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The Utilisation of Social Science Research in Policy Development and Program Review

Preliminary report: Phase 1 results

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Introduction

Academic social scientists and government agencies frequently engage in collaborative research projects, with such partnerships encouraged through funded schemes and specialised research institutes (e.g. ARC Linkage grants, Cooperative Research Centres, commissioned consultancies and various university social research centres). The need for greater collaboration between social researchers and industry has been brought to the foreground in recent debates surrounding the need for government and non-government agencies to invest in evidence-based policy and practice. These developments are seen as offering opportunities for academic research to have a greater influence on policy development and program review (Nutley, Walter & Davies 2007). More recently in Australia serving and retired public servants have commented that academics have failed to take up such opportunities and need to make greater efforts to engage with policy-makers (Ross 2011; Shergold 2011).

What these trends and debates emphasise is the need for knowledge co-production, where academics and potential end-users of research collaborate on problems of mutual interest, incorporating a dual focus on the scholarship of both application and discovery (Rickinson, Sebba & Edwards 2011). However, the literature indicates that there are a number of reasons why such collaborations can be problematic. These include accommodating the different research orientations and priorities of academics and industry partners relating to methodological preferences, project time-lines, outputs and outcomes (Bogensneider & Corbett 2010; Crona & Parker 2011; Rickinson, Sebba & Edwards 2011). Academics often complain that industry partners do not appreciate the full cost or time it takes to complete research projects, while policy-makers or practitioners suggest that academics do not understand their applied research needs or the policy-making process

(Bogenschneider & Corbett 2010). These problems become even more pronounced when one considers the fact that social policy issues are often heavily contested, with social research findings rarely being definitive (Nutley, Walter & Davies 2007; Head 2008; Head 2010).

Academics face their own barriers when trying to enhance research uptake by non-academic end-users. For instance, engaging in applied research projects with public and private sector agencies carries direct costs for academics themselves, relating to time and effort investing in relationship building and forms of dissemination outside traditional academic outlets (Bogenschneider & Corbett 2010; Cherney & McGee 2011).

In order to fully understand the use of social research, it is important to investigate the perspectives and experiences of different players in the research utilisation process – i.e. knowledge producers and consumers. This report focuses on the perspectives of academic knowledge producers. It reports the findings from a survey of Australian academics, that aimed to understand the perceived impact of academic social research, the problems associated with research collaborations, the barriers academics face in seeking to enhance the uptake of their research, and the types of activities they invest in to increase utilisation.

The following section outlines the current study and the survey methodology. Descriptive statistics are then provided relating to the reported barriers and problems associated with research collaborations and the characteristics of research that academics believe are prioritised by end-users. Factors that appear to influence various types of reported research use are also examined. Qualitative data from survey respondents are provided to help ground the analysis. The conclusion outlines

implications of the survey findings for understanding the wider utilisation of social research.

Current Study

The data presented here are drawn from an Australian Research Council funded project with nine industry partners¹. The project set out to answer three central questions related to understanding the uptake and impact of social research:

- 1: In what ways is social science research used within policy contexts?
- 2: What conditions and circumstances support and hinder the use of social science research?
- 3: Are there models for enhancing the policy-relevance and utilisation of social research knowledge?

The data reported here are relevant to addressing questions one and two. The total project involves 4 phases: (1) a targeted survey of Australian social scientists; (2) a targeted survey of policy personnel; (3) interviews with a selection of academic respondents; and (4) interviews with policy personnel². The survey administered to academic social scientists was partially based on existing questions and scales (e.g. Bogenschneider and Corbett 2010; Landry, Amara, and Lamari 2001a, 2001b). New questions were also developed to capture additional data relating to research impact and the benefits and problems of engaging in research collaborations. The survey was first piloted among Fellows of the Academy of the Social Sciences in Australia (ASSA) in September-October 2010. Fellows are recognised for their outstanding contributions to the social sciences in Australia and abroad³. ASSA distributed the survey to its members via their internal email system and 81 surveys were completed⁴. The project team then established a database of 1,950 Australian

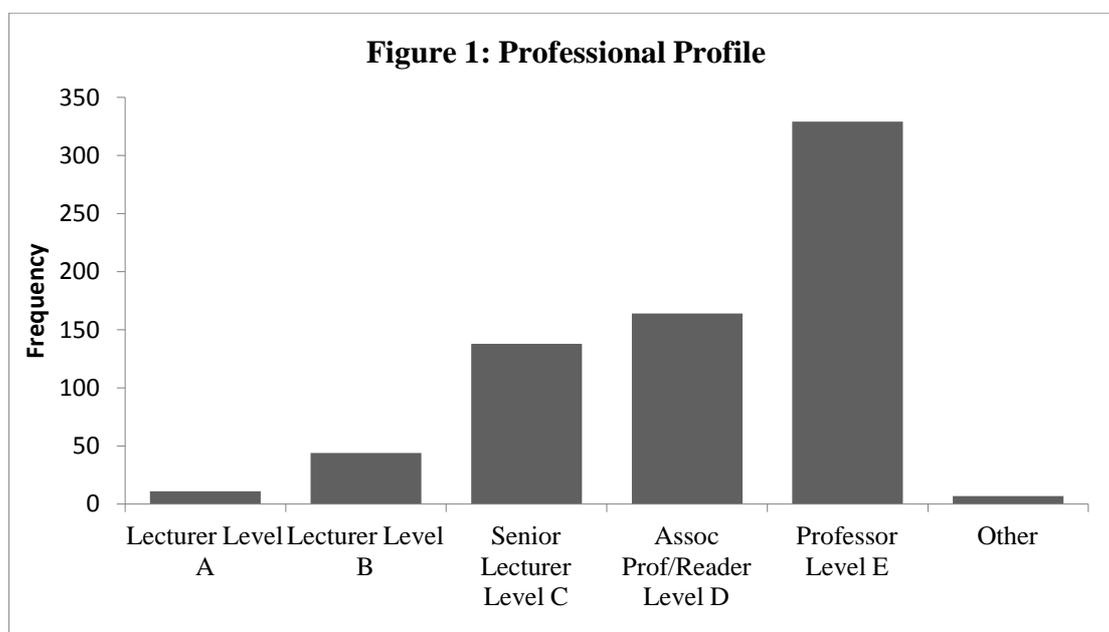
academics who had secured at least one Australian Research Council grant (either Discovery or Linkage grants⁵) between 2001 and 2010 within the field of social and behavioural science. The selection of relevant disciplines was based upon the ‘field of research’ codes used by the Australian Research Council to categorise the funded projects, and comprised codes relating to anthropology, criminology and law enforcement, human geography, political science, policy and administration, demography, social work, sociology, other studies in human society, psychology, education and economics. Using this database a web link to the survey was sent via email to approximately 950 academics in early November 2010, with a second wave sent to 1000 academics in early February 2011. The survey closed in May 2011 with a total of 612 completed surveys received. When the main academic survey was combined with the ASSA pilot, the final total was 693 responses. This constitutes a response rate of 32 percent. The response rate is indicative of the difficulty of encouraging time-poor academics to participate in projects where they are themselves the subjects of the research. It has also been noted that web-based surveys often suffer from low response rates (Sue, 2007). However the strategy for distributing the survey offered the opportunity for the research team to send reminders to non-respondents via email.

The reason this purposive form a sampling was adopted was to ensure 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. Moreover, other studies have shown that seniority and the number of external competitive research grants are key determinants of engagement with non-academic end-users (Cherney & McGee 2011; Landry, Amara, and Lamari 2001a, 2001b).

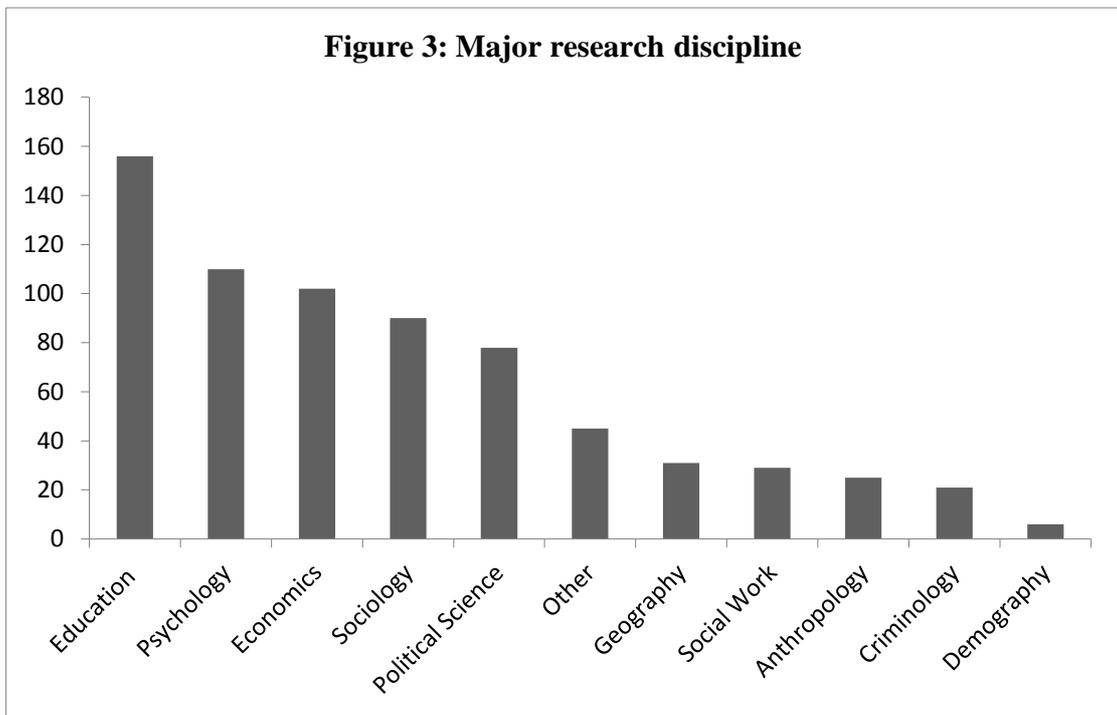
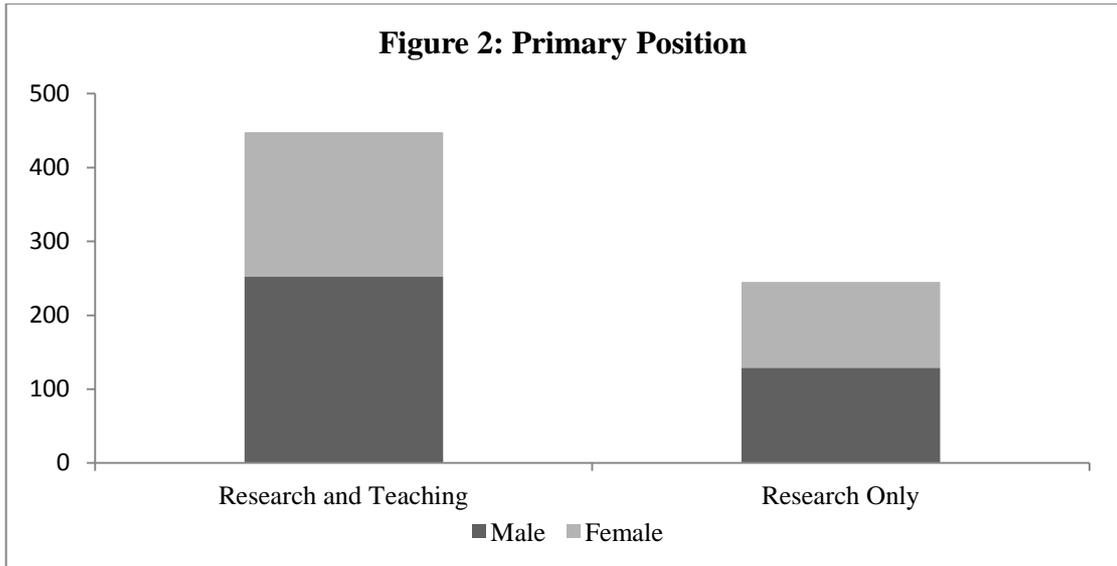
Results

Participants

Most respondents to the survey were drawn from senior academic positions, with the data skewed towards academics Level D and above i.e. Associate Professors / Readers and Professors. As Figure 1 indicates, over 40 percent of the sample was at the level of Professor, followed by level D and C. The “Other” category includes academics who identified as being directors, a visiting fellow, retired, an honorary appointment, and government analysts. Overall the sample is an experienced group of academic researchers.



Respondents were mainly drawn from academics who occupy teaching and research positions (see Figure 2). While there may be distinctive differences between the activities of academics who are research and teaching focused compared to those in research only positions, it is not an issue explored here. Respondents were asked their disciplinary background with Figure 3 providing this breakdown.

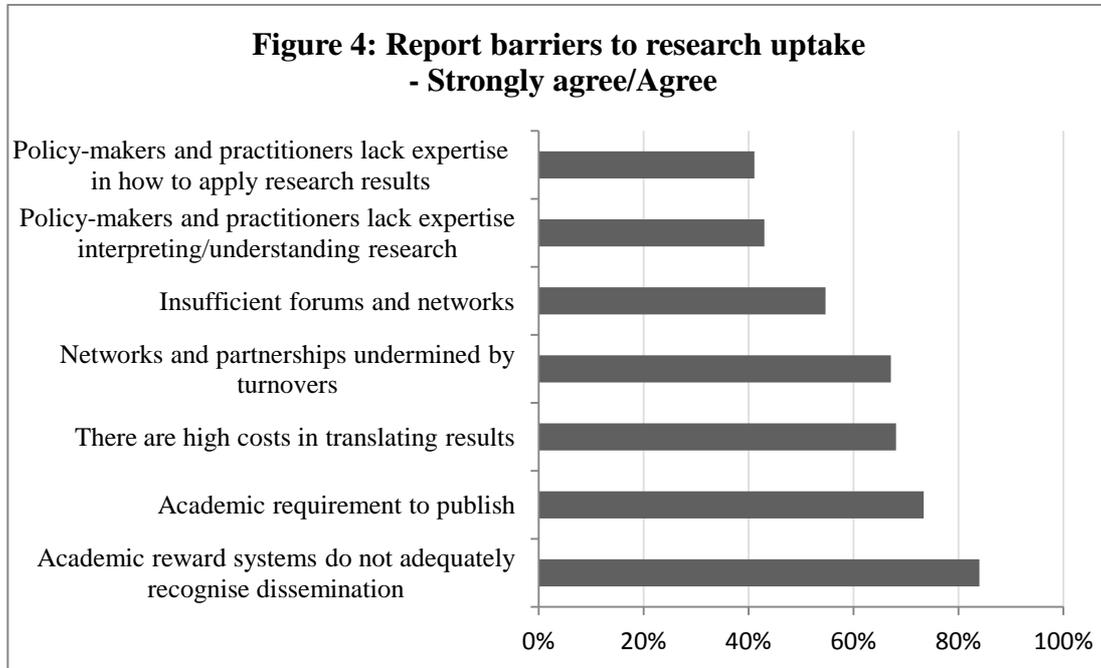


*The Other category related to a number of disciplines that the respondents listed as outside our main options, such as linguistics, law and humanities, management, history, mental -health, biosciences, urban research, public health, sports management, socio-legal studies, statistics, disability or family studies, creative arts and archaeology.

Barriers to research uptake

Respondents were asked about the types of barriers they encounter in transferring and enhancing the uptake of their research findings by non-academic audiences. The

primary barriers were associated with institutional processes and demands within academia. Figure 4 provides the combined results for the total number of respondents who strongly agreed or agreed with each barrier.



As can be seen an overwhelming number of these respondents believed that academic reward systems (84%) and the demand to publish in peer reviewed journals (74%) are barriers to knowledge translation and uptake. Likewise academics considered that there were costs in translating research for non-academic end users⁶. This finding was further highlighted by respondents’ qualitative comments inserted in the survey:

“Career advancement is a function of academic publication and original fieldwork/theory, not working with practitioners”

“...the academic research environment works against collaborative, participative research with its emphasis on publishing in high ranked journals...”

“From years as a member of academic promotions committees, research outputs in the form of policy impacts, in-house reports and even formal outputs through government departments are often bundled under the applicant's ‘community outreach’ rather than their research. Outreach plays a limited role in the promotion outcome except perhaps if it is absent entirely. I know many good social science researchers who have been dissuaded from participating in, or actively seeking, research partnerships with

government or industry partners because of this lack of incentive, focusing instead on 'pure' research which can be published in (preferably international) academic social science journals”.

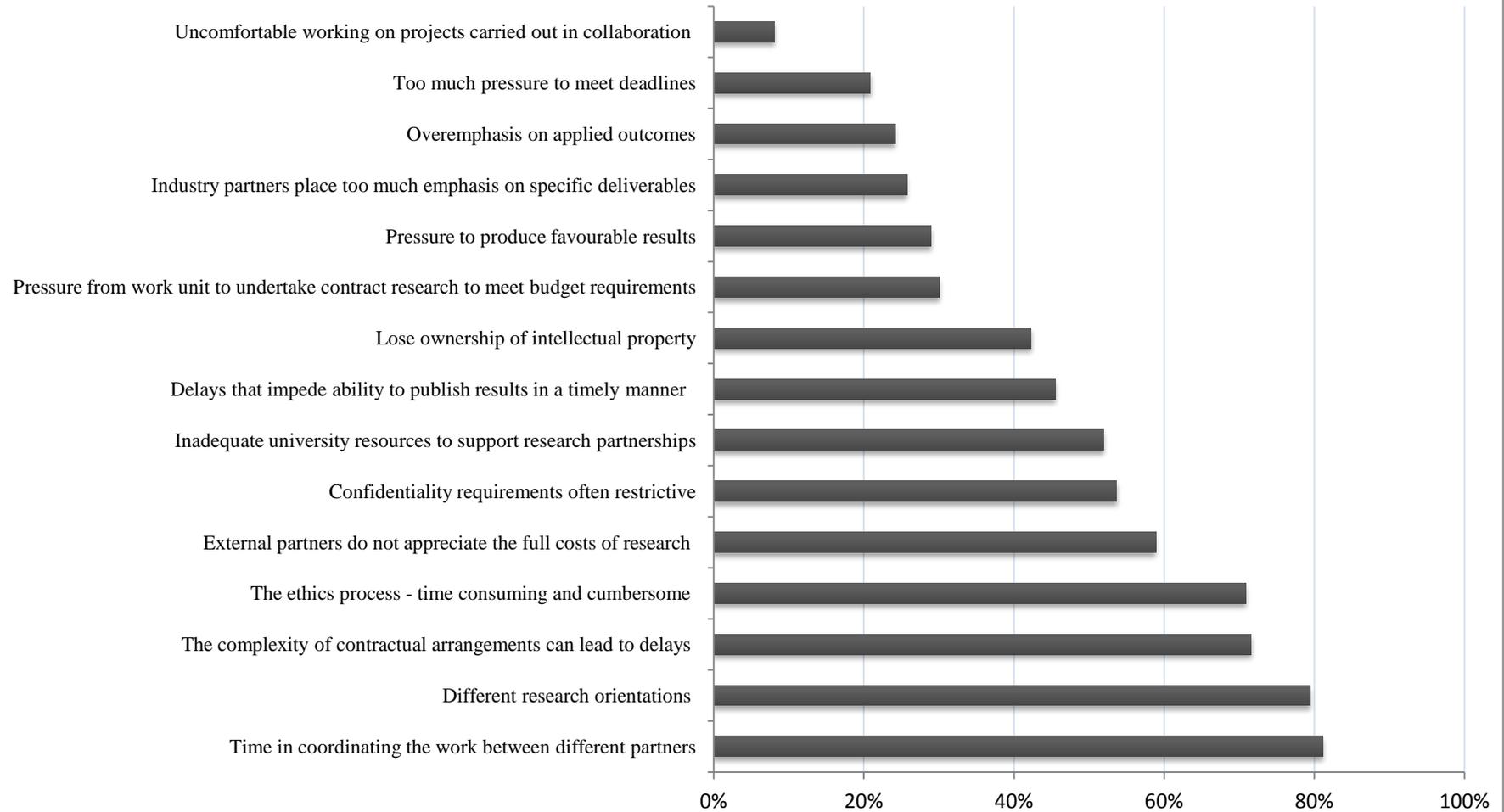
“In Education there is a conflict between publishing in "A" quality journals and the accessibility of these journals to end users (DET⁷ bureaucracies, teachers, principals, politicians, journalists, and media opinion-shapers/shock-jocks). This means Faculties of education are in a continual bind about whether to publish in "A" level journals or publish in lower level teacher/principal journals and lose Federal “brownie points”⁸.

The next two most important barriers outside of institutional factors related to the role of networks that promote linkages between academics and end-users, with respondents agreeing there were insufficient networks to promote collaboration, and that they were undermined by turnover of personnel in external agencies. Clearly such processes make it difficult for academics and end-users in government and non-government organisations to form meaningful relationships that enable them to become aware of research needs and outcomes. Likewise a lack of opportunity for regular communication and interaction between producers and users of research, undermines the development of interpersonal trust that is linked to the receptiveness to invest in processes of knowledge exchange (Bruneel, D'Este & Salter 2010; Contrandriopoulos et al 2010) The last two barriers point to a concern among academics that end-users lack capacities to interpret research findings and apply them to policy problems. However, rather than seeing the problem of research uptake as mainly resting at the feet of policy-makers and practitioners (which is a common claim), it was the internal processes within academia that were ranked as the biggest impediments to knowledge translation by our respondents.

Problems with Research Collaborations

Respondents were asked to select the types of problems they faced when working in collaboration with non-academic partners from the government, industry or community sectors. Figure 5 orders the most important to least important problems, based upon respondents' combined level of agreement with 15 statements relating to difficulties associated with research partnerships⁹. As Figure 5 illustrates, many academics believe such collaborations carry direct costs that relate to the initiation and completion of collaborative projects and the production of publication outputs, including problems relating to coordination, contractual agreements, confidentiality requirements and ethics processes. Other problems regarded as salient originated in the perceived differences in the orientation and priorities of external research partners, i.e. different research orientations and the focus on deliverables. The reason for different research orientations has often been explained in the context of the “two communities” metaphor, which understands this dissonance as an outcome of the different working practices of academics and of personnel in government and non-government sectors (Dunn 1980). Academics favour being methodical and systematic, focusing on data quality and methods, while policy-makers or practitioners are more action orientated and concerned with timeliness and relevance (Linguist 1990; Shonkoff 2001). These different orientations result in limited communication and understanding between knowledge producers in academia and knowledge consumers in fields of policy and practice. While such a disjunction may not always reflect the reality of individual collaborations, it does point to how different priorities between academic researchers and external end-users can make collaborative research projects difficult to manage and complete.

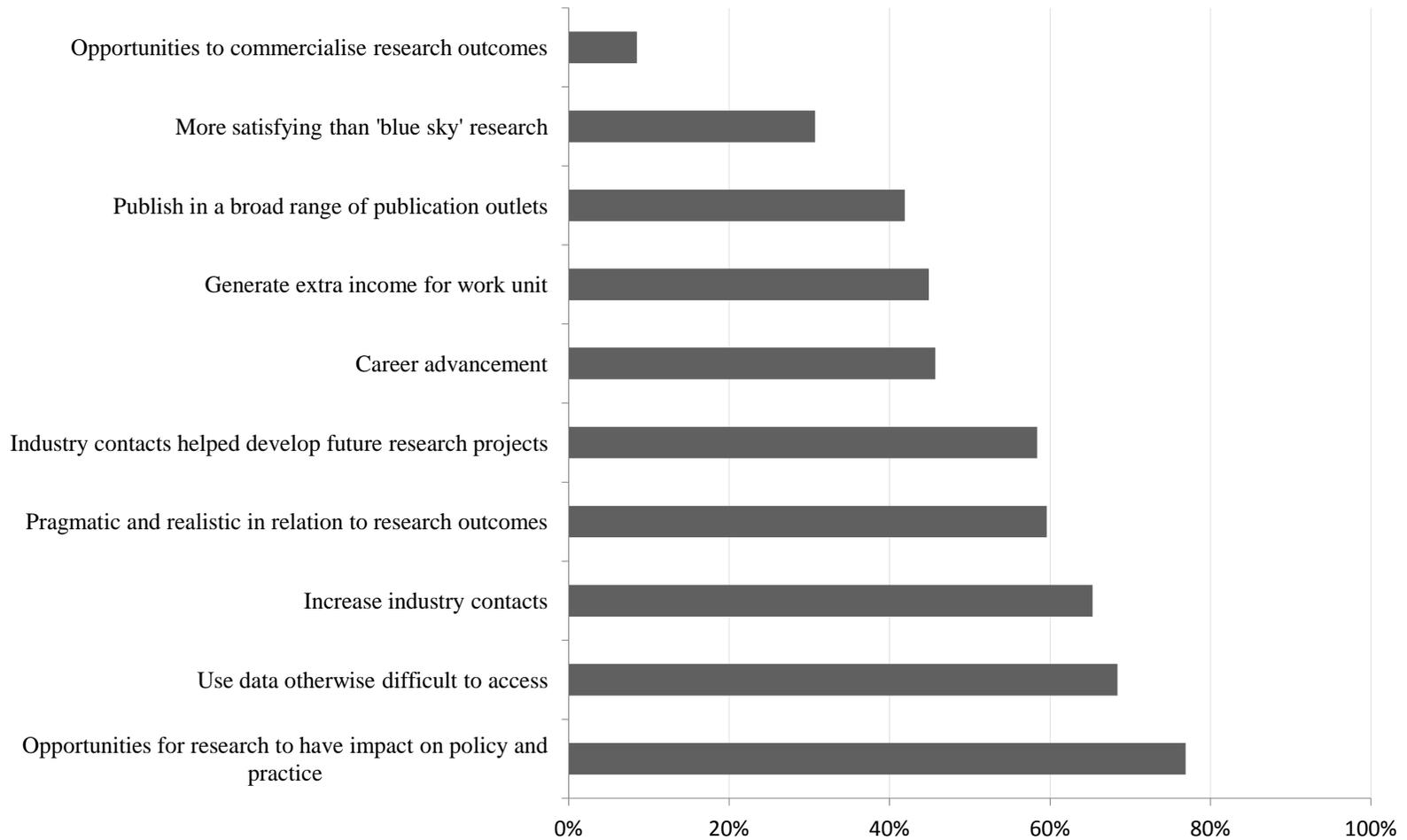
Figure 5: Problems with research collaborations - Strongly agree/Agree



Benefits of Engaging in Research Collaborations

If research partnerships with government and non-government agencies are difficult and problematic, what are the major reasons that academics engage in such endeavours? Figure 6 reports combined results for ten statements presented to respondents as key benefits derived from participating in research partnerships with external agencies. These benefits related to broad categories identified in the literature as important to why academics engage in collaborations, especially benefits relating to research and networking opportunities and career advancement (Wooding et al 2007). Clearly, respondents saw collaborations as offering opportunities to directly influence policy and practice, with collaborations providing potential access to decision-makers. Gaining access to data that could be difficult to obtain for research purposes was another benefit, with collaborations providing a mechanism for academics to negotiate with agency “gate keepers”. Enhancing personal networks and providing opportunities for developing future research partnerships were also seen as important benefits. Many respondents also reported that collaborations helped to generate additional income for their work unit, with half our sample believing they also helped provide opportunities to publish in a broad range of outlets. Only 9 percent strongly agreed or agreed that collaborations lead to commercialisation opportunities. This is not unexpected given that social research is not generally focused on the development of patents or technology transfer (e.g. computer programs), but is more generally concerned with societal or economic benefits that can be hard to quantify or commercialise (Nutley, Walter & Davies 2007).

Figure 6: Benefits of research collaborations - Strongly agree/Agree



Research Characteristics Prioritised by End-users

The argument is often advanced that academics do not understand the research needs of policy-makers or practitioners within government and non-government organisations. This position is also reinforced through the two communities theory outlined above (Caplan 1979). Studies have investigated this issue by examining what academics think policy-makers prioritise when it comes to judging the efficacy of research, and also what they actually prioritise by observing the types of utility tests policy-makers and practitioners apply to research when gauging its usefulness (e.g. Bogenschneider & Corbett 2010; Weiss & Bucuvalas 1980a, 1980b). Some variation in the research priorities of academics and policy-makers around data quality and methods, timeliness, brevity of results and the political and economic feasibility of research recommendations is indicated by research reported in the literature (Bogenschneider & Corbett 2010; Landry, Lamari & Amara 2003; Oh & Rich 1996). However, the dissonance between what academics assume policy-makers and practitioners desire from research and what they actually want, may be a less significant problem than is often presumed (Crona & Parker 2011; Bogenschneider & Corbett 2010).

In this study, respondents were asked to indicate what they thought end-users prioritised when it came to the utilisation of academic social research (end-users were referred to as policy-makers within government, or practitioners/managers within public or community sectors or private sector organisations). Figure 7 provides the combined frequencies for 14 characteristics of research that respondents believed were accorded high or moderate priority by end-users¹⁰. The first four categories indicate recognition that research must be tailored to end-user needs in the context of its delivery (e.g. communication), availability (e.g. timeliness) and practicality (i.e.

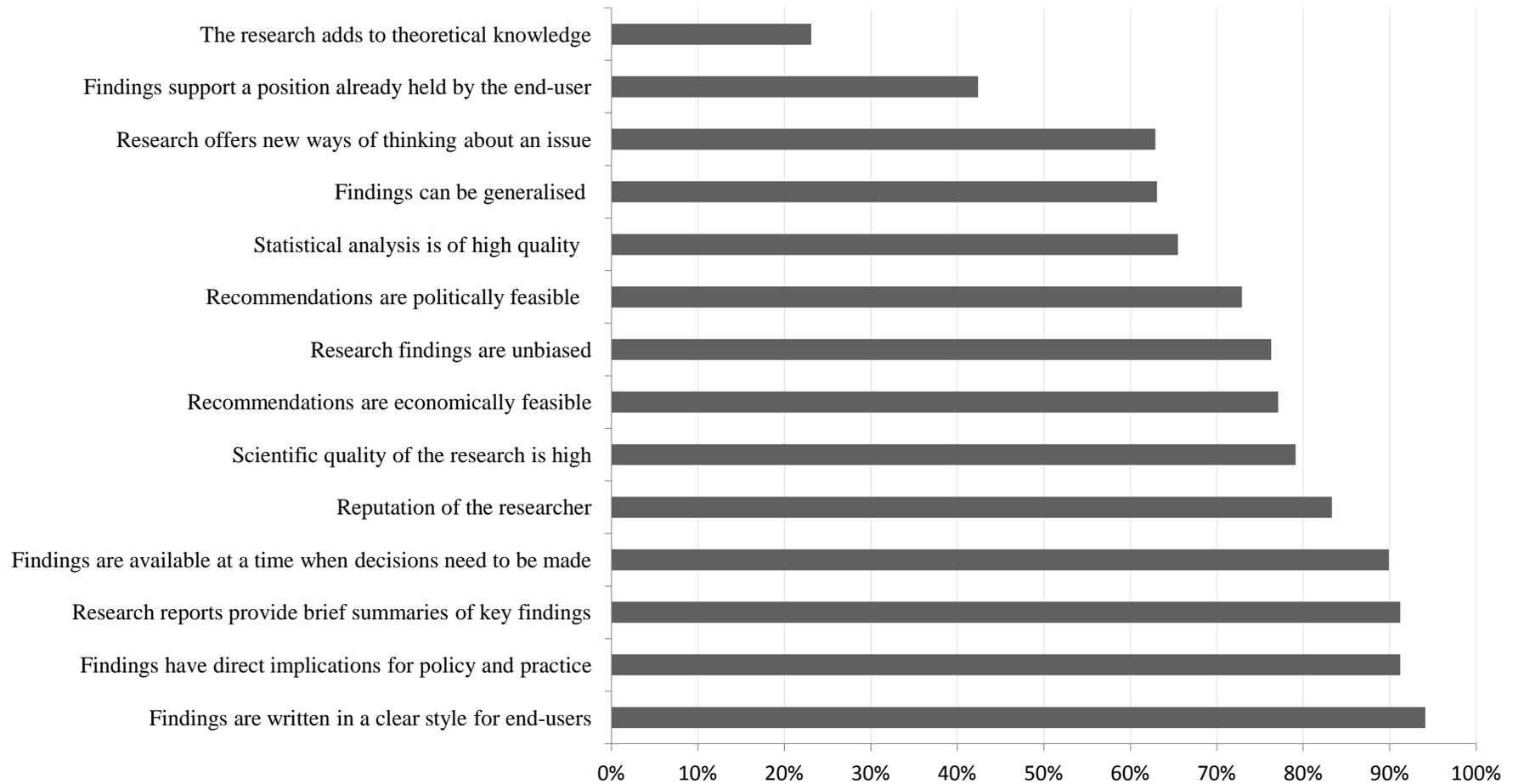
implications for policy or practice). Over 80 percent of the sample believed the reputation of the researcher was a priority for end-users. Factors relating to academics' reputation for producing applied research and their track record of working with end-users, have been identified as relevant to the willingness of policy-makers to directly seek out and engage with academic researchers (Cherney unpublished; Bogenschneider & Corbett 2010). A large percentage of our sample believed that the scientific quality of the research does matter to end-users (79% considered it was a high or moderate priority), which is contrary to the perception identified in some academic studies that it is not important (Bogenschneider & Corbett 2010). Studies of policy-maker and practitioner decision-making indicate that scientific quality is seen as important when it comes to using social science research (Bogenschneider & Corbett 2010; Crona & Parker 2011; Gano, Crowley & Guston 2007; Weiss & Bucuvalas 1980a, 1980b). As can be seen from Figure 7 there was not an overly pessimistic view about the features of research that respondents identified as important to policy-makers or practitioners, e.g. only 42 percent of the sample thought that "findings support a position already held" was a priority for end-users when it came to the uptake of research. This notion that end-users prefer research that supports their position has been reinforced through the debate about the political or symbolic uses of social research, in which research use is largely seen as a cynical exercise of policy-makers simply seeking out research to justify re-existing decisions, and where 'evidence-based' policy and practice is seen to be more about spin than substance (Knorr 1977; Marston & Watts 2003). It would appear that our relatively senior and experienced sample do not necessarily accept this argument. However some of their qualitative responses did reflect a sense of sceptical realism about the influence of research over policy decision-making:

“A problem with research for the public sector is that often public servants aren’t the decision makers -- politicians and their prejudices make...the...decisions. A small public sector in a highly politicized environment is difficult to influence. I have noted that on several occasions my findings have been taken up without any acknowledgement, partly because the government needs to be seen - politically - as the font of knowledge. Public sector decision making is, as a Government Minister ... noted, a matter adopt and defend, rather than debate and decide”.

“In general, my experience is that applied social research in Australia is insufficiently funded and highly prone to party political manipulation. Perhaps of less recognised concern, however, is the degree to which government departments filter research for bureaucratic ends”.

“An issue in dealing with government departments is political timidity and tendency to avoid partnerships that produce research outcomes that may cause issues with partner governments”.

**Figure 7: What characteristics of research do end-users prioritise
- High priority/Moderate priority**



Forms of Research Utilisation

Measuring the impact of social science research is a difficult and imprecise endeavour once attention moves beyond methods based on metrics (e.g. journal rankings, impact factors and citation counts) to consider social research influence outside academia. Many scholars have argued that the influence of academic research rarely follows a linear pathway from the research products supplied by academics to the end-users in fields of policy or practice (Henry & Mark 2003; Nutley, Walter & Davies 2007; Weiss 1980). Empirical studies support the proposition that social research more often provides new ways of understanding that rarely lead to a direct or immediate change in policy or practice (Amara, Ouimet & Landry 2004; Beyer & Trice 1982; Cherney & McGee 2011; Landry, Amara, & Lamari 2001 a, 2001b; Landry, Lamari & Amara 2003; Weiss 1980).

This study replicated a modified version of the Knott & Wildavsky (1980) research use (RU) scale (see also Landry, Amara, & Lamari (2001a). Table 1 presents this model and it also provides the descriptions of each stage of research use, as they were presented in the questionnaire to Australian social scientists¹¹. The reliability of this scale is high (Cronbach alpha=0.94). The benefit of this scale is that it operationalises research use as a cumulative process that progresses through a number of stages: transmission, cognition, reference, effort, influence and application. The scale is cumulative in the sense that cognition builds on transmission, reference builds on cognition, effort on reference, influence on effort, and application on influence. While the RU scale has been criticized as perpetuating a linear understanding of research utilisation (e.g. Davies & Nutley, 2008), it does recognise the fact that the research utilisation process varies between activities that involve knowledge transfer

and uptake (Cherney & McGee 2011; Knott & Wildavsky 1980; Lester 1993). It also identifies those social researchers who successfully move up the scale and explore factors that may affect this process.

TABLE 1 – Stages of Research Utilisation

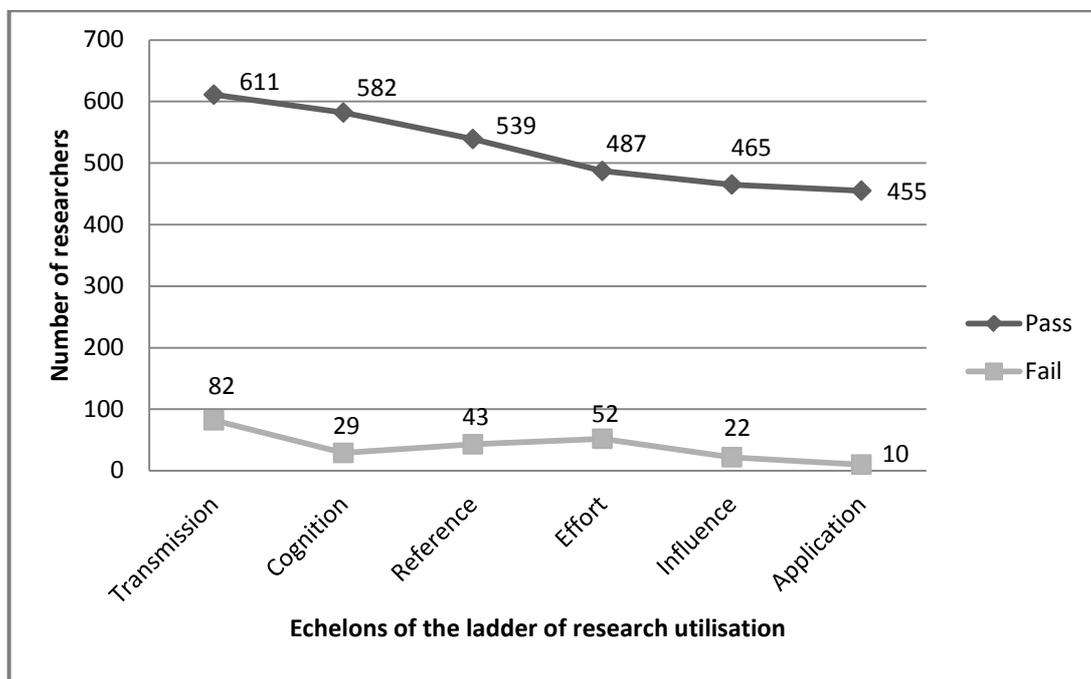
| Variable | | Factor loading | Uniqueness |
|--------------|--|----------------|------------|
| Transmission | I transmit my research results to end-users | 0.81 | 0.3484 |
| Cognition | My research reports have been read and understood by end-users | 0.86 | 0.2665 |
| Reference | My work has been cited in reports and strategies by end-users | 0.88 | 0.2225 |
| Effort | Efforts were made to adopt the results of my research by end-users | 0.92 | 0.1628 |
| Influence | My research results have influenced the choices and decisions of end-users | 0.92 | 0.1504 |
| Application | My research has been applied by end-users | 0.90 | 0.1816 |

Cronbach alpha: 0.94

Figure 8 shows results for academics who succeed in passing various stages of the research use ladder compared to those who fail to do so. Respondents can only progress to subsequent stages if they have passed the previous stage(s). That is, when respondents replied ‘always’, ‘usually’, or ‘sometimes’ to a stage, they were categorised as ‘passing’, but when they responded as ‘rarely’, ‘never’, ‘don’t know’, or ‘does not apply’, they were categorised as ‘failing’ a stage and were not included in the calculations for subsequent stages. This was done to see how many respondents are successful in passing through each stage, and what might distinguish these respondents (see subsequent section). As can be seen in Figure 8, there are fewer respondents included at each stage of the ladder of utilisation. As Figure 8 shows, the highest echelon of the ladder, which is application of knowledge, is successfully

reached by 455 (66%) of the 693 academics surveyed. Only 82 (12%) were unable to reach even the first echelon of the ladder, which is the transmission of their research results to non-academic end-users. These findings differ from Landry, Amara, and Lamari (2001b) in that the present study reported a substantially higher proportion of academics who claimed to have passed through all six stages (66% as compared to 33% in Landry, Amara, & Lamari 2001b and 50% in Cherney & McGee 2011).

Figure 8: Number of researchers climbing and falling down the echelons of the ladder of research utilisation



The reason for this discrepant result may be due to the fact that a high proportion of our sample occupied senior academic positions and they all had experience in securing external funding (e.g. national competitive grants). As already noted, both factors are related to higher levels of research impact. Figure 8 confirms the commonly found decline in academics successfully reaching the “pointy end” of research use, i.e. applications by end-users. These results demonstrate that reported impact mainly occurs around the transmission, cognition and reference stages of research utilisation. The latter stages of research utilisation (effort, influence and

application) largely depend on actions outside the control of academics and depend essentially on the capacities and willingness of agencies to assimilate research knowledge into decision-making practices (Harvey et al 2010; Knott & Wildavsky 1980). However, there is evidence to indicate that the types of investments academics make in knowledge-transfer activities can influence the uptake of social research by non-academic end-users (Nutley, Walter & Davies 2007). The next section explores this proposition.

Factors influencing Research Utilisation

The RU scale described above should be understood as a dependent variable measuring research impact. A number of studies have attempted to understand factors that enhance the uptake of social research, and to identify what appears to distinguish those academics who report high levels of research uptake by policy-makers and practitioners (e.g. Bogenschneider & Corbett 2010; Cherney & McGee 2011; Hayes et al 2011; Huberman 1990; Kothari, MacLean & Edwards 2009; Landry, Amara & Lamari 2001a). A range of independent variables have been constructed based on this work. Generally these variables can be categorised under the headings of supply-side and demand-pull factors, as well as dissemination and interaction variables. Supply-side factors include research outputs and the context in which the researcher works. These can include the types of research outputs produced by academics (e.g. qualitative or quantitative studies), whether research is focused on non-academic users, and the importance of internal or external funding. Demand-pull factors relate to whether end-users consider research to be pertinent, whether it coincides with their needs, whether users accord it credibility, and whether it reaches users at the right time to influence decision-making (Cherney & McGee 2011; Landry, Amara &

Lamari 2001a, 2001b; Landry, Lamari & Amara 2003; Lavis et al., 2003a; Oh & Rich, 1996; Rich, 1997; Weiss, 1980). Dissemination variables relate to efforts to adapt research products (e.g. reports) for end-users and to develop strategies focused on the communication of research (Huberman, 1990). The assumption is that the more researchers invest in adaptation and dissemination, the more likely research-based knowledge will be adopted. Adaptation includes efforts to make reports more readable and easier to understand, efforts to make conclusions and recommendations more specific or more operational, efforts to focus on variables amenable to interventions by users, and efforts to make reports appealing (Cherney & McGee 2011). Dissemination efforts also include strategies aimed at communicating research to targeted end-users, such as when researchers invest time to hold meetings to discuss the scope and results of their projects with specific users or partners. Finally, interaction variables focus on the intensity of the relationships between knowledge producers and potential users (Lavis et al., 2003a; Lomas, 2000). The types of mechanisms considered relevant include informal personal contacts, participation in committees and the transmission of reports to non-academic organisations through media activities (e.g. television, radio or social media).

One way we can begin to explore the above issue is to undertake a comparison of respondents who were successful at ‘passing’ or ‘failing’ each stage of the research use ladder¹². Two comparisons will be made here – firstly between those that claimed to succeed in transmitting their research to end-users (stage 1) ($n = 611$) with those who did not ($n = 82$). End-users were defined as policy-makers within government, and practitioners/managers within public and community sectors or private sector organisations. As indicated in Table 2 the successful group of academics who passed stage one differed significantly from those who failed in the following ways - they

saw external funding as essential compared to internal funding; they had more external grants; they were more likely to use qualitative or mixed research methods; they were focused on user contexts – i.e. research was directed towards policy-makers and practitioners; they adapted their products for users; they disseminated their research to users, e.g. via informal discussions, reports, seminars; and they had stronger linkages with policy-makers or practitioners. The second comparison examined those who claimed to be successful at all six stages of the ladder of utilisation with those who only reached level 5. This analysis shows that a focus on end-users is important, as well as linkage activities to help prepare and disseminate findings to end-users, in reaching the penultimate stage ('application') of research use. The construction of each independent variable listed in Table 2 is explained in Appendix A.

Table 2: Factors influencing research utilisation

| | | Stage | | | | | |
|---|--|-----------------------|------------|----------|----------------------|------------|--------|
| | | Stage 1: Transmission | | | Stage 6: Application | | |
| | | Pass | Fail | z or t | Pass | Fail | z or t |
| Number of cases that pass or fail each stage of the knowledge utilisation ladder | | 611 | 82 | | 455 | 10 | |
| Variables | | Total | 693 | | Total | 465 | |
| Science push | Types of products | | | | | | |
| | • Quantitative studies (% Always/Usually) | 52.54 | 56.1 | -0.61 | 54.73 | 30 | 1.55 |
| | • Qualitative studies (% Always/Usually) | 62.36 | 30.49 | 5.50** | 64.62 | 70 | -0.35 |
| | • Mixed methods studies (% Always/Usually) | 51.23 | 18.29 | 5.61** | 57.14 | 40 | 1.08 |
| | Researcher's context | | | | | | |
| | • Number of external grants (count) | 2.99 | 1.31 | 5.42** | 3.27 | 1.97 | 1.43 |
| | • Importance of internal funding (% V. Important/Important) | 51.69 | 74.39 | -3.87** | 49.43 | 50 | -0.04 |
| | • Extent that research is directed towards policy makers (% Always/Usually) | 55.16 | 13.41 | 7.10** | 61.98 | 30 | 2.05* |
| | • Extent that research is directed towards practitioners (public/community/private) (mean score 1 - 4) | 2.83 | 3.41 | -7.99** | 2.74 | 3.17 | -2.21* |
| Dissemination | Dissemination | | | | | | |
| | • Linkage (mean score 1-5) | 1.97 | 3.52 | -14.23** | 1.81 | 2.33 | -2.31* |
| | • Adaptation (mean score 1-5) | 1.87 | 2.51 | -8.68** | 1.81 | 1.90 | -0.61 |
| Interactions | Interaction mechanisms | | | | | | |
| | • Importance of informal contacts (mean score 1-5) | 2.20 | 3.21 | -9.52** | 2.11 | 2.40 | -1.21 |
| | • Importance of seminar participation (mean score 1-5) | 2.48 | 3.47 | -9.08** | 2.44 | 2.67 | -0.97 |
| | • Importance of sending reports (mean score 1-5) | 2.43 | 3.37 | -8.68** | 2.40 | 2.54 | -0.56 |
| | • Importance of media coverage (mean score 1-5) | 2.60 | 3.05 | -4.72** | 2.54 | 2.90 | -1.52 |

* p < 0.05; ** p < 0.01

Discussion

Our data indicate that while much is made of the need for academics to engage with external agencies and disseminate their research to end-users, institutional drivers within academia can undermine these activities (e.g. publishing in traditional academic outlets), and in particular deter investment in dissemination to policy-makers or practitioners. Despite barriers to knowledge translation identified by our sample, a significant number of academics did report that their research led to applications by non-academic end-users (over half of our respondents reached stage six of the RU ladder). There is little doubt that this positive result is an outcome of the fact that our sample comprised academics with success in obtaining external research grants and that the majority was drawn from senior academic positions. It is recognised in the literature that research impact is partly the outcome of reputational capital and ongoing relationships with end-users that have been established over time (Bogenschneider & Corbett 2010; Cherney unpublished; Contrandriopoulos et al 2010; Nutley, Walter & Davies 2007). Hence our selected researchers are potentially at a stage in their professional careers where their reputation, linkages with external partners and methods of engagement are well established to leverage influence within the government and non-government sectors.

Academics derive a number of direct benefits from engaging in research partnerships particularly in ensuring their research has a “real world impact”, securing access to data, and enhancing their own networks and contacts, which further helps in securing future projects and improving career prospects. However, these types of engagements carry direct costs for academics. These costs include the inevitable delays in establishing projects, managing expectations and priorities, and negotiating

access to data. Even when outcomes are delivered, the next problem becomes whether the findings are welcome and whether end-users possess the necessary knowledge to understand and apply the findings. When coupled with the institutional drivers operating in Universities that impede efforts in knowledge translation to end-users, the costs of collaboration can be significant.

A significant majority of the respondents in this study was very mindful of the need to disseminate research to end-users in ways that accord with the latter's needs. In actuality, respondents were well aware of the need to tailor research outcomes in ways that are digestible and accessible by end-users (i.e. providing summaries, being clear, concise and timely). They believed that policy-makers and practitioners were interested in scientific quality, and also recognised that politics can play a role in the use of social research. Rather than being ignorant of end-users' needs and constraints, they were well aware of these realities.

The comparisons made between respondents who successfully and unsuccessfully navigated the process of moving from the transmission of their research to having an influence on policy and practice, indicated that the process of research moving from the academic domain into policy and practice is neither straightforward nor well-oiled. The focus of research, and investments in activities aimed at linkage and exchange, mattered a great deal in moving up the ladder of research utilisation. Linkages were particularly significant and required that academics tailor their research projects and outcomes to end-user priorities. In many ways our results show that academics need to focus on delivering specifically tailored research to one or more end-users. Developing the skills, expertise and the know-how to engage policy-makers and practitioners will be a focus of subsequent phases of this project.

Conclusion

The data reported in this report are drawn from the first large survey of academic social scientists in Australia about their perceptions of engaging in research collaborations, translating their research to non-academic end-users and endeavouring to ensure that it has an influence on policy and practice. Subsequent phases of this project will explore further how and why academic research has an impact. Importantly we will also explore this issue from the perspectives of knowledge users (i.e. policy-makers) to gauge their perceptions of accessing and using academic social research. What is clear from this survey is that it is one thing to say that academic research should have a policy and practice impact, but making this happen is far from easy. Understanding the challenges of knowledge translation activities is important to ensuring that the utilisation of social research can and does occur more effectively.

Appendix A: Independent variables measures

Types of products

Quantitative studies

The quantitative research approach is a single item variable that reflects how often researchers use a quantitative approach such as surveys research, statistical analysis, and GIS in their research. The results reported are the percentage of respondents who indicated always or usually. These responses were recorded as 1, while all other responses were recorded as 0.

Qualitative studies

The qualitative research approach is a single item variable that reflects how often researchers use a qualitative approach such as interviews, focus groups, ethnography, and observation in their research. The results reported are the percentage of respondents who indicated always or usually. These responses were recorded as 1, while all other responses were recorded as 0.

Mixed methods studies

The mixed methods research approach is a single item variable that reflects how often researchers use a mixed method approach using both quantitative and qualitative approaches in their research. The results reported are the percentage of respondents who indicated always or usually. These responses were recorded as 1, while all other responses were recorded as 0.

Researcher's context

Number of external grants

The number of external research grants (ARC Discovery, ARC Linkage, and other external competitive grants) each academic researcher has received. Reported as a mean score of the three items.

Importance of internal funding

The importance of internal funding is a single item variable that reflects how important academic researchers view the university internal funding source is to ensuring that academic research is conducted. The results reported are the percentage of respondents who indicated very important or important. These responses were recorded as 1, while all other responses were recorded as 0 and does not apply was coded as missing.

Extent that research is directed towards policy-makers

The extent that research is directed towards policy-makers is a single item variable that reflects whether academic researchers direct their research to policy-makers. The results reported are the percentage of respondents who indicated always or usually. These responses were recorded as 1, while all other responses were recorded as 0.

Extent that research is directed

The extent that research is directed towards practitioners is a composite index that is comprised of three

towards practitioners

items detailing the types of practitioners (public, community, and private). Academics were asked to report the extent to which their research is directed at practitioners from each of these sectors. Responses were rated on a 4-point scale, ranging from 1 (always) to 4 (never). The results were reported as a mean score for the three items.

Dissemination

Linkage

The linkage index is based on the importance attributed by academic researchers to four types of linkage activities when carrying out their research. Responses were rated on a 5-point scale, ranging from 1 (very important) to 5 (very unimportant). The four types of linkage activities included are: (1) preparing and conducting meetings in order to plan the subject and scope of projects with end users; (2) regular formal meetings to report on a study's progress with end-users; (3) formal meetings to discuss findings with end-users; (4) preparing and implementing research dissemination activities for end-users. Does not apply was coded as missing. The results were reported as a mean score for the four items.

Adaptation

The adaptation index is based on the importance attributed by academic researchers to adapting or tailoring their research for end-users such as policy-makers or practitioners. This index is comprised of seven items and responses are rated on a 5-point scale, ranging from 1 (very important) to 5 (very unimportant). The seven items are: (1) readability and use of comprehension of my reports and research articles; (2) specific, operational nature of conclusions or recommendations; (3) provision of data that can be analysed by end-users; (4) sensitivity to end-users' expectations; (5) presentation of reports (graphics, colour, packaging); (6) on-time presentation of research findings to end-users; (7) attention to 'deliverables'. Does not apply was coded as missing. The results were reported as a mean score for the seven items.

Interaction mechanisms

Importance of informal contacts

The importance of informal contacts index is based on the importance attributed by academic researchers to using informal contacts as a method for presenting and/or discussing their research. This index is comprised of three items and responses are rated on a 5-point scale, ranging from 1 (very important) to 5 (very unimportant). The three items are: (1) informal contacts with policy personnel of government agencies; (2) informal contacts with public or community sector practitioners; (3) informal contacts with personnel of private sector organisations. Does not apply was coded as missing. The results were reported as a mean score for the three items.

Importance of seminar participation

The importance of seminar participation index is based on the importance attributed by academic researchers to using seminars as a method for presenting and/or discussing their research. This index is

comprised of three items and responses are rated on a 5-point scale, ranging from 1 (very important) to 5 (very unimportant). The three items are: (1) participation in seminars and workshops organised by government agencies; (2) participation in seminars and workshops organised by practitioners within public or community sectors; (3) participation in seminars and workshops organised by private sector organisations. Does not apply was coded as missing. The results were reported as a mean score for the three items.

Importance of sending reports

The importance of sending reports index is based on the importance attributed by academic researchers to using reports as a method for presenting and/or discussing their research. This index is comprised of three items and responses are rated on a 5-point scale, ranging from 1 (very important) to 5 (very unimportant). The three items are: (1) sending reports to government policy agencies; (2) sending reports to practitioners within public or community sectors; (3) sending reports to private sector organisations. Does not apply was coded as missing. The results were reported as a mean score for the three items.

Importance of media coverage

The importance of media coverage index is based on the importance attributed by academic researchers to using media coverage as a method for presenting and/or discussing their research. This index is comprised of three items and responses are rated on a 5-point scale, ranging from 1 (very important) to 5 (very unimportant). The three items are: (1) publication in radio and/or television programs; (2) publication of articles in non-academic outlets; (3) publication in electronic media, e.g. blogs and other social media. Does not apply was coded as missing. The results were reported as a mean score for the three items.

Notes

¹ These partners provided in-kind and cash support for this project. They include the Productivity Commission; Australian Bureau of Statistics; Queensland Health; Queensland Communities; Queensland Department of Employment; Queensland Department of Premier and Cabinet; Victorian Department of Planning and Community Development; Victorian Department of Education & Early Childhood and the Victorian Department of Human Services.

² At the time of writing only phase 1 of the project had been completed, with phases 2 and 3 being initiated.

³ See <http://www.assa.edu.au/>.

⁴ The research team was not provided access to the ASSA membership list due to confidentiality concerns on the part of the ASSA executive. The team did not have control over the distribution of the survey to ASSA members, which was undertaken by the ASSA executive. We estimate that up to 500 people were sent the survey, with the response rate being about 17%.

⁵ Australian Research Council (ARC) grants are national competitive grants and outside of the National Health and Medical Research Council, the ARC funds a significant proportion of research activity in Australian Universities. Discovery grants fund what is termed “blue sky” or 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. Such grants are to have an applied focus (see <http://www.arc.gov.au/ncgp/default.htm>).

⁶ Following the ordering in figure 4 respondents were asked to respond to 7 categories on a 6 point scale from strongly agree to strongly disagree and not applicable: (1) Academic reward systems do not adequately recognise dissemination of work to non-academic end-users; (2) The academic requirement to publish primarily in peer-reviewed journals inhibits a focus on policy and practitioner audiences; (3) There are high costs (e.g. time and resources) in translating the results of research for policy-makers and practitioners; (4) Networks and partnerships that might support research uptake are often undermined by turnover of contact staff in public agencies; (5) There are insufficient forums and networks available for bringing together researchers and non-academic end-users of research; (6) Policy-makers and practitioners lack expertise in how to interpret or understand the findings of research; (7) Policy-makers and practitioners lack expertise in how to apply the results of research to policy problems.

⁷ DET refers to a Department of Education and Training.

⁸ The reference made by this respondent to A level journals is in response to the ERA (Excellence in Research for Australia) exercise in which there was a clear demarcation between A, B, C level journals. This ranking system has now been dropped see (see <http://minister.innovation.gov.au/Carr/MediaReleases/Pages/IMPROVEMENTSTOEXCELLENCEINRESEARCHFORAUSTRALIA.aspx>; accessed the 11th August 2011).

⁹ Following the ordering in Figure 5 respondents were asked to respond to 15 categories on a 6 point scale from strongly agree to strongly disagree and not applicable: (1) You need to invest a lot of time in coordinating the work between different partners; (2) I find there are different research orientations between academics and external partners; (3) The complexity of contractual arrangements can lead to delays in commencing research; (4) The ethics process can be time consuming and cumbersome; (5) External partners do not appreciate the full costs of research; (6) Confidentiality requirements often restrict what you can report and publish; (7) There are inadequate university resources to support research partnerships with end-users; (8) You are subject to delays that impede your ability to publish results in a timely

manner; (9) You can lose ownership of intellectual property; (10) I am under pressure from my work unit to undertake contract research to meet budget requirements; (11) I find there is pressure to produce favourable results for partners; (12) I feel that industry partners place too much emphasis on specific deliverables; (13) I believe such projects overemphasise applied outcomes; (14) I feel that there is too much pressure to meet deadlines; (15) I do not feel comfortable working on projects carried out in collaboration with industry or government agencies.

¹⁰ Following the ordering in figure 7 respondents were asked to respond to 14 characteristics on a 5 point scale from high priority to not a priority: (1) Research findings are written in a clear style for end-users; (2) Findings have direct implications for policy and practice; (3) Research reports provide brief summaries of key findings; (4) Findings are available at a time when decisions need to be made; (5) Reputation of the researcher; (6) The scientific quality of the research is high; (7) Research recommendations are economically feasible; (8) Research findings are unbiased; (9) Research recommendations are politically feasible; (10) The statistical analysis is of high quality; (11) Findings can be generalised beyond the study's population; (12) Research offers new ways of thinking about an issue; (13) Research findings support a position already held by the end-users; (14) The research adds to theoretical knowledge.

¹¹ The current study modified the wording of the six stages and was not a strict replication of the scale used in Landry, Amara, and Lamari (2001b) and Cherney and McGee (2011). There were also variations in sample sizes, and the Landry and Cherney studies specified the last five years for respondents, while the current study did not. The survey team thought stipulating a 5 year period may have been restrictive for some respondents.

¹² A Z test was used as opposed to a *t* test because our sample size was too large. A Z test is used to test for the proportional differences between two groups. In this paper it has been used to determine the differences between the means of those that passed compared to those that failed particular stages of the research use ladder.

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