could be categorised as policy entrepreneurs or academic entrepreneurs include: those who typically engage in outreach activities with policy makers as a central part of their work (either in their current role or in a previous role); those who collaborate with policymakers on a regular basis beyond ARC linkage grants; and those who have a perception (either self-perception or acknowledged by others) as fulfilling a role as a knowledge broker, or as knowledge translator (for example, bringing about collaborations between academia and policy officials; and seeking applications of academic research in the public context). Many of these academics have had previous work experience or exchange with the public sector.

Of the 100 academics interviewed, 23 could be considered knowledge brokers to some degree, either self-identifying as such or displaying many or all of the characteristics of a knowledge broker. Some comments that typify their attitude to social science research and its application are shown below.

*Academics have got two options; one is to stand outside and be strident and that research has a role, definitely. The other is to be on the inside and working to try and gradually change things with governments, and I've been in the latter kind of category than rather on the more strident category.*

*(Academic Knowledge Broker)*

*So I'm very sensitive to the golden triangle which is research, policy and practice. I think if you are in any of those spheres you need grow the other spheres. Because researchers tend to be in ivory towers, it's very important to actually have a good sense of what's going on in practice and what's going on in policy.*

*(Academic Knowledge Broker)*

*I am explicit that I’m not interested in knowledge for the sake of knowledge. I am passionate about drugs and have been all my career, and I want to make a difference, and I’m not interested in doing things that aren’t going to make a difference.*

*(Academic Knowledge Broker)*

Some additional profiling information of these individuals is provided is Table 5.2 below.
Table 5-2 - Profile information of academics in knowledge brokering role

<table>
<thead>
<tr>
<th>Sector</th>
<th>n=23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criminology</td>
<td>2</td>
</tr>
<tr>
<td>Economics</td>
<td>4</td>
</tr>
<tr>
<td>Education</td>
<td>6</td>
</tr>
<tr>
<td>Psychology</td>
<td>2*</td>
</tr>
<tr>
<td>Health</td>
<td>1</td>
</tr>
<tr>
<td>Public Policy</td>
<td>2</td>
</tr>
<tr>
<td>Rural Sciences/ Primary Industries/ Energy</td>
<td>1</td>
</tr>
<tr>
<td>Social Policy</td>
<td>4</td>
</tr>
<tr>
<td>Social Work</td>
<td>1</td>
</tr>
<tr>
<td>Tourism Economics</td>
<td>1</td>
</tr>
<tr>
<td>Law</td>
<td>1</td>
</tr>
<tr>
<td>Public Sector Experience</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>19</td>
</tr>
<tr>
<td>No</td>
<td>4[32]</td>
</tr>
<tr>
<td>Position/ Placement</td>
<td></td>
</tr>
<tr>
<td>University Teaching/ Research Department</td>
<td>16</td>
</tr>
<tr>
<td>University Research Centre/ Institute</td>
<td>7</td>
</tr>
</tbody>
</table>

*One academic worked in both criminology and psychology; one academic worked in both health and psychology.

The types of activities undertaken that are common across these individuals include networking widely both formally and informally, based on long-term personal and professional relationships built up over their career. They typically have spent much of their career working in a particular research area and have had a long career within this area. They are considered experts in their field, have both a professional and personal interest in their field of research and want to make a substantive contribution to improving the lives of those affected by the policy area with which their work is associated. The constraints of their position in either academia or policy making is less a factor in the manner in which they work. Indeed, the irrelevance of their placement is duly noted in Kingdon’s (2011) understanding of policy entrepreneurs. As such, they may move easily between policy and academic roles, dependent on where they felt they would have the most positive impact at any point in time.

*What I do is either I'll know someone or they'll know me or we'll move in a similar network. I'll find the person to target and then I'll sound them out or they’ll sound me*

[32] While a number of these identified academic ‘knowledge brokers’ have not specifically worked in the public sector, they have had close associations with the public sector such as being involved in government reviews or on advisory committees.
out. Maybe in a meeting I’ll say we’ve got some data on that, is that of interest? Basically we’ll work that through in a way that’s not on the public record but they’re still able to cite it and use it. That just gives me a lot more control over how we can best use research to help policy.

(Academic, University Teaching/ Research Department)

The formula is quite simple. It is do good work. So find things that – problems for society. Move in on them. Try to understand them. Publish in places that people read with high impact. That might be Family Matters. That might be an A journal. It might be a B journal. Stay connected to all players so you can read the lie of the land as it changes.

(Academic, University Teaching/ Research Department)

Another core characteristic of this group is that they use a variety of channels to communicate their research. They publish widely and through various mediums (both academic and mainstream media, for example, social media, media more generally, online blogs and Op-Ed pieces).

Reflecting on the three core activities of knowledge brokering noted in Chapter Two, these individuals undertake a variety of related activities. More specifically, they disseminate knowledge and expertise of the latest thinking in a particular area, they place a strong emphasis on linkage and exchange activities as being fundamental to their role, and they are building capacity and a supportive research culture within the public sector by advocating the importance and significance of using research.

5.1.2.2 Organisational

Organisational models of knowledge brokering also exist within academia, primarily as applied research institutes. The results from the survey with academics highlight that those located within applied research institutes have a significantly higher propensity to undertake knowledge mobilisation and knowledge brokering types of activities, as well as seeing more value and importance in such activities. As such, applied research institutes can be considered an organisational model of knowledge brokering located within academia, providing the supporting structures for individual researchers who are positively predisposed to carrying out applied research.
Further discussion of applied research institutes as one form of organisational knowledge brokering located within academia is provided in section 6.2.2.

Media and communication offices within universities were also mentioned in the interviews with academics, however the role of these varied by institution as did the quality of the output.

*I think university media units are getting better at playing that brokering role for getting good academic work into the public domain.*

*(Former Academic)*

*If we’ve got the results of a research project, who do we turn to, to help us write an article, or writing a press release that has enough of the complexity in there and is done skilfully? In a place like UQ there’s a bit of competition on for the PR skills. The people who do the university’s PR work have got a lot of junior students in there, actually. Sometimes we’ll get a good result out of them and sometimes not.*

*(Academic, University Teaching/ Research Department)*

5.2 Perceptions of knowledge mobilisation

5.2.1 Importance attributed to knowledge mobilisation activities

A number of survey items measured the importance that social scientists attribute to various knowledge mobilisation activities. These activities relate to how academics carry out their research, the nature of reporting to end-users and methods of presenting and/or discussing their research with external parties. The results to these survey items are shown in Table 5.3 below. It is noteworthy, and not surprising, that those academics positioned in university research centres or institutes attributed a significantly higher importance to knowledge mobilisation activities than those situated in university teaching or research departments. In this way, this further confirms the role that applied research institutes have in knowledge mobilisation, and are more like other ‘knowledge brokering’ organisations than ‘traditional’ academia.

With respect to how academics carry out their research, just under three in four (72%) believed that preparing and implementing research dissemination activities for end users was important. Those positioned in university research centres or institutes attributed higher importance to this factor compared with those in university teaching or research departments (81% versus 69% respectively).
In relation to the nature of reporting to end users, a large proportion (92%) attributed importance to the readability and ease of comprehension of their reports and research articles. This was a view shared by both those in university departmental teaching and research positions and those in university research centres or institutes.

Academics were asked about specific knowledge mobilisation activities covering direct and indirect contact with policy makers as well as those associated with the media.

In terms of direct face-to-face contact, around three in four felt that informal contacts with policy personnel of government agencies were important (72%), with those in university research centres or departments more likely than those in university teaching positions to indicate that this was important (78% versus 69% respectively). Around three in five felt that participation in seminars and workshops organised by government policy agencies (61%) was important with greater importance given by those in university research centres when compared with those in university teaching positions (70% versus 57% respectively). Finally, just over one in four (28%) felt that presentations to parliamentary committees was important, with those in university research centres or institutes more likely to attribute importance to this statement than those in positions within university teaching or research departments (35% versus 25% respectively).

When asked about various indirect knowledge mobilisation activities, around three in five academics felt that more generally, publication of articles in non-academic outlets was important (60%). Approximately half of the academics interviewed placed importance on sending reports to government policy agencies (55%) while one in four attributed importance to sending reports to parliamentary committees (27%).

Finally, in terms of knowledge mobilisation activities through the media, one half of the academics interviewed attributed importance to participation in radio and/ or television programs (50%) while a quarter felt that publications in electronic media such as blogs and other social media was important (25%). There was no difference in interest in methods of dissemination through the media when comparing those in positions in university teaching or research departments to those in university research centres or institutes.
### Table 5-3 - Importance attributed to various knowledge mobilisation activities

<table>
<thead>
<tr>
<th>Knowledge mobilisation activities (Very important/important)</th>
<th>Total n=693</th>
<th>Position in University Teaching/ Research Dept n=462</th>
<th>University Research Centre/ Institute n=182</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparing and implementing research dissemination activities for end users</td>
<td>72%</td>
<td>69%</td>
<td>81%*</td>
</tr>
<tr>
<td>Readability and ease of comprehension of my reports and research articles</td>
<td>92%</td>
<td>89%</td>
<td>97%</td>
</tr>
<tr>
<td>Informal contacts with policy personnel of govt agencies</td>
<td>72%</td>
<td>69%</td>
<td>78%*</td>
</tr>
<tr>
<td>Participation in seminars and workshops organised by government policy agencies</td>
<td>61%</td>
<td>57%</td>
<td>70%*</td>
</tr>
<tr>
<td>Publication of articles in non-academic outlets</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
</tr>
<tr>
<td>Sending reports to government policy agencies</td>
<td>55%</td>
<td>54%</td>
<td>65%*</td>
</tr>
<tr>
<td>Participation in radio and/or television programs</td>
<td>50%</td>
<td>49%</td>
<td>56%</td>
</tr>
<tr>
<td>Presentations to parliamentary committees</td>
<td>28%</td>
<td>25%</td>
<td>35%*</td>
</tr>
<tr>
<td>Sending reports to parliamentary committees</td>
<td>27%</td>
<td>25%</td>
<td>30%</td>
</tr>
<tr>
<td>Publication in electronic media, for example, blogs and other social media</td>
<td>25%</td>
<td>26%</td>
<td>21%</td>
</tr>
</tbody>
</table>

* p < 0.05 (Pearson chi-squared test of independence)

In general, the results show there is a high level of importance given to research dissemination and mobilisation with varying levels of importance for the different methods of dissemination. There is less importance given to indirect dissemination methods such as presentations or reports to parliamentary committees and media activity, but more favourable views towards opportunities for direct interaction with policy personnel such as informal contact and taking part in seminars and workshops organised by government policy agencies.

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33 The response categories for these questions were presented on a five point likert scale, as follows - 1 = Very important, 2 = Important, 3 = Neutral, 4 = Unimportant, 5 = Very unimportant. Respondents also had a ‘Does not apply’ option. The results shown are the combined of 1- Very important and 2 – Important.
5.2.2 Benefits of research partnerships

An additional question asked of respondents provides an indication of the benefits that a knowledge brokering mechanism may bring, particularly in terms of fostering relationships and creating linkages with policy and practice decision makers. The results for this question are shown in Table 5.4.

Just over three in four academics (77%) believe that research partnerships have provided them with opportunities for their research to have an impact on policy and practice. Academics based in university research centres or institutes were more likely to agree with this statement compared to those based in university teaching or research departments (86% versus 73% respectively).

Table 5-4 Benefits of research partnerships

<table>
<thead>
<tr>
<th>Strongly agree/ agree³⁴</th>
<th>Total n=693</th>
<th>Position in University Teaching/ Research Dept n=462</th>
<th>University Research Centre/ Institute n=182</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research partnerships have provided me with opportunities for my research to have an impact on policy and practice</td>
<td>77%</td>
<td>73%</td>
<td>86%*</td>
</tr>
</tbody>
</table>

* \( p < 0.05 \) (Pearson chi-squared test of independence)

5.2.3 Current perceptions of knowledge mobilisation activities

Although a majority of academics see the value in knowledge mobilisation activities, it is clear that the practical reality of knowledge mobilisation is quite different. When assessing the comments provided in the interviews, it was apparent that many academics provided negative comments on research mobilisation and how this is currently being conducted in Australia. In many cases, the ‘blame’ is placed upon the academics themselves, with an expressed need for significant improvement in the way their research is disseminated.

³⁴ The response categories for this question was presented on a five point likert scale, as follows - 1 = Strongly agree, 2 = Agree, 3 = Neutral, 4 = Disagree, 5 = Strongly disagree. Respondents also had a ‘Does not apply’ option. The results shown are the combined of 1- Strongly agree and 2 – Agree.
Australia does a terrible job at research translation. You go along to conferences, there's a table with a whole lot of reports sitting there and that's what we call research translation.

(Academic, University Teaching/ Research Department)

There's a real problem in the communication of ideas and information from researchers to practitioners. I don't think researchers do nearly enough to try and help that...Often the papers are so badly written in such an inaccessible style...You know, it's just - it's hopeless.

(Academic, University Teaching/ Research Department)

Universities have a responsibility more than ever to really work on how they translate research.

(Academic, University Teaching/ Research Department)

In the social sciences we have failed to understand what they've understood in health sciences for a long time, which is that there’s a process of doing research but there’s also a process of doing research translation, and they’re not the same...If you’re interested in seeing impact, there is this additional element in the interaction around sort of research translation, which is not factored in.

(Academic, University Research Centre/ Institute)

In other instances, there was a clear acknowledgement that support was required to carry out effective knowledge mobilisation and dissemination practices.

Well, translation depends on your audience and what language your audience speaks and if you’ve written something that was intended to be for an academic audience, then translating it can be quite tricky, and most academics don’t do that at all well, and I think academics need support.

(Academic, University Research Centre/ Institute)

If you are serious about wanting research translation to happen then you’ve got to, actually, you’ve got to resource it so you’ve got to fund it. You’ve got to put in place some mechanisms to draw on those resources to ensure that it happens.

(Academic, University Research Centre/ Institute)
Nevertheless, some mentioned that improvements, both in practice and conceptually, albeit slow, had been made in this area.

*There's a real problem with communication of information. I think we've made some progress in demography in Australia in getting that information across. But I think there's a long way to go.*

(Academic, University Teaching/Research Department)

*There's now much more emphasis on translational research and how research gets to be communicated. I still don't think universities do that well enough. But I think there's certainly more effort and more consciousness about doing that.*

(Academic, University Teaching/Research Department)

### 5.3 The need for knowledge brokering activities

The survey of academics asked a number of items of participants that are of direct relevance to the challenges they face in translating and disseminating their research to a non-academic audience, and where a knowledge brokering mechanism may provide a solution. These challenges relate to both the cultural and institutional constraints of academia as well as constraints associated with policy making. Overall, the results mirror the knowledge mobilisation challenges identified by policy officials.

#### 5.3.1 Constraints faced by academic researchers

The data concerning indicators of the constraints to knowledge mobilisation that academics experience are shown in Table 5.5 below. Just over two in three respondents agreed that there was a high cost in translating the results of research for policy makers and practitioners (68%), while just over half of the social scientists surveyed agreed that there were insufficient forums and networks available for bringing together researchers and non-academic end users of research (55%). For the latter, social scientists in primarily university teaching and research positions within a department were more likely to agree with this statement (57%) when compared with those in university research centres or institutes (49%).
Table 5-5 - Perceived academic barriers to research transfer that knowledge brokering could address

<table>
<thead>
<tr>
<th>Barriers to research transfer and uptake (Strongly agree/agree)</th>
<th>Total n=693</th>
<th>Position in University Teaching/ Research Dept n=462</th>
<th>University Research Centre/ Institute n=182</th>
</tr>
</thead>
<tbody>
<tr>
<td>High cost in translating the results of research for policy makers and practitioners</td>
<td>68%</td>
<td>68%</td>
<td>70%</td>
</tr>
<tr>
<td>Insufficient forums and networks available for bringing together researchers and non-academic end-users of research</td>
<td>55%</td>
<td>57%</td>
<td>49%*</td>
</tr>
</tbody>
</table>

* p < 0.05  (Pearson chi-squared test of independence)

Time constraints were also acknowledged as a barrier to knowledge mobilisation, and results to a survey item relating to this are shown in Table 5.6. A large proportion (81%) of academics believe that a lot of time is needed to coordinate the work between different partners. So while such partnerships are seen as valuable, time constraints are perceived as a barrier to forming effective partnerships.

Table 5-6 - Problems of research partnerships

<table>
<thead>
<tr>
<th>Strongly agree/agree</th>
<th>Total n=693</th>
<th>Position in University Teaching/ Research Dept n=462</th>
<th>University Research Centre/ Institute n=182</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need to invest a lot of time in coordinating the work between different partners</td>
<td>81%</td>
<td>81%</td>
<td>83%</td>
</tr>
</tbody>
</table>

The comments provided by academics in the interviews confirmed what is widely established in the literature (see, for example Oliver, Innvar, et al. (2014) - that academic incentives are not conducive to knowledge mobilisation work. More specifically, there was the widely supported view that academic incentives to publish in academic journals and to achieve high citation counts acted as a significant disincentive to carrying out effective widespread dissemination and knowledge mobilisation work outside of the academy.

35 See Table 5.4 for the the response categories for these questions.
36 See Table 5.4 for the the response categories for these questions.
Under the pressure to publish in the right sorts of journals, one doesn't do that sort of thing unless one's pretty committed to a body of ideas. It has its costs in terms of the promotion you get and the time you've got to get the ideas out there by other means.

(Academic, University Teaching/ Research Department)

They don't find it productive because they feel they have to simplify and shorten the nature of their findings and the nature of what they want to say, and they just don't feel they can do it. This is also the case for people who don’t like to perform outside the academy in ways other than through writing, so for radio interviews or for TV interviews.

(Academic, University Teaching/ Research Department)

Where did you publish, which of the journals, how much did you bring in grants and the public policy stuff really, sometimes, even by some people, you get ridiculed, for wasting your times. Op-eds are seen to be by some academics as a sort of a cross to the dark side.

(Academic, University Research Centre/ Institute)

5.3.2 Constraints of policy making

The survey of academics also revealed a number of constraints to knowledge mobilisation that are perceived to exist within the policy making community. These are shown in Table 5.7 below. Many of the social scientists surveyed agreed that policy makers and practitioners lack expertise in how to interpret or understand the findings of research (43%) with little difference depending on where the respondent was positioned. A similar proportion agreed that policy makers and practitioners lack expertise in how to apply the results of research to policy problems (41%). Those positioned in university research centres or institutes were more likely to endorse this statement compared to those positioned in university teaching or research departments (47% versus 37% respectively).
Table 5-7 - Perceived policy making barriers to research transfer that knowledge brokering could address

<table>
<thead>
<tr>
<th>Barriers to research transfer and uptake (Strongly agree/agree)</th>
<th>Total n=693</th>
<th>Position in University Teaching/ Research Dept n=462</th>
<th>University Research Centre/ Institute n=182</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy makers and practitioners lack expertise in how to interpret or understand the findings of research</td>
<td>43%</td>
<td>41%</td>
<td>46%</td>
</tr>
<tr>
<td>Policy makers and practitioners lack expertise in how to apply the results of research to policy problems</td>
<td>41%</td>
<td>37%</td>
<td>47%*</td>
</tr>
</tbody>
</table>

* p < 0.05  (Pearson chi-squared test of independence)

The interviews with academics support these findings. Other problems mentioned by academics include budgetary constraints of government which means that in-house research divisions are cut and therefore government is less likely to commission research. While this is a barrier to research use more generally, it does mean that there is an opportunity for an intermediary body to take on the role and associated work that in-house department research divisions once did.

In the past, certain departments have had very good in-house [research]. I think the loss of those - you know, budgets get tight and [unclear] they go. I think that then means you can make less - you commission things less well. You find it harder to make use of what you get, to translate it. So then you tend not to do it.

(Academic, University Research Centre/ Institute)

I find that very very difficult actually. I find that it’s, I’m fine at doing a technical report, I’m fine at doing briefing notes, I’m fine at going and doing the briefing back into the organisation, I’m fine at doing the general articles, but it’s very difficult to get your research picked up in a strategic way without being on some kind of reformed committee within government.

(Academic, University Research Centre/ Institute)

Dealing with [Department] is frustrating to say the least firstly because the level of political sensitivity is extremely high. For example they wanted us to write a piece for

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37 See Table 5.4 for the response categories for these questions.
Parity which is a homelessness magazine really to publicise the research and in it we used the phrase policy neglect and this came back to us for conversation and discussion. So the sensitivity antennas are always going.

(Academic, University Research Centre/Institute)

5.3.3 Negative perceptions of knowledge brokering as a form of knowledge mobilisation

Despite the results indicating a need for knowledge brokering mechanisms, there is a degree of negativity toward a ‘broker’ model for facilitating knowledge mobilisation. While this negativity was not widespread and indeed, only one academic made a direct comment on this, it does indicate that the criticisms of a knowledge brokering model identified in the literature (see section 1.1.3) are not isolated. The comment made below further highlights the challenges that a knowledge brokering model of interaction faces.

I am not impressed with the research broker or the translation broker model. I think it’s crap. If it was as easy as getting a brokerage model in place that handled the nexus between the research and policy we’d have seen a lot more of it and a lot more of it would have been done well...[I am] sceptical that a brokerage model is the ‘be-all and end-all’ of how it's done...

(Academic, University Research Centre/Institute)

5.4 Suggestions for specific knowledge brokering activities

Amongst academics, there was the perception that engagement between policy makers and researchers was needed. In the absence of researchers undertaking this role, there was an acknowledgement that a third party was needed to fill this gap.

...but I think the evidence is pretty clear that you need - either the researchers need to take on this beyond dissemination to engagement function. If they don't, some form of knowledge broker, some think tank, some other individual body needs to be there to do that...

(Academic, Think tank)

A theme that emerged in terms of specific knowledge brokering activities was the need for exchanges between academics and policy makers. It was seen to be the most valuable for those in academia to both understand the policy context (as a form of capacity building), to create the
existing linkages and relationships that are needed and then ultimately, to have the best possibility of research having an impact on policy. As part of this exchange they are also undertaking a knowledge management role through the distillation of their knowledge when sharing with policy officials. Exchanges and secondments between academics and policy institutions were also mentioned prominently by policy officials (see section 4.3.3).

*I think in Australia we don’t make enough use of the kind of knowledge brokerage models, so academic in residence in government and bureaucrat in residence in universities.*

(Academic, University Research Centre/Institute)

*...the idea of brokers within government departments. I think that’s a very fascinating idea.*

(Academic, University Teaching/Research Department)

In a similar vein, calls were made for changes to institutional structures or systems within government to facilitate knowledge mobilisation. This included having a unit dedicated to keeping abreast of the latest academic research in an area or having a Chief Knowledge Officer (similar to a Chief Financial Officer). The establishment of advisory committees as part of formal policy development deliberations is an existing strategy for improving researcher-policy maker relations, and is regarded as something that should continue.

*One of the most useful things that Government departments could do is set up a small unit - and probably use their graduates on rotation - which had as its main task keeping abreast of the relevant academic journals and producing abstracts and summaries targeted at relevant branch heads...So you do your rotations in various parts of the department; you spend three months in this information dissemination unit or whatever you want to call it, where your task is to read AJPA, AJPS, AJPH*\(^{38}\); *any of the journals that are relevant to your particular department and to do a weekly digest and draw it to the attention of particular branch heads.*

(Academic, University Teaching/Research Department)

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\(^{38}\) AJPA is the Australian Journal of Public Administration; AJPS is the Australian Journal of Policy Science; AJPH is the Australian Journal of Politics and History.
It's like you've got a chief information officer, your chief financial officer - almost you need a chief knowledge officer in a sense to have someone who's got seniority and expertise who can foster that relationship and make sure that knowledge is provided in a way where people can go somewhere and say, what can we do here - not just seen as research arms but something bigger than that.

(Academic, University Teaching/Research Department)

The ones that I've been aware of that seemed to have worked quite well - one is government's bringing together an advisory committee around a particular issue with the express purpose of, what's the evidence?

(Academic, University Teaching/Research Department)

Since the People and Place\textsuperscript{39} journal - that was the little journal that folded at the end of last year - and it had two or three thousand word papers, often - and it was very widely read, and they were often non-technical and quite accessible. That was a great way of getting information out. So it's a great shame that's gone. Maybe we need a few more of those type of journals that bridge the academic-practitioner divide.

(Academic, University Teaching/Research Department)

The linkage and exchange element was also considered as being critical. More specifically, the underlying theme of the suggestions made by the social scientists interviewed concerned the need for policy makers and academics to work together to find solutions to policy problems. There was a general consensus of the need to move beyond passive reporting of results with little focus on the implications of the research or the capacity of the research to contribute to real policy change. There was also the implication that ongoing exchange needs to be formally embedded in relations between policy makers and academia.

\textit{It’s not so much procedures, I guess it is more practices. We’ve had now probably three or four different big departments tell us, that what they would really like is these research policy round tables. They repeatedly sort of say that really, what they want often, is not for you to come along and do a piece of research, it’s actually to come and just talk to them, and talk to them in a sort of an informal often confidential way.}

\textsuperscript{39} People and Place was published as a quarterly, peer-reviewed journal from 1993 to 2010 by the Centre for Population and Urban Research at Monash University. The journal presented key information and research findings on population dynamics, migration patterns, the labour market, trends in fertility and partnering, education and training, urban growth/planning, social inclusion, health, the environment and related topics.
In a closed session, about what the research findings should show, and then you can have sort of back and forth dialogue around what the implications to that are. Now I mean, that seems to be the thing that they repeatedly and when I say repeatedly I mean we’ve had three or four different agencies say if we could get anything out of academics it would be more these kind of interactions.

(Academic, University Research Centre/ Institute)

There needs to be some platform of ongoing exchange and that needs to be recognised as part of the job of everyone involved.

(Academic, University Teaching/ Research Department)

5.4.1 Political and institutional change

Finally, there was an acknowledgement that the timing of research being introduced to the policy cycle was critical. Regardless of the strength of the research findings, or the quantity of knowledge mobilisation activities that were being undertaken, if the policy conditions were not conducive, the research would be ignored. Conversely the right policy conditions would mean effective and efficient use of research.

As it turns out, this one has been influential, partly because of the quality of the data and well it was the most regarded. But partly also because of the timing issues. It was a policy of previous government, implemented by the new government. They weren't unhappy to make a few tweaks. They didn't want to do a wholesale change. But the timing was good for them.

(Academic, University Research Centre/ Institute)

Sometimes the work of - the applied work - it's not the idea is startlingly new, it's that it needs to be articulated in an environment so that it gives people a route they can take. I think that's when it can be very effective...you're feeding into a conversation that people are wanting to have actually.

(Academic, University Teaching/ Research Department)

In some cases, this was more about wider institutional change and governance models that need to be in place to provide the support structures for effective policy-research integration to be realised.
At the foundation level research translation - research and policy - when you're looking at the research and policy nexus the thing that's fundamental to that I believe is a governance model that brings the parties to the table and actually works through and seeks an understanding of what's this about? What's going on here? What are the expectations? What is the language that's used?

(Academic, University Research Centre/Institute)

So they've done it in a think tank way but that's the mutation mechanism in the system. So the core for proposals but we have people seconded from government running that process. So they know when they read the first draft they know what's going to cause a problem and stuff like that. So we're moving - literally doing that brokering role but it's not arbitrage, it's not brokering the classic sense. It's brokering with the real appetite for taking risks and the willingness to be innovated. We can quite frankly do that because we've got nothing to lose. If we've got an opportunity to do something you just do it.

(Academic, Think tank)

5.5 Summary

Parallel to some of the findings with the research conducted with policy officials, the analysis of the survey and qualitative interviews with social scientists has revealed insights into their current knowledge mobilisation and knowledge brokering practices and perspectives. These insights include: the need for academics who undertake a knowledge brokering role; the various knowledge mobilisation activities undertaken by knowledge producers; the importance that is attributed to knowledge mobilisation activities; the challenges faced in knowledge mobilisation from the perspective of knowledge producers; and suggestions for specific knowledge brokering and knowledge mobilisation activities.

In summary, the results show that, as for the policy officials, the knowledge mobilisation and knowledge brokering activities undertaken by academics are varied and span knowledge management, linkage and exchange, and capacity building practices. While in general, there is a high level of dissemination activity undertaken by the participants in this research, there is a subgroup of academics who operate as knowledge brokers of a kind. This subgroup either self-identify as knowledge brokers or are clearly conducting work that aims to bridge the gap between policy and academia. What is also clear is that university research institutes or centres operate as a
form of organisational knowledge broker with a strong focus on the core functions of knowledge brokering – knowledge management, linkage and exchange and capacity building practices.

The results indicate that academics attribute a high level of importance to research dissemination and mobilisation activities, in particular those that facilitate direct contact with policy makers through a variety of formal and informal channels such as direct contact through presentations, workshops and seminars with policy officials. The majority of academics see clear benefits in research partnerships providing opportunity to influence policy and practice. Similar to the findings from the research amongst policy officials, there were suggestions that opportunities for secondments into government or exchanges between policy makers and academics to enable a better understanding of each other’s worlds would benefit the two communities.

Despite a positive predisposition to knowledge mobilisation, the current state of knowledge mobilisation practices is seen as poor (albeit improving), and more support is needed in carrying out knowledge mobilisation activities effectively. The challenges faced include a lack of time, lack of incentives, the high cost in translating the results of research for policy purposes as well as a lack of forums for bringing together researchers and non-academic end users. In addition, policy makers are perceived by academics to be lacking in research skills to interpret, understand and apply research results. That said, this differs considerably from the actual self-identified research skills of policymakers (identified in the previous chapter – see section 4.2.1), suggesting that there is an untapped knowledge base within the public service which knowledge producers can work with and build upon to achieve more successful outcomes in terms of research utilisation.

These results suggest that there is a need for a knowledge brokering mechanism, or some additional action outside the ‘traditional’ academic role, to overcome the gap that exists between what academics value in terms of knowledge mobilisation and the practical challenges to carrying out effective knowledge mobilisation. The increasing role of university research centres or institutes in the adoption of knowledge mobilisation practices is important and provides the formal organisational support and mechanisms for building the bridge between knowledge producers and knowledge users. More generally, there is less interest in individual knowledge broker work, but more perceived potential and indeed an expressed need for wider political, institutional and governance changes to support knowledge mobilisation strategies and activities.

The findings from the survey research and interviews with policy officials and academics are valuable in understanding the ‘demand’ for knowledge mobilisation and knowledge brokering
mechanisms in Australia. This component of the research has provided an initial understanding and identification of entities in the ‘research-to-policy landscape’ in Australia, and the nature and types of organisational relationships that exist between policy and academia. Chapter Six builds on the findings in Chapter Four and Five to create a typology of knowledge brokering organisations that exist in Australia. From this classification, a selection of case studies that illuminate a particularly promising model of organisational knowledge brokering can be drawn.
Chapter Six - Typology of knowledge brokering organisations

As detailed in Chapter Two – Literature Review and Chapter Three – Research Design and Methods, there is a large body of literature that summarises the range of organisations which are positioned as knowledge brokers, or which act as knowledge brokering entities between policy and academia. This material has been drawn upon for the development of a typology or classification of organisational knowledge brokering and exploring examples of each ‘type’.

The typology outlined below identifies organisations that undertake knowledge brokering activities in key social policy sectors that utilise social science research within Australia. A thorough scoping of such organisations has not previously been conducted in Australia. Such a mapping however is, of course, not an end in itself, and it is hoped that the categorisation of these organisations undertaken below will provide a good foundation for further in-depth analysis of knowledge brokering models, to assess the strengths and weakness of models, and the successes and challenges that they face. Indeed, there is considerable scope for further detailed research across all the types of knowledge brokering entities identified in this typology. Furthermore, it is hoped that this research may inform more systematic investigations into the effectiveness of various models of knowledge brokering activities and patterns of usage and encourage organisations that undertake knowledge brokering activities to identify other similar organisations, paving the way for increased networking, learning, and collaboration. Future research on these other types may follow, using this initial identification as a foundational exercise.

This chapter maps out the varying types of individuals and organisations identified as knowledge brokers and provides a high level analysis of these organisations based on the framework of knowledge brokering – knowledge management, linkage and exchange and capacity building, discussed in the literature (Ward et al., 2009a). A wide range of organisations are included in the typology and taken together they play strong roles in the movement of knowledge between research producers and users. Indeed many are research producers or research users themselves.

The purpose of this chapter is to outline the nature and location of these entities. Later chapters will investigate in detail three cases of one distinct organisational form of knowledge brokering – research-focused intermediary organisations.
One obvious way to distinguish knowledge brokering organisations is by location – either within government, within academia or somewhere in between – given these are the two sides of the relationship which knowledge brokering is said to assist. The resulting typology or classification of the identified knowledge brokering entities is displayed in Figure 6.1 below. The structure of this chapter is organised around this classification system, with some detailed discussion of each type of entity. This includes a brief review of any existing literature for each type.
Chapter Six – Typology of knowledge brokering organisations

Figure 6-1 - Classification of knowledge brokering entities and examples in social policy in Australia

**Location of entities within Australia that operate in the ‘research-to-policy’ space**

**Within Government**
- Research Officers/Research Divisions within Government
- Government Agencies, e.g. Productivity Commission, Australian Bureau of Statistics (ABS)
- Statutory Bodies, e.g. Vic Health, Australian Institute of Health and Welfare (AIHW), Australian Institute of Family Studies (AIFS)
- Clearinghouses, e.g. Child Family Community Australia

**Intermediary - Outside Government and Academia**
- Research-focused intermediary organisations, e.g. Australian Research Alliance for Children and Youth (ARACY), Sax Institute, Parenting Research Centre, Australian Housing and Urban Research Institute (AHURI)
- Charities, e.g. Smith Family, Benevolent Society
- Peak bodies, e.g. Australian Healthcare and Hospitals Association (AHHA) Deeble Institute
- Think tanks, e.g. Grattan Institute, Lowy Institute

**Within Universities**
- Policy-orientated academics/Policy Entrepreneurs
- Applied Research Institutes, e.g. Centre for Drug and Alcohol Research (UNSW), Institute for Social Science Research (ISSR), Melbourne Institute of Applied Economic and Social Research
- Other - Cooperative Research Centres (CRCs), Centres of Excellence
6.1 Within government

Entities within government, whether individuals, units within agencies or agencies themselves, can undertake some of the roles of a knowledge broker. A scan of the literature, and interviews with public policy officials, provided a good foundation for developing a sound understanding of the types of knowledge brokering activities and entities that exist within government and the importance of their role. Given their governmental context, they operate in a particular way, have a distinctive culture, and have a unique role in understanding the requirements of government and policy makers in terms of the evidence that is required and how it can be used in policy making. Prior to this research, the range of these entities and their knowledge brokering capacity have not been mapped in detail.

At a broad level, knowledge brokering by individuals and entities located within government, and its strengths, are related to their proximity to the policy makers. These strengths include a greater understanding of the mechanics of policy making, how it works on a day to day basis, and the process for integrating research into policy decision making. This specialist knowledge of the range of influences on policy then flows into how to manage key stakeholders and political interferences. On the other hand, their susceptibility to political influence, and therefore their neutrality and independence, could be questioned, leading to a concern that they could be more likely to use research, whether consciously or unconsciously, in a symbolic or political fashion (Weiss, 1979).

6.1.1 Research officers/ research divisions within government

Many government departments within Australia have research officers or research divisions, whose primary role is to manage and conduct research related services within specific jurisdictions and departments. Note that while this research is primarily looking at organisational forms of knowledge brokering, research officers hold a significant role as being the ‘gatekeeper’ of research entering the policy making process. As such, they have been discussed here, but to be considered within the wider organisational context.

Accurate figures on the number of researchers within government are difficult to locate. One study conducted in 2013 by Harris and Jackson (2013) mapped the Australian government’s investment in links between research and policy. The study looked at the existing arrangements of government on six types of investments and organisations, one of which was ‘In-house research capability within Departments’. The resulting report identified 20 research branches across 12 Departments (Commonwealth); three research branches with other portfolio agencies; and seven Chief Scientists.
and five Chief Economists across nine portfolios. A review of departmental websites for my research reveals that the existence of a research ‘team’ or branch is evident across many of the human services agencies of government at a commonwealth and state level. These departments would have a page dedicated to explaining details of their research capacity as part of their website, indicating their emphasis on the use of research as part of their departmental processes. See Appendix B for a listing of a selection of agencies which show evidence of having a research branch.

It is also worth noting that government departments are subject to considerable change, dependent on incoming governments. Of interest to this research would be historical data on the research capacity within government as an indication of whether this has been diminishing or increasing however similar figures cannot be found for Australia. That said, there are considerable challenges to gathering this data, given what is publically available, in addition to structural factors such as a three tiered level of government with varying levels of research capacity within each level.

Research officers within government can be considered as individual knowledge brokers and have a role in disseminating research throughout the bureaucracy. While the roles of bureaucratic agendas vary by jurisdiction, as do the positions of research officers across individual agencies, their potential to play an important role in the policy making process should not be overlooked.

The range of activities that research officers within government perform broadly include commissioning research based on the requirements of the department; dissemination of relevant research within the department; capacity building through skills training and seminars; development of research agendas in line with departmental requirements; conducting in-house seminars and workshops or skills training; working with key external stakeholders of universities, consultants and other government departments in other jurisdictions; working with key internal stakeholders of research teams and policy officials; and more generally advocating the use of research as part of the policy formulation process. Depending on the context, research officers within government play a key role in ‘selling’ research within the department, particularly in politically sensitive or contentious policy areas. This can play out in a variety of ways, as shown by an academic interviewed for the ARC Linkage project.

So we had to then go into the Department and talk to senior people about some of this but what was really interesting is that we had these senior people on this side of the
We sat on one side of the table but the research manager sat with us. So it was like we were the research team and these were the senior - it was sort of like he wasn't [name of Department], he was kind of a research - so that was interesting dynamic and you probably could say something about the way that - the semiotics of that meeting....He was sort of on our side because he was committed to high quality research, free from political interference.

(Academic, University Teaching/ Research Department)

The influence of research officers and research divisions also varies depending on the culture and leadership of the department, and indeed, may only exist where there is top-level support for the use of research within the department.

The formal role of disseminating research within the bureaucracy is under threat as research divisions within government have been gradually shrinking over the past 20 to 30 years, and particularly in recent years with governments across the world, including Australia working under austerity measures. Other factors contributing to the diminishing capacity of research divisions in addition to budgetary constraints are the shift to a more reactive nature of the public service, the related power shift to ministerial offices, the reduced attractiveness of a public service career for highly qualified analysts and the apparent narrowing of the scope for public servants to engage externally on matters related to the development and design of policy (Banks, 2013).

Departmental libraries

Internal government libraries have also played a knowledge brokering role, particular in terms of knowledge management and dissemination. Specific and accurate data on where such internal government libraries exist today is difficult to locate. The interviews with public policy officials provide some indication that the role of the library is (or was) considered highly valuable to the departments in which they exist. The comments also provided some indication that these have diminished and many libraries have been abolished or are significantly reduced in size, primarily due to budgetary constraints and the perceived lesser need for such a resource. This has been exacerbated by the free access to online libraries and databases that many policy officials have through their desktop (see section 4.1.2.2 for detailed comments from policy officials about departmental libraries).
Typically, libraries have tended to exist in the larger departments and certainly vary across jurisdictions. In the absence of a library resource for the department, research officers take on the knowledge management role that the library would typically perform, servicing those policy officials seeking information. Alternatively, they refer to other government information services, such as the Australian Institute for Family Studies (AIFS) or the Australian Institute for Health and Welfare (AIHW).

### 6.1.2 Specialised agencies within government

Specific government agencies can themselves act as organisational forms of knowledge brokers. In Australia, two agencies in particular act in this function at least to some extent – these are the Productivity Commission and the ABS. Both are in a privileged and powerful position to provide evidence-based assistance to government through their work.

*Productivity Commission*

The Productivity Commission is the federal government’s primary independent policy advisory body and in this capacity has knowledge brokering and bridging roles.

According to its website, ‘the Productivity Commission is the Australian government’s independent research and advisory board on a range of economic, social and environmental issues affecting the welfare of Australia’. It contributes by ‘providing quality, independent advice and information to governments and on the communication of ideas and analysis’ (Productivity Commission, n.d.). While it is wholly government owned, and its work program is dictated by government, it operates independently and with neutrality. Indeed, three core features underpin the effectiveness of its contribution to public debate and policy formation, these being independence, transparency and having a community wide perspective (Productivity Commission, n.d.). It does not administer government programs or exercise executive power (Wishart, 2015).

The remit of the Productivity Commission has evolved and widened since its early beginnings in 1921 as the Tariff Board where its work was primarily confined to advising on taxes and subsidies of international trade commodities and other trade barriers (Productivity Commission, 2003). Over time the emphasis on economic development was ‘extended to include the analysis of the social and environmental consequences of recommendations in their inquiry reports’. The responsibilities of
the Productivity Commission today are broader still, ‘addressing a wide range of reform, issues with microeconomic dimensions, including not only impediments to improved economic performance in all sectors of the economy, but also areas of social, environmental and economic interaction’, all with the focus on achieving a more efficient and productive economy, as a key to higher living standards (Productivity Commission, 2003, p. 3).

Part of its core work is to conduct public inquiries and research studies requested by government as well as carry out self-initiated research and annual reporting on productivity, industry assistance and regulation (Productivity Commission, n.d.). Across these work streams, it uses a range of consultation and dissemination strategies including written submissions and attendance at hearings, workshops and other forums (Productivity Commission, n.d.), and has a strong emphasis on involving the full range of stakeholders including community based organisations and academia in its work. Its role as providing evidence into policy decisions has increased since research capacity within the bureaucracy has declined, with fewer departments now having in-house research capacity (Banks, 2013).

The Australian Bureau of Statistics (ABS)

The ABS is Australia’s national statistical service aimed at ‘assisting and encouraging informed decision making, research and discussion, within government and the community by providing a high quality, objective and responsive national statistical service’ (ABS, 2005). This mission statement highlights the need for statistics that are high, quality and objective, and the importance of their position as an independent and objective national statistical service to democracy (ABS, 2005). Its core values, as stated in its 2015 Corporate Plan, are impartiality, commitment to service, open and accountable, respectful and ethical (ABS, 2015).

It has operated for more than 100 years, originally as the Commonwealth Bureau of Census and Statistics (CBCS) established in 1905, and as the ABS since 1974. Its core work involves most obviously collecting national population statistics (including conducting the five-yearly National Census) but also the collection of a range of other economic, social and environmental indicators.

Its work encompasses the three core elements of knowledge brokering: knowledge management, linkage and exchange, and capacity building. These roles have been noted in the interviews with
policy officials, both those self-identifying the knowledge brokering role the agency plays as well as by policy officials in other agencies (see section 4.1.2.2).

6.1.3 Statutory bodies

Statutory bodies or statutory authorities are empowered by Acts of Parliament and operate at arm’s length from both the executive and legislature. They are created to fulfil any variety of functions, primarily the provision of goods and services, regulation, adjudication, and research and advisory functions, that do not conform well to the public administration model of government departments (Fenna, 1998). It is the statutory bodies developed to perform the latter function which are of most relevance to this research, given the knowledge brokering role they undertake.

Such bodies include the Australian Institute of Health and Welfare (AIHW), the Australian Institute of Family Studies (AIFS), the Victorian Health Promotion Foundation (VicHealth), the Australian Institute of Criminology (AIC) and the Commonwealth Scientific and Industrial Research Organisation (CSIRO). Note that VicHealth is a different model compared with others identified here though is included due to its position as a statutory body. Its primary function is to identify the negative influences on ill health and prevent chronic disease. Research is one core element of their work but health promotion is their overarching emphasis (compared with the AIFS or AIHW who have a stronger emphasis on research). They also have a strong emphasis on relationships building with all levels of government, political parties, practitioners and the media.

An analysis of the website content and annual reports of such organisations shows the range of activities they undertake and that which can be classified under the knowledge brokering functions of knowledge management, linkage and exchange and capacity building.

A selection of the more prominent statutory bodies that perform a specific research function and therefore act in a knowledge brokering capacity is provided in Appendix B.

6.1.4 Clearinghouses

Clearinghouses are typically located within statutory bodies but perform a specific function. A simple definition of a clearinghouse is ‘an agency or organisation which collects and distributes information’\(^{40}\). They can operate under a variety of names, including resource centre or library, but essentially undertake this core function of collecting and disseminating information for key

\(^{40}\) Taken from [http://www.oxforddictionaries.com/definition/english/clearing-house](http://www.oxforddictionaries.com/definition/english/clearing-house)
stakeholders. Clearinghouses typically operate through a strong online platform that has the main task of the collation and dissemination of information. In the human services area, this typically means academic research. This type of information management ‘model’ became popular in the 1990s in Australia. While funding has been withdrawn for some smaller clearinghouses, some larger and more prominent entities still exist in various forms.

There is a lack of literature on clearinghouses as entities in themselves. Past criticisms of clearinghouses include their low communication potential, the final reports do not necessarily reach the right target audiences and users of the research find access, readability and relevance of the reports problematic (Yin & Gwaltney, 1981). In response to such criticisms and more generally to changing requirements of the policy landscape and decision making processes, many clearinghouses have modified their overall strategy to act not just as portals of documents, but to actively promote information that is contained on their websites. In this way, clearinghouses have moved beyond knowledge management to function as knowledge brokers, with associated activities of capacity building and linkage and exchange, to varying degrees.

Analysis of the website content for clearinghouses provides support for this extended function. Of the clearinghouses identified, all outline clearly on their website that their role is to be a ‘primary source of quality, evidence-based information, resources and interactive support for professionals’ in relevant sectors. All are fundamentally a repository of information but equally, they are all proactive in disseminating their information. The types of dissemination strategies they employ include free newsletters sent out to subscribers, social media to alert followers of latest publications, webinars and podcasts. The range of publications include larger literature review-type papers and then shorter, more accessible articles or resource sheets, support in terms of ‘helpdesks’ for those requiring assistance relating to research. In addition, many of the clearinghouses have their own research capacity, undertaking primary research on relevant topics, depending on the requirements of the sector.

A list of a selection of the more prominent clearinghouses in Australia is contained in Appendix B.

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41 This was taken specifically from the website for the clearinghouse Child Family Community Australia, part of the Australian Institute for Family Studies research services, but is similar language to that of other clearinghouses in respect of what their role is.
6.2 Within academia

Like those individuals and entities in knowledge brokering roles positioned within government, those located within academia have a similar bridging capacity that provide significant advantages in closing the gap between policy makers and academia. At the ‘source’ of knowledge production, they are best able to understand the ‘knowledge’ itself and its context, and then be able to translate relevant and accurate information for policy work. Independence and having high quality research outputs are core strengths of individuals and entities located within academia. That said, they are up against the isolationist ‘culture’ of academia, incentivised by such things as citation counts in high ranking journals, a culture which traditionally does not highly value ‘policy-facing’ or knowledge mobilisation activities and therefore a lower likelihood to invest in or resource this work. This is gradually changing as universities come under pressure to show the impact of their work, so it will be interesting to see how academia as a whole and key players within this sector change and adapt their activities in response to the ‘impact agenda’.

From an analysis of the key players within academia that have a clear bridging role between academia and policy makers, to more or less an extent, three key types emerge – policy entrepreneurs, applied research organisations, and an assortment of research funded entities located within academia such as CRCs and Centres of Excellence. Each type is discussed below.

6.2.1 Policy entrepreneurs

The role of key actors in knowledge mobilisation has been noted in the literature, in particular, the role of policy entrepreneurs and their capacity to promote policy ideas. Policy entrepreneurs are simply defined as people who seek to initiate dynamic policy change (Mintrom, 1997, p. 739). A more specific definition of policy entrepreneurs are people who have the sufficient research backgrounds and credentials to understand the culture and methods of university research organisations but who also understand the policy process and can communicate effectively with state policymakers (Coburn 1998 in Lomas (2000b, p. 236)). According to Mintrom (1997, p. 739) they seek policy change through various activities including identifying problems, networking in policy circles, shaping the parameters of policy debate and building coalitions.

Kingdon further describes some of the defining characteristics of policy entrepreneurs: they have a ‘claim to be heard’ due to their own expertise, their ability to speak for others, or are in an authoritative

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42 See section 1.1.1 for further discussion on the impact agenda.
43 Again, note that while the focus of this research is on organisational forms of knowledge brokering, the prominence of key individuals such as policy entrepreneurs to act as knowledge brokers is important to highlight.
44 Note the distinction between policy entrepreneurs and public intellectuals made in section 5.1.2.1.
Chapter Six – Typology of knowledge brokering organisations

decision-making position; they have well established networks and policy connections; and they have a strong willingness to invest a large amount of time and resources into pushing their agenda (Kingdon, 2011, pp. 180-181). Furthermore, and most importantly, Kingdon (2011) recognises the dual role of policy entrepreneurs – as advocates, through the ‘softening-up’ of the system to make it more receptive to the ideas they are advocating; and as brokers, through connections and negotiations with people to then ultimately be in a position to take advantage of the opening up of policy opportunities. The role of a policy entrepreneur can be functional, performing one part of the policy cycle, as well as structural, that is, acting across each of the stages of the policy cycle (Skok, 1995, p. 326).

Policy entrepreneurs have strong synergies with those Thomas (1991, p. 228) calls ‘Gadflies’ as a research to government policy model. Within this metaphor, the role of the ‘Gadfly’ is best undertaken by someone who has ‘a sound knowledge of the workings of the government machine and of its strong and weak points’. Furthermore, it is important for these actors to ‘establish a relationship with administrators at several levels and preferably to be of use to them’ (p228). The emphasis on widespread dissemination of their research is noted, with recipients being anyone who might be influenced by the research or use it to influence others (Thomas, 1991, p. 228).

In this respect, policy entrepreneurs are the ‘advocates’ for academic research and are actively promoting their own and other research in government circles and have established strong links and networks with high levels of government over a considerable length of time. They typically have worked across both policy and academia but are primarily located in academia. They work to further a cause based on their personal and professional interests and have researched and disseminated this research extensively and widely.

The language around policy entrepreneur roles varied but in essence referred to the same type of actor. For example, ‘academic entrepreneur’ was a term used to describe a similar role to those associated with a ‘policy entrepreneur’.

Barth and Schlegelmilch (2013, p. 2), provide a definition of an academic entrepreneur as an actor being scientifically active and at the same time working as an entrepreneur. In a modern market-driven society the academic entrepreneur is the link between the academic world (= oriented toward knowledge) and the commercial world of the societies (= oriented toward innovation). The value added by an academic entrepreneur is created by the utilisation of academic knowledge (Patents,
Ideas, Technologies, Think Tanks, etc.) for customers belonging to different sectors (Business & Industry; Government & Politics; Media & Society; Environment; University, Science & Research). Based on this definition, the academic entrepreneur has a similar meaning to policy entrepreneur in its link with government, though it can cover a broad range of linking activities than just those between research and policy.

From the interviews with public policy officials, a number of individuals either self-identified or were nominated by others as policy entrepreneurs.

### 6.2.2 Applied research organisations

Applied research organisations sit within the university context and have been specifically created to conduct policy-relevant research, utilising the benefits of having a strong academic foundation to then have an impact on the policy decision-making process. Funding for such organisations comes from both the university or from government contracts. The funding model with government is typically as contractor/supplier. Most relevant to this research, are those organisations that carry out applied social research. Prominent social research organisations of this type within Australia include the Melbourne Institute of Applied Economic and Social Research, the Institute for Social Science Research (ISSR) at UQ, the National Centre for Drug and Alcohol Research (NDARC) at the University of NSW (UNSW), and the Social Policy Research Centre (SPRC) at the UNSW. Organisations of this type are typically very strong in their capacity building element, all having well developed PhD programs and other skills training, as well as well-developed research assets such as large scale surveys. In addition they work to foster strong relationships with government funding bodies and engage in extensive knowledge mobilisation and dissemination work. The strength of this model of knowledge brokering is in its strong academic skills, its infrastructure to develop large-scale research assets, and their skills training of researchers.

A listing of a selection of applied university research institutes is provided in Appendix B.

### 6.2.3 Other – Cooperative Research Centres (CRCs), Centres of Excellence

Other entities are located within an academic institution, or are at least primarily research-based entities but are different to an applied research organisation in their funding and operational model. In particular, CRCs and Centres of Excellence fall under this type of bridging entity located within
academia. They are created specifically from government funding for a specified length of time to carry out dedicated research in a specific area.

The CRC Programme was established in 1990 and primarily supports industry-led collaborations between researchers, industry and the community. According to the CRC Programme website, ‘CRC collaborations involve researchers, industries, communities and government, but must include at least one Australian end user and at least one Australian higher education institution (or a research institute affiliated with a university)’ (Department of Industry Innovation and Science, n.d.). Since the commencement of the programme, 212 CRCs have been funded with the government committing more than $4 billion in CRC Programme funding (Department of Industry Innovation and Science, n.d.). It accounts for 1.6% of Australian Government spending on science, research and innovation (Australian Government, 2015a). Traditionally it has, and continues to have, however, an emphasis on STEM (Science, Technology, Engineering and Mathematics) disciplines and indeed this is outlined in the latest review of the programme which recommended their focus should be on recently announced growth sectors of Food and Agribusiness, Mining Equipment, Technology and Services, Medical Technologies and Pharmaceuticals, Advanced Manufacturing, and Oil, Gas and Energy Resources (Australian Government, 2015a). Social science research is little served through this programme though there have been a number of CRCs since the programme began that have had a significant social science element. CRCs provide an interesting model in terms of bridging the gap and encouraging collaboration between otherwise disparate groups, in this case, industry, academia, government and the community. In particular the CRC model has a strong emphasis on encouraging knowledge transfer and capacity building (through training of post-graduate students and researchers through the programme). The listing of social science related CRCs funded by government since the program began is provided in Appendix B.

Centres of Excellence are part of the ARC’s45 Linkage funding schemes which ‘aims to encourage and extend cooperative approaches to research and improve the use of research outcomes by strengthening links with Australia’s innovation system and with innovation system internationally’ (ARC, n.d. (a)). The Centres of Excellence ‘promote significant collaboration which allows the complimentary research resources of universities, publicly funded research organisations, other research bodies, governments and businesses to be concentrated to support outstanding research’ (ARC, n.d. (b)). The Centres of Excellence provide a mechanism by which strong relationships between key stakeholders, including government and other community based organisations,

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45 See section 1.1.1 for details of the ARC.
capacity building activities and extensive dissemination activities can be leveraged. Again, although there has been an emphasis on STEM research disciplines as recipients of Centres of Excellence funding, there have been a number of Centres of Excellence for social science areas. These include the ARC Centre of Excellence for Children and Families over the Life Course (awarded to UQ in 2014) and the ARC Centre of Excellence in Population Ageing Research (awarded to the UNSW in 2011). There are also similar entities funded through the NHMRC on health-related topics, including a strong emphasis on research mobilisation.

6.3 Intermediary organisations

Outside of government and academia there are entities that act as knowledge brokers, either as a core part of their work or as part of a wider role in aiming to influence policy. Some of these entities have a core focus on bridging the gap between research and policy, while others have other primary aims but still have knowledge transfer and exchange as an important part of their work. Situated outside the constraints of government and academia, they offer significant advantages over those knowledge brokering entities situated within those organisations because of their independence and neutrality. They could be considered more vulnerable, as they are outside of the security of the long-established institutional establishments of government and academia. My scoping exercise revealed four types of organisations that fall outside of academia and policy which have this bridging role – research focused intermediary organisations, not-for-profit organisations (including charities), think tanks, peak bodies and advocacy. Each of these types of intermediary ‘knowledge brokers’ are discussed below.

6.3.1 Research-focused intermediary organisations

Interesting and unique organisational models of knowledge brokering are those that can be identified as ‘research-focused intermediary organisations’. At their simplest level, these have been established with the core aim of bringing together policy makers and academics in a particular sector. It is in these organisations or entities where one would be most likely to find a level of self-identification with a brokerage role between research and policy. For example, the Institute for Safety, Compensation and Recovery Research (ISCRR) is an organisation of this type established in 2009 with core funding provided by WorkSafe Victoria, the Transport Accident Commission (TAC) and Monash University. It uses language such as ‘research-policy partnership’ as a descriptor of the organisation, ‘develop, conduct and translate research’ as its core aim, and its organisational model is described as a ‘brokerage model’ (ISCRR, 2014, n.d).
The business and funding models differ across the entities. Some are independent and not-for-profit organisations (for example, ARACY, the Telethon Kids Institute). Some rely solely on funding from government; some receive funding from universities depending on the formal partnering arrangements of the entity, and some receive a level of philanthropic funding. Others are jointly funded by government and universities due to an identified gap and a recognised need to formally mobilise knowledge through an entity that can make the best possible use of research in policy (for example, AHURI).

A number of these research-focused intermediary organisations exist in Australia and provide a particularly interesting model of knowledge brokering as they offer significant advantages over other models in a number of elements including independence, neutrality and legitimacy. A listing of a selection of these organisations in the social sciences in Australia is provided in Appendix B.

Given their uniqueness as a knowledge brokering model, significant attention has been paid to this type of organisation for the purpose of this research. Detailed case studies of three research-focused intermediary organisations are provided in Part C of this thesis. There is considerable scope beyond this thesis for further in-depth analysis on many of these organisations, including their establishment, their business model and their success factors and challenges, both as innovating organisations, and as organisations which bridge the gap between academics and policy makers.

### 6.3.2 Not-for-profit organisations including charities

‘Not-for-profit organisation’ is an umbrella term for an extensive range of organisations operating for the benefit of the community without distributing monetary benefit to its members (Productivity Commission, 2010). This includes charities; not all not-for-profit organisations are charities but all charities are not-for-profit organisations. According to the Charities Act 2013, a charity is an entity which is not for profit, has purposes that are charitable and for the public benefit, or purposes that are incidental or ancillary to, or in aid of these, does not have any disqualifying purposes and which is not an individual, political party or government entity.

The role and scale of charities has developed and evolved significantly and there is now a proportion of charitable organisations which have a strong research capacity and have undertaken significant research dissemination, linkage and exchange and capacity building activities. An analysis of their website content and annual reports supports the positioning of them as knowledge brokers. For example, Mission Australia has dedicated significant resources to research and
evaluation (Mission Australia, n.d.); the Smith Family highlights that ‘research and evidence-based practice underpins all our work’ (The Smith Family, n.d.); a strategic goal of the Benevolent Society is to ‘build our education and research capacity’ (Benevolent Society, 2014). Their dissemination activities are typically proactive and advocacy-based and include submissions to government and reporting of research studies, and there is a strong emphasis on building strong relationships with community, business and government.

There are thousands of charitable organisations within Australia. Given this large number, it would be impossible to investigate and identify all of those that undertake knowledge brokering activities in some form, for the purpose of this thesis. In light of these circumstances, a specific selection strategy was undertaken to identify possible charities involved in a research to policy role. Details of this strategy are provided in section 3.2.2. The resulting list includes a good representation of larger charities in Australia. It is provided in Appendix B.

6.3.3 Peak bodies

The scoping exercise confirms that peak bodies also play a bridging role between academia and policy. While it is not the ‘core business’ of these organisations, this role is nevertheless undertaken to some extent depending on the organisational context. A definition of a peak body is that it is a ‘non-governmental organisation whose membership consists of smaller organisations of allied interests. The peak body thus offers a strong voice for the specific community sector in the areas of lobbying government, community education and information sharing between member groups and interested parties’ (Melville & Perkins, 2003). A further definition is that it is ‘a representative organisation that provides information dissemination services, membership support, coordination, advocacy and representation, and research and policy development services for its members and other interested parties...the peak council role does not involve direct service delivery’ (Industry Commission, 1995, p. 181). Their role in undertaking research and dissemination activities aimed at linking research with policy is highlighted as part of their ‘constitution’ and is clear from analysis of their annual reports and website content outlining their work. For example, one of the goals of the Australian Council of Social Service (ACOSS), one of Australia’s largest peak bodies, as stated in their most recent Annual Report, is the ‘development of evidence and experience-based solutions’ through a range of strategies including to ‘collaborate with academics and other researchers to produce and promote research that contributes to the public understanding

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46 The list is not exhaustive but is robust for the purpose of understanding the roles and activities that organisations of this type play, when perceived through a knowledge brokering lens.
of poverty, its causes, impacts and solutions’ (ACOSS, 2015). A number of peak bodies have created their own research institute, for example, the Deeble Institute, is an initiative of the Australian Healthcare and Hospitals Association (AHHA), the national peak body for the Australian public and not-for-profit healthcare systems. The Deeble Institute was launched in 2012 with the aim of ‘bringing researchers together with health care practitioners and policy makers to tackle key national health policy challenges facing Australia’ (Doggett, 2012). According to its website it conducts ‘high-quality independent academic research on a wide range of health policy topics’ (AHHA, n.d.). This work is used by the AHHA to inform its policy and program work (AHHA, n.d.).

A listing of prominent peak bodies within Australia is provided in Appendix B.

6.3.4 Think tanks

There is no single accepted definition of a ‘think tank’. The definitions vary throughout the literature, dictated by what roles think tanks undertake, where they are located, issues of focus, degrees of independence from politics and where funding comes from. This is duly noted in Hart (2008), who provides what he calls a ‘tentative working definition’ of think tanks as being ‘policy-orientated, knowledge-intensive idea producers and processors’ and delineates varying types including academic think tanks, government think tanks, contract research think tanks and policy advocacy think tanks. James McGann, director of the Think Tanks Project, notes that think tanks are ‘organisations that generate policy-oriented research, analysis, and advice on domestic and international issues in an effort to enable policymakers and the public to make informed decisions about public policy issues’ (taken from Selee, 2013, p. 5). Underpinning all the work of think tanks is that they are, at their basic level, in the business of marketing and packaging ideas.

Selee (2013, p. 10), notes that there are fundamentally two types of think tanks - those that have an ideological or political agenda, and those that publicly and consciously steer clear of ideological identification. Those think tanks with an explicitly ideological or political agenda are typically closely linked with politicians and interest groups that share their vision, and their funding stream is from political party sources. They often have a greater ability to influence policy decisions because they are involved in the political networks of politicians who make the decisions. They have a more narrow partisan appeal. Some well-known examples from the US are the Center for American Progress (CAP) and The Economic Policy Institute (EPI) (Selee, 2013, p. 10). The lack of neutrality

47 Further literature discussing think tanks include Hart (2008); McNutt and Marchildon (2009); Pautz (2012); Rich (2004); Sebba (2013); Selee (2013); Smith et al. (2013); Stone and Denham (2004).
and independence of this type of think tank undermines their being considered knowledge brokers, given that knowledge brokering organisations depend on a degree of neutrality and independence for their legitimacy.

Note that other authors have provided typologies of think tanks. For example, McGann (2015) identified seven type of think tanks – autonomous and independent, quasi-independent, government affiliated, quasi-governmental, university affiliated, political party affiliated, and corporate (for profit). The two types identified in Selee (2013, p. 10) are, however, useful to this thesis as they identify a core fundamental difference between the think tanks, and where the assessment of whether they are a knowledge broker or not can be drawn. Moreover, the research method to investigate them has been primarily desk research using the websites and other available academic and grey literature and this more fundamental two-way demarcation is clear from these sources.

Think tanks which publicly and consciously steer clear of ideological identification may better fit the role of a knowledge brokering organisation, and therefore more closely align with the ultimate goal of knowledge brokering organisations to ensuring successful take-up of research and evidence in policy making. These types of think tanks are guided by the notion that reasoned debate and analysis can lead to a better understanding of key public policy issues. They do not have an overall ideological purpose that guides a consistent approach to policy analysis; rather they are committed to the notion that research and dialogue can inform policy debates in important ways. Some prominent examples from the US are the Brooking Institution and The Public Policy Institute of California (PPIC) (Selee, 2013, p. 11).

The last 20 to 30 years have seen a prolific growth of think tanks throughout the world, particularly in the US. Australia has also seen the growth in the number of think tanks, with the most recent count in 2014 being 29 (McGann, 2015). A listing of prominent think tanks in Australia as at 2015 is provided in Appendix B.

6.4 Patterns of knowledge brokering activity amongst the varying types

Part of this research is to understand the various patterns of knowledge brokering activity organisations or individuals may undertake. In assessing knowledge brokering organisations, it is useful to use Ward’s framework of the three types of activities or roles that knowledge brokering organisations take on to a greater or lesser extent (Ward et al., 2009b). As discussed in Chapter Two, these are:
Knowledge management/dissemination – organising large amounts of research and knowledge in a way that is accessible to users. This model focuses on the creation, diffusion and use of knowledge and sees brokering as a way of facilitating or managing these activities.

Relationship building/linkage and exchange – more focus on linkage and exchange, networking. This model focuses on the development of positive relationships between researchers and decision makers whereby knowledge brokers act as intermediaries or linkage agents, using interpersonal contracts to stimulate knowledge exchange, the development of new research and the application of solutions.

Capacity building – developing capacity within government to take on board and understand research as well as the development of research infrastructure within the research sector itself. This model focuses on fostering self-reliance in both researchers and decision-maker, in order to develop the knowledge transfer and communication skills of the researcher, and the analytical and interpretive skills of the decision maker.

Using the categorisation of organisations or individuals developed above, a typology of knowledge brokering activities applying Ward’s three roles is displayed in Figure 6.2 below. It is important to note that these categories are quite fluid and provide a general classification of activities. In this way, these categories are indicative only, and a more detailed analysis may provide further conclusions in this respect. The activities of organisations and individuals will differ depending on the context in which they operate. In addition, the scale of low to high does not allow for great variability more generally but is a useful step in understanding and comparing patterns of activities. Indeed, there are some clear patterns of activities across the knowledge brokering types.

Using Ward’s criteria, we can see that many knowledge brokering roles fit within the matrix to varying degrees. For example, a detailed analysis of one of the case studies of an intermediary body, the ARACY, confirms that it undertakes a high level of relationship building activity, as would be expected given its strong focus on collaboration and network building, whereas its knowledge management role is less extensive when compared to a clearinghouse model of knowledge brokering, where relationship building is less central than managing large volumes of knowledge that are made accessible to stakeholders.

Alternatively, with an awareness of the need to improve research-policy mobilisation, organisations such as charities and peak organisations, while not having a clear mandate to address this issue, nevertheless see it as one part of their work, and have ensured that specific knowledge mobilisation
strategies are being adopted, and in many cases have employed individuals to manage such strategies.

It is worth noting that professional roles do exist for knowledge brokers or knowledge mobilisation managers and these have been identified as part of the desk research. Typically, these roles are located within an organisation that plays a knowledge brokering function which supports research ‘advocacy’. For example, it is unlikely that a university department itself would have an individual dedicated to a knowledge brokering role, but an institute within a university, carrying out applied research, is more likely to have such a position. It is rare for an individual with a dedicated knowledge brokering role, or a knowledge mobilisation role, to be located outside of the types of organisations identified here.

**Figure 6-2 - Knowledge brokering matrix of activities**

<table>
<thead>
<tr>
<th>Government-based Knowledge Brokering</th>
<th>Example</th>
<th>Knowledge Management</th>
<th>Relationship Building</th>
<th>Capacity Building</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Officers/ Research Divisions within Government</td>
<td>Medium</td>
<td>Low</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>Specific Government Agencies</td>
<td>High</td>
<td>Low</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Statutory Bodies</td>
<td>High</td>
<td>Medium</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>Clearinghouses</td>
<td>High</td>
<td>Low</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Intermediary Bodies</td>
<td>Research Focused Bodies</td>
<td>High</td>
<td>High/ Medium</td>
<td>High/ Medium</td>
</tr>
<tr>
<td>Not-for-Profit Organisations e.g. charities</td>
<td>Medium</td>
<td>Low</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Think tanks</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Peak Bodies</td>
<td>Medium</td>
<td>High</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>University-based Knowledge Brokering</td>
<td>Policy-orientated Academics/ Policy entrepreneurs</td>
<td>Medium</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Applied Research Institutes</td>
<td>Medium</td>
<td>Medium</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Other Research bodies e.g. CRCs, Centres of Excellence</td>
<td>Medium</td>
<td>Medium</td>
<td>High</td>
<td></td>
</tr>
</tbody>
</table>

There is no satisfactory existing framework for assessing effective knowledge brokering activities, only descriptive assessments of such activities. It is hoped that this research will help inform the development of criteria that increases the likelihood of the success of knowledge brokering in
translating research into policy. The strength of the matrix presented in Figure 6.2 is in the comparison of broad patterns of knowledge brokering activities.

6.5 Summary

The mapping exercise detailed in this chapter adds to the extant literature on various forms of knowledge brokering entities that have been identified in the literature. This chapter confirms that a broad range of entities exist within Australia that carry out activities that aim to mobilise research between academia and policy. Within the public service, research officers act as ‘knowledge brokers’ in certain contexts; research branches exist in a number of commonwealth and state agencies; two particular government agencies act as knowledge brokers; and statutory bodies and other organisational knowledge brokering entities such as governmental libraries and clearinghouses also occupy important roles. Within academia, policy entrepreneurs are active, as well as wider organisational entities such as applied research institutes, Cooperative Research Centres and Centres of Excellence. Outside of the academic and policy making communities, research-focused intermediary organisations, charities and other NGOs, peak bodies and think tanks operate, at least to some extent, to bridge the gap between research and policy. The breadth of organisational forms is not surprising given the range of actors that contribute to policy debate in a democratic system. Furthermore, in investigating the patterns of knowledge brokering activities of knowledge management, linkage and exchange, and capacity building, clear patterns emerge across the knowledge brokering types.

From the identification of these various models of knowledge brokering, and identifying the strength of each model based on their position within government, within academia or somewhere in between, it is hoped that further research can look at the strengths of the individual models identified here. Indeed, there is considerable scope to look at each type in greater detail. To carry out further research on the each type would, however, require significant time and resources. The constraints of this thesis do not allow such a large scale study. What this thesis does, however, is explore in greater detail one of these types of organisational knowledge brokering models – research-focused intermediary organisations - which has received little attention in the literature and which shows considerable promise as an innovative model of transferring research between academia and policy makers, with the broader aim of achieving evidence-informed policy making. These organisational knowledge brokering models are covered in Part C – Chapters Seven and Eight.
The humanities, arts and social science (HASS) disciplines provide vital knowledge and understanding of our world, its peoples and societies.\textsuperscript{48}

Part C – A focus on research-focused intermediary organisations

Part C of this thesis gives due attention to one type of organisational knowledge brokering model – research-focused intermediary organisations - identified during the development of the typology detailed in Chapter Six. This is a particularly promising model of knowledge brokering but has received little attention in the literature.

Accordingly, Part C comprises two chapters. Chapter Seven provides a detailed description of each of the chosen case studies to enable a full understanding of the model. This chapter will not aim to make an original contribution to the detailed description of the organisations and the history of their development, rather the originality of the chapter is in its focus on these organisations as indicative of a knowledge brokering model, using the framework identified in Chapter Two as a model of analysis. The subsequent chapter – Chapter Eight - provides a discussion of research-focused intermediary organisations as organisational knowledge brokering models, including a focus on the key features and patterns of knowledge brokering activities of these intermediary organisations, the critical key success factors of the model, and the challenges they face.

\textsuperscript{48} Stated by Professor Ian Chubb, Australia’s Chief Scientist 2011-2015, in Turner and Brass (2014)
Chapter Seven - Contextualisation: three case studies of research-focused intermediary organisations

The three case studies chosen for the research are:

- The Australian Housing and Urban Research Institute (AHURI);
- The Australian Research Alliance for Children and Youth (ARACY); and
- The Sax Institute.

These case studies are of interest because they illuminate how research-focused intermediary organisations (as one model of organisational knowledge brokering), can provide the structural and formal support to facilitate knowledge mobilisation between research users and research producers. Under certain conditions, this model may offer solutions to the ‘problem’ of research underutilisation compared with other forms of knowledge brokering activities. The choice of these three organisations was based on the following considerations:

- All come from differing sectors, specifically, housing, children and youth, and public health, enabling some comment on the importance of the policy context in shaping the organisation.
- All vary somewhat in the model they adopt of how they approach knowledge brokering and moving research into policy and practice.
- All have been in existence for at least 10 years. Therefore an investigation is possible into the model they employ, how it has developed and consolidated over time and their ‘success’ in moving research into policy.
- There is reasonable accessibility to key individuals associated with the organisation who are able to provide detailed historical accounts of the organisation’s development and current functions.
- There is an availability of publicly accessible information such as grey literature in the form of annual reports and financial reports, and other academic literature.

Descriptions on the development of these organisations, the policy context within which they operate, and their core knowledge brokering activities are provided below. This background provides a critical foundation for understanding how various contextual elements influence the successes and challenges they face. Indicators of success of the organisation and their perceived strengths and challenges faced are also described. The time period covered in this analysis is from the establishment of these various organisations up to mid-2015. No speculation is made about the likely longevity of each organisation, given their financial dependency.
Chapter Seven – Three case studies of research-focused intermediary organisations

7.1 Case Study 1 – The Australian Housing and Urban Research Institute (AHURI)

The Australian Housing and Urban Research Institute (AHURI) is a not-for-profit independent network organisation, established in 2000. It funds, conducts, disseminates and tailors high quality research on housing, homelessness and cities. Overall it is an active promoter of housing and urban development policy options based on sound research evidence. The organisation has a national focus, operating under a unique and innovative collaborative network model, consisting of a professional research management company (AHURI Ltd), located in Melbourne, which works with a national network of researchers and universities in research centres across Australia. These research centres submit proposals for funding and carry out research projects, while AHURI Ltd, as the secretariat, has responsibility for the day-to-day management of AHURI and its research programme. Core funding for the organisation is received from government grants (federal and state), university partners and third parties.

AHURI is a case study of interest for a number of reasons. It has had a clear objective from the outset to bridge the gap between research and policy making in the housing sector, through its emphasis on policy relevant research and outcomes. It consolidated a long tradition of collaboration within the housing sector in Australia which is quite distinctive to this sector, creating a critical mass of housing research and researchers in Australia. AHURI is situated in a strong public policy portfolio of housing, and its work highlights the research capacity and cohesiveness of this sector. It has a dominant presence in the Australian housing sector as an intermediary body between research and policy, with a strong reputation and presence amongst public policy officials interviewed as part of the ARC Linkage project on Research Utilisation. Finally, it is a unique entity in its organisational make-up, not fitting into a standard research centre type of organisation or any other provider of research.

According to its 2014-2015 Annual Report, AHURI’s mission is ‘To deliver high quality research that influences policy development to improve housing and urban outcomes of all Australians’. Its strategic goals are to deliver high-quality research; to influence policy development and practice change; to maximise value for stakeholders; and to build research capability and national capacity (AHURI, 2015).

Since it was established in 2000 its direction has essentially remained the same and its work and activities are centred on, and have continued to be developed around, these goals. Of particular

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49 This is discussed in section 7.1.5.1.
note is the emphasis now on ‘policy relevant’ research and the focus on ‘outcomes’, reflecting how the new organisation of AHURI (Mark 2) saw itself as differentiating from its original entity and how the organisation would move forward (discussed further below).

Its foundational program is the National Housing Research Program through which AHURI sets out an annual Housing Research Agenda. The Housing Research Agenda outlines the research priorities of the Commonwealth and states, and is updated annually. Academics and researchers in AHURI research centres are invited to propose research that addresses those questions. The agenda is a key mechanism in AHURI’s commitment to the transfer of research between research producer and user and using research to inform policy. The agenda is developed through joint discussions between all stakeholders of policy personnel, academics, pressure groups and other prominent housing bodies. Through this process, the university research centres enter a competitive annual funding round where they submit proposal to carry out the research laid out in the agenda. AHURI Ltd has responsibility for the day-to-day management of research projects undertaken as part of this program.

The Research Agenda model has changed over time. Initially, it was a six monthly funding round but this changed to an annual funding round not long after the organisation was established. This change was reflective of the length of time needed to carry out research projects, and the timeframes for which new requirements would become apparent. The issues on the Research Agenda have moved between generality and specificity, latterly more general which has been preferred by the university research centres as it gave them freedom to suggest other topics that they felt would be of interest.

A summary of its work is outlined in Table 7.1.

Table 7-1- AHURI's defining characteristics

<table>
<thead>
<tr>
<th>Organisational features</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Comprised of a management company - AHURI Ltd - and then university research centres as the delivery arm forming a ‘network’ organisation.</td>
</tr>
<tr>
<td>• Complex organisational structure allowing representation of the interests of all stakeholders in its key organisational processes.</td>
</tr>
<tr>
<td>• National organisation funded by all federal, state and territory governments relative to their size.</td>
</tr>
<tr>
<td>• 10+ years in existence.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relationships with stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Strong emphasis at the outset on building strong relationships with policy decision makers – various activities undertaken.</td>
</tr>
</tbody>
</table>
• ‘Consultancy’ type arrangement between university research providers and AHURI Ltd.
• Emphasis on research users – ‘user pull’ approach compared to a ‘producer push’.
• Encouraging autonomy for the university sector while balancing the needs of the policy stakeholders.

Strategic direction

• Key mandate from its beginnings to provide strong evidence base for policy decisions in the housing sector characterised by strong linkages – ‘policy relevant research’ and ‘outcomes’ was the language used and continues to be used.
• Diversification of research product offerings after 10+ years of development and consolidation.
• Focus on three key areas – housing, homelessness and cities - aligned with national policy interest. Indigenous focus across these areas.

Mechanisms for linking research with policy and practice

• Annual Housing Research Agenda outlining the research needs of the government to which research centres can respond.
• Majority of linkage work between university partners and government depts. carried out through intermediary of AHURI Ltd and key staff.
• Involvement in various standing committees, ministerial meetings and discussions, research seminars.
• Highly developed online platform with various modes of delivery including reports, briefing papers, evidence reviews (summaries) and social media outlets.

The organisation is underpinned by a long tradition of collaboration within the housing sector, characterised by such mechanisms as the Commonwealth-State Housing Agreements which provided the framework for funding of public housing between the federal and state governments. These have existed in the housing sector for 70 years and consolidated a collaborative culture within the housing sector upon which AHURI could be formed. This long history of collaboration within the sector gave it the structural support needed for its establishment and continuation.

7.1.1 Early stage of development of AHURI

Prior to the 1990s, housing research was relatively underdeveloped in Australia. Funding sources and amounts were variable and inconsistent and the organisation of housing research was disjointed, reflective of the lack of interest in housing as a mainstream or applied social science discipline (Jones & Seelig, 2004). The original entity, AHURI (Mark 1), was developed in 1993 as a first attempt to create a critical mass of housing research and researchers which would be able to have a real and influential impact on housing policy. More specifically, the establishment of a research

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50 The first Commonwealth State Housing Agreement was signed in 1945.
51 For a full description of the historical context of housing policy research in Australia, see Jones and Seelig (2004).
institute was seen to be ‘a way of institutionalising the link between research, skill formation and policy development in the longer term, but also to bring to the collection Australian research effort in the housing and urban areas of a strong sense of priority and purpose’ (Berry, Dalton, Flood, Maher, & Stimson, 1995). This entity however was discontinued due to a recognised need that the existing model of funding research on public housing through this intermediary body, effectively using a traditional consultancy model, was not meeting the needs of the policy problems faced by government. Following a strong commitment from the Commonwealth, state and territory governments, it underwent a significant restructure, AHURI (Mark 1) as an entity was dissolved, and was re-established as AHURI (Mark 2) in 1999/2000. The new organisation was built on a greater funding commitment from each jurisdiction and a re-invigorated focus on the importance of creating strong linkages between researchers and policy, this being a critical part of the AHURI (Mark 2) model. At the time, it was claimed that AHURI was the largest collaborative research venture in the social sciences in Australia (Jones & Seelig, 2004). The original director was Mr Michael Lennon, arguably one of Australia’s leading housing professionals working across policy, research and practice.

Funding for AHURI (Mark 2) was secured through the Commonwealth-State Housing Agreement which contained a clause dedicating commonwealth, state and territory governments’ contributions to the funding of AHURI. While this funding agreement is no longer in existence, it has been replaced by similar funding commitments which have seen the organisation through to its present day and predicted future.

That funding agreement is not there any longer. But the tradition is there, of contributing and valuing the research that has come from AHURI. I think it has been a great model. It's been very influential and a lot of the affordable housing policies we see now have definitely been informed by the research work from AHURI.

(Policy Official)

7.1.2 Governance arrangements

AHURI’s organisational arrangement comprises university research centres from around Australia, and AHURI Limited, a small non-for-profit management company, limited by guarantee,

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52 This was stated as ‘To inform the provision of housing assistance provided under this Agreement, the Commonwealth and States will support research and analysis of housing and related issues’. The source document for this is The Housing Assistance (Form of Agreement) Determination 1999 made under the Housing Assistance Act 1996, which was gazetted on 1 July 1999.

53 The number of research centres involved in AHURI has varied over time. The full list of the eight current university research centres is provided in Appendix C.
based in Melbourne that leads and manages the work of the Institute. The role of AHURI Ltd is to manage the work and activities of the wider AHURI network of universities and government funding bodies, as well as carry out a high level of activity around dissemination of research and engagement with stakeholders. This ‘head office’ has grown from two staff when AHURI (Mark 2) was established in 1999/2000, to approximately 20 staff members in 2015.

The organisation has a strong corporate governance focus, which it has worked to develop since its establishment. This is a critical component of the organisation, covering all elements of its business operations including quality management, audit, finance and risk management, and ethical standards. These arrangements also include preparing and implementing detailed policies and procedures on risk management, occupational health and safety, disaster recovery and business continuity and various employee policies and procedures (AHURI, 2006).

The Board of Directors includes representatives from all relevant stakeholders, that is, university representatives as well as representatives from the states and territory funding bodies. The Board also includes four members who are independent of the funders or university participants.

Funding arrangements

AHURI’s funding arrangement is unique, providing strong incentives to both policymakers and researchers, to be involved and has given the organisation its longevity. Both federal and state governments across Australia provide a nominal amount which is decided in negotiation with AHURI Ltd on the basis of the population in the jurisdiction. Governments across Australia then have access to all AHURI research that has been carried out and jointly funded using the pool of money provided by governments. The research funding pool is typically $3-4 million annually. This offers incentives to both government and research centres – though governments may provide only a relatively small amount each to AHURI, they have access to $4 million work of annual research activity.

In addition, the funding arrangement with the university research centres is such that they provide high quality research evidence at the academic research rate, not their consultancy rate which would typically be charged if policy makers were to go direct to them with research requests. These competitive pricing practices that AHURI has negotiated with the universities have meant that the
organisation has leveraged the value of the research to a market equivalent of approximately three times this value\textsuperscript{54}.

On the university side, there are a number of requirements to be involved in AHURI – the requirements have changed a little over time but fundamentally remain the same. Specifically, the requirements were for the university to appoint a senior academic (at 50%) to be responsible for AHURI in the university, as well as pay a nominal membership fee. In return, university centres are then entitled to apply for funds through the housing research program. Further benefits to the universities include the independence of the research that is undertaken in that they own the intellectual property of the research and reports that they produce, meaning they can be published in journals and count toward the publication count of contributing academics. All reports written for AHURI are double-blind peer reviewed which makes it attractive for universities and academics to be involved. Overall, the model maintains their academic credibility and their independence.

Other unique elements of the arrangement between AHURI and the university research centres are the provision of financial incentives in the research contracts for the timely delivery and financial penalties for the late delivery of research reports. While a strict component of the relationship, it serves to foster a culture within the universities of the importance of timeliness in research result delivery which is often cited as a barrier to research utilisation (see, for example, Shonkoff, 2000).

7.1.3 Summary of knowledge brokering activities

The aims of the organisation detailed above cover the core functions of knowledge brokering – knowledge management, linkage and exchange, and capacity building - as has been highlighted in the literature, and emphasis is placed on these functions to varying degrees. Considering the work of AHURI in relation to the three functions of knowledge brokering, it performs the following:

Knowledge management

Since its beginnings in 2000 it has a strong focus on knowledge management, and has a dedicated dissemination programme. The dissemination programme is built on the need to appeal to policy makers, practitioners, interested community members as well as an academic audience. It has a diversified product offering including peer-review report series, a research seminar series, research and policy bulletin summarising and building on the policy implications of research findings, e-

\textsuperscript{54} The research institutes are charging only their research rate to government through AHURI Ltd which is below their consultancy rate (their research rate is typically a third of their consultancy rate). They then in effect have access to three times the amount that they would typically be charged i.e. up to $12 million dollars of high quality research, at a comparative market value.
newsletters, short online articles linking research findings to current housing issues, events and conferences, media relations and a system of email notifications of a new online material. The website is a key platform for the institute’s dissemination strategy and is a well-developed and prominent portal for research reports, conference papers, summaries and other publications.

AHURI, I always just go on the website, because they’re always working on stuff that’s interesting.

(Policy Official)

I can trawl the AHURI website to find research on topics that I’m interested in. I can be confident in the reports because they’re peer reviewed and they are credible.

(Policy Official)

AHURI also has a Research Synthesis Service, launched in 2008, that is not part of the core contractual funding for the organisation but which governments can access or contract to them.

The other thing I just wanted to say, since you asked me about AHURI, that I find particularly useful is their research synthesis program where since they’ve got such a body of research, to actually get a synthesis of the relevant research in particular areas they’ve got a really good filter that they run through their previous work and can put together a report that can synthesise things on a particular topic. That makes the research more accessible for city people to actually just access and not have to do hours of your own research...that makes it very effective.

(Policy Official)

Their use of social media channels, such as Twitter, is also well developed and is used as a vehicle of dissemination of AHURI publications (such as research reports, bulletins, positioning papers and Evidence Reviews), announcements of conferences and related conference information, upcoming AHURI events such as seminars, and relevant research publications of other associated bodies and partners. At December 2015, AHURI’s twitter account had approximately 1700 followers and they have tweeted over 1000 items since in May 2010 when they started using this social media channel.

Linkage and exchange

Specific activities undertaken by AHURI in a knowledge brokering capacity relating to linkage and exchange include:
• Establishing research centre reference groups as a forum for ongoing engagement between academic researchers and those involved in policy and practice.

• In developing the Housing Research Agenda, to ensure that it more accurately reflects policy developers’ anticipated information needs, it includes a workshop involving officers from all housing jurisdictions and all research centre Directors, in which outcomes of completed AHURI projects are reviewed and ongoing research priorities are identified.

It has an ongoing series of research seminars and forums and hosts the annual Australian Housing Conference, which focuses on dissemination of recent research and networking with others within the housing sector. In addition, regular communication between the government departments and AHURI is a core element of their work.

_I think [forums, conferences, seminars like those put on by AHURI] are important, I think they do enable both for networking and also just to hear back on what's going on just to see what sort of research is happening although obviously you can do a lot electronically as well, but just to be part of the discussions, it's more about processing it I think as well._

(Policy Official)

There has, however, been less success in specific linkage and exchange activities aimed at bringing researchers and policy making together directly. Attempts were made to bring university representatives and policy officials together formally in user groups attached to the major research projects, however these proved less successful, characterised by low levels of participation by senior policy officials who would have more influence in decision making while the more junior officer who were attending had little preparation.

_Capacity building_

The organisation has a strong commitment to building research capacity both within government and within the research sector.

For the former, involving policymakers in the development of the Research Agenda, while not directly providing research training, more subtly heightens the awareness and value of research to the policy process, and in this way improves research capacity through encouraging and fostering a culture that is receptive to research input. More recently, AHURI has developed the Policy Development Research Model for the ongoing National Housing Research Program. According to
the 2014 Annual Report, the ‘model integrates the traditionally separate processes of ‘evidence gathering’ and ‘policy development’ into one set of practices’ (AHURI, 2014). An annual series of ‘Evidence-Based Policy Inquiries will be conducted and led by an Inquiry Panel comprising senior policy makers as well as experts from industry and the community sector’ with ‘each Inquiry directed at one pressing policy question and is supported by a suite of research projects leading to the discovery of new ideas and the advancement of knowledge to address the policy question’ (AHURI, 2014).

Further efforts to enhance government research capacity were through a secondment program whereby policy officers from state and territory housing departments would be seconded to AHURI Ltd for periods of up to three months to carry out research synthesis projects, with the outcome being the production of Research Synthesis Bulletins. Overall this secondment process was seen as a mechanism of exchange or interchange or communication as well as an opportunity for capacity building within government, and equally within AHURI.

For example, AHURI and University of Queensland, we had some people on exchange there. In a couple of the other universities as well that's been something. But it's quite a minor thing. But I do believe that there's merit in that exchange.

(Policy Official)

By adding to research capacity within the research sector, through the provision of funding to research institutes located within universities, high level housing research activity is strengthened and supported. In particular, AHURI encourages younger career academics to be involved with the organisation so they gain experience in applying their research to real policy problems. A significant aspect of this is the programmes of post-graduate research scholarships, which provides additional funds to post-graduate students carrying out research in housing and urban development fields (AHURI, 2004). Since 2000, 25 top-up scholarships have been awarded as well as several post-doctoral research positions. In addition, AHURI supports the training and development of the postgraduate students through yearly postgraduate symposium, where students are able to gain experience in sharing and receiving feedback from peers and senior academics on their research topics and progress to date. Further, there is support for the postgraduate students in moving through to the next stage of their career with postdoctoral fellowships being made available to some of those completing their PhD. Other components include the Federal Minister’s Early Career Researcher Prize (awarded each year at the Australasian Housing Researchers Conference), the
Chapter Seven – Three case studies of research-focused intermediary organisations

Professor Mike Berry Award for Excellence in Housing Research\textsuperscript{55}, and the requirement for inclusion of early career researchers in projects.

7.1.4 Consideration of AHURI as an effective knowledge broker

7.1.4.1 Indicators of success

The efficacy of knowledge brokering strategies in moving research into policy is difficult to assess and this is well-noted in the literature (Dobbins et al., 2009a). Nevertheless, some proxy indicators of AHURI relate to their funding base and presence in government policy making.

AHURI has continued to be funded by government and university partners, and since its establishment, it has attracted significant funding as part of the housing portfolio. This has been approximately $3.5 million per year. The outcome of the most recent funding review in 2014 saw governments commit funding for a further three years.

AHURI is regularly quoted in government submissions, and contributes to the debate on significant housing issues facing Australia. This includes submissions to government enquiries (both federal and state). For example, in the 2013-2014 financial year, AHURI developed submissions for the Senate Economics References Committee’s Inquiry into Affordable Housing Australia and Foreign Investment in Residential Real Estate; as well as Productivity Commission enquiries. The measurement of citations in policy documents is one way in which AHURI monitors its progress. As an indicator of this activity, Table 7.2 show the number of mentions of AHURI in Australian Parliamentary relevant documents\textsuperscript{56}. These mentions primarily related to referencing AHURI for research work it had carried out.

\textsuperscript{55} Introduced in 2015, the award honors the contribution of Professor Mike Berry, a highly prominent Australian housing researcher. It is presented each year for the best piece of new research at the Australasian Housing Researchers Conference.

\textsuperscript{56} The search of AHURI was carried out on the Australian Parliamentary Collections website \url{www.parlinfo.aph.gov.au}. The search parameters were only documents in the Parliamentary Collections under House of Representatives, Senate, Committees, Bills and Legislation and Publications (this included Chamber Documents (including Hansard), Procedural Documents (including Standing Orders), Bills and Legislation). Media documents and those from the Library contained in this collection were not included. Note that the Library collection contained primarily journal articles. Mentions of AHURI in State Parliamentary documents were not included in the search.
Table 7-2 - Mentions of AHURI in parliamentary documents

<table>
<thead>
<tr>
<th>TOTAL Mentions (AHURI or ‘Australian Housing and Urban Research Institute’)</th>
<th>2010s</th>
<th>2000s</th>
<th>1990s</th>
</tr>
</thead>
<tbody>
<tr>
<td>House of Representatives - Hansard</td>
<td>3</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Senate - Hansard</td>
<td>7</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Committees - HoR Committee Hansard</td>
<td>5</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Committees - HoR Committee Report</td>
<td>29</td>
<td>45</td>
<td>0</td>
</tr>
<tr>
<td>Committees - Senate Committee Hansard</td>
<td>20</td>
<td>25</td>
<td>5</td>
</tr>
<tr>
<td>Committees - Senate Estimates</td>
<td>11</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Bills and Legislation - Bills Digest</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Publications - Publications</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Publications - Tabled Papers Register</td>
<td>14</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td><strong>94</strong></td>
<td><strong>108</strong></td>
<td><strong>35</strong></td>
</tr>
</tbody>
</table>

Since it was established, AHURI has been represented typically by the Executive Director or other key staff at key government committees and meetings such as the Housing Ministers’ Advisory Committee’s (HMAC) Policy Research Working Group (PRWG), the Standing Committee on Indigenous Housing (SCIH), the Council of Australian Governments (COAG) Select Council on Housing and Homelessness, the Housing and Homelessness Ministers’ Advisory Committee and the Federal Minister’s Advisory Committee on Social Housing and Housing Assistance (AHURI 2013). This high-level engagement with policy continues and is reflective of the high-standing they have within housing policy decision-makers.

The interesting thing is that at a policy level AHURI are at the table at our national housing policy research working group which includes policy makers from all the housing authorities around Australia. They participate or are at the table, as I say, for our monthly policy meetings and therefore have a really clear idea of the directions and issues in front of housing policy makers and can at times also contribute to our discussions by informing us about research or the progress of research and/or get asked to do, as I was saying the other day, a synthesis about what has been done in terms of housing policy research.

(Policy Official)

AHURI is widely acknowledged as a model of innovation in the research to policy space and other sectors have referred to it as a successful ‘model’ of how to manage this relationship. More specifically, the interview with two internal AHURI stakeholders mentioned interest from the
domestic violence research sector and other sectors in AHURI’s model of research to policy relationships.

So I have met recently with people in domestic violence research, bushfires, roads research, indigenous health, who have all been sent here by the Federal Government to say the AHURI model works, we want to see that replicated.

(AHURI Stakeholder)

Note that since these interviews were conducted, early in 2013, The Australian National Research Organisation for Women’s Safety (ANROWS) was established, following the release of the National Council to Reduce Violence against Women and their Children’s report ‘Time for Action’ which proposed the establishment of a national research organisation dedicated to building evidence to address violence against women and their children in Australian (2008-2009) (ANROWS, 2014a). The organisation has a similar governance model to that of AHURI with buy in from all Commonwealth and State Governments (though does not have the same level of engagement with academics) and has established a National Research Agenda which sets out the research priorities for the year on which ANROWS Program of Research can be established and provide a framework and guidance on priority areas of research (ANROWS, 2014b).

There is a high level of awareness of AHURI by high-level policy officials across multiple jurisdictions. More specifically, AHURI was mentioned numerous times, unprompted, by policy officials, including very senior public servants, as part of the interviews conducted for the ARC Linkage Project on Research Utilisation. Of these 126 policy official interviewed, AHURI was mentioned by 20, including several high level public servants interviewed. Of these, four were from a central agency, six were from Queensland, three were from NSW and seven were from Victoria. Of the 20 interviews, 15 were currently working in, or had previously worked in a policy role directly related to the housing or homelessness. Of the remaining five interviews, three had held high public service positions so mentioned AHURI from a ‘whole of government’ perspective, while for the remaining two it was not possible to ascertain their background in a related area. In addition, AHURI was mentioned spontaneously in the open-ended responses provided by four policy officials as part of the survey conducted for the wider ARC Linkage project.

All the comments made where positive. A typical comment was the following…

See section 3.2.1 for further details of the ARC Linkage project on Research Utilisation.
‘...but in housing and homelessness AHURI as a national consortia of research institutions and academics is highly influential'.

(Policy Official)

7.1.4.2 Strengths of AHURI

Evidence of the clear strengths of AHURI emerged from the analysis of the interviews both from the interviews conducted for the ARC Linkage Project on Research Utilisation as well as those carried out as part of the case study interviews.

The leadership of AHURI has been particularly strong since its establishment, which allowed it to develop effective relationships between research users and producers as the main aim of the organisation. Michael Lennon had both the reputation and credibility as being one of Australia’s leading housing researchers, and was also able to work to bring together researchers and policy in a ‘forum’ such as AHURI. This was then carried over with Dr Ian Winter, the current Executive Director, who has been in the position since 2003 and has been instrumental in continuing to build on these relationships and has made the organisation what it is today.

Ian has done a wonderful job of keeping the show together. Organisational maintenance is not something that could have been taken for granted – he had to do a lot of massage and maintenance of various kinds.

(AHURI Stakeholder)

The arrangement of AHURI provides a mechanism for mobilising housing researchers across Australia, encouraging a national focus and team building across the levels of government.

So there’s six states, two territories, we must work as one team if we are to get something that is relevant to all of us.

(Policy Official)

As detailed above, the organisation is highly proactive in the manner in which it carries out the various knowledge brokering activities of knowledge management, linkage and exchange, and capacity building.

‘...and then there was the Housing researchers conference where the initiative came from the universities but where you could say that AHURI played an important
supportive or catalytic role in developing the identity of the housing researchers across the country.

(AHURI Stakeholder)

AHURI has played a key role. Around certain issues, I’d list quite a few, indigenous housing, housing affordability and others; it has clearly become the sort of go-to place for knowledge and information and that kind of thing. And so, yes it’s been very important.

(AHURI Stakeholder)

I have various engagements in organisations such as AHURI - the Australian Housing and Urban Research Institute - and they're very sort of proactive in both generating research, disseminating it.

(Policy Official)

The overall model of research to policy linkage has been a highly effective model for housing policy makers. Not only are policy makers able to access high quality research at their research rate, rather than a more expensive consultancy rate, they are also able to be heavily involved in the research agenda setting for housing policy more generally.

I mean the model worked, and this is my perspective, the model worked brilliantly for the housing departments. If you look at AHURI, the amount of money AHURI provides and the productivity of AHURI in terms of the knowledge base through AHURI it is highly successful. I mean there is lots of stuff for a very modest contribution.

(AHURI Stakeholder)

The establishment of AHURI and the relationship developed between housing authorities and the academic sector as a result has significantly improved our ability to apply the outcomes of the academic research done in our field - we are involved in setting the priorities for the housing related research agenda nationally and can be involved in advisory/working groups associated with individual research topics.

(Policy Official)
Related to this level of involvement, AHURI is considered a highly reputable, independent and credible source of easily accessible evidence.

I think as the public service has been shrinking, the capacity to do things in-house is much more limited. Also there's a sense of needing some sort of independence. For us to have say AHURI, they're doing some overall synopsises of our evaluation, I mean we could probably summarise our evaluation, but to have an independent body do that gives things a greater credibility as well.

(Policy Official)

Well certainly, as I said, in terms of housing academic research through [AHURI] it is, in my experience, very well considered...it's seen as both relevant and reliable in terms of the research methodology and those sorts of things and therefore it's almost not questioned in some ways.

(Policy Official)

Furthermore, having a body such as AHURI as the policy makers ‘go-to’ centre for research when needed, alleviates some of the problems associated with research utilisation noted previously.

There's quite a lag time for research or evaluation work that's commissioned that doesn't often easily align when other stars are lining up, when you have those moments of political and policy attention to issues; which I think goes to the benefit of having standing institutional arrangements that deliver a program of strategically relevant research and evaluation, like the AHURI model....

(Policy Official)

An organisation like AHURI provides a balance for government for accessing both internal and external expertise on an issue. Having a body external to government, subject to less controls than other research that is contracted, and deeply embedded in the housing sector, such that they are highly specialised and understand the needs of the sector due to the strong connections to all stakeholders including community housing providers and organisations (as opposed to just the needs of government and policy), provides the independence and neutral policy advice that is needed.
I think there's two dimensions. One, my personal experience has been largely working where we've identified something we either want evaluated or researched and we've had quite a degree of control and got a lot of cooperation from the researchers about that. But there is also internally AHURI, which you mentioned. There's an investment the Department makes in that where we have a less hands-on control of - I think that's probably a nice balance to have…I do believe that research does have a point of its own in the sense that if you only relied on governments to ask the questions they did ask, you might not get answers to some questions that you didn't even know needed asking.

(Policy Official)

From the perspective of knowledge producers, AHURI provides a mechanism for which academics interested in engaging in policy-related work can do so, through formal structures set in place between government and the university through AHURI. The way AHURI is structured means academics can take part in AHURI but still meet university incentive requirements of increasing publication and citation counts.

The capacity for networking through AHURI was noted as a key strength of the organisation. One university stakeholder noted the various benefits this networking strength brought. This included it being a springboard for other policy related work and for work within the university. It further provided leverage for other government work through the connections and reputations made and built through AHURI.

AHURI is an excellent networking organisation. It becomes much easier after participating in AHURI for all sorts of things, for examiners for thesis... you know...so these networks develop through all sorts of things...but AHURI was very good for that.

(AHURI Stakeholder)

Also, we do an awful lot of contract work for the state government. And a lot of that is sort of piggy-backed on the AHURI reputation and on the AHURI links and we would endeavour to meet.

(AHURI Stakeholder)
In the Housing area, AHURI researchers have strong connections to policy making and good connections to public servants/policy analysts.

(Policy Official)

The structure of AHURI itself is very innovative, encouraging buy in from both the universities and government, essentially through financial incentives.

…it is very useful to have a body that is, in some way, owned by both the users and producers.

(AHURI Stakeholder)

7.1.4.3 Challenges for AHURI

While overall AHURI has considerable strengths, a number of challenges are recognised. Some of these challenges are inherent in the ongoing challenges and barriers to research utilisation that exist between research users and producers.

A difficulty identified was effectively balancing the needs of research producers and the research users. A criticism directed to the AHURI model is that too much focus has been on maintaining the relationship with research users at the expense of the relationship with research producers. As stated by a stakeholder…

So I think, the criticism would be that AHURI saw the relationship with the housing departments in many ways as more critical, and more problematic probably, so they felt they had to nurture......And I think the universities to a certain extent were taken for granted. Although I do think - I’m very positive about the AHURI model, I think in terms of being a way to get policy relevant research, it has a lot of benefits. But I do think the - too much of the engagement activities were focused on the secretariat rather than on the AHURI community as a whole.

(AHURI Stakeholder)

A further criticism directed at AHURI was their perceived lack of innovation in facilitating interaction between research producers and research users, instead opting for more traditional models of interaction. Attempts at bringing together research users and research producers in a direct way have proved less then successful in the past. For example, stakeholder ‘user groups’
were established as a means to effectively bringing researchers in face-to-face contact with policy makers. These involved typically research consumers, representatives of the housing departments (commonwealth and state) and the non-government sector of housing providers or tenant unions engaging with a particular research project, being part of the establishment, reporting and feedback provision. These were considered unsuccessful as a means of facilitating engagement, with little buy-in from research consumers. Nevertheless, the new Policy Development Research Model, launched in 2013, may go some way in addressing this issue in the future.

But AHURI never really, in a very creative way and a very deliberate way, tried to bring policymakers and researchers together, apart from seminars and the other one or two things that I mentioned.

(AHURI Stakeholder)

....It is an interesting question, who are the consumers were meant to be. The ones represented in the process, I guess, were the senior policy makers in the department, but if you think about policy makers more generally its ministers, its parties in ministers offices, its pressure groups and so on...and while AHURI research was widely used the structures I don’t think were very effective in bringing researchers in regular face-to-face contact with policy makers.

(AHURI Stakeholder)

This problem was compounded by the role of the AHURI Ltd secretariat being the key player in linking research to policy. While this was acknowledged as a role it needed to play, it undertook this role at the expense of encouraging direct interaction between research and policy.

Related to this problem, the emphasis on self-reflection and improvement was perceived to be misguided to some extent. The intent was there and, indeed, the organisation commissioned its own research on how to bridge the gap between research and policy more effectively, yet it did little to build on the outcomes of this research. In some ways, the aim of the organisation in terms of encouraging greater engagement between research and policy makers had a lower priority than other activities such as research production and traditional forms of dissemination.

And I just think, that if that objective of engagement had been taken more seriously, then a lot, in terms of the creation of forums of various kinds for people to engage with each other, then the organisation could have achieved those processes more
fruitfully. There was little bit of displacement of goals – the production of research became more important than engagement.

(AHURI Stakeholder)

So AHURI in the end I would say was highly effective and efficient and productive at producing research that was viewed as relevant by research users. It was far less effective as a vehicle for enhancing engagement, direct engagement which, and of course one could have a debate about how productive that engagement would be anyway…you know you could say well look the main thing is that the research is there to read on the web, you know – the fact that it’s there and it’s of reasonably good quality, what else do you want? So is engagement an end in itself?

(AHURI Stakeholder)

AHURI is perceived to be rigid and formal in its structure and the way it formally engages with academics and policy makers.

So I think there are some models that are slightly more nimble than say AHURI.

(Policy Official)

More specifically, there was some level of tension between university stakeholders and the broader AHURI model. The relationships with the university research centres are less straightforward and have been described as ‘messy and complex’. This is perhaps more of reflection of the nature of the two sides of the relationship in terms of two differing communities with their own incentive structures and financial models. As mentioned by one university stakeholder,

On one side AHURI was a consortium of like-minded people with differing roles; it was the knowledge people speaking to the power and influence people, you know, trying to puzzle through issues, you know ‘let’s get together and puzzle away’ and that model pervaded AHURI, it was a real model. And then there was also the, ‘these guys are just subcontractors and they bloody well should get their act together.

(AHURI Stakeholder)

The innovative funding structure of AHURI causes difficulties in administration for universities, particularly given the ‘special treatment’ that AHURI is given in terms of its competitive pricing
structures detailed earlier, with the typically overheads for contractual work being significantly reduced for research work carried out through AHURI\textsuperscript{58}.

*The university felt that AHURI was sort of an old-fashioned funding model where external groups could get a lot for their money because the university had all these people sitting around who were willing to do things. And the modern university, the contemporary university, doesn’t operate like that. If someone comes to us and says they want something done, we say this is the commercial rate.*

(AHURI Stakeholder)

In addition, there were issues over the requirements of the university in terms of the board representative structure which required someone of the status of the Deputy Vice Chancellor of Research to attend meetings throughout the year. This obligation was perceived to be disproportionate to what the university got back from their investment in AHURI.

*But I know the people here who were quite conscientious in their engagement but saw their attendance at several meetings a year disproportionate to the level of funding that was available.*

(AHURI Stakeholder)

Lastly, but perhaps most importantly, reliance on government funding is the core threat to AHURI’s longevity. First and foremost, all governments are operating in an era of severe fiscal constraints which has seen government research departments and research activities curtailed. Furthermore, in specific relation to the housing sector, the current Coalition government has not privileged housing with its own portfolio, instead including it under the Department of Social Services. All states and territories however continue to have their own dedicated housing portfolios. It is perhaps inevitable that AHURI will face increasing cost benefit analysis. The research costs are clear, however they will be challenged to justify government spending based on the tangible benefits provided through research’s contribution to policy making.

\textsuperscript{58} Typically the overheads for work commissioned by, for example, the Department of Housing would be 60\% but for work carried out through AHURI, the overheads were only 20\%.
Case Study 2 – The Australian Research Alliance for Children and Youth (ARACY)

I think we have a language but not necessarily a practice yet about evidence-based policy. That is recent language. It has not yet been fully embedded. I think from our perspective we actually need to find new collaborations and new skills because all of the expertise is not in a university nor is all of the expertise in policy or in a practitioner organisation. It is in those programs where you actually bring together the three where we actually get the best returns. You need to have a researcher sitting beside a policy maker because a policymaker has to translate that program into something that is sustainable. An ARACY model, the Australian Research Alliance for Children and Youth, is moving us slowly, slowly forward, but we would certainly agree very wholeheartedly about making sure that you have the evaluation and then investing in those programs which do work. [Quote by Ms Anne Hampshire, National Manager, Research and Social Policy, Mission Australia] (Commonwealth of Australia, House of Representatives, March 1, 2010, p45)

The Australian Research Alliance for Children and Youth (ARACY) represents a unique and complex model of collaboration, formally established in 2002 promoting collective action ‘to bring together a range of organisations concerned about worrying trends in the wellbeing of Australia’s young people’ (Bammer et al., 2010). One of its stated priorities that has continued throughout its evolution is the ‘better integration of policy, practice and research’ (ARACY, 2006, p. 11). At the outset, it set up an ambitious agenda for change in a very complex field, and the key idea from leadership was that the only way to do this was through collaboration and strong leadership coupled with proactive advocacy.

ARACY operates as a meta-network and as of 2015, has approximately 4000 members, both organisations and individuals, from across Australia. The network sources members from across the full range of stakeholders of research, policy, practice, service delivery and education. The majority of members come from professional practice, followed by research centres and government policy agencies (ARACY, 2012; Head & Stanley, 2007). Members work across a broad range of areas, including early childhood and adolescent development, psychology, paediatrics, epidemiology, education, justice, the social sciences, population statistics and economics (ARACY, 2012). The majority of ARACY’s funding comes from federal and state governments with the remainder from philanthropic organisations and the corporate sector.

At its establishment, ARACY was considered ground-breaking and pioneering, as it was the first organisation of this kind in Australia to address these issues through recognising the need for a joined-up, holistic approach, working across well ingrained silos, boundaries and ‘cultures’ that exist between research, policy and practice (ARACY, 2012; Head & Stanley, 2007).
Table 7.3 shows the key characteristics of the organisation and is a summation of its work.

Table 7-3 - ARACY's defining characteristics

<table>
<thead>
<tr>
<th>Organisational Features</th>
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<tbody>
<tr>
<td>• Not-for-profit organisation</td>
</tr>
<tr>
<td>• National entity with state convenors</td>
</tr>
<tr>
<td>• Reaching maturity as an organisation (10+ years in existence)</td>
</tr>
<tr>
<td>• Multidisciplinary, cross-sectorial and cross-jurisdictional</td>
</tr>
<tr>
<td>• Large membership base/ network of research, policy and practice</td>
</tr>
<tr>
<td>• Large networking capabilities drawn from its large and diverse membership base</td>
</tr>
<tr>
<td>• Primarily an organisation of organisations (a “super-network”) which can commit</td>
</tr>
<tr>
<td>organisational resources to and sustain collaborative effort</td>
</tr>
<tr>
<td>• High profile governance board with high level access to decision makers</td>
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<table>
<thead>
<tr>
<th>Relationships with Stakeholders</th>
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</thead>
<tbody>
<tr>
<td>• Broker of novel collaborations (i.e. not done before), involving research, policy and</td>
</tr>
<tr>
<td>practice</td>
</tr>
<tr>
<td>• Working through, and with, partner organisations</td>
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<tr>
<td>• Facilitator/enabler of collaborative effort with a variety of leadership roles</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Strategic direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Focused on finding practical evidence-based solutions to strategic issues</td>
</tr>
<tr>
<td>• Focused on the developmental life-span (from conception to young adulthood)</td>
</tr>
<tr>
<td>• Strong role in advocacy</td>
</tr>
<tr>
<td>• Long-term view</td>
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</table>

<table>
<thead>
<tr>
<th>Mechanisms for linking research with policy and practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Individual knowledge broker embedded as part of program</td>
</tr>
<tr>
<td>• Facilitator and disseminator of new approaches to relevant knowledge</td>
</tr>
<tr>
<td>• Translational research focus</td>
</tr>
<tr>
<td>• High level of communication activity – eNewsletters, Webinars, seminars, conferences</td>
</tr>
<tr>
<td>• Professional expertise in it members</td>
</tr>
<tr>
<td>• Strong networking capacity</td>
</tr>
</tbody>
</table>

(adapted from Head & Stanley, 2007)

7.2.1 Early stages of development of ARACY

ARACY came into being at a time of increasing awareness of the importance of creating a society conducive to the positive development of children. Some of the most influential evidence which informed this awareness came from a greater understanding of the neurological impact of neglect on childhood development with prominent international researchers making the connection between childhood trauma, maltreatment and neglect on child brain development (see Bowen, Zwi, & Sainsbury, 2005; Bowen, Zwi, Sainsbury, & Whitehead, 2009). Internationally, there was a movement to focus more on children as a means of societal improvement more generally and this has led to significant policy change in the children and youth space in other countries. Related
more specifically to Australia, evidence showed that across some key indicators of childhood deprivation and more general health and wellbeing elements, Australian children were significantly worse off than in other countries.

More specifically, related to bridging the gap between research and policy, there was a general mood amongst researchers that research evidence was not getting a lot of traction, and amongst practitioners that they had a lot of on the ground knowledge that wasn’t being put to any use. This was combined with the feeling that the problems that existed in the child and youth space (0-24 years) were very complex and did not appear to be being addressed. Furthermore, the lack of data in this area meant there was no clear identification of what were the key issues in relation to children and youth, and the priorities for research and policy. Initial aims of the organisation therefore were two-fold – to harness support across the sector through one organisation in a form of ‘collective action’ on policy decision, and then to improve the level of evidence available on children and youth to support this action.

In recognition of this need for a joined-up approach that had been realised independently as well as collectively, a group of Australia’s pre-eminent researchers in children’s health and development met in Melbourne in 2001 for a two-day workshop of which a key outcome was the strong recognition of the disconnect between service providers, researchers and policy makers. The possibility of establishing the Alliance was discussed as an effective means of overcoming this disconnect. Overall, this founding group of researchers believed that the major issues could be successfully addressed only through more ambitious approaches, with a sound knowledge-base and effective collaborative processes.

The gap that ARACY hoped to fill is spelled out in its Constitution of July 2002 declaring that it was established for ‘the charitable purposes of facilitating, coordinating and supporting the development of knowledge through scientific research and the effective use of that knowledge, which is or may be of value to Australia by enhancing the wellbeing and life chances of children and young people’ (ARACY, 2007).

In its first few years, its main remit was to establish a strong governance base, with a significant effort given to putting in ‘place structures and processes to support a strong and sustainable system of governance and to provide assurance to investors that funding is well managed, accounted for, and achieves the outcomes for which it is intended. The finalisation of the Alliance constitution in
December 2002 ensures that the organisation operates under a clear governance framework’. (ARACY, 2003). By the second half of 2004, with a strong governance base established, it was ready to commence on the implementation of its work program.

7.2.2 Governance arrangements

In formal terms, ARACY is a not-for-profit company, with deductible-gift recipient tax status. Funding for initial projects came from philanthropic foundations, business donations, and government grants (Head & Stanley, 2007).

In its present form, the greatest proportion of their funding comes from federal and state governments and the remainder from philanthropic organisations and the corporate sector (ARACY, 2012). Initial partners were Wesfarmers, the Ian Potter and Baker Foundations and LotteryWest (ARACY, 2012). It is governed by a high-profile Board of Directors incorporating leaders from business, law, research, and the community sector. ARACY is a national organisation, not a federation of state-based chapters, with ARACY offices based in Canberra. State convenors for Victoria and NSW were appointed in 2012 and similar appointments for the remaining states and territories were made in early 2013. The purpose of the state convenors was to have a full national presence to facilitate networking and encourage collaboration amongst practitioners, policymakers and researchers in these states (ARACY, 2013).

The board members were initially chosen from five areas – media/communications, corporate, the third sector (NGOs), academia and government. This selection of individuals from a cross-section of the community, would cover the skills and experience needed for an organisation aiming to have a positive influence on the development of children and young people to develop successfully.

The initial founding board was made up of the following individuals:

- Professor Fiona Stanley – a highly respected epidemiologist and public health researcher based in Perth. Key positions held over her career were founding Director of the Telethon Institute for Child Health Research in Western Australia (Telethon Kids Institute, 2016). In 2003 she was awarded ‘Australian of the Year’ and in 2004 she was honoured as a ‘National Living Treasure’ by the National Trust. Professor Stanley was instrumental in forming ARACY based a long career in the children and youth space. She was chair of the organisation from 2007-2010 and was CEO from 2002-2004.
- Mr Michael Chaney – chair of ARACY from 2002-2007. He is arguably one of Australia’s most influential business people and has been chairman of the National Australia Bank,
Wesfarmers and Woodside Petroleum Limited. He is Chancellor of the University of Western Australia, a member of the Prime Minister’s Business Advisory Council, the Commonwealth Science Council, and the Australia-Germany Advisory Group. He is also a Director of the Centre for Independent Studies. At the time of the setting up of ARACY, his business expertise was critical in shaping the most appropriate, strong and long-standing governance arrangements required for this type of organisation.

- Ms Elaine Henry – Elaine is the current chair of ARACY but was a founding board member in 2001. She has been a high profile leader in the non-profit sector over the past 25 years, formerly as the Executive Director of the Cancer Council (NSW) and then CEO of the Smith Family, a children’s charity focused on breaking the cycle of disadvantage through the power of education (ARACY, n.d.-b).

- The Honourable Tony Fitzgerald AC, QC – a former prominent Australian judge who gained particular prominence for presiding over the Fitzgerald Inquiry into Corruption in the Queensland government in the late 1980s.

Later key appointments to the ARACY Board have included scientist Sir Gustav Nossal, banker Mr Peter Mason, author Dr Paul Kelly, science communicator Dr Norman Swan, public health researcher Professor Rob Moodie, and senior federal public servants Dr Jeff Harmer and Ms Lisa Paul.

7.2.3 Summary of ARACY’s knowledge brokering activities

ARACY promotes its role as a knowledge broker, acknowledging both its wider organisations role in this aspect and its specific Evidence Review program designed to offer to stakeholders quick and condensed access to the most recent literature on any given topic. At its inception, one of its ongoing functions spelling out a commitment to a knowledge brokering type of role was to ‘broker new research collaborations to address identified priorities’ and to ‘disseminate research knowledge in an accessible form so that it can be better utilised by policymakers and practitioners’ (Head & Stanley, 2007, p. 256). This has been developed further and is still a main component of their work.

Considering the work of ARACY in relation to the three characteristics of knowledge brokering – knowledge management, linkage and exchange, and capacity building – its activities include the following:
Knowledge management

ARACY’s suite of dissemination products and activities include regular publications such as weekly eBulletin and monthly ‘Our News’ newsletter in which the CEO and member organisations advocate on topical issues. Other activity include seminars, webinars, conferences, and social media. A prominent research product that ARACY produces is its ‘Report Card: the wellbeing of young Australians’ which presents data on Australia’s performance against a range of health and wellbeing indicators as compared with other OECD countries. Two editions of the Report Card have been released – one in 2008 and one in 2013 (ARACY, n.d.-c).

In addition, it employs a member of staff with a specific but not titled role as a knowledge broker for one of its programs – the Evidence Reviews. Evidence Reviews are, in essence, summaries of existing research on a given topic or research question as requested by a decision maker. The evidence reviews, as basically literature reviews or synthesis reports, have been carried out by the organisation since ARACY commenced its operations; however they have recently been packaged and branded as a particular program that ARACY offers.

ARACY has used its existing network as a platform for the Evidence Reviews, acting as the go-between for their funding bodies or others requesting the reviews, and the relevant experts that are part of the network. There is recognition that ARACY’s key strength is in providing the linkage mechanisms between the two groups, not in actually doing the reviews themselves. This is where they are positioned and what has been incorporated into this program.

Linkage and exchange

ARACY’s linkage and exchange activities place a large emphasis on direct contact with decision makers. In this way, there is some level of lobbying to government with their extensive contact with policy decision makers nationally. These types of activities are positioned as advocacy, but in essence, are likened to linkage and exchange activities. One form of advocacy activity they undertake is in the form of taking delegations of key stakeholders to meet and lobby politicians. ARACY also aims to facilitate collective action by translating evidence into implications for policy and practice, and advocating for evidence-informed prevention strategies to improve child and youth health and wellbeing (ARACY, n.d.-d). In this way, the advocacy can be considered the top-
down approach to influencing the culture and context of the children and youth policy space to provide the right conditions to allow research in this area to inform policy deliberations.

Specific advocacy and linkage and exchange activities take the form of:

- Meetings with parliamentarians, government ministers and officials.
- Partnerships on issues of mutual interest such as protecting children from abuse or neglect.
- Frequent meetings and symposia on research priorities.
- Presentations at conferences and host of the Australian Implementation Conference; co-host of other conferences including the Infant and Early Childhood Social and Wellbeing conference.
- Submissions to governmental inquiries and reviews the preparation of opinion pieces and articles.

Finally, ARACY facilitates a number of networks, providing ARACY members (policy makers, practitioners and researchers) who have a specific area of interest or expertise, with the opportunity to build capacity, share and exchange information and collaborate on issues relating to the wellbeing of children and youth. These networks have a focus on collaboration and associated themes including advocacy, knowledge brokering, research exchange and information sharing and dissemination (ARACY, n.d.-a). There are currently six ARACY Networks including The Australian Fatherhood Research Network, The Knowledge Brokering Network and the Student Wellbeing Network (ARACY, n.d.-a).

*Capacity building*

ARACY has a less direct role in research capacity building than the other two case study organisations. Its focus is more on the development of programs and strategies to improve the wellbeing of children, youth and families, informed by existing evidence, rather than the development of research infrastructure or policy capacity itself. That said, it plays an indirect role in research capacity building across the network through offering training attached to its evidence-informed programs. Furthermore, its advocacy of research to inform policy on children and youth, served, in an indirect way, to build policy capacity in recognising, and gaining appreciation for, the importance of research to policy decision making.
7.2.4 Consideration of ARACY as an effective knowledge broker

7.2.4.1 Indicators of success

While it is difficult to objectively measure the success of ARACY, a number of factors indicate that it is achieving its goals. First and foremost, the simple fact that funding is still dedicated to the organisation both from government and a range of philanthropic bodies, and this continues to grow, provides support to the argument that policy makers and those dedicated to humanitarian causes continue to see value in the organisation. Furthermore, given the organisation has a remit to improve the lives of children and youth in Australia, which is a high profile and highly emotive yet non-politicised issue compared to many other areas, makes it more likely that funding will continue.

Some attitudinal indicators of the success of ARACY in increasing the use of research derive from ARACY’s member survey. The results of the comprehensive member survey conducted in 2013\textsuperscript{59}, showed that members believed their involvement with ARACY made a difference in improving the wellbeing of children and young people. Just over four in five (83\%) of members agreed that ARACY is having a positive impact on improving the wellbeing of children and young people. Just under half (45\%) of members agreed that their engagement with ARACY had led to ‘concrete’ action in their work. Over three quarters (76\%) of respondents stated that participation in ARACY activities has shed new light on problems they are attempting to resolve in their field of work, which encouragingly aligns itself with the ‘conceptual’ use of evidence in policy making that is widely documented in the literature (Amara et al., 2004). A majority of members stated that ARACY is helping them connect with the many other individuals and organisations working towards a similar goal in terms of positive child and youth development (ARACY, 2013). There has been improvement across all these measures in the views of members since the survey commenced in 2008.

As was the case for AHURI, a search of ‘ARACY’ or the ‘Australian Research Alliance for Children and Youth’, reveals the mentions of the organisation in Commonwealth parliamentary proceedings, as shown in Table 7.4 below.

\textsuperscript{59} These were the latest publically available results to the member survey

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Table 7-4 - Mentions of ARACY in parliamentary documents

<table>
<thead>
<tr>
<th>TOTAL Mentions (ARACY or ‘Australian Research Alliance for Children and Youth’)</th>
<th>2010s</th>
<th>2000s</th>
</tr>
</thead>
<tbody>
<tr>
<td>House of Representatives - Hansard</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Senate - Hansard</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Committees - HoR Committee Hansard</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Committees - HoR Committee Report</td>
<td>28</td>
<td>7</td>
</tr>
<tr>
<td>Committees - Senate Committee Hansard</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Committees - Senate Estimates</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Publications - Budget Papers</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Publications - Tabled Papers Register</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>73</td>
<td>26</td>
</tr>
</tbody>
</table>

Furthermore the membership base of ARACY has increased substantially year on year, across multidisciplinary areas related to children and youth. The current membership base is over 4000 of both organisations and individual members.

Finally, ARACY continues to attract high profile and influential individuals to its governance board. Its current Board of Directors is made up of a range of prominent individuals working in business, media, child health research, government and indigenous affairs.

7.2.4.2 Strengths of ARACY

The strength of ARACY is in its strong leadership, its whole of nation approach, its emphasis on advocacy, its large external network and membership base and its diversified funding sources.

First and foremost, its establishment was due to the motivation and enthusiasm of highly prominent Australians who were passionate about the need to improve the lives of Australian children. In creating an organisation such as this, strong leadership from high profile and well respected and credible individuals is critical. Not only does it encourage buy-in across the sector, it also encourages support from funding bodies. The interviews with both the current chair and previous CEO highlighted the importance of having a very high profile and influential governance board from the outset – a ‘wow’ board, a term coined by Professor Fiona Stanley who was instrumental in setting up ARACY and chose the board members specifically for this ‘wow’ factor. It is important not to diminish the effect that such a high profile board had on establishing the organisation. Strong passionate leadership coupled with a high profile governance board made up of highly influential and credible Australians from the public, private and not-for-profit sectors was critical for mobilising support across a range of sectors, and within government, in a highly fragmented and complex policy area.
The first thing that people do when they look at your annual report or when you are asking them to do something for you, they look at who’s on your board.

(ARACY Stakeholder)

...we needed to have that credibility, people needed to be able to pick up that end report, have a quick look and say ‘well who’s on the board, well if they are on the board, if they are involved in this, it’s a good thing’....it was important that we had a board that people would instantaneously say ‘Ah, they’re involved, it must be sound and sensible etc.

(ARACY Stakeholder)

ARACY differs in this way from the make-up of other boards in not-for-profit organisations in that the members were deliberately chosen, not for their representativeness of the alliance membership or sector base (which you would expect would be the case in setting up a cross-disciplinary network alliance working towards a common goal), but for the skills they would bring to the organisation. This fits with the wider notion of the need for a cross-disciplinary, cross-sectorial collaboration to address growing concerns about the negative trends related to the health and wellbeing of children and youth – the governance board had to mirror this notion, and for it to be a ‘whole of nation approach’ (Current Board Member).

Related to this notion is its whole of nation approach, reflected in the selection of board members from a range of sectors, which encouraged further buy in from funding bodies.

ARACY places emphasis on advocacy, not only advocating for improvement to the health and wellbeing of children and young people, but also advocating for the use of evidence in policy. In this way it is building capacity in government, aiming to change the way policy makers think about the use of evidence which makes it more likely for research to be utilised.

Its networking ‘infrastructure’ is a key strength of the organisation, both through its large membership base as well as the diversity of that membership base.

I think, probably, their main strength....is around providing that network of researchers and experts geared towards a common goal and its improving children and young people's wellbeing and, through that, influencing the government's agenda and policy by presenting good strong evidence.
I think one of the things that they can bring to the table is that they are actually able to draw on the network they have of experts across, not just the university sector but from the non-government sector as well, to, I guess, focus on particular issues that might be of interest to us. So in a way from not having to do that from scratch, they've got that instant network that they can plug into so that can be a particular benefit.

Finally, it has diversified funding support. While still relying significantly on government financial support, the organisation has attracted considerable philanthropic support which leaves it less vulnerable to government budget cuts.

7.2.4.3 Challenges for ARACY

Despite a number of clear strengths of the organisation, ARACY is presented with a number of challenges.

The role of influential public figures in influencing policy directly is not as pronounced as the role these individuals have in mobilising resources. This is a long term challenge for an organisation such as ARACY. Influential figures such as Professor Fiona Stanley were critical in getting the organisation off the ground, and she was supported by a strong core group of individuals dedicated to ARACYs cause. However, for the organisation itself to survive long term, a dynamic momentum is necessary. Elements such as organisational maintenance, clear goals, objectives and work plans need to be formulated to ensure longevity.

I think Fiona is probably one of those you would put in the relatively broad category of public intellectual - a great media performer, able to get across the message of how important early childhood is in terms of what happens later - like Ross Garner or whatever. There are a number of those who play those public intellectual roles who can add quite a lot to public discourse, but they are, often, very different people from the people who can influence policy in terms of the evidence that they can bring to the table.

(Policy Official)
A challenge for ARACY is where to position itself after 10-15 years in operation, capitalising on their current strength in terms of a large network and membership base, instead of attempting to move into other areas such as research itself where they are competing against members of their own network for government research funding.

Well, I think this is an issue, I think, that we have raised with them to an extent to which do they have a unique space or are they really vying with others in this space? Part of the discussion we've had is can they be seen to be and are they, in fact, a peak body in the same as way as an ACOSS is. Now, an ACOSS does it more on behalf of NGOs and individuals who are in that broad social welfare space so they've got a well-trodden territory there, ARACY might find that slightly more difficult to carve out that space.

So I think they're still going through a bit of an evolution on where they might want to best position themselves. At times, they've bid for work that's been put out for tender and they haven't won that. Now, that may be because they have a smaller staff there than the actual staff of ARACY. Their real strength is more the external network but the external network will be bidding for the same work they're bidding for. So I think they still to decide where they want to position themselves.

(Policy Official and ARACY Stakeholder)

7.3 Case Study 3 – The Sax Institute

The Sax Institute is an independent not-for-profit public health research body in NSW, formally established in 2002, with the core aim of being the ‘bridge between health researchers and policy makers’ (Sax Institute, 2011). Although it is a state based organisation with core funding coming from the NSW Department of Health, it is considered a neutral body, mobilising resources across nearly all of the public health researchers and institutes in NSW.

It currently includes 42 member organisations, most of these being research centres and their universities undertaking public health and health services research in NSW. At the latest funding round, its core funding covered the operation of the Institute until June 2018. Additional support
comes from other governments, non-governmental organisations, philanthropic, and competitive research grants (Sax Institute, 2013).

At the outset, the Institute’s core aims were twofold – to strengthen and build capacity in population health and health services research and; to establish better links between research, policy and practice. While these aims have been refined as the organisation has developed, they are still fundamental to the work it carries out. More recently, the Institute has highlighted the transformative nature of the work they do, with a focus on ‘developing innovative ways of better engaging research with policy’ (Sax Institute, n.d.-b).

The Institute’s flagship programs are built around a focus on capacity building and encouraging better linkage and exchange, in addition to knowledge dissemination processes and programs. Accordingly, their programs encompass empirical studies (for example, the 45 and Up Study\(^{60}\), SEARCH\(^{61}\)), knowledge exchange (for example, Evidence Check\(^{62}\), Evaluation Make\(^{63}\), RADAR Database\(^{64}\)), network development (for example, HARC\(^{65}\), CRIAH\(^{66}\)) and infrastructure development (for example, SURE\(^{67}\)) (Sax Institute, n.d.-b).

The Sax Institute has clearly positioned itself as a knowledge broker and has used the term to describe its work in the past in addition to the brokerage programs on offer. For example, as stated in their 2006 Annual Report ‘The Sax Institute acts as a knowledge broker helping policy makers find and use the best evidence to support their decision making’ (Sax Institute, 2006). The Knowledge Exchange division is one of three core divisions within the Sax Institute’s

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\(^{60}\) The 45 and Up Study is a large-scale longitudinal study of healthy ageing. It has collected demographic, health and lifestyle data from over 265000 participants throughout NSW and is the largest study of its kind in the Southern Hemisphere. The data collected from this is linked to their medical records, including information about their use of acute care services, general practice, pharmaceuticals, and contained in registries such as the cancer registry, death registry, and special purpose registries. Participants are followed up every 5 years and for special purpose studies between these follow-ups (NSW Ministry of Health, 2012)

\(^{61}\) SEARCH is the Study of Environment on Aboriginal Resilience and Child Health and is Australia’s largest longitudinal study of health and wellbeing of urban Aboriginal Children.

\(^{62}\) Evaluation Make is an advisory service offering policy decision-makers support in the commissioning of high-quality, rigorous evaluations of existing or new policies or programs

\(^{63}\) RADAR – Researcher Accessible Database for the Allocation of Reviews – is a register of national and international researchers in population health and health services research. This database is used as a source to identify researchers to carry out Evidence Check reviews.

\(^{64}\) HARC – the Hospital Alliance for Research Collaboration – provides a network for researchers, health managers, clinicians and policy makers to share ideas. It is a partnership between the Clinical Excellent Commission, Agency for Clinical Innovation, Bureau of Health Information and the Office for Kids and Families, NSW Health

\(^{65}\) CRIAH – the Coalition for Research to Improve Aboriginal Health – provides networking and capacity building opportunities for Aboriginal health research and researchers.

\(^{66}\) SURE – Secure Unified Research Environment – a secure, remote access data analysis facility designed specifically for research using linked health data.
organisational structure and operates across the organisation and its research programs. It is responsible for facilitating health decision makers’ access to existing research and to enable them to use research more effectively in their work through the Institute’s knowledge exchange and brokerage programs such as Evidence Check (described further below). The Knowledge Exchange division encourages innovation in knowledge exchange through developing and trialling new approaches to strengthening relationships between policy makers and researchers (Sax Institute, n.d.-e). Table 7.5 shows the key characteristics of the organisation and is a summation of its work.

Table 7-5 - The Sax Institute’s defining characteristics

<table>
<thead>
<tr>
<th>Organisational Features</th>
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<tbody>
<tr>
<td>• Not for Profit Organisation</td>
</tr>
<tr>
<td>• State based entity, primarily servicing NSW Department of Health</td>
</tr>
<tr>
<td>• Reaching maturity as an organisation (10+ years in existence)</td>
</tr>
<tr>
<td>• Coalition of University and research groups/ centres</td>
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<table>
<thead>
<tr>
<th>Relationships with Stakeholders</th>
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</thead>
<tbody>
<tr>
<td>• Core role in policy agenda setting based on latest research</td>
</tr>
<tr>
<td>• Membership base covers includes nearly all public health institutes and researchers in NSW</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strategic direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Core aims and objectives have changed little since organisation was established, with a strong focus on capacity building and relationship building</td>
</tr>
<tr>
<td>• Flexible approach adaptive to general ‘life-cycle’ of organisation and the needs of its stakeholders</td>
</tr>
<tr>
<td>• Strong focus on innovation in bridging the gap between research and policy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mechanisms for linking research with policy and practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Dedicated knowledge exchange division whose core work is ensuring that policy makers have access to existing research and use it effectively in their work</td>
</tr>
<tr>
<td>• Individual knowledge brokers embedded as a function of a program</td>
</tr>
<tr>
<td>• Support for early career researchers</td>
</tr>
</tbody>
</table>

NSW Health takes a strong position on health research and the translation and transfer of research into policy and practice (NSW Ministry of Health, 2012), and the Sax Institute sits within this wider political culture which helps to secure its position. The organisation is closely embedded within NSW Health department, helping policy makers to commission new research and to facilitate the formation of partnerships to deliver priority research programs where there are identified gaps (Sax Institute, 2006).
7.3.1 Early stage of development of the Sax Institute

The development of the institute began in late 2000 at the initiative of the then Chief Health Officer, Dr Andrew Wilson, and leading health academics and researchers, including Professor Stephen Leeder, Professor Bruce Dowton (both were Dean of the Faculty of Medicine at the leading NSW universities of Sydney and NSW, respectively), Professor Lesley Barclay (University of Technology Sydney) and Professor Bruce Armstrong (Cancer Council NSW). In the first half of 2001, it gained support from the NSW Minister for Health, receiving financial support from the University of Sydney, UNSW and University of Technology Sydney as well as interest and support from a large number of public health and health services research centres across Sydney (Institute for Health Research, 2003).

It was formally established in 2002, originally as the Institute of Health Research, but then changed its name in 2005 to the Sax Institute in honour of Dr Sidney Sax, a prominent public health reformist in Australia. Dr Sax had an extensive background in public health and was a strong advocate of health policy being informed by the best possible evidence. It was felt that this approach had been lacking in public health policy development in NSW and indeed Australia at this time, and the Sax Institute filled this gap. From the outset, the Institute focused on developing tools and enablers to influence the use of research in policy making (Redman et al., 2008). It has carried through its namesake’s cause and is now a leading organisation in both public health research and importantly bridging the gap between health research and policy decision making in NSW.

At the outset, there was some uncertainty of as to what niche the organisation would occupy, as mentioned by a stakeholder.

Because there was a lot of confusion about what the Sax Institute would do and a lot of anxiety about whether we were going to be competing and whether we would be dominated by one university, University of Sydney probably, and sort of whether we were going to try and make - a really weird idea that we were going to try and make researchers do something.

(Sax Institute Stakeholder)
7.3.2 Governance arrangements

In the early stages of its development, the members of the Institute were the Board of the Institute. A new constitution was implemented in September 2003, whereby members of the Institute were to be individuals nominated by research centres and universities in NSW. The new Board was then made up of representatives from the UNSW, University of Sydney and University of Newcastle, three elected members from research centres, Directors with other expertise and a nominee from NSW Health.

The Institute has a governance Board, consisting of an independent chair, three Directors elected by research centre Members, a nominee from each of the Universities of Newcastle, NSW and Sydney, three Directors with other expertise, a nominee of NSW Health and the CEO of the Institute (ex officio). In late 2015, the Governance Board is chaired by Dr Irene Moss (AO), nationally recognised for her expertise in public sector governance, who has been the NSW Wales Ombudsman and the Independent Commission Against Corruption (ICAC) Commissioner (Sax Institute, n.d.-f).

7.3.3 Summary of the Sax Institute’s knowledge brokering activities

Considering the work of the Sax Institute in relation to the three characteristics of knowledge brokering – knowledge management, linkage and exchange and capacity building - it performs the following:

Knowledge management

The Sax Institute’s work in terms of knowledge management and dissemination cover a range of initiatives associated with each of its key programs. These include research papers, rapid reviews of existing research, on-line peer-reviewed journal, e-Bulletins and newsletters associated with particular Sax Institute programs and a well-developed online platform to access these publications. In addition, Sax researchers are often presenters at various relevant conferences.

Evidence Check is one element of the Institute’s efforts that has been formally established as a core program. The Evidence Check program was established in 2006 to assist policy makers in commissioning quality reviews of research to inform health policy decision making. The Evidence Check program was specifically developed in response to the recognition that something was needed to manage the tension of requiring a comprehensive research review to inform policy
decision and the time-sensitivity of policy decision to national government plans. It was one tool to increase access to existing evidence from research. Its overall aim is to enable policy makers to commission high quality syntheses of research in a timely and efficient way by providing the tools to increase the access of policy makers to existing research (Sax Institute, n.d.-d).

What distinguishes Evidence Check from other fast turnaround review tools, like the UK governments’ Social Research Unit’s Rapid Evidence Assessment (REA) Initiative, is that there is a real emphasis on facilitating the creation of linkages and exchanges between policy and research. To this end, the Evidence Check program critically emphasises a diagnostic phase using an iterative knowledge brokering process to formulate and refine the scope of the questions for the review. More specifically it uses a defined knowledge brokering process with the expertise of a trained knowledge broker. The knowledge brokering process is unique to the Sax Institute with a clearly defined role for a trained knowledge broker.

*Linkage and exchange*

The Institute’s linkage and exchange activities are extensive and varied and cover both formal and informal activities. The organisation has a dedicated knowledge exchange team as part of its knowledge exchange program which works to support the use of research by policy makers through target research to policy maker’s needs (Sax Institute, n.d.-e).

More specifically, the main activities of the knowledge exchange team are:

- Management of the rapid reviews of existing research evidence through the *Evidence Check* service.
- Helping policy makers evaluate their existing policies and programs through the *Evaluation Make* service.
- Working with policy agencies to analyse their research needs.
- Bringing policy makers and researchers together to collaborate, innovate and exchange ideas.
- Keeping stakeholders up to date on public health research with regular publications such as e-Bulletins, WebCIPHER (an online resource for health decision makers) and Public Health Research and Practice (the Institute’s online peer review quarterly journal).

(Sax Institute, n.d.-e)
The Institute holds other formal events such as conferences, seminars, training, forums and meetings around its programs to provide opportunities for informal networking and collaboration between policy makers and researchers (Sax Institute, n.d.-c).

Capacity building

The Institute places a very strong emphasis on capacity building across the sector and this has been part of its core function since the outset. Specific capacity building activities include:

- Development of large scale research infrastructure and assets such as the 45 and Up Study and SURE
- Training sessions and masterclasses for researchers and policy makers on their programs and research assets.
- Allowing access of researchers to research assets.
- Support for early career researchers.

Other initiatives include the recently introduced Research Action Awards which recognise research that has significantly impacted health policy, programs and researchers. Individuals from member organisations are eligible to apply, with the Award providing $3000 for their professional development.

7.3.4 Consideration of the Sax Institute as an effective knowledge broker

7.3.4.1 Indicators of success

While objective conclusions on the overall success of the Sax Institute are constrained by a lack of measurable outcomes, there are a number of indicators of its success, similar to those previously discussed for the case studies of AHURI and ARACY.

Similarly to the first two case studies, a search of references to the Sax Institute in Commonwealth Parliamentary proceedings is shown in Table 7.6 below. Also shown are the specific mentions of their flagship study, the ‘45 and Up’ study. While mentions at the Commonwealth level are fewer compared to AHURI and ARACY, they operate in a state jurisdiction and therefore their exposure at the Commonwealth level would be expected to be less.
The table also lists the mentions on the NSW Parliament website\(^{68}\) with 33 mentions of the Institute, showing its prominence within NSW health policy making.

### Table 7-6- Mentions of Sax Institute in parliamentary documents

<table>
<thead>
<tr>
<th>TOTAL Mentions (Sax Institute)</th>
<th>2010s</th>
</tr>
</thead>
<tbody>
<tr>
<td>House of Representatives - Hansard</td>
<td>2</td>
</tr>
<tr>
<td>Senate</td>
<td>0</td>
</tr>
<tr>
<td>Committees - HoR Committee Hansard</td>
<td>2</td>
</tr>
<tr>
<td>Bills and Legislation</td>
<td>0</td>
</tr>
<tr>
<td>Publications - Tabled Papers Register</td>
<td>7</td>
</tr>
<tr>
<td>TOTAL</td>
<td>11</td>
</tr>
</tbody>
</table>

"45 and Up" Study\(^{69}\)  

\(33\)

Furthermore, the 45 and Up Study has been used as a data source for almost 600 researchers, and more than 170 research papers have been published using this data (Sax Institute, n.d.-a).

The Sax Institute continues to attract significant funding from government grants and other forms of support. They have leveraged $72 million in research funding for NSW in the 5 years ending June 2014 (Sax Institute, 2014).

The range of partners and collaborators that work with the Sax Institute is extensive and includes both state and federal government agencies from across Australia, charities and other non-government organisations, statutory bodies, and health funding bodies. Furthermore, the number of partners and collaborators has been maintained or has increased year on year.

The Institute’s research programs continue to attract a high level of interest including researchers accessing their research assets, increasing use of their research infrastructure, and continued increase in the commissioning of research products such as Evidence Check.

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\(^{68}\) Note that the search function for the NSW Parliamentary Website is not as descriptive as the ParlInfo website and does not show the search results by each document type.

\(^{69}\) Mentions of the SAX Institute '45 and Up' Research study on the ParlInfo website.
7.3.4.2 Strengths of the Sax Institute

The strength of the Sax Institute lies in a range of elements, including its emphasis on innovative and widespread capacity building efforts, dissemination activities, their strong organisational processes, its embedded position in NSW Health policy making and its diversified funding sources.

The core strength of the Sax Institute is in its capacity building efforts, which have underpinned the work of the organisation since it was established. The depth and breadth of the capacity building efforts is significant. Furthermore, it has been very adaptive and technologically innovative in its approaches and programs. These programs have been based on the needs of policy makers and researchers and the Institute has been responsive to ensure these needs are met. Indeed, much of what it has been able to achieve in respect of capacity building has been built on the effective partnerships and collaborative relationships it has with partners and members, both researchers and policy makers.

One comment from the survey amongst policy officials was the following:

[I] have worked with the SAX Institute and their policy micro-position papers - a facilitated approach to bringing together policy makers and academics to examine the specific issues required - a good model.

(Policy Official)

The Institute’s dissemination products are very well developed and are varied, accommodating the needs of policy makers, researchers and other interested stakeholders. In particular, its website platform is a core source of information for researchers and policymakers within the health sector, with all the dissemination products easily accessed.

It has a strong organisational framework with significant resources being dedicated to financial management, governance and risk management, providing a strong supporting structure for programs to be built upon securely.

The Institute has secured its continuity as an organisation by ensuring it is embedded in NSW Health and its associated decision making processes. An indicator is their inclusion as a critical component of the NSW Health and Medical Research Strategic Review, which identified the Sax Institute as a recipient of core funding from the government due to its strategic importance, particularly relating to building capacity (NSW Ministry of Health, 2012). Furthermore, their membership includes a near-to-complete coverage of leading NSW public health researchers.
Like ARACY, the Sax Institute has a much diversified funding support network, with a wide range of partners. The core funding source remains the NSW Ministry of Health but considerable financial support is also received from other government, non-government, philanthropic and competitive research funding. In this way, the organisation remains less vulnerable to government budget cuts.

7.3.4.3 Challenges for the Sax Institute

The challenges faced by the Sax Institute are not dissimilar to those already discussed for AHURI and ARACY. While they have diversified funding sources, their core funding body is NSW Health. Withdrawal by NSW Health would leave a significant funding gap, especially as research is sometimes considered an expendable commodity by government. Other partners are also experiencing a climate of reduced funds more generally; hence they may not be able to sustain existing funding levels in the long term.

*With the shrinking dollar the need to make sensible decisions about resources is going to become more acute not less.*

*(Sax Institute Stakeholder)*

Related directly to this concern is the core problem that public health researchers face more generally, in measuring what needs to be measured (and thereby securing future funding from governments) in terms of social worth, and how these outcomes can realistically be achieved through current research methods and processes. This problem is not confined to the Sax Institute but is linked to the epistemological challenges associated with social science research.

*The challenges that I see are around how we get the kind of research. One area that’s really salient for policy makers is how do they evaluate the impact of the programs that they have? Are they making a difference? Are they enriching the people who are most in need? Our paradigms in public health are so poor for addressing the kinds of realities that policy give on research and we’re so rigid about [saying] no it’s not worth doing.*

*So that’s a potential fail point for all of this because if you can’t address that problem then policy makers will - you know they will just find a way that they can do it without researchers. So I think it’s [problem for] researchers as much as*
anything too. *It's probably the next generation of researchers to think a little bit differently.*

*(Sax Institute Stakeholder)*

### 7.4 Summary

The three case studies of AHURI, ARACY and the Sax Institute presented in this chapter illuminate the dynamics of research-focused intermediary organisation as one form of organisational knowledge brokering. Each case study examines the various ways in which such organisations operate including an understanding of the gap they were proposed to fill in the research-policy interface within various sectors, the varied contexts from which they arose, the varied emphasis placed on knowledge brokering functions and the commonalities and differences that emerge in their approaches to bridging the gap between research and policy. The case studies further highlight the benefits such research-focused intermediary organisations, as a form of organisational knowledge brokering, can play in overcoming the challenges of operating in a multi-level federal system and the associated problems of coordinating policies and research priorities across levels of government.

AHURI is of interest as a case study of a research-focused intermediary organisation, offering an effective model of organisational knowledge brokering. The core strengths of AHURI lie in its collaborative network model, the manner in which it incentivises the involvement of researchers and policy makers, and its strong linkage and exchange, and knowledge management offerings. While it does face challenges, overall, it is a unique but effective research-focused intermediary organisation, highly influential in the housing sector within Australia, which other sectors have looked to as a model for their own organisational research-to-policy arrangements.

ARACY provides an alternative, yet equally valuable organisational model of bringing together policy and research. The organisation continues to attract significant funding, members and prominent board members, all indicators of its perceived attractiveness as a mechanism for bringing about collaboration between research, policy and practice. The strength of ARACY is in its strong leadership, its whole of nation approach, its emphasis on advocacy, its large external network and membership base and its diversified funding sources. The challenge it faces is where to position itself going forward in a highly complex and fragmented sector, and how to continue to effectively harness ‘collective action’ to address children and youth problems.
The Sax Institute offers an effective model of organisational research-to-policy collaboration in the area of public health. The strength of the Sax Institute lies in its emphasis on innovative and widespread capacity building efforts, dissemination activities, their strong organisational processes, its embedded position in NSW Health policy making and its diversified funding sources. Despite the challenges they face in securing funding long-term, their position is strengthened due to their focus on capacity building efforts which ultimately create a culture within government that is more receptive to research use.

The subsequent chapter provides an analysis of this model of organisational knowledge brokering drawing on the relevant literature and the case studies. More specifically, Chapter Eight provides a discussion of research-focused intermediary organisations as a potentially effective model of knowledge brokering, drawing on the findings from the three case studies presented. This includes a discussion on the success factors and challenges that this organisational model of knowledge brokering faces and their potential for success.
Chapter Eight - A discussion of research-focused intermediary organisations as a knowledge brokering model

Chapter Seven presented the three case studies of research-focused intermediary organisations. It provided detailed and contextual information on each of the three case study organisations – AHURI, ARACY and the Sax Institute: the circumstances that led to their establishment; their ongoing development; their governance arrangements; an overview of their knowledge brokering activities; indicators of success; and the strengths and weaknesses of each organisation as identified by key stakeholders.

Chapter Eight builds on this descriptive chapter and provides the analytical discussion of the uniqueness of research-focused intermediary organisations as an organisational knowledge brokering model. More specifically, this chapter discusses the patterns of knowledge brokering activities that these organisations undertake based on the three core functions that knowledge brokers undertake – knowledge management, linkage and exchange, and capacity building (Ward et al., 2009a). A core contribution to the literature on knowledge brokering, it discusses this model of knowledge brokering, highlighting the strengths and weaknesses of this model compared to other models and the challenges faced by this model.

8.1 Patterns of knowledge brokering activities

The three core functions of knowledge brokering identified by Ward et al. (2009a) (discussed further in Chapter Two – Literature Review) provide a useful framework on which to discuss the activities of these organisations. Chapter Six – Typology, also provided a general analysis of these functions in the context of the range of entities that undertake a knowledge brokering role to some extent. This chapter provides a more detailed investigation of these functions based on the findings from the three case studies selected for this research to compare and contrast the work they do.

An analysis of the three case studies reveals there is a medium to high level of activity across all the three core functions of knowledge brokering.

Knowledge management is a core component of their work. All three case study organisations have developed a high level of ‘product offering’ and have continued to adapt and develop these services to reflect the needs of users and emerging technologies. For example, all three organisations have well developed websites, which are used as portals of dissemination of the research products on
offer. All three organisations offer a research synthesis service, providing systematic reviews of existing literature on a fee for service basis. They have a large offering of dissemination products and activities including things such as e-Newsletter, research reports, research bulletins, webinars, social media, seminars and conferences. These practices are similar to those activities acknowledged in Cooper’s (2014) study of RBOs in Canada. More generally, this type of activity is a constant, core factor of such intermediary organisations and a strong focus of their work.

In terms of linkage and exchange and relationship building, concerted efforts are focused on relationship building at the outset but it seems that efforts on this function fluctuate, depending on the changing needs of policy makers and the context in which the intermediary organisations operate. For example, considerable effort and resources are directed towards relationship building during the establishment phase of the organisation, building on pre-existing relationships but with a new emphasis due to the new organisational role. Once a strong relationship is built, the requirements are more ‘maintenance’ orientated as opposed to build the relationship ‘from scratch’. That said, because of the well noted staffing changes within the policy arena, as new individual staff members are introduced to the relationship in either research, policy or within the intermediary organisations themselves, renewed efforts are required to build relationships at the individual level. Thus, the emphasis switches from the relationships built at the individual level to broader organisational relationships supported by organisational structures. Relationship building efforts across the organisations include research seminars, policy forums workshops and seminars, conferences and continual links into policy deliberations such as working with key government committees broader policy issues.

Finally, in terms of capacity building, there is a medium to high level of capacity building across the organisations, particularly for the public health organisation and the housing organisation. There are primarily three core components of capacity building across the three case studies. These components relate to capacity building for both researchers and policy makers. For the former, there was an emphasis on the development of strong and credible research assets/ infrastructure. More specifically, there was an emphasis on creating robust data sets which constitute a valuable data source for the sector more generally on which to build skills and as well as to provide the relevant data for policy development. This is particularly true for the Sax Institute with its large-scale surveys, for example the 45 and Up Study (described further in section 7.3). Large-scale surveys of this type need organisational support and infrastructure to be designed, developed and managed effectively to produce a robust and reliable data source. In this way, research-focused
intermediary organisations provide both the organisational support as well as the skills base to carry out these activities. Furthermore, there was considerable support for early career researchers, taking various forms including PhD top-up scholarships, access to key data and postgraduate conferences. For capacity building components directed at policy, these varied, including developing training courses that could be accessed by policy officials.

Notwithstanding the considerable efforts that are put into knowledge management and linkage and exchange by such organisations, it can be argued that efforts in capacity building are more important for ensuring longevity. While capacity building relies on solid performance in the other activities, and in particular knowledge management, building capacity on both sides of the sector is essential for their continued existence and improving research utilisation. Firstly, the capacity building elements described above create an environment that supports and fosters the use of research, ensuring the sector develops an appreciation for, and sees the value in, research. A culture such as this is where organisations of this type thrive and are valued. This culture is changed directly through policy officials’ use of the research and the subsequent relationships that develop. It is also changed indirectly through the training and development of researchers who can move into the policy area and support the use of research in policy. Indeed, these organisations provide the organisational structures to support a new wave of researchers with well-developed and expert research skills and a high level of contact with policymakers purely through their association with these types of organisations. It is a dynamic component of the work of these organisations, supporting early career researchers willing to capitalise on their close contact with policy makers. This creates a greater likelihood of cross-pollination into positions in the public sector which helps foster a positive research culture within government. This finding is supported by the results from the qualitative research amongst policy officials and academics, discussed in Chapters Four and Five, where many mention the need and desire for secondments between government and academia – the form of capacity building where the most demand lies. This constitutes a ‘grassroots’ approach to capacity building or change sought ‘from within’.

The emphasis on capacity building to change research culture, is supported by empirical research which shows that where research culture is high, research is more likely to be used in decision making (Dobbins et al., 2009b). As mentioned in Chapter Two, knowledge brokering was one of three knowledge mobilisation strategies evaluated for the study by Dobbins et al. (2009b). The findings showed that knowledge brokering did not appear to be effective in promoting evidence-informed decision making overall, although there appeared to be a trend toward a positive effect
where organisational research culture was perceived as low. This finding gives rise to the suggestion that knowledge brokering, and more specifically the capacity building activities associated with the knowledge brokering role, play a role in improving organisational research culture which subsequently has a positive flow on effect for research utilisation. Other research supports this finding, suggesting that organisational culture dictates the propensity for research to be taken up in the policy decision making process (see Cherney et al., 2015). That is, where there is a culture within a government agency that supports the use of research, it is more likely that research will be taken up. Conversely, where research culture is weak and where research is less valued, there is less likelihood that research will be taken notice of in policy deliberations. Organisational culture is defined as a ‘specific set of standards, values, attitudes, beliefs, traditions, language and ways of doing things that are particular to a given organisation’ (Belkhodja et al., 2007, p. 391). People shape and affect organisational culture, and this culture in turn affects their beliefs and behaviours. The way the public service works is highly variable across agencies but in instances where there is strong support for research amongst departmental leaders, this will have a flow-down effect to the way the bureaucracy works on a day-to-day basis.

Organisations such as these may need to afford greater focus on their capacity building efforts to ensure longevity and realise the desired impact on research utilisation. This is likely to be where the most long-term success lies. In general, capacity building is the key determinant for strengthening the position of these organisations over the long term. It has a subtle but very critical impact on the level of research utilisation.

### 8.2 Essential qualities of research-focused intermediary organisations

The case studies provide insights into the essential qualities of research-focused intermediary organisations. The literature contains no firm framework on which to analyse the success of knowledge brokering activities, in particular this organisational type of knowledge brokering entity, in bridging the gap between research and policy and ensuring research utilisation. Obviously, the fact that all three organisations are still operating after 15 years and continue to attract significant government and other funding, provides one proxy indicator of their ‘success’ based on their continued existence alone. Organisations of this type operating with a knowledge broker ‘mandate’ must ensure their longevity to maximise their effectiveness in facilitating research utilisation. The importance of such longevity is reflected in the literature which highlights the sustained and long-term interaction between research producer and research user as a necessary component of research utilisation (Dobbins et al., 2009a; Robeson et al., 2008). Organisations operating with a clear
mandate to bring policy makers and researchers together to influence policy provide the support structures for long-term and sustained interaction, which may not exist in other organisations which do not have the same level of attention on influencing policy as a requirement of their work. With that in mind, the three case studies reveal a number of essential qualities of research-focused intermediary organisations that enable them to operate as knowledge brokers and support and facilitate knowledge transfer and exchange. The qualities have been identified from discussions with the case study key stakeholders, the data from the ARC Linkage project and from a comparative analysis of each of the three case study organisations. These qualities are shown in Table 8.1 and discussed hereunder.

Table 8-1 - Summary of essential qualities of research-focused intermediary organisations

<table>
<thead>
<tr>
<th>Quality</th>
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<tbody>
<tr>
<td>• Clear mandate to bridge the gap between research and policy</td>
</tr>
<tr>
<td>• Strong governance arrangement</td>
</tr>
<tr>
<td>• Highly credible CEO and Board Members</td>
</tr>
<tr>
<td>• Innovative</td>
</tr>
<tr>
<td>• Clearly defined policy area</td>
</tr>
<tr>
<td>• Embedded in culture which support evidence-based policy making</td>
</tr>
<tr>
<td>• Highly developed dissemination ‘offering’</td>
</tr>
<tr>
<td>• Effective collaboration with stakeholders</td>
</tr>
<tr>
<td>• Development of large-scale research assets</td>
</tr>
<tr>
<td>• Strong focus on capacity building strategies</td>
</tr>
</tbody>
</table>

Each of the organisations was established with a clear mandate to bridge the gap between research and policy. For example, AHURI’s remit at the outset was to ‘fund and promote high quality, independent research into current issues in housing and urban development’. Further, it aimed to inform the policy decisions of governments, industry and the community sector and to stimulate debate on these issues in the broader community’ (AHURI, 2002). Similarly for ARACY, its purpose at its inception was ‘to enhance the wellbeing and life chances of children and young people through the establishment of new collaborations across disciplines and sectors for the development and application of useful knowledge’ (ARACY, 2003). Likewise, the Sax Institute’s vision at its establishment was to ‘build an organisation that would strengthen the ties between research, policy and practice; and to build the state’s capacity to carry out leading-edge public health and health services research’ (Sax Institute, 2014).

Achieving organisational legitimacy requires strong corporate governance arrangements and management activities to be in place. All three organisations have dedicated significant time and effort to this ‘business’ side of the organisation, both at the establishment of the organisation and on
an ongoing basis. This includes establishing a board of directors to oversee the decisions and performance of the organisation, and ensuring all the legal, financial and regulatory obligations are adhered to. Without these strong organisational support structures and that can be subject to external scrutiny, the organisation cannot be in a good position to stand the test of time.

A related factor is the high level of credibility of key players in the organisation, in particular the CEO and the Board Members. Highly influential and dynamic CEOs were instrumental in the establishment of each of the organisations, as was the appointment of highly influential Board Members from a range of stakeholder organisations. This was particularly important for an organisation such as ARACY which needed support from high profile individuals such as Professor Fiona Stanley and Michael Chaney to be established in a highly contentious and fragmented sector where little similar widespread collaboration existed. These circumstances stood in contrast to AHURI, and to a lesser extent the Sax Institute, where there was some level of cohesiveness amongst researchers within the sector already in place.

Being able to innovate and diversify is a necessity for an organisation to survive long term and for it to achieve its vision and goals. The products of these organisations are the activities associated with knowledge management, linkage and exchange and capacity building, and all three case studies have shown their ability to diversify and innovate their products and change and adapt their products to the changing context in which they operate and the evolving needs of key stakeholders.

The three organisations have also shown a related ability to change the emphasis on each of the activities of knowledge management, capacity building and linkage and exchange, depending on the need. This flexibility has been identified in the literature as a core characteristic of ‘successful’ knowledge brokering (Robeson et al., 2008).

A clearly defined policy area where there is some level of cohesiveness may prove to be an essential quality. For example, the housing sector has a high level of cohesiveness both within academia and between academia and policy, thus providing greater ease for collaboration. Conversely, the children and youth sector in which ARACY operates is highly fragmented and multi-disciplinary, therefore additional challenges appear to be faced in terms of encouraging collaborations. Greater cohesiveness within the sector may be conducive to research utilisation more broadly which would make the role of an intermediary organisation such as this easier to carry out. This issue is not confined to these organisations in particular, but to research utilisation more broadly (Head & Walter, 2015, p. 295).
Working to establish relationships and research products to become strongly embedded as part of the wider culture that supports the use of evidence in decision making, appears to be an important quality of their work to ensure their longevity. This is a two-way consideration as these organisations reinforce and create this culture over time, but conversely would not have been established if this appreciation of the value of research was not there in the first place. This is evidenced in the Sax Institute and AHURI case studies but less evident for ARACY.

All the organisations have a strong focus on dissemination and have been highly innovative and progressive in the development of their research products. All have highly developed and easily accessible websites, in particular AHURI’s website has a high level of visibility amongst policymakers and is the ‘go to’ place for housing research information. All three organisations have a large number of products on offer such as briefing papers, newsletters, reports, e-bulletins and podcasts and these have evolved as technology has developed and the needs of their stakeholders are recognised.

The ability to deal effectively with all key stakeholders including researchers, policy makers, other funding bodies and members is seemingly critical and all of the organisations have given significant focus to working out how this is best achieved. In particular, incentivising the gains from their involvement is a core factor in the organisational framework within which these organisations operate. For example, intellectual property rights remain with AHURI research bodies and reporting outputs are peer-reviewed thus retaining their academic requirement to improve citation counts.

The development of large-scale research assets that are recognised internationally also provide a strong foundation for the organisation, offer credibility and enable the organisation to leverage the findings of these studies in policy decision making and more broadly. For example, the Sax Institute’s 45 and up study is the largest study of this cohort in the southern hemisphere with approximately 260,000 participants. It is a key data source for researchers within NSW, Australia and internationally and has provided the data for over 170 academic publications. It is likely that such a large-scale and highly visible research study will become embedded in health policy decision making within NSW and further afield and will continue to be attractive to funding bodies.
Oldham and McLean (1997) observe that, to be effective in knowledge brokering, it is essential to develop strong relationships with ‘users’ and to develop marketing skills that previously may not have been required. This is particularly important when users are required to pay for knowledge brokering services. This relationship is highly relevant to the Sax Institute and ARACY programs which have a dedicated knowledge brokering position. These organisations have focused on developing effective marketing expertise to ‘sell’ their respective programs.

Closely linked, and mentioned briefly previously, all three of the organisations have a strong focus on other capacity building efforts. These include well-developed PhD and early career researcher programs supporting students and researchers in skills training, exposure to research and policy environments, conference presentation and academic publishing. In addition, they have strengthened the capacity of the sector by raising the profile of research within the policy area, and have provided the large-scale research assets and therefore high-quality data required to inform policy decisions.

8.3 Benefits of research-focused intermediary organisations

The case studies reveal a number of core benefits of research-focused intermediary organisations over other forms of organisational knowledge brokering.

First and foremost, they provide the organisational support structures for the facilitation of more effective cooperation, collaboration and relationship building. Through such organisations, there can be the development of a mutual understanding of the imperatives of both policy making and academic contexts, through the emphasis on linkage and exchange activities. This builds a culture of mutual respect for each other’s ‘worlds’ on which effective collaboration and relationships that are shown to be a determinant in research utilisation can, in turn, be built.

Although the case study organisations are funded primarily from government, they are outside the constraints and issues of both policy and research, operating as a neutral and ‘honest broker’. They are considered independent and have a well established reputation for independence which is beneficial for them in relationships with both academics and policy makers. Overall, they are afforded a higher level of legitimacy and credibility. Indeed, these elements of credibility and legitimacy are highlighted in the literature as being important for knowledge brokers more generally (Lavis et al., 2003).
Research-focused intermediary organisations provide a stable and reliable focus for research production and relationship-building efforts outside of the competing demands inherent in policy and academic contexts. Information can be accessed quickly, overcoming the differing time constraints that exist between research producers and users, characteristic of the cultural differences between academics and policy makers (see, for example, Lewig et al., 2006). In addition, these relationship building efforts can be sustained over a considerable length of time, shown in the literature to be important for the use of research in policy (Dobbins et al., 2009a).

The existence of such organisations provides a source of focus to underpin a level of capacity building in the study of knowledge brokering. The literature review highlighted the highly fragmented literature base and the lack of solid theory on knowledge brokering (see section 2.1). Given that these organisations are clearly a unique and specific type of organisational knowledge brokering entity, they provide a basis for developing specific theory, good practice modelling around the functions and activities of knowledge brokering, and are instructive for organisations working to encourage collaborations between research and policy. This is of particular importance in an area which is, in general, under-developed at this stage.

They provide leadership around knowledge mobilisation when others are seeing the importance of these types of activities. Other organisations can look to them for methods of research dissemination, how to write in an accessible language for broad audience types, reporting styles and other knowledge mobilisation activities.

The systematic gathering and translation of evidence is made more possible through organisations such as these. They have the dedicated time, focus, resourcing and skills to give to developing highly sophisticated research translation activities that others in academia or policy do not, as the evidence arising from this research demonstrates.

Overall, organisational knowledge brokering entities have a privileged and powerful position to mobilise knowledge into policy and go even further, to actively shape policy agendas. In this way, they support the conceptual use of research which is acknowledged in the literature as the predominant usage of research over instrumental or direct and symbolic or political uses of research (Innvær et al., 2002; Nutley et al., 2007).
8.4 Challenges to the organisations

This model of knowledge brokering does not escape the challenges that are inherent in the relationship between policy makers and researchers and the associated tensions.

As much as it is considered a strength of these organisation, the reliance on government funding could be considered to be a threat to their longevity. In the current context, governments are operating in an era of severe fiscal constraints which has seen government research departments and research activities curtailed. Organisations such as those studied, must continually justify their position to counter reductions in spending on research, and promote the value of social science research.

Further, given their reliance on government funding, they are at risk of being criticised for being overly influenced by government in their approaches and activities. This is a typical complaint directed at consultants (Vromen & Hurley, 2015).

Where an organisation is less embedded in a sector or a government department, its position is somewhat more untenable. For example, the comments from those associated with the Sax Institute show that there is a perception that it is strongly embedded as part of NSW Health and this is their core source of evidence and research. While this is a supportive example, it does highlight the inverse thinking that may occur. That is, if an organisation is less entrenched within a sector or jurisdiction, they are more vulnerable to funding cuts.

There is a level of dependency on the cohesiveness of the sector prior to the establishment of the organisation. ARACY, for example, operates in a very fragmented sector which may or may not be an issue in the future. This contrasts with AHURI which operates within the context of the housing sector, a sector with a long history of collaboration.

The challenges many of these research-focused intermediary organisations face is where to position themselves following 10 years of consolidation and establishment – moving into the next phase of their life-span to ensure longevity poses significant problems. In terms of moving research into policy, further investigation of organisations such as these is needed to see where their focus should be moving forward. This also gives weight to the argument that knowledge brokers and their activities can only exist for a certain length of time, after which point their role becomes redundant. This view is evident to some degree in all cases of knowledge brokering activities that have been
included as part of this research. Furthermore, it suggests that knowledge brokers may only be required to pave the way initially and then once the relationship is established based on sound elements of trust and reliability, the benefits they bring may diminish. In this way, knowledge brokers can be considered pioneers, but once their aim of creating a relationship between the two groups is met, they are not needed. The movement of knowledge between the two groups will occur without them. This is when the focus on all three elements of knowledge management, linkage and exchange, and capacity building in particular, become vital.

Collaboration is an ideal. In theory it appears easy but in practice it is very complex as the experience of these organisations demonstrates. The organisation manages both stakeholders: - research users and research producers; posing challenges that arise from the differing ‘cultures’ that have been well documented in the literature and to which academics and policy makers themselves attest.

There is a constant need for such organisations to adapt and innovate in response to the changing needs of the sector in which they operate and the fluctuating policy positions and issues. To achieve and maintain success, highly motivated leadership, flexibility and extensive resources are required over the long term which can be difficult.

One of the essential qualities of knowledge brokering organisations highlighted from the research is that strong leadership is needed to be able to harness support across the sector, particularly in highly fragmented sectors. However, strong leadership needs to continue and may prove difficult to maintain given the specific niches of these organisations and corresponding attributes and skills set of the individuals required to lead them.

Research-focused intermediary organisations, while they do operate outside both government and universities, tend to be more ‘government-facing’ than ‘university-facing’. In this way, there could be more challenges and tensions presented in navigating the relationship with knowledge producers, when compared with the relationship with knowledge users.

**8.5 Summary**

Research-focused intermediary organisations show promise as a particular organisational form of knowledge brokering. An investigation of the patterns of activity across the core functions of knowledge brokering – knowledge management, linkage and exchange, and capacity building – highlight that there is a medium to high level of activity across these functions. The strength of
research-focused intermediary organisations lie in their organisational support structures which makes it easier to develop more concentrated effort on knowledge mobilisation, their neutrality, their leadership in knowledge mobilisation and their greater capacity to influence policy agenda setting. Significant challenges do exist for this particular type of organisational knowledge brokering, including their reliance on government funding, strategies to ensure their longevity, the inherent difficulties in effective collaboration and their need to be flexible and innovative in their activities and functions. A further, broader challenge they face is their uniqueness and dependency on a policy making culture that gives prominence and value to research to inform policy.

In response, it is argued that a focus on capacity building activities will be the most effective in achieving the cultural change necessary to ensuring these organisations reach their potential with respect to effecting research utilisation. Research-focused intermediary organisation show significant potential for being able to carry out capacity building functions, and more so than other organisational forms of knowledge brokering.

The concluding chapter provides a discussion of the core research findings and revisits the research questions this thesis addressed. It highlights the strength of the research in respect of the broader study of knowledge brokering and summarises the key limitations of the research. It also provides a summary of areas for future research in this area and implications for relevant stakeholders.
Chapter Nine - Conclusions

In an era in which social issues are increasingly complex and present ‘wicked’ problems for governments, academic research is a critical information source that can be used to guide the development of policies to address these issues. The connections between researchers and policy makers, however, need to be strengthened to ensure high quality, valid and reliable information in the form of academic research can make a robust contribution to policy making. It is in this context that knowledge brokering has significant potential to facilitate meaningful and effective connections between policy makers and academia and ensure research findings are used to inform policy.

This thesis investigates the role of knowledge brokering, and in particular organisational forms of knowledge brokering, in mobilising research into policy deliberations within an Australian context.

The following questions were posed to guide this line of enquiry:

- What is the demand for knowledge brokering activities amongst Australian policy makers and academics?
- What are the varying types of organisational knowledge brokering models that currently exist in the social sciences in Australia?
- How effective are these models in facilitating the utilisation of social science research in policy making?
- In relation to the experience and perspectives of research-focused intermediary organisations as one type of organisational knowledge brokering:
  - How do they view their knowledge brokering role of effectively bridging the gap between policy makers and academics in the light of both ‘cultural’ differences and contextual factors?

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70 Walport (2015). This statement was written by Sir Mark Walport, the UK government’s chief scientific adviser, writing for the Times Higher Education, published 22nd October 2015. In this article, he refers to the critical role of anthropologists, as well as historians, psychologists, geographers and other social scientists, in understanding cultural and regional norms amongst other factors in containing and preventing the further spread of the Ebola virus, during the 2014 outbreak in West Africa.
What are the critical qualities and processes of research-focused intermediary organisations?

How do they see their ongoing role in terms of opportunities, barriers and challenges?

What benefits do research-focused intermediary organisations offer over other models of organisational knowledge brokering?

The views of policy officials and researchers within Australia were garnered to understand perspectives of, and the demand for, knowledge mobilisation and knowledge brokering activities. The research amongst policy officials and researchers formed the basis from which an identification of effective knowledge brokering models, and in particular organisational knowledge brokering models, could be carried out. Classifying these models in terms of their location and status within political and academic spheres of activity gave order to this field of study. It also provided a solid foundation from which other studies can be conducted. The research highlighted the particular benefit of one model of organisational knowledge brokering – research-focused intermediary organisations. Drawing on the literature and survey research undertaken as part of this study, three research-focused intermediary organisations were identified and case studies were carried out to understand how they operate, their knowledge brokering role and activities, their strengths and weaknesses, and the challenges they face in encouraging the movement of knowledge between research producer and research user.

The thesis was structured as follows:

In Part A, three chapters provided an overview of the research problem, a critical analysis of the literature on knowledge brokering, and identified gaps in the literature where further research was called for. Chapter One introduced the research problem and posed questions that were addressed in the research. Chapter Two provided a critical review of the contemporary understanding on knowledge brokering and highlighted the core models that have been developed in the literature and the spaces where additional research could make a significant contribution to this area of study. Chapter Three provided an account of the various methods that were applied to respond to the research questions.

Part B provided an overview of the knowledge brokering landscape within Australia and comprises three chapters. Chapters Four and Five provided an analysis of the perceived demand for knowledge brokering activities using survey data and face-to-face interviews involving public policy officials and academics from the social sciences. Chapter Six developed a typology of
organisations that undertake a knowledge brokering role within Australia’s social service sector, illuminating the diversity of activities and organisations that aim to mobilise knowledge to influence policy. The chapter provided a classification of the patterns of knowledge brokering activities these organisations undertake in order to focus the research on a prospective model of knowledge mobilisation.

Part C comprised two chapters. Chapter Seven offered a detailed description of three case studies of research-focused intermediary organisations in Australia. The chapter provides important background and contextual information on the development of these organisations which shape their knowledge brokering activities and define their role. Chapter Eight provides a discussion of research-focused intermediary organisations and explores the patterns of knowledge brokering activities undertaken by these organisations. The research reported in this chapter allowed for an examination of the essential qualities, benefits and challenges of this organisational model of knowledge brokering are examined.

This final chapter provides a discussion of the core findings of the research undertaken for the thesis, outlines the main contributions of the research to the literature on knowledge brokering, and presents the implications of the research findings for both producers and potential consumers of evidence-based research.

9.1 A discussion of the core findings as they relate to the research questions

The core findings of the research as they relate to the research questions are discussed in this section.

*Australia has an ‘active’ and diverse knowledge brokering landscape featuring a range of entities that aim to bridge the gap between research and policy.*

A scan of organisations within Australia has identified many entities that perform a knowledge brokering role across a range of social policy sectors and organisational types. There is a considerable supply of research and knowledge mobilisation activities. Within the public service, research officers act as ‘knowledge brokers’ in certain contexts. Research branches exist in a number of commonwealth and state agencies; two particular government agencies act as knowledge brokers; and statutory bodies and other organisational knowledge brokering entities such as governmental libraries and clearinghouses also occupy an important role. Within academia, policy entrepreneurs are active, as well as wider organisational entities such as applied research institutes,
Cooperative Research Centres and Centres of Excellence. Outside of the academic and policy making communities, research-focused intermediary organisations, charities and other NGOs, peak bodies and think tanks operate, at least to some extent, to bridge the gap between research and policy.

The diversity of these entities is consistent with the findings in the literature identifying a large number of organisational ‘actors’ that aim to influence policy using evidence-based research (see Cooper (2014)).

Figure 9.1 illustrates a holistic view of these actors, their position within the policy landscape and their relationship to knowledge brokering. There are two communities – policy makers and academics – made up of a diverse array of individuals and organisations that either perform or engage with knowledge brokering roles and activities, and those that remain separate or removed from knowledge brokering roles and activities. The intermediaries represented below are those individuals, but mainly organisations, which connect the two communities, whether they exist within or between either community.

**Figure 9-1 – ‘Research-to-policy’ landscape**
Policy officials and social scientists see a need for knowledge brokering mechanisms but acknowledge there are challenges to its practice and effectiveness.

The research suggests that policy officials and social scientists believe knowledge brokering mechanisms are needed to overcome the barriers to knowledge mobilisation and research utilisation. Policy makers see the value in knowledge mobilisation, they generally have the skills to interpret and apply research, and they have the intent to use research. The academics interviewed for the research also see the value in knowledge mobilisation and dissemination activities. Most importantly, those agencies which had a knowledge brokering or knowledge management role showed signs of a culture that was more receptive to the use of research. The acknowledgement of a relationship between knowledge brokering roles and the research culture of an organisation is consistent with findings from other research that suggests the existence of a knowledge broker improves research culture within an organisation (Ward et al., 2009a), and that improving research culture is a determinant of increased research use (Cherney et al., 2015).

Despite an identified and recognised need, policy officials and academics acknowledge that there are significant challenges to carrying out knowledge mobilisation activities. Policy officials cited time pressures as constituting a core barrier to undertaking knowledge mobilisation activities, a finding that supports the existing literature that identifies lack of time as a core factor in research underutilisation (see, for example, Innvær et al., 2002; Lewig et al., 2006). Furthermore, organisational support for processes that integrate knowledge into policy making is lacking. Similarly, academics cite time pressures, costs, a lack of opportunity and a perceived lack of research skills amongst policy makers as barriers to knowledge mobilisation. The research confirmed that a further impediment to knowledge mobilisation is the perception that the current knowledge mobilisation practices of academics are poor but show signs of improvement.

These challenges are difficult to overcome, particularly the lack of time consistently mentioned in both the literature and reaffirmed in this research. The research suggests there is a need for knowledge brokering mechanism to facilitate knowledge mobilisation. In particular, the research found that both policy makers and academics acknowledged that a formal third party or intermediary arrangement that sits outside of the constraints of policy and academia has the greatest potential to increase research utilisation. The support for an intermediary arrangement is based on the belief that an intermediary will be best able to dedicate time and resources to the development of effective and usable knowledge mobilisation products and activities, and build capacity within the sector. Notwithstanding this view, such intermediaries are still likely to face challenges unless
wider organisational changes that support knowledge mobilisation and research utilisation are made.

*Research-focused intermediary organisations show significant potential as effective agents for knowledge mobilisation.*

Research-focused intermediary organisations, as one organisational form of knowledge brokering, are shown to possess strengths that offer significant potential for overcoming the problem of research underutilisation. They provide the organisational support structures that can facilitate the use of evidence-based research and are an independent, neutral, stable and reliable focus for knowledge mobilisation outside policy and academic milieux. Through these characteristics, they provide the supporting structures for long term and sustained interaction to occur, a factor highlighted in the literature as being critical for ‘successful’ knowledge brokering. They provide leadership around knowledge mobilisation for policy officials, academics, and wider policy stakeholders, a much needed function in Australia, where this field of activity is in the relatively early stages of development. Finally, they also have the support structures required to dedicate time and resources to capacity building activities, and to dedicate these resources over the long term. Activities that build capacity in both the research sector and the policy sector are most likely to have an influence on the development of a positive research culture in both sectors, and therefore lead to greater use of research in policy making.

While organisations such as these show potential, there are still challenges to overcome. Their reliance on government funding leaves them vulnerable to funding cuts and to criticism that they are not impartial. In addition, they appear to have a reliance on the existing cohesiveness of the sector or sectors in which they operate. The research indicated that the less cohesive the sector, the more difficult it is to effectively execute knowledge brokering activities. Over the long term, research-focused intermediary organisations need to be innovative and flexible to ensure their activities remain relevant and this requires substantial effort. There is a dependence on strong leadership, and maintaining such leadership over the long term can be difficult. The role of specific individuals in how these organisations engage with policy makers and academics, further reinforces the ‘human’ element of knowledge brokering and its contribution to the success of research mobilisation.

Reflecting on the role of knowledge brokering, and in particular the role of research-focused intermediary organisations, in the policy making process,
Knowledge brokering activities vary from organisation to organisation and their area of interest. This responsiveness and adaptability is essential if they are to remain relevant and effective.

The research presented here provides insights into the core knowledge brokering functions of knowledge management, linkage and exchange, and capacity building in the Australian context. The analysis of the knowledge brokering activities that research-focused intermediary organisations undertake across these core functions confirmed the wide ranging and highly variable activities carried out in order to adapt and respond to the varying requirements of policy makers and academics.

Knowledge management, one of the core knowledge brokering functions, was found to be an area in which research-focused intermediary organisations, and many of the other organisations across the sector, were involved and were performing to a high standard. The broader sector’s grasp on knowledge management functions, and in particular the research-focused intermediary organisations’ expertise in this area, suggest that it is not an area identified as needing greater attention. However, given that knowledge management alone is not the primary driver for research utilisation, this finding adds weight to the importance of boosting the other knowledge brokering functions in order to achieve the desired outcomes with respect to research utilisation. The emphasis on the knowledge management role of knowledge brokers is played out under the augmentation models of policy making highlighted in section 2.2.1.1.

The linkage and exchange functions of knowledge brokering entities, and in particular research-focused intermediary organisations, fluctuate in terms of their intensity and focus. At the outset, more intense effort must be devoted to establishing relationships with and within the public sector, but as time goes on, the role of the knowledge broker as relationship builder diminishes becoming more focused on the maintenance of relationships. As the connection between research-focused intermediary organisations and their stakeholders grows through individual relationships, there is a need to shift the connection at a more organisational level. This connection must be fostered through the development of systems, processes and activities that support regular linkage and exchange. This approach builds resilience against staffing changes which could otherwise result in the breaking of links between the organisations. In examining the linkage and exchange functions of knowledge brokering entities, it confirms the role knowledge brokers may play in the interaction models of policy making discussed in section 2.2.1.1. In particular, the case studies highlight the key role such organisations play in creating and sustaining networks amongst policy makers and researchers thus improving knowledge mobilisation and the use of research in policy making.
The capacity building function of knowledge brokering entities requires a long-term strategy. However, unlike the linkage and exchange function, capacity building evolves at a more gradual pace. Initially, there is a greater emphasis on skills development, particularly aimed at educating policy officials, and more broadly emphasising the role that research can play in policy decision making. At this stage, there are also significant resources directed to creating research infrastructure to support sustainable research assets. As time goes on, the skills development function aimed at policy officials lessens in lieu of a focus on further development and maintenance of large-scale research assets that form a sustainable foundation for these organisations to carry out their knowledge brokering role. There is also an increasing emphasis on the development of researchers within the sector. The capacity building function of such organisations then changes from educator to supplier of research assets and highly skilled researchers. Over the longer term, the level of activity in capacity building is higher (albeit varying), and it is these capacity building activities that show the greatest potential for changing research cultures within government, increasing their receptiveness to the use of research in policy deliberations.

Figure 9.2 provides an illustration of the changing emphasis of the functions of knowledge brokering for research-focused intermediary organisations over time. Note that this graph has been created to show the patterns of activity only, not to show measurable levels of activity.

**Figure 9.2 - Suggested patterns of activity of knowledge brokering organisations**
Greater emphasis on capacity building in knowledge brokering entities may provide the most gains in achieving successful use of research in policy.

When considering the patterns of activities of knowledge brokering entities, all three functions of knowledge management, linkage and exchange, and capacity building are evident, although the emphasis varies at different times. The most gains in increasing the use of research evidence are to be made through capacity building. The organisational knowledge brokering model is best placed to achieve long term and sustained use of research in policymaking because it has the adequate resources to extend and promote capacity building efforts.

Many organisations undertake knowledge management activities at a high level and have become very adept at producing research findings that are readily and easily accessible to policy officials. Furthermore, many organisations undertake various adaptive and innovative strategies for creating linkages and facilitating relationships between research producers and research users. However, the research undertaken here suggests that when such organisations give greater emphasis to their capacity building role, there is an even greater likelihood of moving evidence into policy. Capacity building activities build a research-receptive culture within policy domains, which is essential for the use of research evidence in policy.

There are further gains to be made in policy agenda setting through an emphasis on capacity building. The research undertaken as part of this thesis highlights the role of knowledge brokering in ensuring issues are placed on and moved up the decision agenda of government, placing knowledge brokering in a key role within Kingdon’s multiple policy streams theory of policy making. This approach highlights the importance of opening ‘policy windows’ in order for issues needing attention to make their way onto the policy agenda and therefore influencing real policy change (Kingdon, 2011).

The literature indicates that the many influences on policy are reactive and need to wait for the policy window to be opened. Only then do all the efforts that have been put in place in terms of knowledge mobilisation, advocacy, and relationship building have any impact. However, the role of knowledge brokers and others involved in the mobilisation of research through knowledge management, linkage and exchange and, in particular, capacity building activities, takes on a wider role in changing the policy-influencing landscape. Using the policy ‘window’ metaphor, they can help to force open the policy window, being more proactive in shaping understandings of policy.
issues (the ‘problem stream’), and ensuring that issues are placed on the policy agenda (the ‘policy stream’). The research-focused intermediary organisations have all the essential characteristics - resources, institutional support structures, integrity, legitimacy, quality, neutrality - to be able to have an impact on policy agenda setting, and more so than other models of knowledge brokering organisations.

**Greater cohesiveness within a sector appears to be a predictor of the effectiveness of research-focused intermediary organisations.**

The research findings reported here suggest that the success of research-focused intermediary organisations is dependent on the existing cohesiveness of a sector. That is, where there is a greater level of cohesiveness and collaboration already in existence between knowledge producers and knowledge users in a certain sector, there is an increased likelihood of the effectiveness of research-focused intermediary organisations and their activities in increasing the use of research in policy making.

This proposition is primarily informed by the assessment of AHURI, where a research-focused intermediary organisation has arisen out of a sector with a long history of collaboration and interconnectedness between research and policy. There are indications that AHURI is highly successful in mobilising research to influence policy decisions within the housing sector, based on its high level of ‘visibility’ amongst policy makers. Further research needs to be carried out to justify this suggestion that greater cohesiveness within a sector strongly influences the success of such knowledge brokering organisations in moving research between research producers and research users.

### 9.1.1 Other observations

A number of other observations can be made based on the findings of the research. These are not directly related to the research questions but are of note for the wider study of knowledge brokering.

**There needs to be a greater emphasis on organisational knowledge brokering entities as the unit of analysis in the study of knowledge brokering.**

The majority of the literature on knowledge brokering has discussed the potential of, and assessed the performance of, individual knowledge brokers and their role in mobilising knowledge for use in policy or practice. However, the literature also highlights the need for greater emphasis on understanding the organisations and wider systems in which knowledge brokers (both individuals and entities) operate. My research has reconfirmed that further attention is needed to understand the
role of such knowledge brokering organisations in improving the role of research in policy making, and presents findings that help address this gap in the literature.

The research completed for this project highlights the unit of analysis when thinking about knowledge brokering should be at the organisational level, or at least considerable attention needs to be given to the organisational context in which individual knowledge brokers work. Individual knowledge brokers are typically located in an organisation already predisposed to valuing research, and undertake activities that aim to bridge the gap between research and policy. Organisations provide the structural enablers to allow individual knowledge brokers to carry out their role, and are critical for creating an environment and culture in which knowledge can be mobilised.

There is a need to reframe ‘knowledge brokering’ in the literature

Knowledge brokering, as a way of bridging the gap between research and policy, is typically framed in the literature through the ‘Two Communities’ theory of underutilisation. However the research presented in this thesis and other empirical research (Newman, 2014) suggests that the gap between policy makers and academics is not as large as once thought, and it is apparent that there is a high appreciation and value placed on understanding each other’s ‘worlds’. However the barriers cited above overshadow long term and concerted efforts to undertake such activities. Framing knowledge brokering as a way to overcome the problems associated with the ‘two communities’ is a negative way of thinking about the notion (Newman 2014) and is in need of subtle reframing to take into consideration this convergence in views with respect to knowledge mobilisation. There needs to be an emphasis on acknowledging that knowledge brokering entities provide the space to allow the similar values of policy makers and academics to be realised and built upon, instead of knowledge brokers ‘bridging the gap’ between policy makers and academics. Knowledge brokering organisations that sit outside government and academia provide the structural arrangements for this to occur.

9.2 Contribution of the research to the literature on knowledge brokering

This research has contributed to the literature on knowledge brokering on a number of levels.

Firstly, the research has been informative in identifying the many organisations and entities in Australia that undertake knowledge brokering activities to mobilise research knowledge for use in policy. The organisations that undertake these activities are varied and diverse, and the activities of knowledge brokering are undertaken in various capacities. The scoping exercise of organisations that operate in the ‘research-to-policy space’ is the first of its kind in Australia. A formative study
such as this was needed to understand the ‘landscape’ with respect to the practice of knowledge brokering within Australia. The identification of these organisations in an Australian context adds to the literature on knowledge brokering itself, and allows a greater understanding of organisational knowledge brokering entities. This research provides a strong foundation for further empirical work on understanding organisational knowledge brokering entities using examples from Australia.

Secondly, the research covers the perspectives of Australian policy makers and social scientists on knowledge mobilisation and knowledge brokering. While significant empirical research on research utilisation, has been conducted both within Australia and internationally, only a limited amount of research has focused on knowledge mobilisation and knowledge brokering.

This thesis is only the second study to focus on research-focused intermediary organisations as a particular form of organisational knowledge brokering located outside of policy and academia. The first study by Cooper (2014) highlighted the role of educational Research Brokering Organisations (RBOs) in Canada. My research builds on elements of this foundational research, using examples from Australia.

Finally, the case studies have provided a more detailed appraisal of research-focused intermediary bodies than has been conducted to date. This assessment illuminated the critical qualities these organisations possess and the benefits and challenges they face. The assessment of these organisations helped gain a greater understanding of the knowledge brokering activities they undertake and where their work should focus in order increase the use of research in policy. While under-researched, this model of organisational knowledge brokering offers benefits over other types of organisations in achieving research utilisation.

9.3 Limitations of the research

While there are strengths to the research, there are limitations to the study worthy of note. These limitations have been discussed in Chapter 3 and Appendix A of this thesis, and reiterated in summary form hereunder. Furthermore, there are limitations more broadly to theoretical considerations in relation to knowledge brokering to be noted.

Limitations of the research amongst policy officials and Australian academics

- The sampling methods for the survey of policy officials has limitations, affected by the level of focus and effort by government agency contact members to identify in-scope positions and adhere to the recruitment process stipulated by the research team. The recruitment process was
constrained by reasonable concerns expressed by participating government departments about providing staff listings to the research team, which they regarded as potentially threatening the anonymity of the survey. Nevertheless, every effort was made by the research team to ensure that only in-scope personnel participated, which included information inserted in the emails sent to staff and in the electronic survey itself about the aims of the project, definitions of relevant terms, and a detailed list of positions that were in-scope.

• The policy officials and academics who voluntarily completed the survey cannot be taken to be a representative cross-section of the total public service, nor even of the policy-relevant sections of the public service. There are some variations in total survey responses received across the 21 agencies, which does raise the possibility of bias in the representativeness of responses across different social policy domains. Given that, this research is not attempting to make comparisons across levels of government nor draw conclusions about why organisational variations exist, the analysis includes results from all 21 agencies. The findings from this study are enriched by the diversity of the respondents from multiple policy and programme domains across federal and state government, as well as agencies of different sizes and levels of responsibility.

• The survey data are based on self-reports of government personnel, which can be subject to social desirability biases as respondents may inflate their responses to certain items such as the value given to research evidence when making policy decisions. The survey was also completed by agencies at slightly different periods of time and it was difficult for the research team to control the influence of internal organisational reforms or broader political events on how participants answered particular questions.

• The data used in this component of the research was not specifically collected to examine knowledge mobilisation activities and knowledge brokering, but rather to understand research utilisation more broadly. I did not conduct the majority of the interviews and it was therefore not possible to direct lines of questioning further into knowledge mobilisation and knowledge brokering. More detailed understanding of knowledge mobilisation and knowledge brokering was not able to be garnered from the existing data. While there is some slippage between the intent of the broader research project and the specific intent of my research, the depth and breadth of data available through the broader project data still provides critical insights into the views of policy officials and academics.
• There may be a further level of bias in the data given that those invited to participate in the survey were selected on the basis of their participation in ARC Linkage projects in the past (for the academic survey) and the willingness of policy officials to be interviewed on the topic of evidence-based policy making (self-selection for the survey component). It is possible that participants in the study may have had a predisposition toward wanting to see the gap between research and policy closed, and may therefore be predisposed to be supportive of knowledge mobilisation strategies such as knowledge brokering.

**Limitations of the case study component of the research**

• Case studies are inherently problematic in terms of generalisation and the findings from these case studies cannot easily be applied specifically to other research-focused intermediary organisations. However, cross-case generalisation can be made through the identification of common issues in each of the cases and the interconnecting themes between them. The analytical framework used for the case studies allowed for such a cross-case generalisation and for conclusions to be made on context, processes, and patterns of activities.

• It was not possible to secure interviews with the full range of both research-producing and research-using stakeholders of the case-study organisation. As these interviews were to be used as a secondary source of information on the model itself, this is less problematic. Where it was not possible to secure interviews with some key external stakeholders, other sources were used to gain the alternative perspectives on the organisation including the views of policy personnel and social scientists taken from the wider ARC project.

• The case study organisations are relatively new and unique organisations, specifically developed to link researchers and policy makers, and only a small number of these organisations exist in Australia. A case study which examined a scenario in which a research-focused intermediary organisation had ceased operation, and why, would have provided additional perspective to this research. However, there were no organisations identified as part of the desktop research that had ceased operation and who could have been used as a case study.

More broadly, it has been duly acknowledged that there exists a lack of strong theoretical foundations in the area of knowledge mobilisation (see for example, Breton & De Leeuw, 2011; Estabrooks et al., 2006). More recent reflections on this absence further confirm that while theories and models on flows of knowledge abound in the literature, they do little more than reiterate the challenges that are faced in the study of knowledge mobilisation, and ‘muddy the water’ in understanding knowledge mobilisation approaches (Davies, Powell, & Nutley, 2016, p. 276).
Theoretical approaches to such areas of study are useful as they provide a better understanding of how and why specific actions may succeed or fail. While the research presented in this thesis does not advance or develop a theoretical framework *per se* (which could be considered a limitation of the research), it does however provide further empirical explanation on knowledge mobilisation, and knowledge brokerage activities of a range of ‘actors’, thereby creating more substantial foundations on which theory can be developed, particularly in relation to patterns of knowledge brokerage behaviours and activities. Furthermore, it does provide a brief commentary on the place and importance of knowledge brokering at a more ‘macro’ level in respect of theories of the policy making process and the role of research within this process (and therefore how knowledge brokering can advance the role of research).

### 9.3 Suggestions for future research

While this research has provided insights into some identified existing gaps in the literature, it has also revealed considerable areas for further research.

This research has provided a detailed assessment of one type of organisational knowledge brokering entity. To date, there is limited literature on the strengths of this organisational arrangement over other forms of organisational knowledge brokering. Further research is needed on this particular intermediary organisational form of knowledge brokering – its organisational dimensions; the processes they superintend; and the interactions they support.

No framework exists to measure the success of such intermediary organisations in moving research into policy. Proxy indicators of their success in this respect, such as those included in this research, include the citations of work in government submission or policy documents, their level of visibility with policy makers and their inclusion in such activities as government policy round tables as a forum for policy debate and development. Their continued funding by government and other stakeholders is a further indicator of the perceived benefit the organisation brings. However, a more structured way to assess the success of these organisations is needed.

Further comparative research is needed on the knowledge mobilisation frameworks that explicitly or implicitly use a knowledge brokering mechanism, compared with those that do not. The point of such a review would be to assess the need or appreciation for such a role, to provide some insights into whether the existence of knowledge brokering activities makes any difference to the knowledge
mobilisation framework in mobilising knowledge. This analysis may not provide a definitive answer to this question, given the difficulties in assessing the success of a knowledge transfer process or system itself in mobilising knowledge, but instead would aim to provide some insights into why knowledge brokering may be considered in some circumstances over others, or whether there is a recognised need for a knowledge broker. This issue of assessment and appropriate metrics for such an assessment represents a significant gap in the literature and an area of focus for future research.

The cohesiveness of a sector is likely to be a determinant of the success of research-focused intermediary organisations in achieving research utilisation. However this has not been researched or reported to any great extent. This recognition of the gap in the current literature points to the need for a significant body of research in the form of network analysis to understand the extent and nature of existing levels of collaboration within various sectors, both amongst researchers, amongst policy makers, and then between researchers and policy makers in the sector.

9.4 Implications for knowledge brokering organisations, policymakers and researchers

The research points to implications for knowledge producers, knowledge users and the knowledge brokering organisations that are working to bridge the gap between these two communities.

Implications for research-focused intermediary organisations.

While all three functions of knowledge brokering activities – knowledge management, linkage and exchange, and capacity building – are fundamental to the work of research-focused intermediary organisations, these organisations need to give greater focus to capacity building activities to have the greatest likelihood of improving research utilisation. However, challenges still remain which limit the potential of such organisations to mobilise knowledge for the use in research. Time constraints are a reality for policy makers and the only way to overcome such time constraints is for the use of research to be so integrated into policy structures and processes that time constraints become a less important factor. Strategies to integrate research into policy systems and processes will vary in practice, but the embedding of a culture of research receptiveness within government is vital. Capacity building activities are the ‘slow-drip’ way of ensuring this positive research culture is developed. It is also critical for research-focused intermediary organisations to engage with policy and researchers, and remain innovative and flexible to meet the demands of both
communities, demonstrating leadership to other organisations and individuals working to facilitate closer connections between research and policy.

*Implications for other organisational forms of knowledge brokering*

The domain of knowledge mobilisation is growing significantly, and there is considerable scope for the range of organisations operating as knowledge brokers to increase their knowledge brokering activities. Where possible, other organisational models of knowledge brokering, such as those identified in this research, should aim to maintain a strong presence and level of activity in the three core functions of knowledge brokering. For guidance on how to best carry out these activities, other organisations should look to research-focused intermediary organisations for leadership and examples of innovative ways in which to disseminate knowledge, facilitate linkage and exchange and establish sustainable capacity building strategies which can be adapted and built upon for their own institutional and policy context. Opportunities to share ideas and strategies for knowledge brokering activities should be capitalised on, with the overall aim of achieving a greater cohesiveness in specific sectors.

*Implications for policy makers*

Policy makers and government should continue to work to improve processes and systems that encourage the use of evidence-based research in policy making. Such research-focused intermediary organisations are important entities for facilitating research to policy interactions. There needs to be an acknowledgement that such organisations are a critical source of research to inform policy decisions and can work to overcome the barriers to knowledge mobilisation such as time constraints that have been identified in the literature and confirmed in this research. There should also be an acknowledgement of the similarities that exist between policy makers and academics which challenges conventional views on the contrasting nature of the two groups and the ‘gap’ between them. Policy makers and academics have very similar values and this provides a strong foundation for effective collaboration and engagement. If time constraints are the core challenge to more use of research, then the use and continued funding of research-focused intermediary organisations is crucial to perform the role of facilitating linkage and exchange between research and policy.

*Implications for researchers*

Engaging with research-focused intermediary bodies, and indeed, other organisations which aim to influence policy is of importance for researchers. Such work will become increasingly important
given that researchers increasingly have to show the impact of their work, institutionalised through the impact agenda evident in the higher education sector. Researchers should aim to challenge the entrenched silos that are said to exist between themselves and policy makers and undertake strategies which encourage collaboration and cohesiveness.

The Australian context is ripe for an increase in knowledge mobilisation, and therefore knowledge brokering entities. Aside from other developments within the research sector, the recent appointment of Professor Alan Finkel as Australia’s Chief Scientist, a known advocate for knowledge mobilisation, is seen by many across the disciplines as a positive move on many levels. The role of social science in this ‘knowledge mobilisation’ environment remains to be seen but the rhetoric around the equal importance of social science research as well as research from the STEM disciplines is encouraging. Much promise exists for the mobilisation of social science research, through organisational knowledge brokering entities such as research-focused intermediary organisations, into constructive and meaningful policies that address the multi-faceted and complex problems our governments are elected to address.
List of References


List of References


List of References


Appendix A – Details of Methods

The following information contains details of the data collection methods used for the ARC Linkage project on Research Utilisation from which the data for Chapters Four and Five of this thesis were drawn. This information is taken from the publications arising from the ARC project and referenced accordingly.

Survey of public policy officials.

(Extracted from Cherney et al 2015, pp. 171-174; van der Arend 2014, p614; and additional project material to be found at the ARC Linkage project website - http://www.issr.uq.edu.au/EBP-home)

A survey of officials in federal and state government agencies across Australia was conducted, involving a purposive sampling technique targeting policy-relevant personnel within public sector agencies whose responsibilities covered human service policies and programmes. Included were Commonwealth (national) agencies, together with departments in the three most populated states which include 77% of the Australian population: Queensland, New South Wales (NSW) and Victoria (see Table A below).

A total of ten central agencies and eleven line agencies at both the state and national level participated in the survey. The survey was not conducted simultaneously across these 21 agencies and had to be staggered, due to the time it took to broker access to relevant departments. Hence the survey commenced in November 2011 and closed in March 2013. Individual agencies ran the survey for differing amounts of time, from a minimum of two weeks to a maximum of two months, dependent on internal circumstances. Scope of staff invited to participate included personnel at Australian Public Service (APS) level 6 or equivalent (APS level refers to the Australian Public Service classification of job-related duties and remuneration. Level 6 and above captures senior policy officers and project managers, which excludes clerical workers and personnel assistants) through to the most senior management roles, who were involved in the following areas of responsibility: policy advice, policy development, research, evaluation, data collection or analysis, service or programme planning, service design and delivery. This breadth of relevant roles ensured that a wide variety of individuals involved in multiple ways in the policy-making process were captured in our sample. Unlike some other studies (for example, Belkhodja et al 2007; Landry et al, 2003, Howlett & Wellstead 2011) the research team was not able to access lists of relevant personnel to sample. Instead, participating agencies were asked to identify relevant personnel who met these criteria, and in order to maintain respondent confidentiality the contact officer in each agency maintained control over internal email lists through which targeted staff received access to the electronic survey instrument. Eleven agencies followed this procedure and were able to provide the exact number of staff to whom the electronic survey was distributed – hence for these agencies we were able to calculate a response rate. Another three agencies were able to provide close approximations of the number of staff selected, allowing for an estimated response rate. The remaining seven agencies were unable to distribute the survey exactly as requested, often due to internal constraints or circumstances (such as impending elections or machinery-of-government changes).

In these cases, a broader invitation to staff was distributed for example, via the agency intranet, or a staff weekly update, or in an email, with instructions for staff to self-select after noting the study’s guidelines about areas of responsibility that were in scope. A response rate cannot be estimated for these agencies. Given these contingencies and constraints in the recruitment of the sample, an overall response rate therefore cannot be calculated for the survey. However, Table A provides a list of the agencies that participated, provides totals for the number of respondents in each agency, the number of staff sent the survey (where known) and calculated response rates (where possible). The final sample size was 2084 and findings reported in this research are based on this total sample.

It is recognised that there are some limitations with the sampling method, which was affected by the level of focus and effort by agency contact members to identify in-scope positions and adhere to the recruitment process stipulated by the research team. The methodology of the project was approved by the University of Queensland Ethics Committee and by participating agencies. Nevertheless, the recruitment process was constrained by reasonable concerns expressed by participating government departments about providing staff listings to the research team, which they regarded as potentially threatening the anonymity of the survey.
This is a reality of working with government departments with variable levels of commitment to research partnerships (Cherney, 2013). Nevertheless, every effort was made by the research team to ensure that only in-scope personnel participated, which included information inserted in the emails sent to staff and in the electronic survey itself about the aims of the project, definitions of relevant terms, and a detailed list of positions that were in-scope.

It should be emphasised that the 2084 respondents who voluntarily completed the survey cannot be taken to be a representative cross-section of the total public service, nor even of the policy-relevant sections of the public service. We recognise that there are some variations in total survey responses received across the 21 agencies, which does raise the possibility of bias in the representativeness of responses across different social policy domains. The largest response rates were from Commonwealth departments, while some of our responses from particular state government departments were somewhat low (see Table A). Given that, in this research is not attempting to make comparisons across levels of government nor draw conclusions about why organisational variations exist, we have included all 21 agencies in the analysis presented here. The findings from this study are enriched by the diversity of the respondents from multiple policy and programme domains across federal and state government, as well as agencies of different sizes and levels of responsibility, rather than limited to a single organisational context (see also Landry et al, 2003).

The survey data are based on self-reports of government personnel, which can be subject to social desirability biases as respondents may inflate their responses to certain items such as the value given to research evidence when making policy decisions. The survey was also completed by agencies at slightly different periods of time and it was difficult for the research team to control the influence of internal organisational reforms or broader political events on how participants answered particular questions.

The survey instrument was based on a number of validated items and scales derived from previous studies (for example, Belkhodja et al, 2007; Hall and Jennings, 2010; Howlett and Wellstead, 2011; Howlett and Newman, 2010; Landry et al, 2003; Ouimet et al, 2009) and included a significant number of new questions relating, for example, to methods for accessing research such as using web-based search engines. Broadly, items were concerned with the demographics, experience and position of the respondent; their level of involvement in certain policy-related tasks; the level of importance and preferences they accorded to different information sources including academic research; whether they had trouble accessing academic research and the types of research methodologies preferred; whether academic research was viewed as important within their work unit; the existence of mechanisms to help access academic research, policy skill development and training; experiences of research partnerships; judgements about academics; perspectives of the policy-making process; ways in which academic research was used; and, its impact on policy decision making. Respondents were also able to provide qualitative responses at the end of the survey.
<table>
<thead>
<tr>
<th>Table A: Agencies who participated in survey</th>
<th>Freq.</th>
<th>Percent (of total PSS)</th>
<th>No. of staff survey distributed to</th>
<th>Response rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Productivity Commission (Commonwealth)</td>
<td>60</td>
<td>2.88</td>
<td>100</td>
<td>60.00</td>
</tr>
<tr>
<td>Australian Bureau of Statistics (Commonwealth)</td>
<td>228</td>
<td>10.94</td>
<td>772</td>
<td>29.53</td>
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<tr>
<td>Treasury (Commonwealth)</td>
<td>123</td>
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<td>400</td>
<td>30.75</td>
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<td>0.67</td>
<td>300-400</td>
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<td>Department of Families, Housing, Communities &amp; Indigenous Affairs (Commonwealth)</td>
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<td>12.09</td>
<td>1115</td>
<td>22.60</td>
</tr>
<tr>
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<td>4.22</td>
<td>1200</td>
<td>7.33</td>
</tr>
<tr>
<td>Queensland Health</td>
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<td>5.37</td>
<td>916</td>
<td>12.23</td>
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<tr>
<td>Queensland Department of Communities</td>
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<td>4.8</td>
<td>Not known</td>
<td>------</td>
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<tr>
<td>Queensland Department of Employment, Economic Development &amp; Innovation</td>
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<td>160</td>
<td>45.63</td>
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<td>60</td>
<td>30.00</td>
</tr>
<tr>
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<td>0.62</td>
<td>Not known</td>
<td>------</td>
</tr>
<tr>
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<td>3.36</td>
<td>230</td>
<td>30.43</td>
</tr>
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<td>3.12</td>
<td>395</td>
<td>16.46</td>
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<tr>
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<td>41</td>
<td>1.97</td>
<td>277</td>
<td>14.80</td>
</tr>
<tr>
<td>NSW Department of Premier and Cabinet</td>
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<td>2.64</td>
<td>Not known</td>
<td>------</td>
</tr>
<tr>
<td>NSW Department of Family and Community Services</td>
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<td>7.39</td>
<td>548</td>
<td>28.10</td>
</tr>
<tr>
<td>Victorian Department of Planning and Community Development</td>
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<td>1.34</td>
<td>108</td>
<td>25.93</td>
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<tr>
<td>Victorian Department of Education and Early Childhood Development</td>
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<td>42.50</td>
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<tr>
<td>Victorian Treasury</td>
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<td>2.59</td>
<td>Not known</td>
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</tr>
<tr>
<td>Total</td>
<td>2084</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Interviews with public policy officials

After the completion of the survey process within their agency, each agency project contact was invited to identify and nominate a small number of senior staff in relevant positions who were willing to participate in an in-depth interview. Not all of the selected interviewees had previously completed the survey. In addition, a number of current and former senior public servants, including some in partner or collaborating agencies, were identified by the project team and directly contacted with an invitation to participate in an interview. The interview questions expanded on the survey themes relating to the influence of research and evidence in policy decision-making, the uptake of academic research, research collaborations, and the role of networks and processes to facilitate the use of research. A total of 126 interviews were conducted from July 2012-December 2013.

Survey of Australian social scientists

Extracted from Cherney, Head, et al. (2012, pp. 434-435)

The survey administered to academic social scientists was based partially on existing questions and scales (e.g., Landry et al, 2001a, 2001b; Bogenschneider and Corbett, 2010). New questions were also developed to capture additional data relating to research impact and the benefits and problems of engaging in research collaborations. Also, at the end of the survey there was space provided for free text responses.

The survey was first piloted among fellows of the Academy of the Social Sciences in Australia (ASSA) in September–October 2010. Due to confidentiality concerns on the part of the ASSA executive, contact details of individual ASSA members were not provided to the research team, and the ASSA executive distributed the survey to its members via their internal email system. It is estimated that 500 members were sent the survey and 81 surveys were completed, with the response rate being about 17%. There were no significant changes to the survey following the pilot outside of editing some lead-in questions to make them clearer. The project team then established a database of Australian academics who had secured at least one Australian Research Council (ARC) grant (what are termed Discovery or Linkage grants) between 2001 and 2010 within the field of social and behavioural science. The selection of relevant disciplines was based on the ‘field of research’ codes used by the ARC to categorise the funded projects, and comprised codes relating to anthropology, criminology and law enforcement, demography, economics, education, human geography, policy and administration, political science, psychology, social work, sociology and other studies in human society. Using this database, a web link to the survey was sent via email to 1,950 academic researchers between November 2010 and February 2011. The same reminder email was sent twice during this period and the survey closed in May 2011. A total of 612 completed surveys were received, which constitutes a response rate of 32%. When the main academic survey was combined with the ASSA pilot, the final total number of responses was 693. The response rate achieved is indicative of the difficulty of encouraging time-poor academics to participate in projects where they themselves are the subjects of the research. It has also been noted that web-based surveys often suffer from low response rates (Sue, 2007).

The reason for targeting academics who had secured research grants was to ensure that the project captured experienced academics with a history of collaborations with external partners, since one aim was to understand the impact and dynamics of such partnerships. Studies have also shown that seniority and the number of external competitive research grants are key determinants of engagement with non-academic end-users (Landry et al, 2001a, 2001b; Cherney and McGee, 2011). This information also guided the recruitment process so that we were capturing academics who could realistically respond to the survey questions.

Fellows are recognised for their outstanding contributions to the social sciences in Australia and abroad. See www.assa.edu.au/

No scales were changed and only combined results from the same questions used in the pilot and main survey are reported as part of the analysis.

Australian Research Council (ARC) grants are national competitive grants and fund a significant proportion of research activity in Australian universities. Discovery grants fund fundamental research that may not have an immediate applied focus, but it is assumed to have some broader community benefit. Linkage grants fund research collaborations between academic chief investigators and industry partners (including government agencies). Industry partners are required to make a cash and in-kind contribution to the project (see www.arc.gov.au/ncgp/default.htm). These grants emphasise track record, with 40% of ARC Discovery assessment being based on track record.
Appendix A – Details of Methods

Broadly, items were concerned with the demographics, academic level and whether in a teaching and/or research role; research discipline; number of grants received, partnership experience (number of partners worked with), research context (funding, research focus, methods), dissemination and adaption (meetings, presentations, focus); barriers to uptake; benefits of collaboration; problems in working with partners; priorities of end-users when it comes to using academic research; research use scale; and the impact of research. Respondents were also able to provide qualitative responses at the end of the survey.

Interviews with Australian social scientists

The academic survey included an invitation for survey respondents to participate in an interview, if requested. These in-depth interviews, based on the main survey themes, aimed at obtaining a deeper understanding of academics’ experiences of research collaborations with policy-makers and practitioners. 236 respondents indicated that they were willing to be interviewed and provided their contact details, which were entered into a separate contact database for the interview process. This identifying information was then deleted from the main survey dataset in order to maintain the respondents’ anonymity. These potential interviewees were initially contacted in September 2011. A further 53 academics were identified as potential interviewees based on their background and experience, and were also invited to participate in an interview, whether or not they had completed the survey. A total of 100 interviews were completed from September 2011–March 2013.
## Appendix B – Listing of Australian examples of knowledge brokering entities within the social sciences

<table>
<thead>
<tr>
<th>Examples of human services government agencies with research branch</th>
<th>Website</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commonwealth Department of Social Services</td>
<td><a href="https://www.dss.gov.au/">https://www.dss.gov.au/</a></td>
<td>Policy Evidence Branch</td>
</tr>
<tr>
<td>Commonwealth Department of Education and Training</td>
<td><a href="http://www.education.gov.au/">http://www.education.gov.au/</a></td>
<td>Evidence and Assessment Division (amongst others)</td>
</tr>
<tr>
<td>NSW Department of Health</td>
<td><a href="http://www.health.nsw.gov.au/Pages/default.aspx">http://www.health.nsw.gov.au/Pages/default.aspx</a></td>
<td>Office for Health and Medical Research; Epidemiology and Evidence Branch</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Examples of statutory bodies</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian Institute of Criminology (AIC)</td>
<td><a href="http://www.aic.gov.au/">http://www.aic.gov.au/</a></td>
</tr>
<tr>
<td>Australian Curriculum, Assessment and Reporting Authority (ACARA)</td>
<td><a href="http://www.acara.edu.au/home_page.html">http://www.acara.edu.au/home_page.html</a></td>
</tr>
<tr>
<td>Australian Institute of Aboriginal and Torres Strait Islander Studies</td>
<td><a href="http://www.aiatsis.gov.au/">http://www.aiatsis.gov.au/</a></td>
</tr>
<tr>
<td>Australian Research Council (ARC)</td>
<td><a href="http://www.arc.gov.au/">http://www.arc.gov.au/</a></td>
</tr>
<tr>
<td>National Health and Medical Research Council (NHMRC)</td>
<td><a href="http://www.nhmrc.gov.au/">http://www.nhmrc.gov.au/</a></td>
</tr>
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</table>

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As at December 2015
<table>
<thead>
<tr>
<th>Organisation</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Menzies School of Health Research</td>
<td><a href="http://www.menzies.edu.au/">http://www.menzies.edu.au/</a></td>
</tr>
</tbody>
</table>

**Clearinghouses**

<table>
<thead>
<tr>
<th>Clearinghouse</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Research Unit for Anxiety and Depression</td>
<td><a href="http://www.crufad.org/index.php/crufadnmh">http://www.crufad.org/index.php/crufadnmh</a></td>
</tr>
<tr>
<td>Australian Clearinghouse for Youth Studies</td>
<td><a href="http://www.acys.info/">http://www.acys.info/</a></td>
</tr>
</tbody>
</table>

**Applied Research Institutes**

<table>
<thead>
<tr>
<th>Institute</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Policy Research Centre (SPRC), UNSW</td>
<td><a href="https://www.sprc.unsw.edu.au/">https://www.sprc.unsw.edu.au/</a></td>
</tr>
<tr>
<td>National Drug and Alcohol Research Centre (NDARC), UNSW</td>
<td><a href="http://ndarc.med.unsw.edu.au/">http://ndarc.med.unsw.edu.au/</a></td>
</tr>
<tr>
<td>Institute for Social Science Research (ISSR), UQ</td>
<td><a href="https://www.issr.uq.edu.au/">https://www.issr.uq.edu.au/</a></td>
</tr>
</tbody>
</table>

**Social Science CRCs and Centres of Excellence**

<table>
<thead>
<tr>
<th>CRC</th>
<th>Website</th>
</tr>
</thead>
</table>

**Research-focused intermediary organisations**

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian Housing and Urban Research Institute (AHURI)</td>
<td><a href="http://www.ahuri.edu.au/">http://www.ahuri.edu.au/</a></td>
</tr>
<tr>
<td>Australian Research Alliance for Children and Youth (ARACY)</td>
<td><a href="https://www.aracy.org.au/">https://www.aracy.org.au/</a></td>
</tr>
<tr>
<td>Sax Institute</td>
<td><a href="https://www.saxinstitute.org.au/">https://www.saxinstitute.org.au/</a></td>
</tr>
<tr>
<td>The Lowitja Institute (Institute for Aboriginal and Torres Strait Islander Health Research)</td>
<td><a href="http://www.lowitja.org.au/">http://www.lowitja.org.au/</a></td>
</tr>
</tbody>
</table>

**Not-for-profit organisations/ charities**

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alzheimer’s Australia (Dementia Research Foundation)</td>
<td><a href="http://dementiaresearchfoundation.org.au/">http://dementiaresearchfoundation.org.au/</a></td>
</tr>
<tr>
<td>Organisation Name</td>
<td>Website</td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>Save the Children</td>
<td><a href="https://www.savethechildren.org.au/">https://www.savethechildren.org.au/</a></td>
</tr>
<tr>
<td>Brotherhood of St Laurence</td>
<td><a href="https://www.bsl.org.au/">https://www.bsl.org.au/</a></td>
</tr>
<tr>
<td><strong>Peak bodies</strong></td>
<td></td>
</tr>
<tr>
<td>Universities Australia</td>
<td><a href="https://www.universitiesaustralia.edu.au/">https://www.universitiesaustralia.edu.au/</a></td>
</tr>
<tr>
<td>Australian Healthcare and Hospitals Association (AHHA) – Deeble Institute</td>
<td><a href="http://ahha.asn.au/deebleinstitute">http://ahha.asn.au/deebleinstitute</a></td>
</tr>
<tr>
<td><strong>Think tanks</strong></td>
<td></td>
</tr>
<tr>
<td>Australian Institute of International Affairs</td>
<td><a href="http://www.aiia.asn.au/">http://www.aiia.asn.au/</a></td>
</tr>
<tr>
<td>Australian Institute of Policy &amp; Science</td>
<td><a href="http://www.aisp.net.au/">http://www.aisp.net.au/</a></td>
</tr>
<tr>
<td>Australian Strategic Policy Institute</td>
<td><a href="http://www.aspi.org.au/">http://www.aspi.org.au/</a></td>
</tr>
<tr>
<td>Centre for Policy Development</td>
<td><a href="http://cpd.org.au/">http://cpd.org.au/</a></td>
</tr>
<tr>
<td>Development Policy Centre</td>
<td><a href="https://devpolicy.crawford.anu.edu.au/">https://devpolicy.crawford.anu.edu.au/</a></td>
</tr>
<tr>
<td>Globalisation and Development Centre (GDC), Bond University</td>
<td><a href="http://epublications.bond.edu.au/gdc/">http://epublications.bond.edu.au/gdc/</a></td>
</tr>
<tr>
<td>Grattan Institute</td>
<td><a href="http://grattan.edu.au/">http://grattan.edu.au/</a></td>
</tr>
<tr>
<td>Institute for Economics and Peace (IEP)</td>
<td><a href="http://economicsandpeace.org/">http://economicsandpeace.org/</a></td>
</tr>
<tr>
<td>Lowy Institute for International Policy</td>
<td><a href="http://www.lowyinstitute.org/">http://www.lowyinstitute.org/</a></td>
</tr>
<tr>
<td>The McKell Institute</td>
<td><a href="http://mckellinstitute.org.au">http://mckellinstitute.org.au</a></td>
</tr>
<tr>
<td>The Melbourne Institute of Applied Economic and Social Research</td>
<td><a href="http://www.melbourneinstitute.com/">http://www.melbourneinstitute.com/</a></td>
</tr>
<tr>
<td>Menzies Research Centre</td>
<td><a href="https://www.menziesrc.org/">https://www.menziesrc.org/</a></td>
</tr>
<tr>
<td>Per Capita</td>
<td><a href="http://percapita.org.au/">http://percapita.org.au/</a></td>
</tr>
<tr>
<td>Strategic and Defence Studies Centre</td>
<td><a href="http://ips.cap.anu.edu.au/sdsc">http://ips.cap.anu.edu.au/sdsc</a></td>
</tr>
</tbody>
</table>
Appendix C – AHURI Research Centres (as at January 2016)\textsuperscript{75}

**NSW**
University of Sydney  
Director: Professor Nicole Gurran

University of NSW  
Director: Professor Hal Pawson

**Victoria**
RMIT University  
Director: Professor Jago Dodson

Swinburne University of Technology  
Director – Dr Wendy Stone

**Western Australia**
University of Western Australia  
Director: Professor Paul Flatau

Curtin University  
Director – Associate Professor Steven Rowley

**South Australia**
University of Adelaide  
Director: Professor Andrew Beer

**Tasmania**
University of Tasmania  
Director: Dr Daphne Habibis

\textsuperscript{75} Taken from AHURI Annual Report 2014-2015