

POLICY IMPACT

ASSESS • EVALUATE • COMMUNICATE

Economic & Social Research
Council (ESRC)

Study of the Contribution of Social
Scientists to Government Policy and
Practice

Final report

October 2012



This document was prepared for the ESRC.

Authors

Mariell Juhlin, Managing Director, Policy Impact LTD.
Dr. Puay Tang, Senior Lecturer, SPRU, University of Sussex.
Prof. Jordi Molas-Gallart, Research Professor, INGENIO (CSIC-UPV).

Disclaimer

The opinions expressed in this document are the sole responsibility of the authors and do not necessarily represent the official position of the ESRC or government. Although the Government Economic Service and Government Research Service have cooperated in the production of this Report they are not responsible for its accuracy or conclusions

The Policy Impact-led team has taken care in the preparation of this report. However, absolute accuracy or completeness of information used cannot be guaranteed. Moreover, we cannot bear responsibility for recommendations that may have been omitted due to particular or exceptional conditions and circumstances.

© Policy Impact Ltd, 2012.

Any enquiries about this report should be directed to: mariell.juhlin@policy-impact.co.uk.

Acknowledgements

The authors would like to thank all the stakeholders that participated in the research underpinning the report with special thanks to those interviewed and those taking part in the online survey. We would also like to thank Margaret Macadam, Project Manager at the ESRC, and Andy Ross, Deputy Director at the GESR and his team, for their feedback and support.

Contents

Executive summary	6
1.0 Background and objectives	13
1.1 Background	13
1.2 Objectives	16
2.0 Approach and methodology	18
2.1 Conceptual approach adopted	18
2.2 Methodology	18
2.3 Participants in the study	19
2.4 Definitions	19
2.5 Caveats	20
3.0 Social scientists in the Civil Service	21
3.1 Structure and organisation	21
3.2 Education and qualifications	24
3.3 Formal roles and tasks	26
3.4 Career paths	29
3.5 Benefits of a social science PhD in the Civil Service	32
4.0 Social scientist contributions to policy	37
4.1 Skills that matter	37
4.2 Processes that matter	42
4.3 Contextual factors and their importance	46
4.4 Contributions that matter	48
4.5 Barriers to making contributions	61
4.6 Preparing social science PhDs for the policy environment	63
5.0 Conclusions	66
6.0 Recommendations	71
Annex 1: Bibliography and references	73
Annex 2: Data collection tools	75
Annex 3: Case studies	92
Annex 4: Detailed survey analysis and data	93

Tables

Table 1: GES and GSR Departments in government	21
Table 2: GES and GSR management grades	22
Table 3: Highest educational attainment by membership	24
Table 4: Employment sector of all PhD respondents in UK employment by discipline (November 2008)	25
Table 5: Attribution of skills comparing social science Masters and PhDs	38
Table 6: Most and least important tasks by membership and education	43
Table 7: GESR survey response by department	93
Table 8: Location of social scientists within departments, overall and by membership ..	93
Table 9: Location of social scientists within departments by management grade	94
Table 10: Concentration of social scientists by department and education	94
Table 11: Top four study subjects by education	95
Table 12: Degree study subjects	95
Table 13: Master degree study subjects	96
Table 14: Doctoral degree study subjects	96
Table 15: Highest education by management grade	97
Table 16: Previous positions by membership	97
Table 17: Changes between departments	97
Table 18: Management grades and distribution by membership	98
Table 19: Mean years in the Civil Service and in current position by management grade	98
Table 20: Social scientists tasks by membership	98
Table 21: Social scientists tasks by management grade	99
Table 22: Social scientists tasks by education	100
Table 23: Frequency of tasks by education	101
Table 24: Social scientists frequency of involvement by stage of the policy cycle	102
Table 25: Social scientists frequency of involvement by stage of the policy cycle by membership	103
Table 26: Social scientists frequency of involvement by stage of the policy cycle by education	104
Table 27: Social scientists most important tasks, overall and by membership	105
Table 28: Social scientists most important tasks, overall and by education	105
Table 29: Social scientists most important tasks, overall and by management grade ...	105
Table 30: Most important individual characteristics for effective contributions to policy	106
Table 31: Most important individual characteristics for effective contributions to policy by education	108
Table 32: Most important mechanism for acquiring policy relevant skills	110
Table 33: Mechanisms for acquiring policy relevant skills by education, percentage of all respondents by category	111
Table 34: Factors and processes that enabled policy contribution	112
Table 35: Most important contribution, overall and by membership	112
Table 36: Most important contribution, by education	113
Table 37: Most important contribution, by management grade	113

Figures

Figure 1: Distribution of social scientists by department	23
Figure 2: Location of social scientists within departments	24
Figure 3: Frequency of involvement by stages in the policy cycle	28

Figure 4: Social scientists time in current position	30
Figure 5: Years (mean) in current position by education	30
Figure 6: Importance of education in making contributions	37
Figure 7: Social scientists most important contribution	50

List of abbreviations

ESRC	Economic and Social Research Council
GES	Government Economic Service
GESR	Government Economic and Social Research team
GSR	Government Social Research
GSRU	Government Social Research Unit
GSS	Government Statistical Service
IA	Impact Assessment
RPC	The Regulatory Policy Committee
RRC	Reducing Regulation Committee

Executive summary

Background and objectives

The ESRC has a keen interest in demonstrating the impact that social science brings to policy and wider society. The Council invests heavily in doctoral training via PhD grants and other schemes aimed at PhDs. It has also invested significant resources in an Impact Evaluation Programme aimed at understanding the contributions made by social scientists. It is against this background that the current study of the role of social scientists in government has been commissioned. The aim of the study is to identify, document, assess and evaluate the contributions to policy-making made by social scientists in government, paying particular attention to the differential contributions of PhDs versus non-PhDs, as well as the factors and processes that enhance or lessen these contributions. These findings also form the basis for informing ways in which the ESRC could further maximise the impact of its investments in PhD training going forward whilst recognising the importance of the already substantial investments being made. Given the tentative nature of the existing evidence-base, the study also aims to inform ways in which the impact of similar investments can be measured in future.

Approach, scope and method

Identifying the range of contributions of social science to policy and practice and disentangling them from other factors that may impinge upon their impact pose substantial challenges. This has been recognised by experts and scholars in evaluation and impact assessment methods who have developed analytical frameworks to try and capture these impacts and contributions. This study, carried out by independent experts between October 2011 and May 2012, employs a “Context-Mechanisms-Outcomes” Framework for understanding and assessing the contributions of social scientists in government to Public Policy. The scope encompasses members of the Government Economic Service (GES) and the Government Social Research (GSR) in central government (excluding members based in Scotland, Wales and Northern Ireland).

The study adopts a mixed methods approach involving an online survey, interviews, case studies and a literature review. Initially, the evidence gathering involved a series of inception interviews with Heads of Profession/Directors of Analysis/Chief Economists in a wide range of government departments and agencies to obtain a general view of the contributions of social scientists in the respective departments as seen from the employer’s perspective. This was followed by an online, self-assessment survey of GES and GSR members receiving in the region of 653 responses. Overall, this represented a 25 percent response rate. For an in-depth view of the specific ways in which contributions were made and the contextual elements that influence these processes, four case studies were chosen from a long-list of possible options in consultation with the ESRC. The cases were chosen in order to represent social researchers and economists, ministerial and non-ministerial departments, as well as different sectors, types of contributions and end users. The case studies involved

interviews with social scientists with PhDs and with their nominated policy clients, the majority of whom were also doctoral graduates.

Social scientists in the Civil Service

Of the highest qualifications held by members of the GES and the GSR, of which near all are in the social sciences, PhDs represent just over a tenth (13 percent) compared to Masters (66 percent) and Degrees holders (21 percent). There is a difference in prevalence of social scientist PhDs in the two services with a significantly greater proportion of PhDs within the GSR than the GES. Economists in the GES are also represented in more departments than social researchers in the GSR. Although a PhD is not a formal requirement for entry into either service, employers generally see it as an advantage if and when social science PhDs are also able to demonstrate other softer skills. There is some evidence to suggest that PhDs are actively recruited in areas where technical or specific expertise is required, though the norm among employers is to favour candidates with Masters degrees as these are seen as having a sufficiently elevated level of technical skill to enable them to work flexibly across areas.

Importantly, there are differences between respondents with PhDs and other social scientists in the tasks they carry out. The most prevalent task that all social scientists in government undertake as part of their day-to-day work is the preparation of reports and briefing notes underpinned by analysis. Social science PhDs, however, report more intense involvement in a wider variety of tasks than other university graduates and specifically in project management, research procurement and advisory work. In contrast, Masters and Degree holders were more intensely involved in analysis and data gathering tasks. The finding that PhDs see themselves as undertaking project management to a much higher degree than the others (91 percent of PhDs compared to 69 percent of Masters and 53 percent of Degree holders) resonates with interview feedback that emphasised that the development of project management skills is one of the key benefits of doing a PhD.

Social scientists with PhDs are engaged in tasks with managerial responsibilities and hold higher-ranking jobs: 66 per cent of the doctoral graduates hold senior positions, compared with 49 per cent of Masters and 19 per cent of those with Degrees. Overall, and whilst controlling for gender, higher levels of education, as well as age and numbers of years in the Civil Service, were found to be closely associated with seniority. This shows that social scientists with both Masters and PhDs have greater career prospects than those with Degrees. Positive effects of PhD qualifications on promotions to management and senior positions were also noted by case study participants.

Social scientist contributions to policy within central government and enabling factors

Overall, the study identifies a range of policy contributions social scientists make at different points in the policy cycle, and several mechanisms and processes through which such contributions are facilitated and generated. These vary across departments, and the type and level of graduate education.

Economists were found to be much more frequently involved in the early stages of the policy cycle compared with social researchers who were the most frequently involved in evaluation. There were no differences in involvement with regards to policy implementation. About half of all social scientists in central government (49 percent) regard “developing evidence or arguments to inform policy decisions and strategies” as their most important contribution to policy and “introducing or helping to develop data sets” as the least important contribution (5 percent). This clearly shows that social scientists believe that to maximise contributions on policy their interaction with policy colleagues needs to go beyond the production of data. The vast majority of social scientists (88 percent) regard “understanding the policy question” as the single most important factor for making their policy contribution followed by “presenting the analysis clearly” (76 percent of respondents rated this as very important). Social scientist PhDs saw the “understanding of government requirements” as significantly more important than Degree holders.

These findings are also reflected in what social scientists see as the most important skills to influence policy; a majority listed “critical analysis and decision-making skills” and “communication and presentational skills” as the most important (61 and 58 percent respectively rated this as very important) compared to technical skills (43 and 35 percent rated quantitative and qualitative skills as very important).

The higher the educational level, the more the social scientists believe their degrees have helped them to contribute to policy. These differences were statistically significant. Social scientist PhDs are particularly emphatic about the importance of research methods and technical expertise: the deep knowledge of research methods and methodologies learned from doctoral training that are effectively used on a regular basis to address policy issues rigorously. Having a PhD has also been an added value in facilitating uptake of new methods and evidence from academia as well as professional research organisations outside of central government.

Employers, policy clients and social scientists themselves recognise, however, that contextual knowledge and softer skills are generally more important to maximising policy contributions than formal skills. This is not to say that formal skills are not valued. However, in order to maximise policy contributions technical skills and knowledge must be coupled with softer skills and an ability to translate research findings clearly and succinctly in lay terms to colleagues involved in the policy formation.

Although social scientists responding to the survey attributed their qualitative and quantitative research skills to their formal training, they considered that most other relevant skills for successfully working in a policy environment and making a policy contribution were to be learnt on the job. In particular, all social scientists with PhDs who join government face pressures to develop other less technical skills such as management and inter-personal skills to gain promotion. Those who are able to hone these capacities tend to become less specialised as they ascend through the hierarchy; those who are not tend to leave the Civil Service. However, where specialist research skills or sector knowledge are required, such as in the Office of National Statistics and the Department of Works and Pensions, social scientists with PhDs are able to further

develop or maintain their specialist competencies, and use them to advance their careers.

The policy clients interviewed (most of which had PhDs and worked in managerial roles) largely concur with the views of the PhD respondents on the benefits of holding a PhD and the value of the knowledge and skills gained through doctoral training in making policy contributions. There is also agreement between the policy clients and the social scientists with PhDs that co-location, on-the-job learning and interpersonal skills can be instrumental to gaining direct insights into the policy process, and building rapport and trust with policy makers, which collectively can create more scope for direct policy contributions.

A common suggestion by the policy clients points to the need for PhD holders to improve their presentational and communication skills as there remains a tendency for many social scientist with PhDs to get entangled in details in their reports and briefs to policy makers, thereby risking opportunities to make a contribution to policy measures. Moreover, the ability to be tactful about a “policy that won’t work” and the imperative to understand how governments work, underscore how a lack of these capabilities can hamper policy contributions.

Likewise, both social science PhDs and their employers shared the view that the ability to grasp what needs to be done and to deliver pragmatic, “good enough” solutions to real world problems is particularly relevant for those working in Ministerial Departments and therefore closer to policy-makers. Evidence also suggests that the efforts made by Research Councils, including the ESRC, to equip social science PhD students with softer skills and work experience were appreciated and welcomed by both PhDs themselves as well as their employers in government.

The fact that social scientists see themselves as having an active role in the policy cycle does not necessarily translate into specific contributions to specific policies. It is a contributory role and therefore innately diffuse. But there are clear examples of advice and recommendations made by social scientists with PhDs that have been picked up by government. Examples of specific policy contributions include the leading role played by a senior social science PhD, based in the UK Intellectual Property Office, in the drafting of the Hargreaves Review, a document aimed at examining how the UK Intellectual Property system can better drive growth and innovation. The recommendations that emerged from the Review have been largely accepted by Government and are in the process of being implemented.

Another example shows how a social scientist with a PhD based in a major delivery department, was able to engage with policy colleagues to understand the policy problem and to design and deliver a programme of evidence collection and analysis, an exercise that provided new information for Ministers and Senior Policy colleagues considering policy for older job seekers. Yet another example shows how a social scientist with a PhD, based with a regulator, was able to apply and consolidate a highly novel approach, which not only enabled a more cost-efficient enforcement outcome but also left a lasting legacy in the form of guidelines and methodologies used for mergers

scrutiny in the UK. The contribution was helped by the credibility and technical ability that the PhD brought both internally and externally.

When and through what processes social scientists contribute to policy-making

Social scientists in central government view their role very positively and as contributors to policy at all stages of the policy cycle although many would like to be even more involved up front in order to maximise their policy contributions. In fact, both social scientists and employers concur in the view that the earlier on in the policy cycle that social scientists are able to contribute and interact with policy clients, the greater the potential for policy contributions. Informal processes, such as networking with and getting to know policy-makers are fundamental to optimising the policy contribution by social scientists. While this appears to be a conviction of all interviewees, it is not evident as yet that active engagement with the policy clientele is uniformly undertaken.

However, co-location into policy units has been found to be important to facilitate social scientists making contributions even at stages of the policy cycle where they are not necessarily seen as having a formal role. Importantly, the analysis shows that social scientists physically located within policy units are significantly more frequently involved in the clarification of policy objectives, the design of policy instruments; and policy implementation, than social scientists working in analysis and mixed (policy-analysis) groups. These social scientists also regard discussions with colleagues as much more important in making contributions than colleagues in pure analysis units. The opportunities to generate these contributions are enhanced because co-location allows social scientists to gain a fuller insight into the policy requirements and issues, and to build trust with policy colleagues, which in turn help to increase the potential to make more direct contributions and particularly more early on.

PhDs are overwhelmingly located in pure analysis units (61 percent of all PhDs), which might lessen their opportunities for making contributions on the one hand. On the other hand, however, co-location seems less crucial in areas such as impact assessment and appraisal where economists play a technical analytical role or in evaluation where the formal guidance (e.g. the Magenta book) defines the processes, and in so doing also defines the skills and added value that social scientists can bring. Interactions and reputations are more important when the role of the social scientist is to contribute to the policy process rather than providing a specific, narrowly and explicitly defined, technical input.

Social scientists who become more closely involved with the policy process will tend to be more stable in their positions and value the reputational effects of holding a PhD. Most PhD-holders testify to the added value of having a PhD, both in terms of helping them in their career as well as in enhancing their policy contribution. Doctoral graduates progress further in their careers, pointing to a “reward effect” of having a PhD. They are more confident in their own abilities, pointing to an “expert effect”. They benefit from higher credibility both internally and externally, pointing to a “credibility effect” that in turn offers more possibilities to influence policy. For instance, a PhD perceptibly bestows external credibility in interactions with academics. A PhD can also

help to accord internal credibility to new ideas/initiatives suggested by social scientists, or even promotion, provided that it is coupled with other softer skills.

In summary, there is a large degree of concurrence between the social scientists with PhDs, employers and policy clients on the value of the skills acquired from doctoral training for policy contributions. Similarly all groups accede to the view that on-the-job learning and soft skills are important for generating policy contributions. Social science PhD holders, on the whole, regard a doctorate as an asset for their career prospects as it helps them to acquire seniority faster than any other level of education, despite the fact that in most cases, a PhD is not a formal requirement to join the GES or GSR.

Implications for the ESRC

Most social scientist PhD candidates would benefit from greater insights into the practical aspects of policy-making within central government through incorporating key aspects such as practical policy-making into the existing ESRC-sponsored transferable skills training. The career development element of this training might also be reinforced further to enable social scientist PhDs and PhD candidates to enhance their interpersonal, presentational and communication skills. The ability to write succinctly for policy-makers has been noted as a necessary skill and significant factor for facilitating policy contribution.

The ESRC should continue to encourage that their sponsored PhD students have the opportunity to acquire a broad range of research methods skills during their doctoral training. However, current training schemes offering PhD candidates training in research methods might be further enhanced by putting greater emphasis on the possible real world application of methods within a pressurised environment, such as in government. This could help prepare social scientist PhDs wanting to develop a career in government to develop realistic expectations around the practical application of methods in a policy environment, which may allow them to adapt more quickly. This could be further supported by specific induction courses, mentoring or placement schemes for those specifically wishing to pursue a career within government. Moreover, given the importance of on-the-job training for maximising policy contributions expressed by participants in this study, the ESRC may want to provide additional opportunities for collaborative studentships and internships for PhD candidates in government, something that the ESRC has funded in the past. This may have the added benefit of allowing candidates to develop collaborative and team-working skills in addition to the project management and research skills developed during their doctoral training.

The ESRC should continue to monitor the trends among their PhD holders in terms of the areas in which they develop careers and underpin this with qualitative studies to understand these trends and their underlying reasons.

Implications for future impact evaluations

The combination of the online survey, interviews and case studies has provided a broad and deeper perspective of the perceived contributions of social scientists in

government. However, there are still several areas that need to be developed further. In particular, many of the techniques used in this study relied on self-reporting. This is necessary because the social scientists are the main analytical focus for the study. The qualitative analysis, however, has enabled the viewpoints of policy clients to be reflected and considered against the self-assessments of PhD holders but their perspective cannot easily be integrated into a quantitative approach. Techniques to identify large numbers of potential policy clients and to develop online questionnaires that may be relevant to their experiences could be tackled in future in order to yield more independently verifiable views of the contributions that social scientists make to policy.

1.0 Background and objectives

The ESRC has a keen interest in demonstrating the contributions impact of social research to policy and wider society. The Council invests heavily in doctoral training via PhD grants and other schemes aimed at PhDs and post-doctoral researchers. It has also, over the last few years, invested significant resources in an Impact Evaluation Programme aimed at understanding the non-academic impact of its investments. It is against this background that the current study of the role of social scientists in government has been commissioned.

1.1 Background

The analysis of the impact of the social sciences has received substantial attention, in particular over the last decade. The ESRC and the other UK Research Councils have, for instance, conducted a continued effort to develop methodologies to assess how the research they fund contribute to economic growth and the solution of societal problems (Luiz de Campos 2010).

One way in which research programmes can lead to societal outcomes is through the contributions of researchers to policy development. These can take many different forms and can be particularly hard to identify and disentangle from other factors affecting the policy process. There is however a body of literature specifically addressing how the work of academics was taken up in policy circles. In the 1980s, public policy scholars concerned about whether and how their work played a role in the processes they studied, developed analytical frameworks and provided evidence of how public policy studies yielded results that found a way into applied policy environments.

The work of Carol Weiss has been particularly influential in this respect (Weiss 1977; Weiss 1980; Weiss 1986). Weiss responded to the prevailing scepticism about the extent to which social research had an influence on policy decisions by stressing the importance of indirect impact mechanisms that were not evident. She based her argument on the nature of policy decision-making: this rarely conforms to the linear, rational and purposive models of some textbooks. Instead, she argued that policy was developed through “non-decisional processes” characterised by incremental decisions, bargaining, improvisations and adjustments. In this context, in which no clear decisions can be identified, the way in which academic work can influence the policy process is not through the direct and instrumental use of clear inputs into policy decisions, but through the provision of “a background of empirical generalizations and ideas that creep into policy deliberation” (Weiss 1980, page 381).

The term “knowledge creep” has become commonplace in analysis of the policy impact of academic research, and evaluators have repeatedly tried, whether explicitly or implicitly, to devise means to identify such “creep”. To do so, it is necessary to develop approaches that attempt to identify the often complex and indirect processes through which “impact” occurs. Social links and networks are an important part of such

processes (Yin and Gwaltney 1981). The focus on processes and social links between researchers and potential non-academic users and beneficiaries of their research has been a characteristic of many studies of the impact of the social sciences.

The mobility of researchers is one way in which new links and social networks can be generated. Analysts have identified the mobility of researchers to non-academic jobs as an important impact channel (Molas-Gallart 1999; Molas-Gallart, Tang et al. 2000). A recent article by Kogut and MacPherson (2011) similarly shows how the mobility of economists has spread ideas on privatization, central bank independence and pension reform, influencing economic national policies across the globe. Studies of social impact (including policy impact) have also stressed the importance of addressing the context in which research is generated and applied when assessing research impact. Back in 1980 Larsen argued that knowledge utilisation had to be studied in terms of the context and the processes in which such utilisation takes place. Utilisation could not be seen as the responsibility of either the researcher or the potential user; instead, “knowledge utilization is a complex process involving political, organizational, socioeconomic, and attitudinal components in addition to the specific information or knowledge. These factors impinge on the information, they also interact with the knowledge...”(Larsen, 424 & 430). Some recent approaches to impact assessment have made the study of contextual conditions the analytical core of impact assessment (Spaapen and Dijkstra 2005). A systematic consideration of contextual factors is also central to a whole distinctive approach to policy evaluation (Pawson and Tilley 1997) and has been used in the assessment of the policy and practice impact of social researchers (Molas-Gallart and Tang 2007).

The impact of social scientists within government has also been the subject of analysis by UK government social scientists themselves. A 2007 report by the Government Social Research Unit (GSRU) showed that although most government officials in policy departments were familiar with different sources of evidence, they did not necessarily understand the relative merits of different types of evidence and hence there was a role for social researchers and analysts to produce inputs that better met the needs of (and demands on) policy-makers. The report also identified drivers for the use of evidence and barriers, these included:

- Timing of the analysis: the policy process was described as reactive and requiring immediate action, resulting in little time to wait for or consider analytical support. Many commented on the usefulness of existing evidence, or ongoing, long-term data collection as this was often valuable evidence that could be harnessed quickly. Real-time feedback throughout any piece of analysis was considered crucial.
- Resources: resource availability, in terms of research budgets and policy and analytical staff capacity, was a key influence in the production and use of evidence in policy. The inevitable tension between resources and demands means prioritisation and flexibility are essential.
- Quality of the evidence: although most policy makers accepted that there was a trade-off to be made between quality and timeliness; giving ‘good enough’ evidence that is robust enough to be defensible and

withstand challenges but also timely enough to fit into the policy timetable.

- Availability of the required evidence: in the absence of available evidence, officials can either wait for it or progress without it. Those working in politically sensitive areas or involving substantial investment were most commonly the ones not willing to take the risk of progressing without an evidence base.
- The presentation of the evidence: many policy makers commented on the difficulty of drawing out relevant information from some published work and called on analysts to make their findings easily accessible in terms of format, language and length.
- The focus of reports and other forms of evidence: the officials interviewed were keen for analytical findings to relate directly to their area of interest. They were also keen for analytical findings to be contextualised with existing work in the field so that the sum of knowledge and the new evidence's contribution to that knowledge could be understood.
- Trustworthiness of available evidence: many of the issues around the use of evidence came down to whether it was trustworthy or not: was it from a credible source? Did the researcher have any obvious bias? What quality assurance processes were undertaken? Was there a consensus in the research evidence? And did the evidence chime with the opinions of officials themselves?

In a similar vein, the report "Challenges of Evidence Based Policy-Making" for the Australian Public Services Productivity Commission (Banks 2009) stressed how shifting evidence, values, personalities, and mere happenstance, affect the data collected and its interpretation. Furthermore "the capacity of policymakers to understand the evidence and to discriminate between evidence which is reliable and useful, and that "which is not" (p. 4), is integral to the use of evidence.

The GSR and Banks' approaches address the conditions that facilitate the uptake of research results by government officials, focusing mainly on the way evidence becomes available and is presented to policy makers. This differs from the concerns that have fuelled the literature on the policy impact of social research with its focus on how research generated *outside* government finds its way to application and use, emphasising the processes through which research reaches policy-making.

The object of this assignment falls between these two approaches. Its main concern is on identifying whether and how graduate training activities, particularly at the doctoral level, have made a difference in the policy process through the work of social scientist PhDs in government research services. Therefore, it concentrates on a specific channel for policy impact (the mobility of researchers to a specific field of government services) but must still consider whether and how these researchers play a role in the policy process. The way evidence is generated and presented helps explain this role but it is not the only factor: researchers can influence policy through informal means, for instance, the proverbial "water cooler meetings". The approach in this study will therefore take a broad perspective, focusing on the analysis of the very different ways

in which, the knowledge embodied and generated by social scientists, particularly those with PhDs, employed in government research services contribute to the policy process.

The focus on doctoral graduates is an ongoing interest of the ESRC and the RCUK. For instance, they have commissioned studies on the contributory role of a PhD to the employment prospects and career paths of social scientist PhD holders. Examples of these are “What do researchers do? Doctoral graduate destinations and impact three years on” (Hunt et al. 2010) and Raddon and Sung (2009) “The Career Choices and Impact of PhD Graduates in the UK: A Synthesis Review Report”. This focus is further complemented by an interest on how employers view the value of a PhD and on their recruitment practices. Again, the ESRC and RCUK have also funded studies on this issue, an example of which can be found in Vitae (2009) “Recruiting employees: A survey of employer practice.”

Pertinently, the aim of this study reflects the ESRC-commissioned work “Evaluating the Impact of Social Scientists” (Johnson and Williams 2011). It focused on how social scientists with doctorates working in or for (the latter referring to external PhDs from academia) the Welsh Government influence or contribute to its policy and operational processes (henceforth referred to as the “Welsh Study”). The current study, however, concentrates on how social scientists with doctoral qualifications working only **within** the Civil Service in central government contribute to or influence the policy process.

In summary, the aforementioned examples of the ESRC/RCUK studies demonstrate their committed interest in: (1) examining the career paths of doctoral graduates, and (2) studying the contribution of social scientists to policy and practice, and society at large. This study is another example of this enduring engagement with these two streams of analysis.

1.2 Objectives

The aim of the current study is to assess the contributions to policy of social scientists within government focusing on members of the Government Economic Service (GES) and the Government Social Research (GSR). As such, the study tries to understand when, how and in what ways social scientists contribute to the different aspects of the policy cycle (from design through to evaluation). Within the overall scope of the study, particular emphasis is put on exploring whether the perceived impact – as seen both from the point of view of the social scientists themselves as well as from their policy colleagues within government - varies according to any specific characteristics of the social scientists. In particular, the study aims to:

- Identify and assess the extent and nature of the contributions that social scientists with PhDs make within central government.
- Evaluate the processes through which contributions can be or have been generated.
- Document the ways in which social scientists with PhDs contribute to the work of central government.

- Develop an understanding of central government's appreciation and need for the higher-level skills associated with PhD training.
- Inform the ESRC's investment in PhD training with a view to maximising future impacts.
- Identify good practice and lessons for enhancing the contribution that social scientists can make to the work of central government.
- Inform the development of methodology for future impact evaluation studies in this area.

2.0 Approach and methodology

2.1 Conceptual approach adopted

The study has employed a “Context-Mechanisms-Outcomes” Framework for understanding and assessing the contributions of social scientists in government to Public Policy. This has drawn on previous ESRC recommendations that “*any impact assessment must demonstrate an understanding of the mechanism through which these impacts may take place*”. Hence, a distinction has been made between the different **Contexts** in which the social scientist PhDs in the Government Economic Service (GES) and the Government Social Research (GSR) operate; the **Mechanisms** through which they can affect or are affecting policy and practice in government; and the **Outcomes** or effects of their involvement in policy and practice.¹ From a practical perspective this means that the research methods and instruments (interview guidelines, online questionnaires, case-study structure) were structured according to these three main categories.

2.2 Methodology

The study, which was aimed at members of the GES and the GSR across Whitehall within both ministerial and non-ministerial departments, was undertaken between October 2011 and May 2012. It involved a mixed methods approach for the collection and analysis of data i.e. involving both qualitative and quantitative elements. This involved inception interviews with stakeholders, case studies and an online survey.

The aim of the qualitative interviews undertaken during the inception phase, with Directors of Analysis, Heads of Profession and Chief Economists within the GES and the GSR (see Annex 2 for interview schedule), was to inform the structure and contents of the online survey aimed at all GESR members based in England² (see Annex 2 for survey questions). The aim of the survey was to gather the views of social scientists, and particularly PhDs, at all levels of the Civil Service about what contributions they considered to be the most important and factors that might explain these, including the importance of skills and qualifications.

Moreover, four case studies with the aim to explore, in more detail, the differential contributions made by social scientists with PhDs were also undertaken. The cases were picked, in close liaison with the ESRC, from a long-list of potential cases volunteered during the inception phase and as part of the survey (see Annex 3 for selection criteria and cases). The social scientists with PhDs taking part in the case studies were all asked to nominate one policy client for interview. The aim of this was to provide an external perspective on the contributions highlighted by the social

¹ This differentiation between Context, Mechanisms, and Outcomes is rooted in the tradition of “Realistic Evaluation” (Pawson and Tilley, 1997).

² The Welsh and Scottish Governments were excluded given that the ESRC had recent sponsored similar studies in these areas.

scientists. All interviews were summarised and validated with the interviewees in writing.

All sources of evidence were analysed and synthesised into the current report. Survey findings were analysed using SPSS version 17.0.

2.3 Participants in the study

A total of 16 interviews were held with stakeholders including the inception phase and as part of the case studies. This included social scientists with PhDs as well as their policy clients as part of the four case studies. The online survey targeted all GESR members in central government hence excluding those working within the Welsh, Scottish and Northern Irish administrations. This meant that the overall sampling frame amounted to 2,640 potential members (960 GSR members and 1,680 GES members). It is not known how many of these may have been obsolete since invites were sent out via the GESR central office and not by the researchers. The response to the survey was in the region of 653 responses. This represented an overall response rate of about 25 percent³ although rates varied according to each variable. The representation of GES versus GSR members in the sample was slightly skewed towards the GSR⁴. There was a good gender balance in the response: 50.3 percent males and 49.7 percent females.

In order to preserve confidentiality, the names of interviewees have been excluded from this report.

2.4 Definitions

Throughout the report and to simplify the language, the terms “members of the GESR/GES/GSR” are used interchangeably with social scientists and social scientists in central government. Although there are other individuals with social science backgrounds working in government outside of the professional analytical services these fall outside the scope of this assignment.

The GES and the GSR is sometimes referred to as the Civil Service in this report.

PhDs referred to in this report are exclusively social science PhDs unless otherwise stated.

All quantitative findings in the report, including figures, charts and tables, originate from the online survey unless otherwise specifically stated.

³ This included a response rate of 20.2 percent for GES members and 24.3 percent for GSR members.

⁴ 606 respondents were clearly identified as either GSR or GES of these 56 percent were affiliated to the GES and 44 percent to the GSR. Compared to the actual numbers, where GSR represents 36 percent and GES 64 percent of all social scientists affiliated to the GESR, this implies a higher representation of GSR versus GES members in the sample.

2.5 Caveats

The data underpinning the study is largely based on self-reporting and self-assessment with the exception of the inception interviews and case studies, which does include some external validation by policy clients and employers. This could imply various types of bias. Further, the online survey involved self-selection by members, which could have introduced a degree of self-selection bias.

3.0 Social scientists in the Civil Service

This chapter focuses on presenting the study findings in relation to the organisation, roles, responsibilities and career paths of social scientists in government and how these vary. The findings presented draw upon analyses and syntheses of interviews, case studies and data derived from the online survey.

3.1 Structure and organisation

This section focuses on describing the study findings with regard to the structure and organisation of social scientists in government and what factors may explain differences between Departments, professional analytical services⁵ (i.e. the GES vs. the GSR), grades and qualifications.

Excluding Wales and Scotland, around 2,600 social scientists, affiliated to the GESR⁶, work in government. Of these, members of the GES constitute just less than two thirds (64 percent) and GSR members' just over a third (36 percent).

Departments have rather a large autonomy in the way that they structure and locate their social scientists: they can be in centralised or decentralised units and have varying mixes of economists, social scientists and other disciplines such as statisticians. There are also variations in the degree to which all professions work in multi-disciplinary teams and the degree to which social scientists work in single or across several policy areas, etc. Some departments do not formally have a GSR at all whereas most have a GES presence. There are currently 31 Departments with a GES and 19 with a GSR presence⁷ (see **Table 1** below). Of these, around half are ministerial and the other non-ministerial (e.g. regulators and agencies).

Table 1: GES and GSR Departments in government

Both GES and GSR	Only GES	Only GSR
<ul style="list-style-type: none"> - Department for Business, Innovation and Skills (BIS) - Department for Communities and Local Government (CLG) - Department for Culture, Media and Sport (DCMS) - Department for Energy and Climate Change (DECC) - Department for Environment, Food 	<ul style="list-style-type: none"> - Competition Commission (CC) - Committee on Climate Change (CCC) - Department for International Development (DfID) - Export Credits Guarantee Department (ECGD) - Foreign and Commonwealth Office (FCO) - Forestry Commission (Forestry) 	<ul style="list-style-type: none"> - Advisory, Conciliation and Arbitration Service (ACAS)

⁵ The Government Economic Service (GES) and the Government Social Research (GSR) are two of several professional analytical services within Government, the others being the Government Statistical Service (GSS), the Government Operational Research Service (GORS) and the Government Office for Science.

⁶ According to the GESR centrally held members database, the total number of GSR members is around 1,100. Excluding Welsh Government and Scottish Government this comes to 960. The total number of GES members is around 1,800. Excluding the Welsh Government and Scottish Government this comes to 1,680.

⁷ This is not to say that there are no Social Scientists in those departments, but these have no formal links to the GSR.

Both GES and GSR	Only GES	Only GSR
and Rural Affairs (DEFRA) - Department for Education (DfE) - Department for Transport (DfT) - Department of Health (DH) - Department for Work and Pensions (DWP) - Financial Services Authority (FSA) - Her Majesty's Revenues and Customs (HMRC) - Her Majesty's Treasury (HMT) - Home Office (HO) - Health and Safety Executive (HSE) - Legal Services Research Centre (LSRC) - Ministry of Justice (MOJ) - National Policing Improvement Agency (NPIA) - Office for National Statistics (ONS)	- Government Equalities Office (GEO) - Intellectual Property Office (IPO) - Ministry of Defence (MoD) - National Audit Office (NAO) - Office of Gas and Electricity Markets (Ofgem) - Office of Fair Trading (OFT) - The Water Services Regulation Authority (Ofwat) - Office of Rail Regulation (ORR)	

Source: GESR.

Grades for social scientists tend to vary and to be flexible across different parts of government up to the point where individuals become senior enough to enter the Senior Civil Service for which there are three identical grades across all departments. Below the Senior Civil Service, there are specific grades for both the GSR and the GES. Based on survey data, members of the GES tend to have greater representation in the highest grades than GSR members. This was a tendency also confirmed anecdotally by various interviewees.

Overall, grades can be categorised into four management grades: junior, middle, senior managers and Senior Civil Service. The middle manager category only applies to the GSR whereas GES members are promoted directly from a junior to a senior management grade. This is because the GES is exclusively Civil Service Fast Stream entry whereas only a small minority of GSR are recruited through the Fast Stream (see [Table 2](#) below).

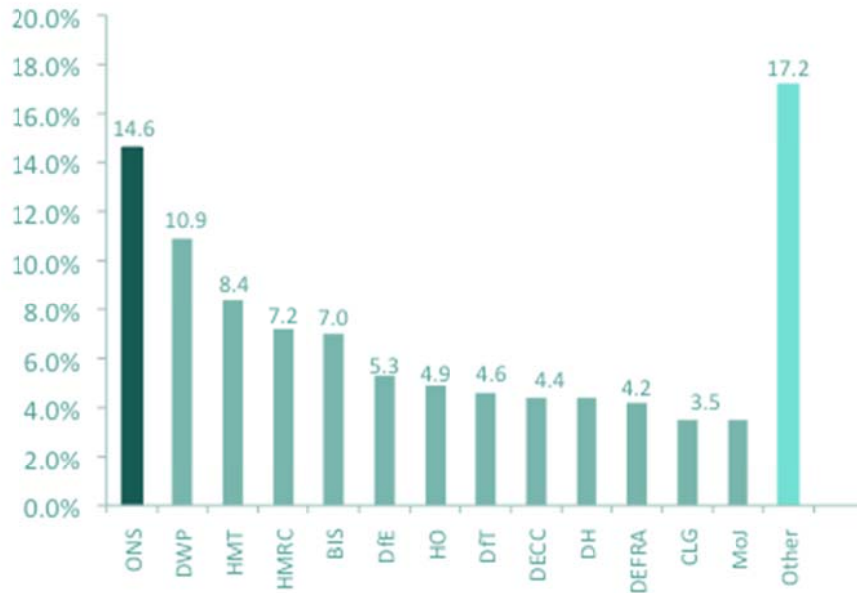
Table 2: GES and GSR management grades

Management levels	Service	
	GES	GSR
Junior managers	HEO	RO/HEO
Middle managers	-	SRO/SEO
Senior managers	G7 G7/G6 G6	PRO/G7 SPRO/G6
Senior Civil Service	SCS 1 SCS 2 SCS 3	CRO/SCS

Source: GESR.

According to the online survey, most social scientists are found in Ministerial departments such as the Department for Work and Pensions (DWP), with the notable exception of the Office for National Statistics (ONS), which appears to have the highest overall concentration of social scientists representing 15 percent of all respondents (see **Figure 1** below).

Figure 1: Distribution of social scientists by department



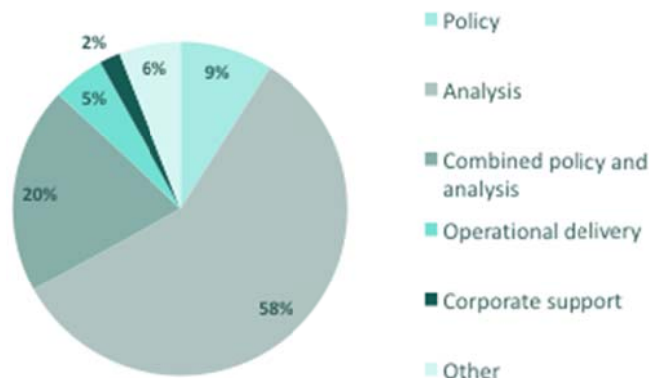
Source: Survey of social scientists (Policy Impact et al, 2011).

Notes: The “Other” category contains all departments that received less than 3.5 percent of all responses as well as departments that did not appear on the pre-defined list provided by the GESR corresponding to the list in **Table 1**.

Within these departments, the majority of social scientists (58 percent) are located within analysis units and a fifth in combined policy and analysis units (see

Figure 2 below). A smaller proportion of about ten percent sit directly within policy units. Social scientists with PhDs are overwhelmingly located in analysis units (61 percent of all social science PhDs). Interestingly a higher percentage of social scientists with Masters degrees were located in combined policy and analysis units (21 percent) than those with other qualifications. Those with only undergraduate Degrees were more highly represented in policy units (13 percent) than others.

Figure 2: Location of social scientists within departments



Source: Survey of social scientists (Policy Impact et al, 2011).

3.2 Education and qualifications

This section focuses on describing the findings with regard to the educational background and qualifications of social scientists in government and whether and how these vary according to service membership, grades or Department.

Survey findings show that there are fewer social scientists with PhDs in the Civil Service⁸ (13 percent) than social scientists with undergraduate or graduate degrees (see **Table 3** below). The overwhelming majority of social scientists have a graduate i.e. Masters degree (66 percent). Social scientists with Degrees represent just over a fifth (21 percent). Other educational backgrounds are negligible (0 percent).

Table 3: Highest educational attainment by membership

	Degree	Masters	PhD	Other	Total
GES	74 (22%)	234 (70%)	23 (7%)	3 (1%)	334 (100%)
GSR	53 (20%)	159 (60%)	53 (20%)	0 (0%)	265 (100%)
Total	127 (21%)	393 (66%)	76 (13%)	3 (0%)	599 (100%)

Note: Significantly greater proportion of PhDs in GSR (Chi-Square = 25, df=3, p<0.001).

Source: Survey of social scientists (Policy Impact et al, 2011).

As outlined in **Table 3** above, there is a significantly higher number of PhDs within the GSR than the GES. In fact, 70 percent of all PhDs are members of the GSR. The reverse is true for social scientists with Masters degrees, which are more likely to be affiliated to the GES.

The relative concentrations of PhDs versus Masters tend to vary across departments. For instance, 11 of PhD survey respondents reportedly worked at the DfE compared

⁸ It should be noted that in this sentence the Civil Service refers to the GES and the GSR.

with only 3.5 percent of Masters. Likewise, the relative proportion of PhDs was higher than Masters in several other departments including the ONS, the DWP, the CLG and the MoJ (see [Table 10](#) in the data Annex for more details). Moreover, PhDs tend to overall be more concentrated in a handful of departments than Masters who are more evenly spread across the Civil Service.⁹

The fact that PhDs represent a smaller percentage than Masters or Degrees among social scientists in government is consistent with the findings of previous studies and in particular the Welsh Study. Despite constraints obtaining data on the qualifications of the 130 social scientists working in the Department of Knowledge Services,¹⁰ the study estimated that no more than 20 had PhDs, representing about 15 percent of the total number of scientists working there (Johnson and Williams 2011, 14).

Interviewees pointed out several possible reasons for the relative scarcity of social science PhDs. Firstly, social science graduates that continue to PhD level mainly aspire to an academic career. This is supported by several studies including Elias and Purcell (2005), Vitae (2009), and Hunt et al. (2010). The latter showed that about half of PhD respondents reported that a main reason for pursuing a doctorate was to be an academic and, accordingly, 44 percent of **all** UK PhD graduates from various disciplines (out of 2,073 who responded to their 2008 survey) were employed in the Higher Education sector.¹¹ According to the authors, PhDs from the Humanities (67 percent) and the Social Sciences (62 percent) were the mostly likely to be found in the Higher Education sector (Hunt and Jagger, p. 16). Table 4 below provides a breakdown of employment by disciplines.

Table 4: Employment sector of all PhD respondents in UK employment by discipline (November 2008)

Employment sector	ALL	Arts & Humanities	Biological Sciences	Biomedical Sciences	Physical Sciences & Engineering	Social Sciences
Higher Education	44.2%	67.0%	37.2%	40.0%	36.8%	62.1%
Education*	5.8%	11.8%	7.8%	2.8%	4.6%	4.2%
Finance, business & IT	10.9%	3.2%	5.0%	2.9%	24.0%	9.6%
Manufacturing	8.5%	1.3%	12.2%	5.6%	16.3%	0.6%
R&D	9.0%	3.0%	14.8%	9.5%	10.8%	8.2%
Health & Social work	13.0%	0,0%	12.4%	36.8%	1.7%	4.1%
Public	3.2	10.3%	5.0%	0.4%	4.2%	4.3%

⁹ Fifty percent of the PhDs that responded to the survey belonged to the following 5 departments: the ONS, the DWP, the DfE, CLG and the NPIA.

¹⁰ According to Johnson and Williams, the data available to them do not reflect the employee's qualifications.

¹¹ It is worth noting that this survey was the follow-up to the first Destination Leavers from Higher Education (DLHE) to find out what PhD graduates have done since receipt of their doctoral degree. The number of 44 percent denotes their employment 3.5 years after graduation as noted in [Table 4](#). These surveys cover all UK and Europe-domiciled UKPhD graduates.

Employment sector	ALL	Arts & Humanities	Biological Sciences	Biomedical Sciences	Physical Sciences & Engineering	Social Sciences
administration						
(N)	1615	180	220	405	550	180

Source: Hunt et al. (2010), p. 15.

*Note: Schools, colleges and training providers

Secondly, as pointed out by one interviewee, the marginal economic benefit of having a social science PhD when joining the Civil Service could be seen as too low (given that the earning potential of PhDs in the Civil Service is more or less at par with other non-PhD peers), while in other sectors social science PhDs can expect to receive higher levels of pay (Elias & Purcell 2005).

Thirdly, another interviewee suggested that the perception that the Civil Service is not independent enough from government might put social science PhDs off applying to join it. However the same interviewee maintained that the integrity of social scientists in government is total.¹²

Unsurprisingly, the vast majority of members of the GES and the GSR have social science backgrounds. In terms of actual study subjects, Economics and Econometrics dominated among study subjects at all levels of educational attainment representing over 40 percent of both Degrees and Masters and nearly a quarter of PhDs. It must be noted that GES members are required to have at least an upper second honours in an economics degree. Psychology, Geography and Sociology were also among the most common disciplines (more details can be found in the data Annex in [Table 11](#) to [Table 14](#)).

3.3 Formal roles and tasks

This section focuses on describing the study findings about the formal roles and responsibilities of social scientists in government and how these may vary across departments and according to other factors. All social scientists have formal tasks and roles they need to perform as part of their job description. In the online survey, social scientists were asked what tasks, among 12 predefined options¹³ plus an “other” category, they undertook as part of their job. This shows that “Preparation of reports and briefing notes” is the most prevalent task with more than 500 respondents including it among their tasks (see [Table 20](#) in the data Annex for details).

Breaking the responses down by levels of education, all social scientists independent of education rated this as the most frequent task including 99 percent of all social science PhDs, 92 percent of all Masters and 90 percent of all Degree holders (see

¹² As one senior GSR (PhD) member put it: “There should be a professional distance between policy colleagues and the research and evaluation work carried out. The role of the researchers is to procure and provide robust, timely and relevant social research to provide information and evidence for policy colleagues and decision makers”.

¹³ The tasks were: Data gathering (qualitative and quantitative), Synthesis of evidence (literature, evidence reviews), Development of analytical tools, conceptual approaches and frameworks, Analysis, Preparation of reports and briefing notes, Briefing policy officials, Modelling and forecasting, Initiating and implementing policy, Team Management, Project Management, Research Management, Ex-ante policy appraisal/impact assessment, Ex-post policy evaluation/impact assessment, Research procurement, Training others, Networking and Advisory/expert capacity.

Table 23 for frequencies and **Table 22** for actual numbers of responses by educational attainment). The next most frequently reported tasks were “Analysis” and “Synthesis of evidence”. “Synthesis of evidence”, which was quoted by 466 respondents, included 87 percent of PhDs, 81 percent of Masters and 75 percent of those with Degrees. Perhaps surprisingly, a lower percentage of PhDs than either Masters or Degree holders reported undertaking tasks like “Analysis” and “Data gathering”. The finding that PhDs see themselves as undertaking “Project Management” to a much higher degree than the others (91 percent of social science PhDs compared to 69 percent of Masters and 53 percent of Degree holders) resonates with interview feedback that emphasised that the development of Project Management skills is one of the key benefits of doing a PhD. This is exemplified by the following survey response¹⁴:

“The project management and qualitative analytical skills gained during my PhD have been useful especially on entry to the Civil Service and in the early part of my career. I have been able to build on the cross-over project management and analytical skills throughout my Civil Service career.”

With regards to the other activities, social science PhDs included “Research Management” much more frequently among their day-to-day tasks (83 percent of PhDs) than Masters (52 percent) or those with Degrees (39 percent). Likewise, PhDs were more likely to say that they undertake “Advisory/expert capacity” type tasks (67 percent of PhDs compared to 53 percent of Masters and 32 percent of Degree holders) as well as “Research Procurement” (55 percent of PhDs compared to 43 percent of Masters and 24 percent of Degree holders). Overall as a cadre, PhDs reported involvement in more tasks on average compared to social scientists with Masters or Degrees. This points to PhDs undertaking more and perhaps more complex tasks (e.g. developing analytical frameworks and providing advice), as part of their role than Degree holders. The emerging pattern suggest that the higher the educational level, the more tasks social scientists engage with in their day-to-day work. This may be underpinned by a combination of greater skills (which may be boosted by greater confidence in those skills both by the individual as well as colleagues (see section 3.5 for further discussion).

Frequency of survey responses regarding day-to-day tasks by membership between the GES and the GSR were mostly similar with a few marked differences (see **Table 20** in the data Annex for details). For instance, the majority of members of the GSR were more prone to include research procurement and management as well as project and team management among their tasks than GES members. In comparison, members of the GES overwhelmingly listed ex-post evaluation, ex-ante policy appraisal, and initiating and implementing policy among their tasks.

In parallel to asking social scientists about their roles and tasks, the study explored the frequency of their involvement in the key stages of the policy cycle¹⁵. Only a small

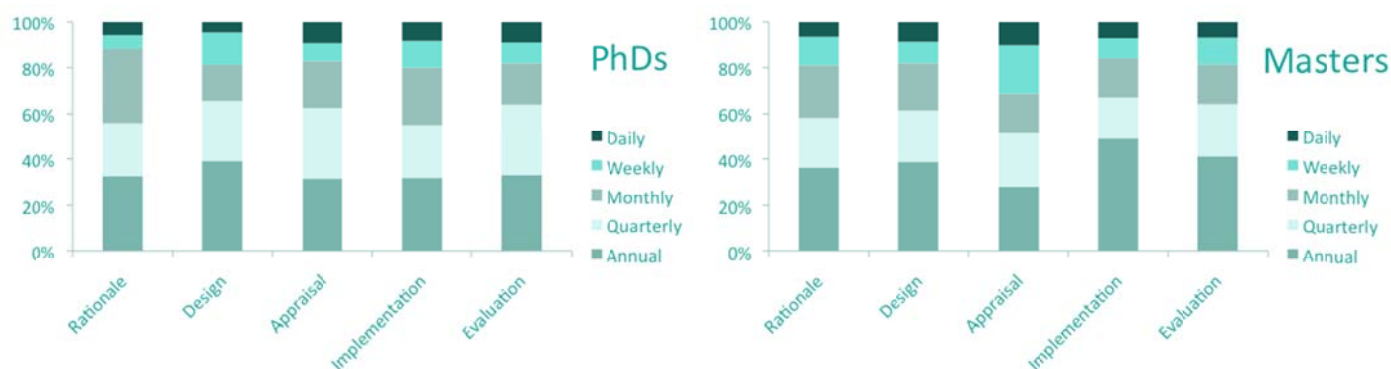
¹⁴ The response was to the following online survey question “At what stages of your career in the Civil Service has the knowledge you gained through your PhD been most useful and why?”, see section 3.5 for more information on benefits of a PhD for a career in the Civil Service.

¹⁵ These were: Clarification of policy objectives (rationale), Design of policy instruments (objectives), Ex-ante assessment of policy effects (appraisal), Implementation and Ex-post evaluation of policy results (evaluation).

percentage of social scientists stated they engaged frequently in specific stages of the policy cycle; for example, an average of only eight and 11 percent of all social scientists reported daily or weekly involvement in any of these stages (see Table 24 in data Annex for more details). It may well be that social scientists find it challenging to pinpoint to which stage of the policy cycle that their most frequent tasks actually link.

However, among the five stages - rationale, policy definition, ex-ante appraisal, implementation, and ex-post evaluation - the responses about the frequency of involvement (i.e. daily, weekly, monthly, quarterly or annual basis) show respondents being regularly engaged in appraisal. Comparing frequency of involvement according different levels of education (see Table 26). These differences were not statistically significant.

Figure 3: Frequency of involvement by stages in the policy cycle



Source: Survey of social scientists (Policy Impact et al, 2011).

With the exception of implementation, there are however statistically significant differences¹⁶ in the frequency of involvement in policy stages depending on the membership of the respondents. For instance, GES members are four times more likely to be involved in appraisal on a daily basis than GSR members. This can be attributed to the explicit role played by economists in ex-ante impact assessment and appraisal decisions. The Departmental Chief Economists have a formal role in signing-off investment decisions that undergo Impact Assessment as has the Regulatory Policy Committee (RPC), an independent external body that provides external scrutiny of the Impact Assessments of all new regulatory proposals¹⁷ (see Table 25 in the annex).

¹⁶ A Mann-Whitney U test comparing the GES and GSR groups on the frequency of involvement according to policy stage revealed statistical significant differences for all stages but implementation. Specifically, GSR were more frequently engaged in evaluation, whereas GES were more frequently engaged in the initial three stages of the policy cycle, i.e. clarification of objectives, design of policy instruments and appraisal (largest p-value=0.02).

¹⁷ The process involves submitting the proposal to the Regulatory Reducing Committee (RRC), a Committee of Ministers that looks at all new regulatory proposals. Every such proposal has to be accompanied by an Impact Assessment (IA) that weighs up the evidence around likely costs and benefits, risks and possible impacts on the individuals, businesses and organisations. Moreover, each IA is scrutinised by the Regulatory Policy Committee (RPC) who provides its opinion to the RRC on the quality of analysis and evidence presented in the IA. Impact Assessments require clearing not only by the RRC but by ministerial offices and parliamentary groups, after which there will be a choice of whether to undertake a full consultation, have a call for evidence, commission research or do other work to establish the evidence around a policy.

A one-way ANOVA shows a statistically significant difference in responses depending on location (i.e. pure policy unit or analysis unit compared to a mixed unit) with regard to the frequency of involvement in three stages of the policy cycle: clarification of policy objectives; design of policy instruments; and implementation. Significantly, social scientists located within policy units were significantly more frequently involved compared to the other two groups. In addition, those located in combined units were significantly more frequently involved in these stages than those in pure analysis units.¹⁸ There were no significant differences regarding appraisal or evaluation, which suggests that co-location is less important for social scientists to contribute to these stages.

It must be noted that the formal involvement in the policy cycle of social scientists in the regulatory agencies is somewhat different from those in ministerial departments. Since their role has more to do with enforcement of policy, their formal roles and the ensuing contributions need to be viewed against this context. Although they may get directly involved in policy formulation and ex-ante Impact Assessment of policies, they have an important role in the implementation of policy as well as in ongoing monitoring of compliance with regulation in particular areas.

In other fields, not related to regulation, evaluation tasks are also among those carried out by social scientists. For instance, two interviews with GSR members underlined their regular involvement in ex-post policy evaluations. Both argued that the insights that the evaluations yielded often helped influence the “shape” and implementation of the policy. Evaluation was also argued to contribute to the “robustness” of the evidence that had been collected for the intended policies. This resonates with members of the GSR being two and a half times more likely to be involved in ex-post evaluation of policies on a daily basis than their colleagues in the GES (see [Table 25](#) for more details).

3.4 Career paths

This section seeks to describe the study findings in relation to social scientists career paths within government particularly focusing on variations according to educational qualifications.

The age of social scientists surveyed as part of the study ranged from 20 to 66 years, with a mean age of 34.4 years.¹⁹ Their length of experience working for the Civil Service ranged from less than a year up to 30 years with a mean of 6.5 years²⁰. The mean time spent in the current position was 1.7 years²¹ within a zero to 15 years range. This would suggest regular career moves. Looking at the time spent in their current position, as many as 87 percent of respondents had been in their current position for three years or less (see [Figure 4](#) below).

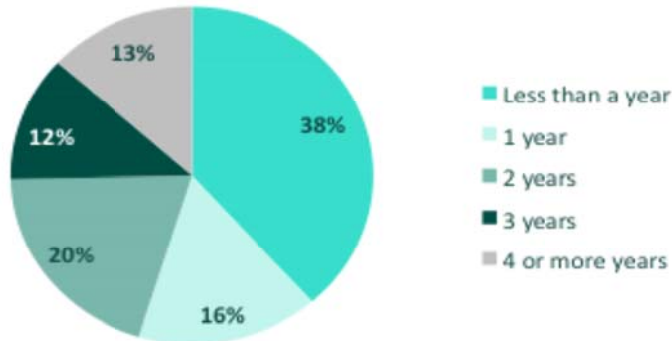
¹⁸ Both contrasts p smaller than 0.001.

¹⁹ N=486, Standard Deviation 9.

²⁰ N=629, Standard Deviation 5.8.

²¹ N=632, Standard Deviation 2.114.

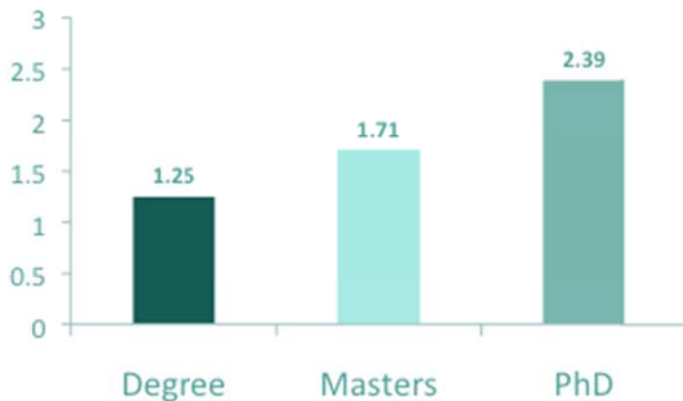
Figure 4: Social scientists time in current position



Source: Survey of social scientists (Policy Impact et al, 2011).

There was a significant difference²² between social scientists with different levels of educational qualification and time spent in the current position. Social science PhDs had spent longer in their current positions than both Masters and those with Degrees. Likewise, Masters spend longer in positions than those with Degrees (see **Figure 5** below).

Figure 5: Years (mean) in current position by education



Source: Survey of social scientists (Policy Impact et al, 2011).

Note: A one-way ANOVA revealed statistically significant differences between the groups (F=5.8, p=0.001).

GES members stayed almost a year less in current positions than GSR members.²³ All these differences are statistically significant.²⁴ The inception interviews indicated that the GES had traditionally played a more active role in people's career moves than the GSR, which might explain these findings. They may also be a product of the career

²² All pair wise comparisons are statistically significant.

²³ Mean years in current position for GES members' is 1.29 years compared to GSR members' 2.17 years.

²⁴ F=28.578, p < 0.001.

structure within the GES in which there is no middle management layer such as in the GSR; this means that Fast-track candidates move from Junior Management posts directly to Senior Management (Grade 7 equivalent).

Looking at the survey results across management grades and educational levels, the majority of PhDs (66 percent) can be found in the senior positions compared to about half of all social scientists with Masters (49 percent). Just under a fifth of those with degrees (19 percent) could be found in senior positions. This suggests that having a post-graduate and, in particular, a doctoral degree facilitates career progression to more senior posts (see **Table 15** in the data Annex for more details). In order to establish whether having a higher degree was predictive of holding more senior positions within the Civil Service, a multiple regression analysis with degree of seniority as the dependent variable was run²⁵ whilst controlling for gender, age, and years in service.

The results showed that the higher the educational qualification, the more likely it is for social scientists to hold senior positions, controlling for sex, age and number of years in service.²⁶ It is also worth noting that age and number of years in service (but not gender) also emerged as independent predictors of seniority.²⁷ Combined, these three significant predictors (age, years in service and highest degree) explained 34 percent of the variance in seniority. This suggests that Masters and PhDs stand greater prospects of reaching higher grades during their Civil Service careers than those with Degrees, with similar chances for both men and women.

There could be several explanations for this including external perception of the added value and skills associated with a higher degree, both Masters and PhDs as well as the added confidence that a higher education gives to the individual (see further discussion in 3.5 below). There may also be practical reasons for this. As some interviewees attested, having a doctorate helped them to join the service at a higher grade (generally Grade 7) and as a senior researcher than would otherwise have been likely without a social science PhD. One GES researcher explained that the entry into the Civil Service at a higher level with a PhD is facilitated by a discretionary additional pay premium available to PhDs entrants. Moreover, once inside the Civil Service, GSR interviewee's perception was that having a social science PhD had been an advantage in a recent restructuring both in terms of the selection and allocation to new roles.

Looking at the extent to which a social scientist's career involves movements between departments, as many as 44 percent of respondents had previously been located in a different department, which attests to some movement across sectors²⁸. The analysis showed no big differences between social scientists with Masters degrees and PhDs with the exception that only those with Masters degrees were represented among

²⁵ Degree of seniority was coded as an ordinal variable (coded as 0=junior managers, 1=middle managers, 2=senior managers, 3=senior civil service) and highest degree as a predictor (was coded as an ordinal variable; 0=degree; 1=masters' degree; 2=PhD).

²⁶ Partial correlation coefficient [beta] = 0.2, t=4.8, p-value<0.001.

²⁷ Age beta = 0.16, t = 2.9, p=0.004; years in service beta = 0.38, t=7.3m p<0.001.

²⁸ Among the social scientists that had reportedly only worked in one department, over half (56 percent) had joined the Civil Service in the last three years.

social scientists that changed departments four times²⁹. Social scientists with Masters also tended to be almost twice as likely to have changed departments three times prior to the current position compared to those with either social science PhDs or Degrees (4.3 percent of all Masters compared to 2.3 percent of those with Degrees and 1.9 percent of PhDs). Those with Degrees were much more likely to have stayed in the same department (70 percent of those with Degrees compared to 52 percent of Masters and 57 percent of PhDs). The higher propensity to change departments among Masters suggests greater ability to apply skills to new areas and sectors underpinned by a higher educational qualification; yet among social science PhDs such mobility may diminish because of the specialized nature of their skills and knowledge.

Patterns of movement varied widely across departments. At one extreme, 92 percent of all social scientists within the ONS had only worked there; at the other, in the DfT 80 percent had worked in at least one other department and of these, 15 percent had worked in three different departments (see [Table 17](#) in the data Annex for more details). This seems to suggest departmental characteristics are among the variables that explain career moves. For instance, it seems that career moves between departments are less frequent among social scientists in departments with the largest number of social scientists (i.e. the ONS, the DWP and the HMT), which might suggest more certain career paths for social scientists within these departments as well as the possibility that size may allow for greater levels of specialisation. It may also be that those social scientists that work in smaller departments are exposed to a broader set of tasks, which enables them to more easily move across to other departments.

3.5 Benefits of a social science PhD in the Civil Service

As described in the above sections, the level of educational attainment seems to be a factor in the seniority of social scientists within the Civil Service. In order to explore how a social science PhD factors into the career development of social scientists in the Civil Service more generally, the online survey asked the following question:

“At what stages of your career in the Civil Service has the knowledge you gained through your PhD been most useful and why?”

The responses yielded a number of interesting insights of varying detail, which have been characterised into the following categories.

1. *“Credibility effect,” which refers to the benefit derived from the positive perceptions that other parties hold about the value and capacity of PhDs.*

The issue of credibility from a PhD was notably mentioned in the survey responses and the interviews. While a clear implication of credibility is its benefit to individual career path/development, credibility is important to those surveyed and interviewed, especially when dealing with the academic community but also with other external stakeholders.

²⁹ Those that reported having made four departmental changes (the maximum number reported) during their career, and prior to the current position, had spent at least 11 years in the Civil Service.

These social scientists seem particularly sensitive to the perceptions academics may have of civil servants. A similar view on credibility was found in the Welsh Report, when the social scientists in the Welsh Assembly claimed that: “possession of a PhD qualification provides the social scientist with an element of confidence and credibility in dealing with internal policy customers and external academics” (Johnson and Williams 2011, p. 1). An example of this was volunteered by a senior GES interviewee during the case studies who remarked how a small group of academics he had addressed “suddenly sat up when he revealed that he had a PhD” followed by “and we have resources to commission studies” (apparently this group of academics, until then, had seemed inattentive while he was addressing them). As with the findings of the Welsh Report, the issue of credibility was also seen from two similar perspectives of GES and GSR interviewees.

The following two quotes are illustrative of a number of examples that interviewees had provided on the importance of *internal* credibility.

The hierarchical stance of many in the Civil Service means that having the professional title can be a major asset at times.”

“A PhD also helps with the credibility of new ideas/initiatives that are of relevance to policy.”

The relationship with external parties, particularly with academics (*external* credibility) can also be seen from the following examples.

“In evaluating econometric and theoretical evidence as it [a PhD] provides a bit of extra 'oomph' in discussion with stakeholders who tend to wheel in a professor or lecturer to explain to the poor civil servant what the theory says. At that stage it is very useful to whip out the PhD and explain to the stakeholder that yes we understand the theory, no we are not confused by the maths and yes, could they please answer the question?”

“Increased standing within the external research community and confidence in dealing with leading academics. In-depth knowledge and understanding of research values and the research process.”

2. “*Reward effect*,” which refers to what a PhD has conferred to the holder in terms of career progression

Two examples of this benefit can be seen in the following survey responses.

“My PhD experience was useful in getting my RO job and promotion to SRO. Methodological experience becoming more relevant in my current role.”

“Probably most useful in actually getting into GSR and posts therein because even though there was no fast stream when I joined the entry level qualifications they seem to have been higher for GSR than for GES and GSS. Subsequently having a quantitatively based PhD was very useful for applications to survey related jobs.”

3. “*Expert effect*” which is about the benefit a PhD holder gains from more knowledge and skills.

Two examples of this benefit can be seen in the following survey responses.

“Written and communication skills and the ability to understand advanced econometrics work conducted by consultants. In commissioning work on developing a new cost model I developed an ITT which was considered to be of very high quality and reflected the understanding that was required to allow consultants define and scope the work - here my knowledge of stochastic frontiers and data envelopment analysis helped scope out the work and provided significant clarity to bidders. This also offered the Department an internal expert view of the work carried out elsewhere and we could more easily challenge the work of others. My PhD has served me well generally throughout my time in the Civil Service.”

“The knowledge gained in my PhD has been useful from start but it has become more useful this year when I moved (from a central department) to a new post within a non-departmental research agency.”

At the individual level, some interviewees described how having a social science PhD could be an advantage at lower levels of the career ladder, where analytical skills were seen to add the most value and perhaps given a greater emphasis on “knowledge creation”, but that softer skills, e.g. people and “knowledge-brokerage” type skills, would become necessary to gain promotion. This could become a factor in the retention and promotion of social scientists with PhDs. One senior GES member voiced this concern in the following way:

“There is pressure in the organisation to become a project manager and move away from the economics as you advance your career. This has meant that some people that wanted to stick to the economics have left after reaching grade 7.”

However as another interviewee put it, there is a delicate balance between technical specialists “digging a hole” and not getting promoted, and PhDs not being able to develop their technical expertise because they have had to divert attention onto developing other non-technical skills. A PhD can after all, at least initially, facilitate entry into the GES at a higher level, for instance, as a senior researcher, as already noted above. The OFT set up a PhD specific recruitment programme five years ago in order to attract high-calibre PhDs in Industrial Organisation that would otherwise go to the European Commission’s Competition Directorate. Since the start nine individuals, mainly from mainland Europe, have been recruited this way. The need for this programme arose as the Department wanted to signal the opportunity for specialists to further develop their specialism in competition. Unlike the BIS economist fast stream, from which the OFT also draws economists mainly with Masters degrees, the PhD specialists face no pressure to move departments after a few years. There is also some indication that the Department is developing career paths for economists with specialist skills to grow within the organisation e.g. allowing grade 5 and 6 roles to become more “economic” as well as to retain experienced technical staff.

There are therefore different ways in which holding a social science PhD and the skills (more below on skills) associated with this level of academic training may affect the career paths of the individuals concerned. This is an area where previous research has

already drawn attention to the variability of personal experiences. In a study on the career choices of PhDs Raddon and Sung (2009) found that a PhD helped develop a career and gain promotion for 73 percent of the PhDs employed in the public sector (excluding universities), and that only 55 percent of interviewees in the public sector saw the connection between their PhD and their work as 'essential'.

Although social science PhDs are not a requirement in the normal GES and GSR recruitment process, including via the Fast Track, interview responses gave the impression that they are generally seen as an added positive especially by those Departments that require more specialist research skills or sector knowledge. Given that many social science PhDs are concentrated to larger departments such as the ONS and the DWP may also indicate that they there are more able to develop or maintain specialist competencies, roles or career paths that could be important for retaining social science PhDs within the Civil Service.

As a supplementary question to the issue on how a social science PhD had affected individual career paths, interviewees were also asked (1) if they were ESRC doctoral studentship holders and if so (2) what their views were on the Fellowship scheme. During the interviews two studentship holders were identified. Both were senior GSR members. Each maintained that the studentship had given them the opportunity to pursue a doctorate, without which it would have been difficult to do so. More importantly both explained that their doctorate had helped them to gain entry into the Civil Service. As one of the two GSR members quipped: "I was better prepared to work in the Civil Service" because the social science PhD training helped develop further her analytical and quantitative skills.

A senior GES member, a non-ESRC studentship holder, when asked if he was aware of the ESRC studentship scheme and what he thought of it, said:

"It is brilliant." This is largely because the ESRC studentship is a national competition and so only the best candidates are chosen for this award. But this is not to imply that these best candidates will be best suited for Civil Service employment.

Some, although a minority among both non-PhD and PhD interviewees, perceived a PhD as "irrelevant" or "of no use" for a career in the Civil Service. Interestingly, only four responses from the online survey were unequivocal about the "non-value" of a PhD. Three were GES members, one was a GSR member and all were social science PhD holders. Below we present three responses to illustrate the underlying reasons:

- "There is no added value; it [the PhD] is a handicap. Senior civil servants who do not have a PhD are reluctant to support a promotion because it would signal that they find a PhD degree relevant for a career in the Civil Service."
- "The reality is that this PhD is a depreciating asset. I would assert that the half-life is about 5 years. So with 35 years of post PhD expertise the value is currently nil. In terms of saying in a Mincer valuation of education I would say that it has enabled my current wage level to be plateaued at a level some 2 or 3% higher than without. Hence that is a quite specific metric."

“Negative. This is composed of two elements: (i) Human Capex hyperdepreciation - no requirement/demand or willingness by senior management to use knowledge accrued from the Ph.D. combined with no support to maintain technical skill base at Ph.D. level. This gives a negative value; (ii) the answer given in question 22 indicates zero value-added. Adding (i) and (ii) gives negative value. If asked by a Ph.D. economics student whether to go into GES would strongly advise them against it due to poor underlying technical skill sets of the vast majority of GES senior management. This is not experience my Ph.D. peers in other non-economic subjects have had in their careers in the private sector.”

4.0 Social scientist contributions to policy

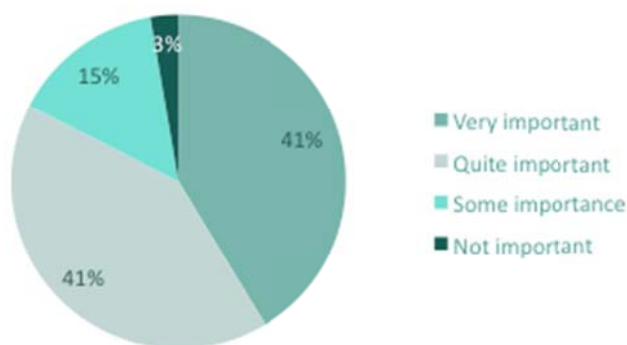
This chapter focuses on the contributions of government social scientists to policy-making and what factors might explain these drawing upon interviews, case studies and the online survey.

4.1 Skills that matter

This section explores the individual skills and characteristics social scientists themselves, as well as their policy “clients” within government, believe matter the most for contributing to the policy process.

An overwhelming majority of social scientists agreed that their education and the skills attained at university had been very important or quite important factors underpinning their contributions to policy. Forty-one percent rated their formal training as very important (see **Figure 6** below). Social scientists with PhDs were more likely than those with other levels of education to rate their education as “very important” (50 percent of PhDs compared to 40 percent of Masters and 36 percent of those with Degrees). Only 7 percent of those with Degrees, 2 percent of Masters, and 1.5 percent of PhDs claimed it had not been important. This difference in opinion between respondents with different levels of educational attainment was statistically significant.³⁰ In terms of where respondents were located, there was a statistically significant³¹ difference in response between those located in pure policy versus analysis units, where those located in policy units thought education was significantly less important.

Figure 6: Importance of education in making contributions



Source: Survey of social scientists (Policy Impact et al, 2011).

³⁰ A one-way ANOVA revealed statistically significant differences between the groups on the importance of education in making a contribution ($F= 3.6$; $df= 2, 438$; $p=0.027$). Post-hoc contrasts revealed that both masters and PhD scored significantly higher than respondents with a degree (largest p -value =0.019).

³¹ Mean difference = 0.35, $P=0.008$,

The skills that social scientists rated more often as being “very important” in making a contribution to policy within the Civil Service were (see [Table 30](#) in the data Annex for more details):

- Critical analysis and decision-making skills were rated as very important by 61 percent of respondents;
- Communication and presentational skills was rated as very important by 58 percent;
- Developing constructive relationships and interpersonal skills were both rated as very important by an overall of 54 percent of respondents.

A higher proportion of social science PhDs than Masters and Degree holders tended to think that critical analysis and decision-making, ability to work across areas and risk assessment skills were very important (see [Table 31](#) in the data Annex). Masters rated communication skills as very important to a higher degree than either PhDs or Degree holders. However, these differences were not statistically significant. Neither was physical location within different types of units.³² Looking at the patterns across both the GSR and the GES no significant differences emerged either.

When asked about the most important mechanisms for acquiring these skills, on-the-job training was seen as most essential for developing “Communication and presentational skills” and “Developing constructive relationships” overall (see [Table 32](#) in data Annex for more details). PhDs were more likely than Masters to attribute their critical analysis and decision-making as well as their communication skills to their academic training, representing 30 and 18 percent of all PhDs respectively (see [Table 5](#) below). For analytical skills (both quantitative and qualitative), Masters attributed these skills to their university education. PhDs attributed their quantitative and qualitative analytical skills to both their PhD and Graduate/Undergraduate training with emphasis on the PhD training. As two interviewees stated:

“My analysis skills are stronger as a result of my PhD. I am able to assess evidence more effectively and put forward arguments more persuasively based on this.”

“My background in visual perception is a relatively unique domain of expertise in the ONS that has now come to the fore with respect to new drives for improving the presentation of public-facing information.”

Table 5: Attribution of skills comparing social science Masters and PhDs

Skill	Attribution of skill to education			Attribution of skill to on-the-job training	
	% of PhDs attributing to PhD	% of PhDs attributing to Undergrad/ Graduate degree	% of Masters attributing to Undergrad/ Graduate degree	% of PhDs	% of Masters
Specific area	14%	14%	16%	54%	68%

³² A one-way ANOVA revealed no statistically significant differences on any of the skills variables between respondents with a Degree, a Masters degree or a Phd (all p values > 0.05). Similarly, a comparison by location revealed no statistically significant differences on any of these variables (all p-values > 0.05).

Skill	Attribution of skill to education			Attribution of skill to on-the-job training	
	% of PhDs attributing to PhD	% of PhDs attributing to Undergrad/ Graduate degree	% of Masters attributing to Undergrad/ Graduate degree	% of PhDs	% of Masters
expertise					
Communication and presentational skills	18%	4%	6%	61%	77%
Interpersonal skills	1%	3%	5%	61%	74%
Management and leadership skills	4%	3%	1%	65%	80%
Risk assessment skills	5%	8%	11%	58%	67%
Qualitative analytical skills	46%	32%	58%	24%	24%
Quantitative analytical skills	45%	34%	64%	22%	16%
Developing constructive relationship skills	1%	5%	3%	64%	77%
Ability to work across a broad range of areas	3%	9%	11%	61%	73%
Critical analysis and decision-making skills	30%	13%	25%	43%	59%
Other	0%	0%	0%	11%	7%
Average	15%	11%	18%	48%	56%

Source: Survey of social scientists (Policy Impact et al, 2011).

In general, most survey respondents attributed some skills to on-the-job training. Among social science PhDs, risk assessment and ability to work across areas were the two skills that they most highly attributed to on-the-job experience. Among Masters and Degree holders the skills most attributed to on the job training were management and leadership skills (see [Table 33](#) in the data Annex for more details). Interviews further suggested that *skills learnt on the job* are seen as generally more important than skills learnt as part of formal training.

Commenting on the skills that will be used productively in contributing to the policy process, a senior GSR member (social science PhD holder) argued that, contrary to popular perception that PhDs were not more able to communicate policy ideas than those without a PhD, “such ability comes mainly from experience working in a policy environment.” Yet, a senior GES member (social science PhD holder) argued that: “PhDs often have difficulty in writing clear but brief summaries” and “summarizing and clarifying legal points.... It is vital that what is said is succinct, interesting and policy-relevant as ministers and senior officials have a lot on their plate.”

In terms of the perceptions among the policy advisors interviewed about the skills contributions made by social scientists with different levels of education, one senior Policy Manager of a large delivery department replied that it may not be evident

whether a person has a PhD or not and went as far as saying that policy people tend to take for granted that social scientists in government, independently of education, have the technical skills and ability to gather relevant evidence, assess this evidence, and draw balanced conclusions from it. The skills valued by this respondent, in terms of ability to making policy contributions, were the ability to be flexible and to engage with policy people without the need for formal requests or specifications as well as understanding the wider context and ultimately the role played in it. A senior policy advisor of another large department and another policy lead from a regulatory organisation (both PhD holders themselves) regarded very highly the interpersonal and communications skills of the GES (social science PhD) members they had worked with on a number of key policy initiatives. Interestingly one of them noted that GES (PhD) members have an “informal network” among themselves from which they can draw from and exchange with each other new ideas and information, as well as using the network as an additional avenue for policy discussion and learning.

The senior policy lead of the regulatory organisation asserted that the “steering (by senior social science PhD GSR members) and contributions from social scientists” (including PhD social scientists and others) had been key to a number of his policy initiatives. He gave the example of an important Guidance Review he is leading, which is underpinned by Government’s aim to ensure that health and safety legislation is easy to understand, administer and enforce, and to enable employers to make sensible and proportionate decisions about managing genuine workplace risks. For this Review he reported that the GSR social scientists (non-PhDs, however) developed a novel methodology for a feasibility study to estimate the burden in reading and understanding guidance. The feasibility study showed that there was between 20 – 25 % reduction saving of time in reading the health and safety documents after the Review.

He further suggested that to make effective policy contributions one has to have “an ability to analyze all drivers for policy – policy needs to be driven by evidence. However there are times when political pressure has an influence over policymaking too. Therefore it [the policy] is not only an analytical exercise... [one] needs a balanced approach toward the policy making process – analytical skill plus a degree of political astuteness.”

Hence it seems that both from a policy perspective and from the point of view of social scientists, there is recognition that contextual knowledge and softer skills are more important to maximising policy contributions than formal skills. Against this background the fact that social scientists emphasise the importance of learning on-the-job is only logical given that much of the contextual nature of the knowledge required to work effectively in policy can best be acquired through learning on the job. For instance, regarding the need to understand government processes, this means (1) awareness of when to approach responsible politicians, (2) knowing the procedures to ensure that policy measures get through the bureaucracy, and (3) understanding what needs to be seen by which relevant departments and people. This is in line with previous research (GSRU2007). As one interviewee with a social science PhD stated:

“All policy proposals require an ex-ante impact assessments/appraisal. They require clearing by committees, ministerial offices and parliamentary groups and there will be a choice of whether to undertake a full consultation, have a call for

evidence, commission research or do other work to establish the evidence around a policy. Understanding the timelines of each process, the requirement for different types of legislation (primary vs. secondary) and the level of resource to dedicate to each policy issue is absolutely key. Many weeks and months (in one case a whole year) have been lost in implementation as officials – and analysts in particular – did not understand what was needed and when it was needed.”

Despite the obvious need to develop softer skills to perform better within the policy environment, opportunities to develop these may not always be forthcoming, despite the induction courses provided in central government via the Civil Services Learning (which is replacing the National School of Government). Some interviewees testified to have been fortunate enough to receive professional coaching lessons or leadership programmes that had enabled them to make a leap forward in their role but this came across as exceptions and department specific. For instance, the IPO has an induction programme in which courses include an introduction to Government, Parliament, policy making, management, media and communication training. One social scientist with a PhD attributed a recent promotion to a leadership programme, which made him realise that in order to progress further in the Civil Service he needed to be less of an “expert”. This of course would seem to go against the grain of what a PhD is essentially about and may explain why it can be seen as a struggle by some social science PhDs to leave the relative comfort of a speciality behind in order to take on more managerial responsibilities.

Moreover, the ability to understand the evidence collected, to undertake and write comprehensive literature reviews, to understand the policy questions as well as government requirements were mentioned as essential for allowing social scientists to contribute to policy. Previous research suggests that employers see these capabilities as specific contributions made by PhDs (Jackson 2009). Jackson found that employers mentioned the analytical and critical-thinking skills and the ability to conduct literature reviews, among several of the relevant abilities of PhDs. “PhDs were perceived to have a greater ability to find “on the spot” solutions to complex issues” (Jackson 2009, p. 225). Similar findings were reported by McCarthy and Simm (2006); CIHE (2010), in an analysis of PhDs employed in the private sector. Not surprisingly many of the skills identified in the current study mirror those reported in the Welsh Report (Johnson and Williams 2011, pp. 15, 23).

Yet, the current study findings suggest that the differential contribution of PhDs to the development of public policy may be more nuanced. In the inception and case studies interviews, social science interviewees and employers referred to the ability to grasp what needs to be done and to deliver pragmatic, “good enough” solutions to real world problems as particularly relevant for those working in Ministerial Departments. Yet most interviewees, including some social science PhD respondents, saw having a PhD as inversely correlated with these skills. Some interviewees argued that PhDs find it hard to draw a line between rigorous and “fit for purpose” research and to convey messages succinctly, often “getting stuck” in the fine detail. Thus, here again from these interview inputs, skills gained from learning on-the-job are crucial to policy contribution.

4.2 Processes that matter

Having explored the importance of individual skills and characteristics, this section focuses on what processes enable social scientists to make contributions to policy. This involves looking at the relative importance of the mechanisms, i.e. the formal and informal processes, tasks and roles, through which social scientists contribute to policy and practice in government. This section also draws out good practice examples for maximising these contributions.

Co-location of social scientists with policy departments was noted by a number of interviewees as a factor enabling greater policy contributions as it allows the social scientists to gain a fuller insight into the policy requirements and issues, and to build trust with policy colleagues, which could then help to increase the potential to make more direct contributions. “It is of course well appreciated that very few people can change policy direction, but when they can, this requires people skills and relationships building” according to a senior GES (social science PhD) member. Moreover, a couple of senior GSR members (also social science PhDs) attested to the importance of trust building and proximity:

“It is important to work closely with policymakers to help frame the policy (research) question. From there one can then apply the analytical tools to establish and present the evidence and then to help with the implementation”...“Professional relationships don’t work if you don’t have policy relationships. There is a need for communications skills and to maintain relationships particularly with ‘people who put things into practice”.

“It is important to keep in close contact with policy colleagues to ensure regular sense-checks. There is a danger of distance developing between the researchers and policy colleagues. This can be even more difficult in the case in multi-site working, for instance if the researchers are based in Sheffield and the policy colleagues in London”.

One senior Policy Manager interviewed as part of the case studies also echoed these views:

“Co-location is important to building rapport. When social scientists and policy people sit together they are more likely to interact and meet face-to-face on a regular basis. In any case, regular meetings in which policy people and social scientists share what they are working on and feed into each other’s work is a minimum requirement for successful interaction. Barriers can only be broken down at the personal level”.

Survey findings show that discussions with colleagues and working in multidisciplinary teams *are* factors that social scientists think are important to making policy contributions (see **Table 34** in the data Annex) although interdisciplinary working was seen as a lot less important than other processes and factors (see discussion further below). Masters and Degree holders rated working in multidisciplinary teams as very important and quite important to a higher extent than PhDs which may suggest that social science PhDs feel that they have access to more tools and options

independently of discussions or joint working. However the differences between grades are small and are not statistically significant.³³ Some additional light may be shed on why Masters and Degree holders assign much importance to working in multidisciplinary teams from the head of a certain policy initiative who said: “Social scientists, who often work in a multi-disciplinary team, are critical to developing effective policies.” This policy manager works mainly with social scientists with Masters and Degrees and less with social science PhD holders.

Co-production was also highlighted as an important informal process for policy contribution during the case studies. A senior GES (social science PhD) member noted:

“Co-production is very important for policy contribution. For instance, commissioned studies are taken seriously by the IPO. Within the IPO, after procurement of the studies, a research committee comprising interested experts will be formed to review the studies and to ensure that the studies address directly the issues under investigation. The work will also be peer-reviewed by expert advisory groups to ensure that they are of a high enough standard. This process helps to better inform the quality of the research and thus could better influence or contribute to policy.”

Similarly, a senior GSR member also affirmed that: “knowledge co-production with policy makers is also an important process for greater policy impact.”

The analysis of survey responses revealed that social scientists’ views of the relative importance of what tasks are most important for making policy contribution vary (see **Table 6** below). For instance, whereas most social scientists will agree that analysis, briefing policy officials and synthesis of evidence are among the most important tasks, social science PhDs tend to rate research management the highest although this is overall rated as the least important, and particularly by those with other qualifications.

Research management tasks include the interface with external academics, as well as with overseeing the research activities of colleagues. For instance, interactions with external academics include: (a) communicating policy agendas and evidence requirements to academic researchers; (b) facilitating contributions of academic evidence to the policy process; and (c) procuring research from the academic community. Helping and guiding junior colleagues in their research activities are also a responsibility undertaken by managers or senior staff with social science PhDs (although this task is performed by “non-PhD management” as well).

Table 6: Most and least important tasks by membership and education

Rank	GES	GSR	PhDs	Masters/ Overall	Degree
Top 1	Analysis	Synthesis of evidence	Research Management	Analysis	Analysis
Top 2	Ex-ante policy appraisal/impa	Analysis	Analysis	Synthesis of evidence	Briefing policy

³³ Statistical analyses and tests did not reveal any significant differences.

Rank	GES	GSR	PhDs	Masters/ Overall	Degree
	ct assessment				officials
Top 3	Other	Briefing policy officials	Briefing policy officials	Briefing policy officials	Synthesis of evidence
Least important	Research Management	Ex-ante policy appraisal/ impact assessment	Development of analytical tools, conceptual approaches and frameworks	Research Management	Advisory/ Expert capacity

Source: Survey of social scientists (Policy Impact et al, 2011).

Note: See **Table 29** in the data Annex for more details.

When asked what processes through which their work has had a policy impact, most interviewees brought up the importance of informal discussions with colleagues both within the service and other department (both senior and junior) as well as working collaboratively, sometimes in multidisciplinary teams. Informal processes also include the wide scope senior managers give to managers to introduce their own initiatives so long as they are policy relevant. Such initiatives include suggestions for commissioned studies to inform policy design and implementation, and structures of the consultation process with stakeholders. According to survey responses, the main factors that contribute to policy impact are to do with the understanding of the problem as well as knowing what the evidence says and how to present it. The survey response shows that (see **Table 34** in the data Annex):

- 88 percent of social scientists see understanding the policy question as the single most important factor for making a policy contribution. Among social science PhDs as many as 90 percent agree that this is very important and slightly fewer among non-PhDs.
- 76 percent of social scientists regard presenting analyses as very important. Social science PhDs rate this slightly lower on average than the non-PhDs (73 percent of PhDs compared to 76 percent of Masters and 80 percent of Degree holders).
- 75 percent of social scientists regard understanding the evidence collected as very important for making a policy contribution. This included 82 percent of all social science PhDs, 75 percent of Masters and 72 percent of Degree holders.

In order to understand whether the differences in answers reported between social science PhDs, Masters and Degree holders regarding the factors and process they regard as most important for making a policy contribution, an analysis of variance was undertaken.³⁴ It revealed no statistically significant differences with the exception of

³⁴ A one-way Analysis of Variance (ANOVA) comparing individuals who have a PhD (n=69) versus the other two groups Masters (n=316) and Degree holders (n=75) on the answers to all possible factors and processes of importance for policy contributions were undertaken. See **Table 34** for full list.

understanding government requirements for which social science PhDs scored significantly higher than Degree holders but not Masters.³⁵

Given that interview evidence had pointed to co-location as a factor enabling greater policy contributions, differences in opinion regarding key processes depending on the respondents' location within a department (comparing pure analysis, policy and combined analysis and policy units), was undertaken. A one-way ANOVA revealed statistically significant differences on two process variables: understanding the evidence collected and discussion with colleagues. Regarding the importance of understanding the evidence collected, respondents working in policy units scored significantly lower than those working in analysis or combined analysis and policy units³⁶, suggesting that social scientists working within policy units see understanding the evidence as much less important to making policy contributions than social scientists in mixed or pure analysis units. This could be because they are working much closer to policy colleagues and thus value other factors more for influencing policy. In fact, the analysis shows that they value discussion with colleagues significantly higher than those working in analysis units³⁷, suggesting that they regard this as much more crucial for contributing to policy than social scientists that are work physically more removed from policy colleagues.

The biggest difference between the findings of this study and the Welsh study is that social scientists in central government see themselves much more as knowledge generators than “knowledge brokers” in the sense that the majority are involved in undertaking actual analysis themselves. This has had become even more emphasised during recent financial tightening and smaller procurement budgets. In addition, in many cases, interviewees did not see linkages with academics as a particularly important part of their day-to-day job. This is not to say that social scientists in government do not also undertake knowledge brokerage both with academic and other research communities. Hence the biggest difference with the Welsh study is hence that social scientists in the Welsh Assembly view themselves primarily as “knowledge intermediaries or translators” (Johnson and Williams 2011, p. 32).

When social scientists are involved in the management of external researchers, such as procurement of external evidence and research, this can extend beyond the academic community. In the case of for instance the DWP, it is seen as more important for its social researchers to develop good working relationships with professional researchers (e.g. the Institute of Employment Studies and Natcen) than academics per se since it is from these kinds of organisations that the Department tends to commission its outsourced research. One senior GSR member explained that these organisations tend to be staffed with professional social researchers – not academics who teach and lecture - that understand the specific requirements of social researchers in government. This is not to say that relationships with academics are not important.

³⁵ F=3.08, df=2, 454, p=0.04.

³⁶ Largest p-value =0.01.

³⁷ Largest p-value =0.03.

In the Intellectual Property Office, however, a senior GES economist (social science PhD) emphasised that procurement of research from academics is a regular practice. He also added that “building relationships with the academic community” is important. As part of this process, in addition to commissioning studies from academics (and other non-academic experts) he also publishes in academic journals and attends academic conferences – “One UK IPO mission is to make the UK the centre of excellence for IP research.” Also as noted above, external interactions with external academics include: (a) communicating policy agendas and evidence requirements to academic researchers; and (b) facilitating contributions of academic evidence to the policy process either directly through the findings of the commissioned studies or preparing synthesis/summaries/briefs based on these studies.

Furthermore, a GES director in the HMRC volunteered an example on how academics can help shape government thinking on certain policy issues. For instance, he said that academic research in behavioural economics has begun to influence how government looks at certain issues, for example, on how people learn about compliance activity. Here compliance activity is examined through network activity – how people regard punishment when they are non-compliant, what are the network effects? What will be the perceived effects of the policy measure as a result of the network effects? The social scientists within the Department identified this body of research and used it to inform their “policy thinking.”

In the case of the OFT, interaction with the academic community is not really a factor in the day-to-day contributions of social scientists. Some approaches were reportedly inspired from academic literature, and teams might sporadically liaise on methodology issues with academics outside the context of any specific case because of confidentiality issues. However most interaction between social scientists and external parties would be with advisors, mostly economic consultants and law firms, working on behalf of companies under scrutiny. In this interaction, one Policy client pointed out the value of social scientists by saying that: “the skills of social scientists are important in guiding the external parties with regards to what evidence to provide for a decision to be made by the OFT”. This links back to the point made earlier about the “expert effect” and how having a PhD can facilitate interaction with the academic community in particular where this is seen as important (see previous discussion in section 3.5).

Overall, interviewees emphasised the importance of informal roles and processes through which they perform everyday government business across all stages of the policy cycle. Some expressed a wish for more formal powers to be handed to them whilst recognising that the relationship between social scientists and policy makers is just as important and that the greatest contributions are facilitated through informal processes.

4.3 Contextual factors and their importance

Having explored the importance of individual skills and characteristics as well as processes for influencing policy, this section looks at how the legal, economic and

social context in which policy develops may influence social scientists' contributions to policy.

From a legal standpoint, the mandate to provide impact assessments to supply evidence on the expected effect of any proposed legislative measure has created substantial demand for the work of social scientists. For instance, as will be elaborated in the next section on case studies, a senior GES (social science PhD) member prepared the Impact Assessment for the Hargreaves Review for a new Intellectual Property framework. Following this, the same economist then designed and led a research programme to commission several studies. Government who is now in the process of finalising the implementation measures has accepted all the recommendations that emerged from these studies. This same economist is also managing an ongoing externally commissioned piece of copyright-related research, the results of which will further help to inform Government's evolving policy on copyright.

Several interviewees pointed to the current economic climate as having a big influence on the work of social scientists in government as it has meant a greater focus on "Value for Money" and on trying to seek incremental changes to increase efficiency and effectiveness. According to one senior GSR interviewee and a social science PhD-holder, current spending levels, with less funding available to commission external research, has also meant that more in-house social scientists are involved in the production and generation of social research to address policy needs for information and evidence.

The broader social context can also indirectly generate demand for social science. Public interest can "galvanize" civil servants' interest in a specific issue and with it the need for the type of evidence social scientists can generate. For instance, for the European Commission Copyright Extension Directive, Government (via the IPO) rapidly contributed their views on this Directive because of the importance of copyright to British copyright (creative) industries, such as the music, movie, and video games industries.

Other contextual factors mentioned by interviewees were the existence of policy "champions" that go out of their way to ask for evidence to support policy proposals which can enhance how soon social scientists get involved in the policy cycle and to what degree. Another related contextual factor mentioned was the attitude of the responsible minister towards the work of the social scientists. It is often hard to justify on-going, longer-term investments in the evidence-base given that policy priorities and goal posts move both within as well as between Governments. As one senior GSR member put it: "Longitudinal studies commissioned under previous Governments, although important, may not be able to respond to the needs of the current Government".

The policy area also has a bearing on the potential role of social scientists. Some interviewees argued that social scientists were having "more traction" in areas such as Social Policy and Education Policy or in areas that involved taxation and welfare issues as well as Value for Money arguments. Views differed over health policy, where one

interviewee felt that there social scientists could have a positive contribution whilst another felt that health was too large and complex an area for this to be possible.

From a regulatory enforcement rather than a pure policy perspective, the design of the regulatory system can provide a context that is more or less conducive to contributions by social scientists. For instance, as highlighted in the OFT merger case study in the next section, the UK's system of merger scrutiny provides an arena for the contribution of social scientists to the task of enforcing competition law. Moreover, because many social scientists work at the OFT and CC — and because mergers are scrutinized by the authorities and not the courts — the authorities can assess economic evidence when scrutinizing mergers in a way that judges scrutinizing mergers in a judicial system could not.

Moreover, similarly to previous studies including the 2007 GSRU report, survey respondents for this study see the timeliness of their work to Government needs as a factor contributing to policy impact. These findings were similar for social science PhDs and non-PhDs (see [Table 34](#) in the data Annex for more details).

4.4 Contributions that matter

This section explores what social scientists consider were their contributions to policy as well as to more specific initiatives in the case of those involved in regulatory enforcement. It draws on the survey results and the case studies in which social scientists within different parts of government identify specific contributions to specific policies and explain what factors enabled these contributions.

The study identified a large variety of contributions to the policy process with a common thread of helping policy-makers access data and evidence. Overall, interviewees reported that most groups within their departments would use their outputs including: Policy, Procurement, Finance, Operational Research, Operations, Communications, Human Resources, etc. Some interviewees pointed towards a greater use of evidence reviews to try and understand the quality and nature of the existing evidence base to try and contribute to policy-making at the definition stage. These were seen as timely, efficient outputs in comparison to for instance longer and more costly ex-post evaluations.

Interviewees also emphasised their involvement in ex ante impact assessments. These interviews also indicated a move away from large-scale, one-off, evaluations towards evidence synthesis (not to be confused with the data gathering and time series analysis dealt with by the GSS).

How would social scientists contribute to these activities? Interview respondents (both social science PhDs and non-PhDs) from the case studies were asked to react to a defined set of contributions made regularly and regarded as more influential than others because they help to shape the definition of policy or its implementation. The set

of options was based on the results of the inception phase interviews and review of the evidence base³⁸:

- Introduced or helped develop data sets to help address policy problems
- Introduced innovative ways of looking at problems
- Developed evidence/arguments to inform policy decisions/strategies
- Developed evidence/arguments to evaluate whether policies are soundly based
- Developed evidence/arguments that helped policymakers develop policies

Not all these contributions, however, were considered to be equally important. According to the survey results, almost half of all social scientists regard developing evidence or arguments to inform policy decisions as their most important contribution (see

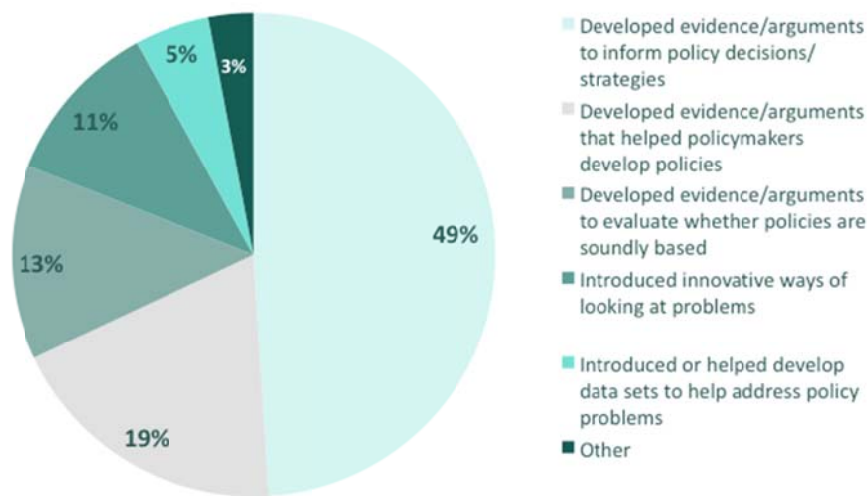
³⁸ With the caveat that social scientists in regulatory agencies (dealing with enforcement) may not focus at all on developing argument to inform policy or to help policy-makers develop policies.

Figure 7 below), while introducing or helping to develop data sets is only rated as most important by 5 percent of social scientists (see **Table 36** in the data Annex for full breakdown).³⁹ A senior GSR member asserted: “Developing evidence and arguments to inform policy decisions/strategies is done on a daily basis and those who don’t do this, should leave [the Civil Service].” When asked what outputs of their own work they regarded as more influential, there were a few cases where the contributions were directly related to the individual’s area of academic research, for instance:

“The OFT did a research report on the economics of self-regulation. This is a generally under-researched area but was the subject of my doctoral dissertation. As such we drew heavily on my earlier work.”

In most cases, however, the emphasis was not placed on the link with areas of academic research but instead on outputs for which both the quality and the presentation of evidence were seen as central. Such an example may be seen in the case of the Education Maintenance Allowance Scheme, which was a high policy measure. Rigorous appraisal was undertaken and financial support was provided to undertake this process. Good qualitative research was also conducted which resulted in the production of many reports, and with a supportive minister, these outputs contributed materially to the implementation of the policy. Other examples ranged from specific effects like changing the contents of the driver’s test, establishing principles for health and safety and new guidance which clarified the legal requirements on health and safety for employers, and actual company merger cases to providing robust analysis, evaluation models, and focussed presentations to policy-makers.

³⁹ However, among PhDs the proportion that rated this as important was higher (9 percent).

Figure 7: Social scientists most important contribution

Source: Survey of social scientists (Policy Impact et al, 2011).

The presentation of evidence emerges at the centre of social scientists' contributions, but this often rests upon the ability to analyse data. Social science PhD survey respondents were particularly emphatic about the importance of research methods and technical expertise: the deep knowledge of research methods and methodologies learned from doctoral training that are effectively used on a regular basis to address policy issues rigorously (see above section Skills that matter).

Case study interviewees (the majority who were social science PhDs) also pointed out another important contribution that is "less tangible," that of mentoring of junior staff. They argue that while this may not be directly attributable to any specific policy contribution, such training and mentoring of junior staff can "only benefit" the performance of junior staff and ultimately, improve the quality of evidence gathering and analysis. This resonates with the survey findings that show a greater proportion of social science PhDs (66 percent) to other groups Masters (45 percent) and Degree holders (23 percent) reporting team management among their day-to-day tasks (see [Table 23](#) in the data Annex).

In order to understand better how these contributions fit into the policy process a number of case studies were conducted across Departments to unpick the contributions made specifically by interviewees with social science PhDs. Initially, some interviewees found it difficult to pick one specific policy case over another. One reason for that given by one of the interviewees was that "policy priorities change by the time one piece of research or a project is finished so goal posts move all the time". Nevertheless, the following case studies illustrate various contributions made by social scientists with PhDs in different types of Departments and the factors and contexts that influenced these contributions. This includes Ministerial Departments as well as Regulatory agencies (see Annex 3 for more details on the identification and selection of case studies).

The cases detailed in the following section illustrate how social scientists with PhDs have contributed to policy in four key policy areas:

- (1) Economic policy (scrutinizing mergers and acquisitions for compliance with competition law).
- (2) Employment policy (for an ageing population).
- (3) Innovation policy (reforming the Intellectual Property Framework and the patent backlog problem).
- (4) Social policy (health and safety of employees).

Each case study outlines provides an introduction to the department, the policy problem and what contributions social science PhDs made through which processes and within what context and how these contributions were perceived by policy colleagues (also interviewed as part of the case studies).

Case example 1 – Economic policy

Contributions of social scientists with PhDs within the context of an enforcement body I

Overview

This case study shows how a social scientist with a PhD was able to apply and consolidate a highly novel approach, which not only enabled a more cost-efficient enforcement outcome but also left a lasting legacy in the form of guidelines and methodologies used for mergers scrutiny in the UK. The contribution was helped by the credibility and technical ability that the PhD brought both internally and externally.

OFT scrutiny of Asda and Netto merger

The OFT is the UK's consumer and competition authority. As such it is a non-ministerial enforcement body. Its parent is BIS. The OFT has a number of departments including one dedicated to scrutinising company mergers, which has a staff of 35 legal, economic, financial and other professionals. The Mergers department deals with around 100 cases a year. Within an 8-week window, the Mergers department gathers and analyzes evidence (quantitative and qualitative) from the merging parties and third parties (competitors, customers) to make a recommendation to senior OFT executives as to whether a given merger complies with competition law. If it does (which most do), then the merger is cleared. If it does not, then companies may offer to divest assets to address the OFT's concerns or, if not, the merger may be referred to the Competition Commission (CC) for an in-depth 24-week review.⁴⁰ When a project runs smoothly, the merging parties and their advisors are cooperative, the OFT's project team and the internal decision makers to whom they report are comfortable with the economics, and the appropriate evidence is gathered to enable the OFT's decision makers to take the right decision. By the same token, a project does not run smoothly when the parties and their advisors don't cooperate, when the economics is not properly understood and when the right evidence cannot be accessed. In some cases, the information available to the OFT can be

⁴⁰ Where there is a lack of evidence to assess a merger, the OFT errs on the side of caution and makes a conservative decision or refers the case onto the Competition Commission.

supplemented by advice from other parts of government with better understanding of certain markets.

The merger case involving Asda and Netto was a high profile case. There was no decision to 'commission' the project as such; because the merger was notified to the OFT, it was under a legal duty to scrutinize it. The difficulty in this case was to decide what needed to be done to assess the merger, and how it would be done.

Both supermarket chains were big. Because of the size of the two, it would be impractical within the OFT's timescale to follow the traditional approach and define the local market that each one of hundreds of overlapping Asda and Netto stores competed in to calculate market shares for each store. Hence there was a need to use a different methodology that could "short-cut" the work. The OFT had scrutinized similar mergers before by implementing a new methodology, different from the traditional approach. The merging parties wanted to steer as to whether this approach would be applied and, if so, how it may be extended to deal with the specific facts of their merger—in particular that mainstream supermarkets like Asda may be expected to impose a competitive constraint upon limited assortment discounters like Netto but that the converse need not be expected to be true. This forced the OFT to think through, theoretically, whether the new methodology should be extended to deal with this so-called 'asymmetry' and, if so, how. After consultation between the OFT's decision maker and the Project Director in the OFT's Mergers group, it was agreed that the new methodology should be extended to capture the likely 'asymmetry' between Asda and Netto.

This innovative and novel approach applied by the OFT case team relied less on market definition and market shares, and more on economic modelling of the constraint between Asda and Netto removed by the merger in the most problematic overlap areas. The approach enabled the OFT to conclude that the great bulk of the merger complied with competition law, save for in 47 local areas where Asda offered to divest stores. This avoided the expense to the public purse of an in-depth CC review and enabled the merging parties to complete the deal quickly.

The fact that a novel approach could be used is attributable to several factors. One is the flexibility of the UK's unique system of merger scrutiny, which—unlike other international jurisdictions—is voluntary (so the OFT does not scrutinize every merger and can focus resources where they are needed), administrative (meaning contested mergers are not litigated in court before judges with less expertise in evaluating economic evidence) and bi-cameral (meaning the OFT can remedy a potentially problematic merger that would otherwise need an in-depth CC review). Another was the standing of OFT's Mergers department—and of the Project Director herself/himself within it—who have championed the approach for several years. From the Project Director's personal perspective, her/his PhD gave her/him the confidence to encourage staff in Mergers to pursue better approaches (in this case applying a novel methodology). Further, the respect that having a PhD brings made communicating the benefits of better approaches to external stakeholders easier. Yet another contributing factor was the support received for the approach by the OFT's decision maker (also a PhD economist) right at the outset and throughout the process. Since the approach was used in this case and others like it, it has now been written into the UK's Merger Assessment Guidelines and the OFT and CC are leading developments in this area worldwide.

The role of the social scientist (the Project Director in the OFT's Mergers group) that championed the new methodology was confirmed by the Policy client (the OFT's decision maker for this project):

“One of the key enablers that contributed to a successful outcome in the Asda-Netto merger was the fact that the OFT stakeholders had a very good understanding of the underlying economics of the case and they were comfortable with it. The Mergers Project Director championed the methodology used. The fact that it was applied was very much attributable to her/his understanding of the literature and her/his confidence applying it. The decision-maker also supported the use of the new methodology. The fact that both (s)he and the Project Director both have PhDs was helpful in terms of the confidence that it gave them in applying novel approaches.

Overall, the OFT's approach to this case led to a satisfactory outcome and one in which the policy client/decision maker felt that the evidence-base for making the decision was good. This case illustrates how Social Scientists contribute to providing good quality evidence to enable better decision-making. It also illustrates how important early interaction between the decision makers/policy clients and the social scientists is in terms of agreeing the parameters for the research. In this particular case, the decision maker was herself/himself a PhD economist, but this is not always the case, and non-economist decision-makers are even more reliant on the technical expertise of the social scientists.”

Case example 2 – Employment policy

Contributions of social scientists with PhDs within the context of a Ministerial Department I

Overview

This case study shows how a social scientist with a PhD was able to engage with policy colleagues to understand the policy problem and to design and deliver a programme of evidence collection and analysis, an exercise that provided new information for Ministers and Senior Policy colleagues considering policy for older job seekers.

How Ready is Jobcentre Plus for an Ageing Client Base?

The DWP undertakes a substantial amount of research and evaluation work both contracted out to external research providers as well as in-house research. This is evidenced by the amount of information and data published on its web site. Overall there are about 100 social researchers in DWP. 'It is the biggest public service delivery department in the UK and can usefully be seen as having three main strands; a delivery arm (consisting of The Pension Service, Jobcentre Plus and The Disability and Carers Service) policy specialists and an analytical community consisting of Economists, Social Researchers, Statisticians and Operational Researchers (GES, GSR, GSS and GORS). All three elements work together to design, deliver and evaluate policy. DWP is a multi-site organisation e.g. Jobcentre Plus offices are nationwide. Social researchers are based in the DWP corporate centre (head office) and are split 50/50 between Sheffield and

London. Following the spending review the department has undergone a restructuring exercise and research budgets have been reassessed in line with all government spending. This has seen a greater emphasis on using the skills of DWP GSR staff to carry out in-house research.

The problem in this case was to understand how ready Jobcentres Plus are for dealing with an ageing population and an ageing claimant base given the current demographic trends. Previous commissioned research into policies for older jobseekers had looked only at those aged 50+, however as retirement ages and pension ages are set to increase there was a known gap in knowledge regarding jobseekers aged 60+. In response to this policy need for information and with limited resources available to commission new external research, the interviewee – a senior social researcher with the GSR (PhD) - was part of a team who devised a programme of in-house qualitative research on older job seekers. Working closely with DWP Insight Colleagues and by training and utilising capacity from policy colleagues, research was carried out with jobseekers aged over 60, Jobcentre Plus Personal Advisers who work with older claimants, employers and Jobcentre Plus Employer Advisers as well as with staff in provider organisations who deliver employment programmes to older customers with the aim of increasing DWP's understanding of the issues for older jobseekers – especially the 60+ age group. This in-house research gave new perspectives on the issue, and allowed researchers to present good quality advice and knowledge to policy colleagues. In this case, the research experience of the interviewee developed during her/his PhD enabled her/him to design a research project, carry out research interviews, analyse data and present evidence in a useful way to non-technical colleagues through reports, summaries and presentations.

This positive contribution made by the social scientist to the policy was echoed by the Policy client:

“One good example of social scientists and policy people working well together in a way that it helped policymakers develop new policies was an assignment looking at how ready JobcentrePlus, is to meet the needs of increasing numbers of over 60 year olds who will use services as result of demographic changes and increases to State Pension Age. By working together, the joint team of policy people and social scientists was able within a very short time frame to review the existing evidence base and conduct some very targeted primary research, to produce a very clear and comprehensive answer to the central question. One of the key factors that enabled the success was the fact that the analysts were able to understand the policy context, engage with front line staff, and conduct focus groups with end users, at the same time as they also brought in their existing technical expertise and background. In addition whilst conducting primary research a process of action planning, looking at ways in which services could be enhanced to better meet the needs of 60+ claimants, was started.”

Case example 3 – Innovation Policy
Contributions of social scientists with PhDs within the context of a Ministerial department II

Overview

This first example (a) presented below shows how the combined skills and abilities of an

economist with a PhD was instrumental in designing a comprehensive research programme for commissioning studies to gather evidence and analysis for Government's aim to review its Intellectual Property framework. The economist also substantially helped in the design of a consultative exercise with external stakeholders involved in the copyright industries to obtain evidence and information on how Government may also reform its Copyright legislation. The recommendations that emerged from the commissioned studies have been accepted by Government but are being finalised for implementation. The consultative exercise ended in March 2012.

The second example (b) shows the technical skills of the same economist (in the Hargreaves Review) to develop an international framework to measure the economic cost of a patent applications backlog. Taking the initiative to work with the U.S Patent Office, the economist sought the co-operation of a PhD economist in the U.S. Patent Office, and they have developed a preliminary formula to measure this costly problem. Six national patent offices have signed up to this research initiative, which is ongoing.

a. Selected Intellectual Property Office Case Studies

b.

The Intellectual Property Office (IPO) is within the Department for Business, Innovation, and Skills and is responsible for the national framework of Intellectual Property rights, comprising patents, designs, trademarks and copyright. Its role is to "help manage an IP system that encourages innovation and creativity, balances the needs of consumers and users and promotes strong and competitive markets" as explained on the IPO website.

In November 2010, Prime Minister David Cameron announced that a review of the UK Intellectual Property framework would be undertaken to examine how the Intellectual Property system can better drive growth and innovation. The aim of this independent review was underpinned by the Government's ambition to "build on the UK's great strengths in all these areas by making it easier to use IP to create value across the economy and across our society..." The review focused on the following themes:

- Barriers to new internet-based business models, including the costs of obtaining permissions from existing rights-holders;
- The cost and complexity of enforcing intellectual property rights within the UK and internationally;
- The interaction between IP and Competition frameworks;
- The cost and complexity to SMEs of accessing services to help them protect and exploit their IP (<http://www.ipo.gov.uk/press-release-20101110.htm>).

Professor Ian Hargreaves, the current chair of Digital Economy at the Cardiff School of Journalism, Media and Cultural Studies and Cardiff Business School, led this independent review. In May 2011 Professor Hargreaves published his review: "Digital Opportunity: A Review of Intellectual Property and Growth" which outlined ten recommendations. Government broadly accepted these in its published response in August 2011 (i.e. "The Government Response to the Hargreaves Review of Intellectual Property and Growth"). Government is now in the process of finalising and implementing these recommendations.

The IPO's Economics, Research & Evidence team were asked by Prof. Hargreaves to

commission a number of studies to gather evidence and analysis for the review, a process which was led by a PhD economist, and the findings of which are reflected in the recommendations proposed by the Digital Opportunity report. As each of the Review's themes involved many aspects, cross cutting and interrelated in some cases, a comprehensive research program to cover all the issues of the review was devised. This is, arguably, where the interpretive and perceptive skills developed during a PhD are instrumental to the design of a well designed policy-relevant research program – quoting this economist “[A PhD] provides ability to commission studies from a wide range of suppliers, including the academic community” and “helps to communicate better policy agendas and evidence requirement to academic researchers.” Furthermore, the research management skills acquired during doctoral training also equipped the senior economist to manage a research program – again quoting this same economist who felt that “training from the doctoral process helps with this ability, as doing a PhD by its very nature requires research management.”

In addition to the commissioned studies, the same economist, assisted by members of the Economics, Research and Evidence team, also helped policy colleagues design a major and intensive 14-week consultation exercise on copyright, which ended in March 2012. This consultation is in direct response to the Hargreaves review, which highlighted the importance of copyright by noting that: “[the] UK’s intellectual property framework, especially with regard to copyright, is falling behind what is needed.” The importance of copyright lies in the contribution of the UK’s creative industries (largely “copyright” industries), of which its digital creative exports rank third behind advanced engineering, and financial & professional services.

The aim of this consultation exercise, as with the commissioned studies on copyright, is to gather evidence from stakeholders on the successes and issues with the current copyright regime, and its relation to economic growth; all to inform decisions on legislative and other policy actions in these areas. The Government will then respond to the consultation and will formally propose legislative or policy actions during 2012. To help contributors gauge their responses to the consultation, and as part of the Review’s aim to have an evidence driven debate, the IPO published a short guide on “what constitutes open and transparent evidence” (<http://www.ipo.gov.uk/consult-2011-copyright-evidence.pdf>) authored by the PhD economist, who noted that “having experience with the academic publishing cycle helps to understand what makes for good evidence, and participating in the Peer-review of journal articles is good preparation for evaluating evidence submissions.” Furthermore, as part of the consultation, the IPO has planned a number of events around the UK, where people will be invited to present their views.

Economic Impact Assessments were also prepared for the proposed policy changes arising from the Hargreaves review on copyright and the senior economist led many of these on the analytical side – (s)he said “[A PhD] provides a stronger foundation for ex-ante impact assessment of proposed policy through the use of a wider set of tools or innovative use of tools.” These assessments were undertaken to comply with Government’s better regulation principles and to provide information on existing evidence and prevailing assumptions on copyright. These Impact Assessments also identified areas in which the Government wished to collect further evidence from the consultation exercise – citing this same economist “[A PhD holder] should possess better analytical skills, especially early in a career, which can help the

quality of the evidence.” The consultation document was published in December 2011.

b. The patent backlog problem – a costly economic problem

In early March 2010, the IPO hosted a one-day conference on the economic cost of patent backlog. The conference was held to publicize the launch of a major new piece of research commissioned by the IPO, which looked at the economic impact of the global backlog in patent applications. The IPO claims that this research is the first of its kind to look at the issue of patent backlogs as a process issue and it generated a great deal of interest among IP offices, IP professionals and business, as reflected by the participants such as the UK Minister for Intellectual Property, USPTO Director David Kappos, EPO President Alison Brimelow, Deputy Commissioner Koichi Minami of the JPO, and CBI Deputy Director General John Cridland.

The number of patent applications has been growing exponentially in the last fifteen years, a period academics have described as “the patent era.” This trend continues till today. As a result patent offices are struggling to cope with processing these application backlogs. The key findings of this research were:

- “Each year of delay costs around £7.6bn in lost economic activity in Europe, US & Japan alone.
- Over a four-year period, two or more offices processed one million patents.
- Applicants seek protection in multiple jurisdictions resulting in duplicate applications.
- In the offices studied one in three applications is a duplicate.
- Worldwide there is a backlog of over 4 million unprocessed patent applications.
- Delays are growing quickly - an additional year of pendency is predicted by 2015 at current rates of growth
- If the time spent on examining duplicate applications could be reduced by 25%, the predicted growth in backlogs could be avoided. “ [<http://www.ipo.gov.uk/pro-types/pro-patent/p-policy/p-policy-backlog/p-policy-econ.htm>]
- Key issues that were also discussed were the economic implications of backlogs, the impact on business and what IP offices are doing to deal with these backlogs.

Building on this work the senior PhD economist (the same one as in the Hargreaves review) took the initiative to engage with the U.S. patent office to analyse the patent backlog problem and compare the two nations, knowing that backlogs pose a greater problem there (and thereby posing problems for international patentees applying to the USPTO). The aim of this study is to create an international framework to measure patent backlogs and to devise solutions to this problem. The wide assortment of quantitative tools and techniques developed during the course of a PhD program enabled the economist to create a preliminary “formula” for measuring patent backlogs, in collaboration with a U.S. PhD economist, and with patent office staff from both sides of the Atlantic. An encouraging result of this work can be seen in six national patent offices (their specific locations may not be disclosed at the moment), which have “signed up” to work further on the creation of common framework to measure patent applications backlogs. This research is ongoing.

Case example 4 – Social Policy

Contributions of social scientists with PhDs and MA within the context of an enforcement body II

Overview

This case study shows how two Social Scientists with PhDs oversaw the development of a robust methodology for evaluating the effectiveness of a policy measure. The policy group of this regulatory agency is currently considering the recommendations that have emerged from this evaluation exercise. An early indication of a successful recommendation can be found in the contract extension of fixed-term employees, particularly when viewed against the current economic situation.

The Migrant Workers Outreach Programme (Health and Safety Executive)

The Health and Safety Executive (HSE) is the national independent watchdog and regulator for work-related health, safety and illness. Its parent is the DWP. As a regulator it has a large menu of responsibilities. They include (1) developing health and safety regulations, (2) enforcing health and safety regulations, (3) ensuring that these regulations are fair and effective for all workers, (4) contributing to legislation on health and safety, (5) undertaking research which addresses both generic and specific occupational health and safety issues; (6) providing national statistics on health and safety conditions of workers; and (6) conducting inspections across worksites.

The Vulnerable Worker policy team in HSE, which sits in the Cross Cutting Interventions Division, initially initiated the Migrant Workers Outreach Programme. This programme originated from a fund for migrant workers created by the Department of Communities and Local Government to deliver local services to migrant workers in 2009. It involved hiring temporary (on yearly fixed term contracts) outreach workers who spoke a language of the majority of migrant workers in the region where they were hired. There were five regions (one in the southwest; two in London; one in the east and one in the Midlands. HSE bid for part of this fund, which was then used to launch the Migrant Worker's Outreach programme. It started with the employment of outreach workers and the production of a DVD on health and safety regulations and the rights of migrant workers.

The two principal aims of the Programme are:

1. To inform migrant workers that they have the same rights and equal treatment as non-migrant workers;
2. To ensure that these rights are communicated to and implemented,
3. To hire temporary (on yearly fixed term contracts) outreach workers who spoke a language of the majority of migrant workers in a region where they are hired. There are five regions (one in the southwest; two in London; one in the east and one in the Midlands.

The Programme was implemented in 2009 and continues till today. It started with eight outreach

workers who were trained on health and safety regulations and associated issues. These outreach workers were migrant workers themselves and many of them were degree holders.

After about a year, the policy group requested that an evaluation be conducted. Jointly led and overseen by the Head of the Social Science Unit (a PhD GSR) and a GSR senior researcher (also with a PhD), the evaluation exercise adopted a qualitative approach, which involved an extensive interview programme. It was not appropriate to collect quantitative data for this evaluation due to the 'hidden' nature of the population of UK migrant workers. The evaluation approach was jointly developed by the two senior GSR members and two Masters social scientists (GSR), although the exercise was delivered by the two MA social scientists.

The evaluation aimed to explore the impact of the Programme on migrant workers' understanding of their health and safety rights and their knowledge of what they should do if they want advice on how to deal with unsafe or unhealthy working conditions. The evaluation ran from October 2010 to May 2011. The two social scientists were tasked to:

1. Identify the impact(s) of the Programme particularly on the migrant workers' understanding of health and safety issues, and their right to take action on these matters;
2. Assess the experience of migrant workers' contact with outreach workers and if the contact had resulted in improved awareness of health and safety issues, and their right to take action in the event of violation of these regulations by their employers;
3. Obtain the views of Inspectors on the work of the outreach workers; and
4. Assess the overall success of the Outreach Programme.

In consultation with the two senior GSR members (as above) who have extensive experience in evaluation methodologies for policy initiatives, the two social scientists developed the evaluation methodology, which consisted of:

1. A one to one telephone interview with six outreach workers;
2. A one to one telephone interview with 12 inspectors;
3. Twelve local stakeholders (mainly from voluntary groups and representatives from the local councils of the five regions);
4. Sixteen migrant workers
5. The training of outreach workers to interview migrant workers, who were then tasked to interview the migrant workers in various regions, because they could interview them in their native languages. The training of the outreach workers was done in a one-day workshop in which they role-played. The training proved to be effective judging by the overall information received.

The key findings and implications were that:

The Programme had success in all the regions based on the interview data received. For instance, interview data with migrant workers who had been in contact with an outreach worker showed that (a) they were more aware of health and safety regulations; (b) they had greater confidence to launch complaints for improvement in their working conditions and better understood that they were entitled to rights accorded to non-migrant workers; (c) "felt less

alone” since the outreach workers spoke their language; and (d) that outreach workers had a shared cultural context which made communication easier and trust more readily established.

- Outreach workers had provided valuable support to Inspectors, for instance, in cases of accidents, the outreach workers helped to translate the details of the accident and were instrumental to helping with gathering evidence from witnesses who were migrant workers;
- All the inspectors that were interviewed found outreach workers to be very helpful. An Inspector noted: “They (the outreach workers) have revolutionised the way we relate to migrant workers in their region. There is no question about it.”
- Some outreach workers had organised local events to raise awareness of health and safety issues, for instance, writing articles in the local “migrant language” newspapers, publicising the DVD produced for the Programme;
- The time taken for outreach workers to have any effect on their interaction with migrant workers also varied, for instance, in their networking activities and trust-building among the migrant workers;
- Not all inspectors were aware of the skills the outreach workers had to offer and as a result the extent to which they embraced and utilised the outreach function seemed to differ considerably.
- There were differences in the approaches taken by the outreach workers and some activities were more effective than others. .

The key recommendations included:

- Centralisation of outreach worker resource, which could enable the outreach workers’ range of language skills to be utilised to maximum effect throughout HSE and improve consistency between the regions. It could also help to avoid duplication of effort by the HSE inspectors who manage outreach workers and may enable a closer network of contacts to develop between the outreach workers themselves;
- A measure to provide all new outreach workers with a standard training package that ensures that they are equipped to carry out all aspects of the work that they will be required to do. This should include NEBOSH (The National Examination Board in Occupational Safety and Health), communication skills, influencing skills and presentation skills training. Training costs therefore has to be built into any costing model. So far 3 outreach workers have completed the NEBOSH training course;
- A need for line managers to hold regular (at least fortnightly) meetings with their outreach workers, either on a face to face or by telephone basis. The meetings have to cover key topics such as summaries of outreach worker activity since last the last meeting, barriers/issues that have prevented or might prevent optimum performance (and what the line manager can do to help address these), a forecast of key activity until the next meeting (and what help/support from line manager might be required to support that) and identification of any developmental needs;
- The importance of visible support from the Field Operations Directorate senior management for migrant outreach work;

- The use of case studies to persuade inspectors, and others, of their potential contribution in identifying, targeting and enforcing against non-compliant duty holders.

HSE policy makers are still considering these recommendations and how to take the Outreach Programme forward.

A key factor for the comprehensive data collected from the evaluation exercise may be attributed to the robustness of the evaluation method and the collective skills of all the social scientists involved in it.

4.5 Barriers to making contributions

In the same way as several factors have been highlighted as enablers of contributions, the interviews and the case studies in particular, brought to the fore a number of barriers limiting social scientists' potential contributions to policy. These cover processes and skills.

Skills

Skills as a potential inhibitor to contribution can be perceived in two main ways: (1) a lack of requisite skills that a policy environment demands; and (2) the social science PhD "ethos." As already noted above, communication skills and a firm grasp of the policy-making process are integral to making effective policy contributions. Yet while social science PhDs in general consider themselves to be effective communicators as illustrated by the survey responses to the question on what skills they think they have, it remains that this communication skills is still a concern of policy-makers. A senior policy manager explained this misgiving:

"Ability to listen and ability to communicate in lay language are crucial skills for Social Scientists to have when interacting with policy people. It is important to be prepared to get involved in discussion without too much focus on one's own discipline. Those Social Scientists that do this work well with policy people, those that don't, get sidelined. Policy officials also have a responsibility to try and understand as far as possible what different analyst disciplines can add to the policy development process. It helps to remember what the ultimate aim of being there is: the wider policy goals, that we are all working towards."

A senior GES (social science PhD) concurred:

"Communication failure – when the economists appear to be less capable (or less pragmatic in their approach to the issue) or when the policy staff are unclear about what is required, the language barrier becomes an obstacle as additional time will have to be spent in figuring out or asking what actually is required."

Yet another senior GSR manager described his disquiet over the potential problem of skills in broader terms of what may be inferred from his explanation as "policy" skills:

"Some people may be recruited to GSR posts because they have a PhD. This doesn't necessarily make them instantly a good social researcher in

government, or able to thrive in a policy environment. Some social researchers with PhDs have struggled to make that leap, other social research colleagues with PhDs have been fantastic colleagues – who have the ability and sensibility to bring the skills that they have acquired in an academic setting to add value to the production and interpretation of evidence and advice that they are able to offer to policy colleagues and to Ministers – i.e. quickly act to offer advice for policy based on the best evidence that is available. The right attitude and aptitude towards carrying out the job of social researcher in government is as important as the possession of higher qualifications.”

Senior interviewees also suggested that the “PhD ethos” could be a barrier to effective policy contribution. Some case study interviewees had noted that social science PhDs sometimes tend to get too “entangled” with theoretical details (“sometimes a tendency to apply too much of theory”) or with their specialisation, which are then reflected in their analysis, thereby leading to “sub-optimal outcomes”. These concerns were reflected by a senior GES interviewee who said:

“When you do a PhD you mine the intensive margin and you are rewarded for that. In government, mining the intensive margin is much more than what is needed to get an answer that’s fit-for-purpose: to get it, say, 80% right is good enough. PhD students are good at finding out the other 20% but must appreciate that this quest should not be at the expense of producing the 80% to time”.

Processes

Processes, or lack thereof, can also pose obstacles to making policy contributions. From the interview data, two streams of observations can be identified with regard to processes. The first strand is active engagement with policy-makers by social scientists. The second is the burden of bureaucracy.

Regarding active engagement, a senior Policy Manager clarified:

“From a policy perspective, in order to increase the chances of success of an initiative (e.g. a policy, a programme, a website) it is crucial to engage with all the delivery and dissemination people so that they line up behind it. Ideally, engagement starts as early as possible.

A good level of understanding and mutual respect between policy and analyst teams is an enabler of policy contributions. By the same token, lack thereof is a real hindrance. This grows with regular contact, either face to face or telekits. Without this there is a risk that the two disciplines will drift apart (e.g. Social Scientists thinking that policy people are not rigorous enough or policy people getting off too much in their own world and sidelining the Social Scientists). Hence the ability of Social Scientists to appreciate what they do and know and to “pitch” this knowledge to a lay audience is helpful since it directly supports what policy people are trying to do.”

It is conventionally acknowledged that bureaucratic processes can hinder progress or performance as much as they can facilitate them. While the issue of bureaucracy has only been obliquely referred to by the majority of interviewees, particularly about the

mandated ex-ante Impact Assessments, which are often time-consuming to prepare, one senior GES member (with a PhD) unabashedly lamented:

“Red tape galore! The Regulatory Policy Committee (RPC) – ex-ante impact assessment/appraisals are now very important. So impact assessments (IAs) are required pre-consultation, which have to be cleared by the RPC. Then another is required for post-consultation and another one for pre-implementation. All of these need to incorporate relevant parts of the “Magenta Book.” Couple this with the “Cross-government/internal ‘mess’ when issues that involve cross-governmental lines require ‘cross-governmental’ clearance. In other words, more red tape... This can result in lost effort or a dampening of initiative.”

To sum up, despite the acknowledged attributes of social scientists with PhDs for contributing to policy, there remains a concern that effective policy contribution entails more than the repertoire of technical, interpretive and analytical skills. Instead interpersonal and communication skills feature highly as requisite or “policy” skills. The ability to be tactful about a “policy that won’t work” and the imperative to understand how governments work underscore how a lack of these capabilities can hamper policy contribution.

Informal processes, such as networking with and getting to know policy-makers are fundamental to optimising the policy contribution by social scientists. While this appears to be a conviction of all interviewees, it is not evident as yet that active engagement with the policy clientele is uniformly undertaken. While bureaucratic practices are often treated as necessary “evils” in most instances, an excess of these procedures can have the potential to stifle creativity or initiative. For instance, Thompson (1965) had argued that while a bureaucratic organizational form is appropriate for improving productive efficiency, it results in low innovativeness. The decision to trade-off between productive efficiency and innovativeness, however, is beyond the ambit of Social Scientist researchers in the Civil Service.

4.6 Preparing social science PhDs for the policy environment

In general, interviewees were forthcoming with suggestions and ideas of what might help prepare social science PhDs for working in a policy environment. Several of the interviewees, who included social science PhDs as well as non-PhDs, described current and past Research Council-supported schemes and initiatives supporting PhD students as successful. This included several mentions of a work placement scheme for social science PhDs to gain actual work experience within government. One senior GES interviewee, himself a social science PhD holder, pointed to the importance of a summer school for PhD students run by the Research Councils to develop softer skills while he was still finishing the PhD. This was an eye opener in the sense that it made him realise that having a PhD is about more than being a technical expert and that he had an aptitude for presentation and communication skills.

The same interviewee pointed to the need to help social science PhD students to recognise and communicate the skills that they acquire as part of their PhD. In an

interview situation in front of an employer, to label themselves as “experts” can be limiting their prospects: “from experience in interviewing PhDs they are not always able to label these skills and describe their experiences in a way that it is enticing to employers. Hence some kind of support around this would be helpful”, meaning help to social science PhDs to better articulate their skills.

A senior GSR member (with a social science PhD) suggested that doctoral training has to focus on research methods, as well as policy-relevant courses such as policymaking, how to do research for policymakers, none of which is provided in doctoral training. Two suggestions of material that could be included in these policy-type courses are (1) the Magenta Book (produced by Treasury), and (2) Quality in Qualitative Evaluation (developed by the Cabinet Office and the National Centre for Social Research). Similarly a senior policy manager suggested that PhD training addresses real life situations, for instance, through case studies.

A senior GES member (with a social science PhD) recommended that “more breadth [be included in doctoral courses], for instance, to include elements of history, empirics (data gathering), teaching, and source gathering. The inclusion of history for the policy world is important because it helps to understand the context within which a policy is to be defined/implemented, or what factors may have affected a policy in the past (history) and thus “learn” from this case. Context thus helps one to ask the right question and then to use the right set of tools to address the policy issue. There is a good reason why the current chairman of the Federal Reserve, Ben Bernanke, was thought to have good academic experience as he did his early work on the 1929 recession.” A senior policy manager also suggested that: “as policy challenges are varied, solutions need to be “broad and wide” which in essence means an ability to use a range of data and tools effectively, innovatively and efficiently.” Therefore training should emphasise these aspects.

Tailoring the style of communication to the needs of policy makers is another of the fields where PhDs were found to face difficulties. A senior Policy Manager put it starkly when suggesting that: “Some mechanism for “forcing” PhDs to get up and explain” what they are doing in a really clear way to people that aren’t specialists in their area would help to prepare them for a career in government”. Communication skills extend also to the ability to write policy briefs and other documents conveying difficult messages in an easy way.

One problem here may be the way social science PhDs understand the notion of sufficient evidence: where detailed analysis, painstakingly put together and attempting to cover all possible conditions may be the norm in academic work, “good enough” evidence in a policy environment is unlikely to be subjected to the same requirements for robustness. As a senior GSR (social science PhD holder) manager confessed: “[PhDs] have an inability to draw a fine line between rigorous research/analysis and “fit for purpose” research.” However, arguably, this perceived difficulty may be better managed and overcome through learning-on-the-job than educational training, as also alluded to in several interview responses.

Similarly, the sort of ambiguity that an academic will try to eliminate from his/her work may be necessary in a political environment. Social scientists working in government

need therefore to adapt to the different ways in which evidence is used and considered as valid. The development of the awareness and skills necessary to operate efficiently and effectively in such environments are likely to be best acquired by direct immersion in the relevant policy contexts.

Given the amount of social science PhDs who do make long and successful careers in government, it is clearly possible to adapt to a policy environment. However, greater awareness of the challenges and indeed opportunities associated with working in a policy environment as part of a social science PhD would seem a possible way to increase awareness and ensure that expectations are aligned. This in itself may mean that attraction and retention levels for social science PhDs within central government can be increased.

5.0 Conclusions

This chapter presents the conclusions drawn on the basis of the evidence provided in the previous sections.

Social scientists in the Civil Service

- Social science PhDs represent just over a tenth (13 percent) of all social scientists in government compared to Masters (66 percent) and Degrees holders (21 percent). Economics and Econometrics constitutes the top study subject across all levels of education, but this largely reflects that this is a GES membership requirement.
- Economists within the GES are represented in more departments (31 departments) than Social Researchers (19 departments). The highest concentration of social scientists is found in the Office for National Statistics (ONS) and the Department for Work and Pensions (DWP). Following these departments, social science PhDs are more concentrated to delivery departments such as the Department for Education (DfE) and Communities and Local Government (CLG) whereas Masters and Degree holders are more concentrated within Her Majesty's Treasury (HMT) and Her Majesty's Revenue and Customs (HMRC). There is a significantly greater proportion of social science PhDs within the GSR than the GES.
- Within departments, the majority of social scientists (58 percent) are located within analysis units; particularly the social science PhDs. Masters are more prone to being located within combined policy and analysis units than either those with PhDs or Degrees.
- The most prevalent task that all social scientists in government undertake as part of their day-to-day work is the preparation of reports and briefing notes underpinned by analysis. Overall, social science PhDs reported involvement in more tasks to a higher degree on average than social scientists with Masters or Degrees including tasks like project management, research procurement, and advisory work, but reported less involvement in analysis and data gathering tasks compared to Masters or Degree holders.
- There was a significant difference between social scientists with different levels of education and time spent in the current position. Social science PhDs spend longer in their current positions (mean of 2.4 years) than both Masters (mean 1.7 of years) and Degree holders (mean of 1.3 years). Moreover, GES members stay almost a year less in current positions than GSR members.
- The higher the education, the more likely it is for social scientists to hold senior positions, over and above gender, age and number of years in service. In fact, educational attainment, age and number of years in service are independent

predictors of seniority. This suggests that Masters and social science PhDs stand greater prospects of reaching higher grades during their Civil Service careers than those with Degrees, with similar chances for both men and women.

Social Scientist Contributions to Policy

- About half of social scientists in central government (49 percent) regard developing evidence or arguments to inform policy decisions and strategies as their most important contribution to policy. By contrast, introducing or helping to develop data sets is seen as least important (5 percent).
- Contributions at different stages of the policy cycle vary in depth and frequency. Economists are more heavily involved in appraisals, a role, which is underpinned, by their technical skills and formal requirements. Other social scientists are reportedly more involved in evaluations. Neither education nor location influences social scientists frequency of involvement in either appraisal or evaluation. However, with regards to the other stages of the policy cycle including clarification of policy objectives; design of policy instruments; and implementation, social scientists located in pure policy units are significantly more frequently involved compared to those located in pure analysis groups or combined policy and analysis units. In addition, those social scientists located in combined policy and analysis units were significantly more frequently involved in all these stages than those in pure analysis units. This suggests that co-location is most important for making contributions to the stages of the policy cycle where social scientists do not necessarily see to have a formal role (impact assessment) or where there is a lack of formal guidance (in the same way that there is a Magenta book for evaluations) that highlights the value of research.
- Social scientists regard critical analysis and decision-making as the most important skill to influence policy (61 percent rated this as very important) followed by communication and presentational skills (rated as very important by 58 percent of social scientists). A higher proportion of social science PhDs than Masters and Degree holders tended to think that critical analysis and decision-making, ability to work across areas and risk assessment skills were very important although differences were not statistically significant.
- Among the factors and process that help to contribute to policy, the vast majority of social scientists (88 percent) regard understanding the policy question as the single most important factor for making a policy contribution followed by presenting the analysis clearly (76 percent of respondents rated this as very important). Differences in opinion between social scientists of different levels of education were not statistically significant with the exception of the understanding of government requirements, which social science PhDs rated as much more important than Degree holders.

- Although co-location was noted by a number of interviewees as a factor enabling greater policy contributions, social scientists rated working as part of a multidisciplinary team as one of the least important factors. Interestingly social scientists working in pure policy units saw understanding the evidence collected as significantly less important for making a policy contribution than colleagues in combined or pure analysis units. Moreover, social scientists embedded into policy units regarded discussions with colleagues as much more important for making a policy contribution than colleagues in pure analysis units. Both these findings are statistically significant. This suggests that co-location of social scientists and policy officials provides the social scientists with a better awareness of the policy context that optimises the relevance of their contributions as well as enables the informal processes that largely underpin policy contributions. Overall, it is clear that location influences what processes that social scientists emphasise and see as important for making policy contributions. However, it is also clear that this may involve trade-offs.
- Social scientists in central government view their role very positively and as contributors to policy at all stages of the policy cycle although many would like to be even more involved up front in order to maximise their policy contribution. The fact that social scientists see themselves as having an active role in the policy cycle does not necessarily translate into specific contributions to specific policies. It is a contributory role and therefore innately diffuse. But as this study shows, there are clear examples of social scientists advice and recommendations that have been picked up by Government.
- Social scientists with PhDs are more prone than others to report that they engage in research management and that having a PhD has been an added value in facilitating uptake of new methods and evidence from academia as well as professional research organisations outside of central government.
- Although PhDs are not a requirement in the normal GES and GSR recruitment process, including via the Fast Track, they are generally seen as an added positive especially by those Departments that require more specialist research skills or sector knowledge. Most social science PhD-holders testify to the added value both in terms of helping them in their career as well as in enhancing their policy contribution. A small minority of both social science PhDs and non-PhDs however regard having a PhDs as irrelevant or even an obstacle to making policy contributions.
- Overall the higher the educational level, more social scientists attribute their formal training to being able to influence policy. 50 percent of social science PhDs compared to 40 percent of Masters and 36 percent of those with Degrees saw their education as a very important factor in having policy impact. These differences were statistically significant. Social scientists located in pure policy units tended to value the role of their formal education in making policy contributions as significantly less important for making policy contributions than those social scientists located in pure analysis units.

- Social scientists attribute their qualitative and quantitative research skills to their formal training. However, most other relevant skills for successfully working in a policy environment are attributed to learning on the job. In fact, across the board, independently of levels of education, social scientists generally regard the skills learnt on the job as more important in making a policy contribution than skills learnt as part of formal training. In fact, all social scientists with PhDs that join government face pressures to develop other less technical skills such as management and inter-personal skills to gain promotion. Those that are able to hone these other skills tend to become less specialised as they ascend through the hierarchy. Those that are not able to develop other skills tend to leave the Civil Service.
- Social science PhDs were more likely than Masters to attribute their critical analysis and decision-making as well as their communication skills to their academic training, representing 30 and 18 percent of all PhDs respectively. For analytical skills (both quantitative and qualitative), Masters attributed these skills to their university education. Social science PhDs attributed their quantitative and qualitative analytical skills to both their PhD and Graduate/Undergraduate with emphasis on the PhD training.
- Evidence also points to the efforts made by Research Councils, including the ESRC, to equip social science PhD students with softer skills and work experience as being appreciated and welcomed by both PhDs themselves as well as their employers in government.
- In general, policy people, employers and social scientists themselves recognise that contextual knowledge and softer skills are more important to maximising policy contributions than formal skills. This explains why social scientists emphasise the importance of learning on-the-job over formal education. This is not to say that formal skills are not valued. Social scientists particularly attribute analytical skills, both quantitative and qualitative, more to their formal training than work experience. Social science PhDs attribute their communication and critical analysis and decision-making skills to their PhD training to a much higher extent than social scientist with other types of Degrees. This points to social science PhDs undertaking more, and perhaps complex tasks, as part of their role certainly compared to Degree holders. The emerging pattern suggests that the higher the educational level, the more tasks social scientists engage with in their day-to-day work. This may be underpinned by a combination of greater skills (“expert effect”), in turn boosted by greater confidence and internal and external credibility in those skills – a “credibility effect”.
- Social scientists with PhDs have an advantage in that they are seen as highly credible both by stakeholders internally within government as well as externally with academics or business. This credibility together with the innate confidence that the PhD gives these social scientists allows these individuals to advocate solutions effectively, provided they are also able to communicate succinctly and

in an appropriate manner, but also progress in their careers – the “reward effect”.

6.0 Recommendations

This chapter presents the recommendations drawn on the basis of the above conclusions and brief methodological consideration.

- Most social scientist PhD candidates would benefit from greater insights into the practical aspects of policy-making within government through incorporating key aspects such as practical policy-making into the existing ESRC-sponsored transferable skills training. The career development element of this training might also be reinforced further to enable social scientist PhDs and PhD candidates to enhance their inter-personal, presentational and communication skills. The ability to write succinctly for policy-makers has been noted as a necessary skill and significant factor for facilitating policy contribution.
- The ESRC should continue to encourage that their sponsored PhD students have the opportunity to acquire a broad range of research methods skills during their doctoral training. However, current training schemes offering PhD candidates training in research methods might be further enhanced by putting greater emphasis on the possible real world application of methods within a pressurised environment, such as in government. This could help prepare social scientist PhDs wanting to develop a career in government to develop realistic expectations around the practical application of methods in a policy environment, which may allow them to adapt more quickly. This could be further supported by specific induction courses, mentoring or placement schemes for those specifically wishing to pursue a career within government. Moreover, given the importance of on-the-job training for maximising policy contributions expressed by participants in this study, the ESRC may want to provide additional opportunities for collaborative studentships and internships for PhD candidates in government, something that the ESRC has funded in the past. This may have the added benefit of allowing candidates to develop collaborative and team-working skills in addition to the project management and research skills developed during their doctoral training.
- The ESRC should continue to monitor the trends among their PhD holders in terms of the areas in which they develop careers and underpin this with qualitative studies to understand these trends and their underlying reasons.
- The combination of the online survey, interviews and case studies has provided a broad and deeper perspective of the perceived contributions of social scientists in government. However, there are still several areas that need to be developed further. In particular, many of the techniques used in this study relied on self-reporting. This is necessary because the social scientists are the main analytical focus for the study. The qualitative analysis, however, has enabled the viewpoints of policy clients to be reflected and considered against the self-assessments of PhD holders but their perspective cannot easily be integrated into a quantitative approach. Techniques to identify large numbers of potential

policy clients and to develop online questionnaires that may be relevant to their experiences could be tackled in future in order to yield more independently verifiable views of the contributions that social scientists make to policy.

Annex 1: Bibliography and references

Banks, G. (2009): "Challenges of Evidence-Based Policy-Making", a Report for the Productivity Commission, Australian Public Services Commission, Canberra.

CIHE (2010): "Talent Fishing: What Businesses Want from Postgraduates", a Report prepared for Department for Business, Innovation and Skills. London, CIHE.

Casey, B. H. (2009): "The economic contribution of PhDs", *Journal of Higher Education Policy and Management* 31(3): 219-227.

Elias, P., K. Purcell, et al. (2005): "The employment of social science PhDs in academic and non-academic jobs: research skills and postgraduate training", a report prepared for the ESRC Training and Development Board, Coventry Institute for Employment Research and Warwick University.

Hunt, W., N. Jagger, et al. (2010): "What do researchers do? Doctoral graduate destinations and impact three years on", a Report prepared for the RCUK, London, Vitae and Institute for Employment Studies.

Jackson, C. (2007): "Recruiting PhDs: What works?", a Report for the UK GRAD Programme.

Johnson, S. and G. Williams (2011): "Evaluating the Impact of Social Scientists", Final Report to the Economic and Social Research Council.

Kogut, B. and J.M. Macpherson (2011): "The mobility of economists and the diffusion of policy ideas: The influence of economics on national policies", *Research Policy* 40:1307– 1320.

Larsen, J. K. (1980): "Knowledge Utilization: What Is It?", *Knowledge. Creation. Diffusion, Utilization* 1(3): 421-442.

Luiz de Campos, A. (2010): "Economic Impact Assessment within the Research Councils", a Report to RCUK Strategy Unit and Performance Evaluation Group Brighton, CENTRIM.

McCarthy, M. and S. Simm (2006): "Survey of employer attitudes to postgraduate researchers", a Report prepared by Career Services, University of Sheffield.

Molas-Gallart, J. and P. Tang (2007): "Policy and Practice Impacts of ESRC Funded Research", Case Study of the ESRC Centre for Business Research, Swindon, Economic and Social Research Council.

Molas-Gallart, J., P. Tang, et al: (2000). "Assessing the non-academic impact of grant-funded socio-economic research: results from a pilot study", *Research Evaluation* 9(3): 171-182.

Molas-Gallart, J., Tang, P., Sinclair, T., Morrow, S., Martin, B. (1999): "Assessing Research Impact on Non-Academic Audiences", Brighton, SPRU.

Pawson, R. and N. Tilley (1997): "Realistic Evaluation", London, SAGE Publications.

Raddon, A. and J. Sung (2009): "The Career Choices and Impact of PhD Graduates in the UK: A Synthesis Review Report", prepared for the Economic and Social Research Council (ESRC) "Science in Society" Team and the Research Councils UK (RCUK) Research Careers and Diversity Unit, University of Leicester, ESRC, RCUK.

Spaapen, J. and H. Dijkstra (2005): "Evaluating Research in Context", Amsterdam, Consultative Committee of Sector Councils for Research and Development (COS).

Science and Technology Facilities Council (2010): "Delivering World Class Skills: Impact of STFC-funded Postgraduate Training", Swindon, Science and Technology Facilities Council,.

Souter, C. (2005): "EMPRESS Employers' Perceptions of Recruiting Research Staff and Students", University of Leeds.

Teirlinck, P., Ed. (2011): "Optimizing the research and innovation policy mix: The practice and challenges of impact assessment in Europe", Brussels.

Thompson, V. A. (1965): "Bureaucracy and Innovation", *Administrative Science Quarterly*, 10(1), 1-20.

Weiss, C. B. (1980): "Knowledge Creep and Decision Accretion", *Knowledge: Creation, Diffusion, Utilisation* 1(3): 381-404.

Weiss, C. H. (1977): "Introduction. Using Social Research in Public Policy Making", C. H. Weiss. Lexington and Toronto, Lexington Books: 1-22.

Weiss, C. H. (1986): "The circuitry of enlightenment: diffusion of social science research to policymakers", *Knowledge: Creation, Diffusion, Utilization* 8(2): 274-281.

Vitae (2009): "Recruiting employees: A survey of employer practice", The Careers Research and Advisory Centre (CRAC).

Yin, R. and M. Gwaltney (1981): "Knowledge utilisation as a network process", *Knowledge: Creation, Diffusion, Utilisation* 2: 555-580.

Annex 2: Data collection tools

The Annex contains the following data collection tools:

- Inception interview schedules 1 and 2,
- Online survey questionnaire,
- Case study template and questions.

Inception interview schedule 1 – Guide for inception interview with GESR Heads of Profession and similar

Guide for interviews with GES and GSR Heads of Profession	
1. Interview ID – background on the person	<p>1.1 What is your title? What is your role and what are your key responsibilities within the GES/GSR and your government department?</p> <p>1.2 How long have you been in this position (at this career level)? When did you join the Civil Service and at what entry level? What other departments have you worked in since joining?</p> <p>1.3 What is your educational background/qualifications? Is your career trajectory <i>typical</i> or <i>atypical</i> of someone with your qualifications and career level in the GES/GSR?</p> <p>1.4 How has your educational background helped you with your work at GES/GSR?</p> <p>1.5 Have your educational qualifications made any difference with your work at GES/GSR? How?</p>
2. Mechanisms (e.g. institutional characteristics and inputs – understanding how it may vary between departments and institutional role in the policy-cycle)	<p>2.1 What is the size of the GES versus the GSR in your department? Is this typical of the Civil Service as a whole?</p> <p>2.2 How many of the social scientists within the GES/GSR in your department have PhDs?</p> <p>2.3 To what extent is a PhD a (i) formal or (ii) preferred or (iii) irrelevant requirement to be a member of the GES/GSR?</p> <p>2.3 When in the policy cycle do social scientists in the GES/GSR tend to take on formal roles and responsibilities in your department? Why do you think that these stages require formal roles?</p> <p>2.4 Similarly, what kind of informal roles and responsibilities do social scientists in the GES and GSR perform as part of government business?</p> <p>2.5 Do informal interactions tend to happen more at certain stages of the policy cycle in your department? What would these stages generally be? Why at these stages?</p> <p>2.6 In your experience are these interactions similar in other departments?</p> <p>2.7 How important do you perceive informal roles to be in comparison with formal ones in terms of the influence or impact of social scientists on government activities?</p>

<p>3.1 Outcomes – social scientists</p>	<p>3.1.1 From the list below, what kind of contributions to policy-making have been made by GSE/GSR social scientists?</p> <ul style="list-style-type: none"> • Introduced or developed analytical tools to address policy problems • Introduced or helped develop data sets to help address policy problems • Introduced new ways of looking at problems (new concepts, conceptual frameworks) • Develop evidence/arguments to justify policy decisions/strategies (explore difference with appraise) • Develop evidence/arguments to confirm that existing policies are soundly based (explore difference with evaluate) • Develop evidence/arguments that helped policymakers develop policies • Others (specify) <p>3.1.2 Which type of contribution would you consider the most important and why?</p> <p>3.1.3 Are there particular areas of policy where social scientists have more impact (e.g. social policy versus transport)? Why is that?</p> <p>3.1.4 What do you think is the particular value of social scientists with PhDs in your department? Is this perception widely shared throughout your department and/or more widely?</p> <p>3.1.5 What groups (who) within your department tend to use the outputs of the GES/GSR more than other groups (e.g. other social scientists)? Do you perceive this as being similar across government?</p> <p>3.1.6 Overall, what do you regard as the key factors enabling social scientists – within the GES and the GSR in particular - to have policy impact in the short, medium and long-term?</p> <p>3.1.7 What skills, experience or personal characteristics if any, do you think enables social scientists in the GES/GSR to influence policy? Why? Are any of these characteristics particularly associated with PhDs?</p> <p>3.1.8 By the same token, are there skills, experience or personal characteristics that you perceive as hampering the capacity to influence policy? Are any of these characteristics particularly associated with PhDs?</p>
<p>3.2 Outcomes – personal experience</p>	<p>3.2.1 About your own work, what outputs of your work do you regard as more influential?</p> <p>3.2.2 What are the processes through which your work has had a policy impact?</p>

	<p>3.2.3 Are these processes mainly formal or informal?</p> <p>3.2.4 Are your contributions to policy linked to particular stages of the policy cycle (e.g. definition, implementation, evaluation)?</p> <p>3.2.5 On a scale of 1-5, how important do you perceive your education (and the skills you attained at university) in achieving this impact?</p> <p>3.2.6 Can you give examples of specific instances in which your work as a social scientist within government (the GES/GSR) has led to substantial policy impact?</p> <p>3.2.7 Can you describe the processes that led to such impact in these cases?</p>
4. Context	<p>4.1 In what ways do you think that the work of social scientists in the GES/GSR in your department is influenced by external factors in achieving impact (the public, the economic climate, etc)?</p> <p>4.2 Can you think of specific examples where outside factors led to the social scientists having a greater or lesser impact on policy within government?</p>
5. CONCLUSION OF INTERVIEW	5.1 Are there any other issues that you feel are important but have not been discussed?
6. Practicalities/ sign-posting	<p>6.1 Can you think of any potential case studies in your department or others where social scientists, in particular those with PhDs, within the GES/GSR were able to have a substantial contribution to policy-making (e.g. impact on the design, implementation or evaluation of a particular policy)?</p> <p>6.2 We would like to speak to your “clients” within government, policy units in particular. Are you able to provide us with contacts for your clients that could give us a view of how their decision-making was influenced by the work of social scientists in the GES/GSR?</p>

Inception interview schedule 2 – Guide for inception interview high-level users/policy-makers

Guide for interviews with high level users/policy-makers	
1. Interview ID	<p>1.1 What is your title? What is your role and what are your key responsibilities within your government department?</p> <p>1.2 How long have you been in this position (at this career level)? When did you join the Civil Service and at what entry level? What other departments have you worked in since joining?</p> <p>1.3 What is your educational background (PhD/Masters/BA)?</p> <p>1.4 Is your career trajectory <i>typical</i> or <i>atypical</i> of someone with your qualifications and career level within government?</p>

<p>2. Context</p>	<p>2.1 Could you describe in a few words how you understand the role of social scientists in government?</p> <p>2.2 Do you see social scientists in the GES and the GSR as having comparable or distinct roles within the policy-making process?</p>
<p>3. Mechanisms</p>	<p>3.1 At what stages of the policy-making process (e.g. Rationale, Objectives, Appraisal, Monitoring, Evaluation, Feedback stages) do you tend to interact with social scientists within the GES and the GSR?</p> <p>3.2 What factors drive these interactions?</p> <p>3.3 What are the communication channels for GES/GSR to be involved in the policy making process? Do they tend to be formal/informal, frequent/infrequent?</p>
<p>4. Outcomes</p>	<p>4.1 From the list below what kind of contributions to your department policies have been made by GES and GSR social scientists?</p> <ul style="list-style-type: none"> • Introduced or developed analytical tools to address policy problems • Introduced or helped develop data sets to help address policy problems • Introduced new ways of looking at problems (new concepts, conceptual frameworks) • Develop evidence/arguments to justify policy decisions/strategies (explore difference with appraise) • Develop evidence/arguments to confirm that existing policies are soundly based (explore difference with evaluate) • Develop evidence/arguments that helped policymakers develop policies • Others (specify) • None <p>4.3 What has been the outcome of this contribution? One or more of the following?</p> <ul style="list-style-type: none"> - Policy has become more “evidence based” - Policy has improved in its definition/implementation - Policy has become more timely - New policies have been defined - There has been a shift in focus - ... <p>4.2 Can you give us specific examples? Do these examples include social scientists with PhDs?</p> <p>4.3 Which type of contribution, if any, would you consider the most important and why?</p> <p>4.4 What do you think is the particular value of social scientists with PhDs? Is this perception widely shared throughout your department or</p>

	<p>more widely?</p> <p>4.5 What skills, experience or personal characteristics (if any) do you think enable social scientists in the GES/GSR to influence policy? Why? Are any of these characteristics associated with PhDs?</p> <p>4.6 By the same token, are there skills, experience or personal characteristics that you perceive as hampering the capacity to influence policy? Are any of these characteristics associated with PhDs?</p> <p>4.7 Do you regard the work of social scientists with PhDs differently to those without PhDs? Why?</p>
5. Conclusion of interview	<p>5.1 Are there any issues that you feel are important but have not been discussed?</p> <p>5.2 Is there anything else you would like to add?</p>
6. Practicalities/ sign-posting	<p>6.1 Is there anybody you think we should contact with regard to this work?</p>

Online survey tool

General background

1. Please indicate to which Department/Ministry you belong by picking from the below list:

ACAS
 BIS
 CC
 CCC
 CLG
 DCMS
 DECC
 DEFRA
 DfE
 DfID
 DfT
 DH
 DWP
 ECGD
 FCO
 Forestry
 FSA
 GEO
 HMRC
 HMT
 HO
 HSE
 IPO
 LSRC
 MoD
 MOJ
 NAO

NPIA
Ofgem
OfT
Ofwat
ONS
ORR

2. What other departments have you worked in prior to your current role?

Allow to pick from list as above and tick as many as appropriate

3. Are you in the GES

Are you in the GSR

Other (specify)... Allow entering manually

4. How would you describe the unit in which you are physically located in the department?

- a. Policy
- b. Analysis
- c. Combined policy and analysis
- d. Operational delivery
- e. Corporate support
- f. Other, (specify)...Allow entering manually

5. How many years have you been in your current position? Allow entering manually in box

.....
.....

6. What is your current grade?

For GES:

HEO

G7

G7/G6

G6

SCS 1

SCS 2

SCS 3

For GSR:

RO/HEO

SRO/SEO

PRO/G7

SPRO/G6

CRO/SCS

Other, (specify)..... Allow entering manually

7. How long have you been working in the Civil Service? Allow entering manually in box

.....
.....

8. Have you been part of the Fast Track scheme? Yes No Not applicable

9. How long have you been a part of the GES/GSR/Not applicable? Allow entering manually in box.....

Qualifications

10. What is your educational background? Please tick all that are appropriate.

Multiple choice, tick-boxes

- (a) BA/BSc
- (b) MA/MBA/MSc/Mphil
- (c) PhD/DPhil
- (d) Other, (specify)...

11. What is your BA/BSc degree in?

Multiple choice, tick-boxes, routing depending on answer to previous question.

- (a) Accounting and Finance
- (b) Area Studies and Development Studies
- (c) Demography
- (d) Economic and Social History
- (e) Economics and Econometrics
- (f) Education
- (g) Environmental
- (h) European Studies
- (i) Geography
- (j) Planning
- (k) Human Geography
- (l) Library or Data/Information Centre
- (m) Linguistics
- (n) Business and Management Studies
- (o) Political Science and International Studies
- (p) Psychology
- (q) Research methods

- (r) Science and Technology Studies
- (s) Social Anthropology
- (t) Social Policy and Administration
- (u) Social Work
- (v) Socio-Legal Studies
- (w) Sociology
- (x) Statistics and Operational Research
- (y) Computing science
- (z) Arts and Humanities
- (aa)Biotechnology and biological science
- (bb)Engineering and physical science
- (cc)Environmental science
- (dd)Medicine
- (ee)Other (specify)...Allow entering manually

12. What is your MA/MBA/MSc/Mphil degree in?

Same as above (Q2)

13. What is your PhD/DPhil in:

Same as above (Q2)

14. What was the date of your PhD?

15. Did you receive a grant from the ESRC for your doctorate?

Yes No Not Applicable

Inputs into policymaking

16. What tasks do you undertake as part of your job? (tick all that apply):

- (a) Data gathering (qualitative and quantitative)
- (b) Synthesis of evidence (literature, evidence reviews)
- (c) Development of analytical tools, conceptual approaches and frameworks
- (d) Analysis
- (e) Preparation of reports and briefing notes
- (f) Briefing policy officials
- (g) Modelling and forecasting
- (h) Initiating and implementing policy
- (i) Team Management
- (j) Project Management
- (k) Research Management
- (l) Ex-ante policy appraisal/impact assessment
- (m) Ex-post policy evaluation/impact assessment
- (n) Research procurement
- (o) Training others
- (p) Networking
- (q) Advisory/expert capacity
- (r) Other – please specify.....Allow entering manually

17. Which of these tasks do you regard as most important for contributing to policy formation? ? Allow entering manually.....

18. In which policy stages do you get involved and when (tick as appropriate):

	Occasional contributions (annually)	Regular contributions (quarterly)	Regular contributions (monthly)	Continuous contributions (weekly)	Continuous contributions (daily)
Clarification of policy objectives					
Design of policy instruments					
Appraisal (ex-ante assessment of policy effects)					
Implementation					
Evaluation of policy results (ex-post implementation)					

19. What individual characteristics do you consider to be most important to make an effective contribution to the policy process?

Characteristic	Not important	Some importance	Quite important	Very important
Specific area expertise				
Communication and presentational skills				
Interpersonal skills				
Management and leadership skills				
Risk assessment skills				
Qualitative analytical skills				
Quantitative analytical skills				
Developing constructive relationship skills				
Ability to work across a broad range of areas				
Critical analysis and decision-making skills				
Other (specify; enter manually here))				

20. In acquiring the skills above, what do you consider the most important:

Characteristic	On-the-job-training	Doctoral training	Graduate/Under graduate training	Other, please specify
Specific area expertise				
Communication and presentational skills				
Interpersonal skills				
Management and leadership skills				
Risk assessment skills				
Qualitative analytical skills				
Quantitative analytical skills				
Developing constructive relationship skills				
Ability to work across a broad range of areas				
Critical analysis and decision-making skills				
Other (specify; enter manually here))				

Outcomes

21. From the list below, what kind of contributions to the policy process have you made in your current job?

- (a) Introduced or helped develop **data** sets to help address policy problems
- (b) Introduced innovative ways of looking at problems (e.g. new **concepts**, conceptual frameworks)
- (c) Developed evidence/arguments to **inform** policy decisions/strategies
- (d) Developed evidence/arguments to evaluate whether policies are soundly based
- (e) Developed evidence/arguments that **helped** policymakers **develop** policies
- (f) Other – please specify

22. Which type of contribution from the list above would you consider the most important for making an effective contribution to the policy process?

Allow entering manually.....
 ...

23. Can you give a brief example when your work as a social scientist within government (the GES/GSR) has contributed to the policy process?

Allow entering manually.....
 ...

24. What if anything, could be done to increase the effective contribution of social scientists in government? Allow enter manually.....

25. Of the following, how important do you think the following factors were in helping you to make a contribution to policy? (tick all that apply)

Process	Not important	Some importance	Quite important	Very important
Understanding the evidence collected				
Understanding the policy question				
Understanding Government requirements				
Presenting the analysis clearly				
Timeliness of the work to Government needs				
Discussion with colleagues				
Quality of the evidence				
Working in multidisciplinary teams				
Other (specify; enter manually here)				

26. On a scale of 1-4, 1 being not important and 4 being very important, how important do you perceive your education (and the skills you attained at university) in achieving this contribution?

Scale	Not important	Some importance	Quite important	Very important

Routing questions for those with PhDs/DPHils only

27. At what stages of your career in the Civil Service has the knowledge you gained through your PhD been most useful and why? Allow entering manually.....

28. What do you regard as the added value of your PhD in your career in the Civil Service? Allow entering manually.....

About you

29. Are you:

Male	<input type="checkbox"/>
Female	<input type="checkbox"/>

30. How old were you at your last birthday?

Allow entering manually.....

Participating in further research

If you would not mind being interviewed at a later stage as part of the case studies, please state your name, email address and telephone number and a member of our team will be in contact:
Allow entering manually.....

Many thanks for your help!

Case study template and questions

The following tool is aimed for use in four case studies particularly involving Social Scientists with PhDs and their “clients” within the Civil Services e.g. policy departments.

The case study focuses on the contribution made by PhDs on particular policies/cases to explore the added value of a doctoral degree.

The Tool contains an introductory note that will be read before the interviews as well as a number of questions aimed at the Social Scientists with a PhD and a number of separate questions aimed at the “client”.

Introductory Note

Firstly, I would like to thank you for participating in this interview. Before we begin, let me take the opportunity to briefly tell you about the study.

The current study has been commissioned by the ESRC and is being delivered by a team of experts from Policy Impact Ltd, Prova Research and SPRU, the University of Sussex. It will run over a six-month period between October 2011 and March 2012. The ESRC is committed to publishing the final report sometime next year. The ESRC has liaised closely with the GESR regarding the timing and contents of the study and the GESR will have the opportunity to review the final report before it is published.

The aim of the current study is to assess the contribution of social scientists within government with focus on members of the Government Economic Services (GES) and the Government Social Research (GSR). The emphasis of the study is on trying to understand *when, how* and in *what ways* social scientists contribute to the different aspects of the policy cycle (from design through to evaluation). In this we are particularly interested in knowing whether the *perceived* impact – as seen both from the point of view the social scientists themselves as well as from users within government - varies according to any specific characteristics of the social scientists.

The study consists of a number of elements including an online survey to GES and GSR members as well as case studies. The aim of the case studies is to examine specifically the contribution(s) made to policy making by GES/GSR researchers with a PhD. The investigation will be undertaken through an interview program with the identified respondents.

Questions aimed at social scientists with PhDs

Background

1. What is your title? What is your role and what are your key responsibilities within your policy unit?
2. How long have you been in this position? When did you join the Civil Service and at what entry level? What other departments have you worked in since joining?
3. What is your PhD in?
4. In general, how do you feel that your educational background has helped you (1) with your work at your policy unit and (2) with your career?
 - a. Differentiate between formal requirements for qualifications, employers’ perception of the importance of an educational qualification, and the application of knowledge and skills learnt at University.
 - b. Differentiate between doctoral qualifications and others.

Case

We have been told by the HoP/DoA/CE that you have been involved in (add title of policy) which was seen as a success by your department. In the rest of the interview, we would like to explore why this was seen as a success and what context, mechanisms and factors led to it.

5. Before discussing this case, are there any other policies you have contributed to that you would like to highlight? We would particularly like you to identify the policy that you feel that you have made the greatest contribution to through your role as social scientists in government?
6. Please describe the policy you have chosen in a bit more detail.

Outcomes

7. From the list below, how would you describe the contribution/s made by you to this policy?
 - Introduced or developed **analytical tools** to address policy problems
 - Introduced or helped develop **data** sets to help address policy problems
 - Introduced **innovative** ways of looking at problems (new **concepts**, conceptual frameworks)
 - Develop evidence/arguments to **inform** policy decisions/strategies
 - Develop evidence/arguments to **confirm** that existing policies are soundly based
 - Develop evidence/arguments that **helped** policymakers **develop** policies
 - Others (specify)
8. Are these contribution/s a regular occurrence in your role?
9. Are these among the contributions of your role that you regard as more influential? Why?
10. Were your contributions to this policy linked to a particular **stage of the policy cycle** (e.g. definition, implementation, evaluation) and how important to the success do you regard it?
11. What other **processes** enabled you to make a contribution to this policy?

Mechanisms

12. How important were the skills you learnt during your doctoral studies in your ability to contribute to this particular policy?
13. How important were other skills you learnt on-the-job in your ability to contribute to this particular policy?
14. How important were your relationships with colleagues at work, or with policy makers both at your workplace and outside working hours to your ability to contribute to this particular policy? If so, why?...
15. Was input from the academic community a factor in the success of this policy?
16. What internal processes or other factors (if any) did you perceive as hampering the success of the policy?

Context

17. In what ways do you think that the contribution you were able to make to the policy was aided by **external factors** (the public, the economic climate, etc)?
18. Can you provide specific examples where **outside factors** have led to your work having a greater or lesser impact on policy within government?

19. Is there anything else that you would like to add?

PhD related questions

20. Which of the statements do you agree or disagree with and why?

- Social Science PhDs in government have an ability to analyze and interpret information more quickly.
- A PhD provides a stronger basis for providing higher quality research and evidence for policy inputs
- A PhD gives one the ability to communicate ideas on how they may or should be used in policy faster than those without a PhD.
- A PhD trains one to develop an ability to think conceptually and this ability helps to induce and encourage others to develop their ability to think conceptually, which is important for policy work.
- Having a PhD does not only increase my own productivity but also the productivity of those without a PhD alongside whom I work with.
- A PhD is treated as a proxy for skills and experience.
- Having a PhD enables me “to hit the ground running.”
- Those with PhDs are generally more mature and can contribute more quickly.

21. How important do you regard “knowledge generation” to be a part of your role versus “knowledge brokerage”? Are these terms that you feel comfortable with?

22. Is “knowledge co-production” with policy units a factor contributing to greater impact?

23. On a scale of 1-4 (1=not important; 2= quite important; 3= important; 4=very important) how important do you regard working with the academic community in terms of maximising your contribution to policy in your area?

24. What role do you play in any of the following:

- building relationships with the academic community.
- communicating policy agendas and evidence requirements to academic researchers.
- facilitating contribution of academic evidence to the policy process.
- procuring research from the academic community .
- Other (specify)

25. On a scale of 1-4 (1=not important; 2= quite important; 3= important; 4=very important) has the fact that you have a PhD made any difference to the role you play vis-à-vis the academic community?

26. In what way(s) could PhD training better prepare social scientists for work in a policy environment?

Many thanks for your time!

Questions aimed at Policy “clients” of social scientists with PhDs

Background

1. What is your title? What is your role and what are your key responsibilities within your policy unit?
2. How long have you been in this position? When did you join the Civil Service and at what entry level? What other departments have you worked in since joining?

Case

We have been told (insert name of PhD) that he/she contributed to (add title of policy/initiative) which was seen as a success by your department. In the rest of the interview, we would like to explore why this was seen as a success and what context, mechanisms and factors led to it.

1. Tell us a little bit more about this policy and how it fitted into the work of your department at the time.

Outcome

2. Would you regard this policy/initiative as a success? Why is that?
3. What do you generally regard as a successful policy/initiative?

Mechanisms

4. How did you involve social scientists in this policy/initiative? Is this something that is done fairly frequently or was this a special case?
5. How did you regard the specific contribution made to this policy/initiative by the social scientists?
6. How do you decide which social scientists to involve in what stages of the policy cycle?
7. What skills among these social scientists do you rate the highest e.g. interpersonal skills, technical skills, interpersonal skills, communication skills, etc.?
8. Were you aware that (insert social scientists name) had a PhD? Was this a factor in the contribution made to the policy?
9. What is your views on the benefits or otherwise of social scientists with a PhD for your work specifically or for the organisation in general?
27. Which of the statements do you agree or disagree with and why?
 - Social science PhDs in government have an ability to analyze and interpret information more quickly
 - A PhD provides a stronger basis for providing higher quality research and evidence for policy inputs
 - A PhD gives one the ability to communicate ideas on how they may or should be used in policy faster than those without a PhD.
 - A PhD trains one to develop an ability to think conceptually and this ability helps to induce and encourage others to develop their ability to think conceptually, which is important for policy work.
 - Having a PhD does not only increase my own productivity but also the productivity of those without a PhD alongside whom I work with.
 - A PhD is treated as a proxy for skills and experience.
 - Having a PhD enables the PhD employee “to hit the ground running.”

- Those with PhDs are generally more mature and can contribute more quickly.
28. Do you perceive those social scientists with PhDs in your department or in the Civil Service as having any advantages in terms of their:
- use of evidence.
 - relationships with the academic community.
 - absorptive capacity.
 - knowledge/skills transfer
 - research management and procurement
 - Other (specify).
29. In what way(s) could PhD training better prepare social scientists for work in a policy environment?

Context

10. Were there any external factors that enabled this particular policy to be seen as successful?
11. How important do you regard the contribution of external academic evidence in the policy process and the role of the GES/GSR in facilitating this contribution?
12. Is there anything else that you would like to add?

Many thanks for your time!

Annex 3: Case studies

Potential case studies were referred to the study team during the inception phase by GES and GSR Directors of Analysis, Heads of Profession and Chief Economists as well as by GESR members more broadly as part of the online survey. The criteria for selecting four cases from the list of potential cases included a balanced mix of:

- GES and GSR members;
- Departments, representing both ministerial and non-ministerial departments, ideally some that were linked;
- Departments, representing different areas and including at least one of the major delivery departments;
- Contributions, reflecting both general policies and specific initiatives; and
- Contributions, affecting different types of end users/audiences (e.g. businesses, individuals).

Other factors taken into consideration in the selection included availability within the study period of both the social scientists with PhDs as well as their nominated policy clients. Where possible, the team also tried to interview policy clients that had PhDs as well as non-PhDs.

On the basis of these criteria, the following case studies were selected:

Case study	Department	Primary Policy/Initiative Focus	Stakeholders
1	BIS	Policy on reforming the Intellectual Property Framework to promote growth	Economist with PhD Policy client (PhD)
2	Health and Safety Executive	Policy on Cost Recovery from employers in the event of accidents and incidents resulting from non-compliance of health and safety regulations	Social researcher with PhD Policy client (non-PhD)
3	Department for Work and Pensions	Study to understand how ready Jobcentres Plus were for dealing with an ageing population and an ageing claimant base given demographic trends	Social researcher with PhD Policy client (non-PhD)
4	Office of Fair Trading	Merger and Acquisition case – Netto and ASDA	Economist with PhD Policy client (PhD)

Annex 4: Detailed survey analysis and data

The following data reflects the analysis of survey data from the online survey of social scientists which has not already been included in the main chapters of the report or which here appears in a more detailed format.

Table 7: GESR survey response by department

Department	Respondents	Percent
ONS	63	14.6%
DWP	47	10.9%
HMT	36	8.4%
HMRC	30	7.0%
BIS	31	7.2%
DfE	23	5.3%
HO	21	4.9%
DfT	20	4.6%
DECC	19	4.4%
DH	19	4.4%
DEFRA	18	4.2%
CLG	15	3.5%
MoJ	15	3.5%
Other	74	17.2%
Total	431	100%

Source: Survey of social scientists (Policy Impact et al, 2011).

Table 8: Location of social scientists within departments, overall and by membership

Unit physically located within	GES	GSR	All Social Scientists
Policy	43 (13%)	11 (4%)	54 (9%)
Analysis	186 (55%)	164 (63%)	350 (58%)
Combined policy and analysis	85 (25%)	34 (13%)	119 (20%)
Operational delivery	12 (4%)	17 (6%)	29 (5%)
Corporate support	4 (1%)	6 (2%)	10 (2%)
Other	8 (2%)	30 (12%)	38 (6%)
Total	338 (100%)	262 (100%)	600 (100%)

Source: Survey of social scientists (Policy Impact et al, 2011).

Table 9: Location of social scientists within departments by management grade

Unit physically located within	Management Grade				Total
	Junior managers	Middle managers	Senior managers	Senior Civil Service	
Policy	20 (9%)	3 (2%)	27 (10%)	1 (5%)	51 (8%)
Analysis	127 (59%)	74 (65%)	151 (58%)	8 (42%)	360 (59%)
Combined policy and analysis	48 (22%)	17 (15%)	48 (18%)	6 (31%)	119 (19%)
Operational delivery	7 (3%)	8 (7%)	14 (5%)	0 (.0%)	29 (5%)
Corporate support	3 (1%)	1 (1%)	4 (2%)	2 (10%)	10 (2%)
Other	12 (6%)	11 (10%)	17 (7%)	2 (11%)	42 (7%)
Total	217 (100%)	114 (100%)	261 (100%)	19 (100%)	611 (100%)

Source: Survey of social scientists (Policy Impact et al, 2011).

Table 10: Concentration of social scientists by department and education

Department	Degree	Masters	PhD
	N° of respondents (percentage of all)		
ONS	23 (26.1%)	32 (11.3%)	7 (13.0%)
DWP	7 (8%)	33 (11.7%)	7 (13.0%)
HMT	12 (13.6%)	21 (7.4%)	1 (1.9%)
HMRC	8 (9.1%)	20 (7.1%)	2 (3.7%)
BIS	6 (6.8%)	22 (7.8%)	2 (3.7%)
DfE	7 (8%)	10 (3.5%)	6 (11.1%)
HO	2 (2.3%)	17 (6%)	2 (3.7%)
DfT	2 (2.3%)	16 (5.7%)	2 (3.7%)
DECC	2 (2.3%)	16 (5.7%)	1 (1.9%)
DH	5 (5.7%)	12 (4.3%)	2 (3.7%)
DEFRA	3 (3.4%)	12 (4.3%)	2 (3.7%)
CLG	0 (.0%)	11 (3.9%)	4 (7.4%)
MoJ	3 (3.4%)	9 (3.2%)	2 (3.7%)
Other	8 (9.1%)	51 (18.1%)	14 (25.9%) ⁴¹
Total	88 (100%)	282 (100%)	54 (100%)

Source: Survey of social scientists (Policy Impact et al, 2011).

⁴¹ Other PhDs were located to: the NPIA, the FSA, the HSE, the MoJ, the OFT, DFID and IPO.

Table 11: Top four study subjects by education

Subjects	Degree	Masters	PhD
	N° of respondents (percentage of all)		
Top 1 subject	Economics and Econometrics	Economics and Econometrics	Economics and Econometrics
<i>N° of respondents (percentage of all)</i>	229 (41.2%)	192 (44%)	19 (22.9%)
Top 2 subject	Psychology	Research Methods	Psychology
<i>N° of respondents (percentage of all)</i>	64 (11.5%)	63 (14.4%)	14 (16.9%)
Top 3 subject	Geography/ Sociology	Psychology	Sociology
<i>N° of respondents (percentage of all)</i>	Both 26 (4.7%)	26 (6%)	7 (8.4%)
Top 4 subject	Arts and Humanities	Political Science and International Studies	Geography/Social Policy and Administration
<i>N° of respondents (percentage of all)</i>	12 (2.2%)	10 (2.3%)	Both 5 (6%)
<i>Total N° of respondents (percentage of all)</i>	556 (100%)	436 (100%)	83 (100%)

Source: Survey of social scientists (Policy Impact et al, 2011).

Table 12: Degree study subjects

Subject area	Frequency	Percentage
Area studies and Development Studies	1	0.2%
Demography	1	0.2%
Economic and Social History	9	1.6%
Economics and Econometrics	229	41.2%
Education	1	0.2%
European Studies	2	0.4%
Geography	26	4.7%
Planning	2	0.4%
Human Geography	4	0.7%
Library or Data/Information Centre	2	0.4%
Business and Management Studies	5	0.9%
Political Science and International Studies	11	2.0%
Psychology	64	11.5%
Research methods	2	0.4%
Science and Technology Studies	1	0.2%
Social Anthropology	6	1.1%
Social Policy and Administration	5	0.9%
Socio-Legal Studies	3	0.5%
Sociology	26	4.7%
Statistics and Operational Research	5	0.9%
Arts and Humanities	12	2.2%
Biotechnology and biological science	6	1.1%
Engineering and physical science	3	0.5%
Environmental Science	1	0.2%
Other	129	23.2%

Subject area	Frequency	Percentage
Total	556	100%

Source: Survey of social scientists (Policy Impact et al, 2011).

*Note: See explanatory factors under **Table 14**.

Table 13: Master degree study subjects

Subject area	Frequency	Percentage
Area Studies and Development Studies	7	1.6%
Demography	2	0.5%
Economic and Social History	6	1.4%
Economics and Econometrics	192	44.0%
Education	1	0.2%
European Studies	1	0.2%
Geography	4	0.9%
Planning	1	0.2%
Human Geography	1	0.2%
Library or Data/Information Centre	2	0.5%
Business and Management Studies	4	0.9%
Political Science and International Studies	10	2.3%
Psychology	26	6.0%
Research Methods	63	14.4%
Social Anthropology	4	0.9%
Social Policy and Administration	6	1.4%
Socio-Legal Studies	4	0.9%
Sociology	5	1.1%
Statistics and Operational Research	3	0.7%
Biotechnology and Biological Science	2	0.5%
Environmental Science	4	0.9%
Other	88	20.2%*
Total	436	100%

Source: Survey of social scientists (Policy Impact et al, 2011).

*Note: See explanatory factors under **Table 14**.

Table 14: Doctoral degree study subjects

Subject area	Frequency	Percentage
Demography	1	1.2%
Economic and Social History	2	2.4%
Economics and Econometrics	19	22.9%
Education	1	1.2%
European Studies	1	1.2%
Geography	5	6.0%
Planning	1	1.2%
Human Geography	2	2.4%
Business and Management Studies	4	4.8%
Political Science and International Studies	3	3.6%
Psychology	14	16.9%
Research Methods	1	1.2%
Social Anthropology	2	2.4%
Social Policy and Administration	5	6.0%
Sociology	7	8.4%
Statistics and Operational Research	1	1.2%
Arts and Humanities	1	1.2%

Subject area	Frequency	Percentage
Biotechnology and Biological Science	2	2.4%
Other	11	13.3%*
Total	83	100%

Source: Survey of social scientists (Policy Impact et al, 2011).

*Note: As evident in the above three tables, the “Other” subject category represented a high percentage of responses (23 percent among those with Degrees and 13 percent of PhDs). A possible reason for this high percentage could be that respondents did not feel comfortable linking degrees involving combined or specialist subjects to the subject areas provided. For instance, there seems to have been reluctance to listing subjects such as “Development economics” or “Health economics” under the “Economics and Econometrics” category. The qualitative information provided under the “Other” category for Degree subjects included “Philosophy, Mathematics” and various combined degrees involving Economics and other subjects. For Masters degrees the “Other” category included specialist subjects such as “Criminology” and “Ethics” as well as various combined degrees involving e.g. “Economics, Policy Analysis and Sociology”. For PhDs the “Other” category contained subjects such as “Mathematics, Physics, Medical Anthropology and Criminology”.

Table 15: Highest education by management grade

Education	Management grade				Total
	Junior managers	Middle managers	Senior managers	Senior Civil Service	
Degree	83 (65%)	21 (16%)	23(18%)	1(1%)	128 (100%)
Masters	125 (31%)	76(19%)	184(46%)	13(3%)	398 (100%)
PhD	9 (11%)	20(24%)	50(60%)	5(6%)	84 (100%)
Other	1 (50%)	0 (0%)	1 (50%)	0 (0%)	2 (100%)
Total	218 (36%)	117 (19%)	258 (42%)	19 (3%)	612 (100%)

Source: Survey of social scientists (Policy Impact et al, 2011).

Table 16: Previous positions by membership

Number of departments prior to current department	GES	GSR	All Social Scientists
No previous departments	126 (52%)	10 (63%)	233 (56%)
One previous department	77 (32%)	41 (24%)	118 (29%)
Two previous departments	30 (12%)	14 (8%)	44 (11%)
Three previous departments	9 (4%)	6 (4%)	15 (4%)
Four previous departments	2 (1%)	1 (1%)	3 (1%)
Total	244 (100%)	169 (100%)	413 (100%)

Source: Survey of social scientists (Policy Impact et al, 2011).

Table 17: Changes between departments

Rank	No previous department		One previous department		Two previous departments	
	Department	Frequency (% of all respondents per department)	Department	Frequency (% of all respondents per department)	Department	Frequency (% of all respondents per department)
1	ONS	58 (92%)	DfT	11 (55%)	DECC	5 (28%)
2	HO	16 (76%)	BIS	15 (50%)	CLG	4 (27%)
3	DWP	34 (72%)	DECC	8 (44%)	DEFRA	4 (22%)
4	HMT	23 (66%)	CLG	6 (40%)	MoJ	3 (20%)
5	DH	12 (63%)	DfE	8 (35%)	HMRC	6 (20%)

Source: Survey of social scientists (Policy Impact et al, 2011).

Table 18: Management grades and distribution by membership

Service	Management grade				
	Junior managers	Middle managers	Senior managers	Senior Civil Service	Total
GES	148 (45.1%)	2 (0.6%)	163 (49.7%)	15 (4.6%)	328 (100%)
GSR	62 (23.6%)	110 (41.8%)	88 (33.5%)	3 (1.1%)	263 (100%)
Total	210 (35.5%)	112 (19%)	251 (42.5%)	18 (3%)	591 (100%)

Source: Survey of social scientists (Policy Impact et al, 2011).

Table 19: Mean years in the Civil Service and in current position by management grade

Item	Management grade				
	Junior managers	Middle managers	Senior managers	Senior Civil Service	Total
Mean years in current position	0.88	2.22	2.07	3.06	1.70
Standard Deviation	1.167	1.927	2.497	2.689	2.106
N	218	118	261	18	615
Mean years in Civil Service	2.73	7.06	8.75	17.68	6.58
Standard Deviation	2.665	4.898	5.765	7.242	5.813
N	216	118	260	19	613

Source: Survey of social scientists (Policy Impact et al, 2011).

Table 20: Social scientists tasks by membership

Task	GES	GSR	Total
Data gathering (qualitative and quantitative)	190 (53.4%)	166 (46.6%)	356 (100%)
Synthesis of evidence (literature, evidence reviews)	264 (56.7%)	202 (43.3%)	466 (100%)

Development of analytical tools, conceptual approaches and frameworks	221 (61%)	141 (39%)	362 (100%)
Analysis	305 (58.2%)	219 (41.8%)	524 (100%)
Preparation of reports and briefing notes	297 (55.4%)	239 (44.6%)	536 (100%)
Briefing policy officials	231 (60.2%)	153 (39.8%)	384 (100%)
Modelling and forecasting	148 (82.7%)	31 (17.3%)	179 (100%)
Initiating and implementing policy	74 (81.3%)	17 (18.7%)	91 (100%)
Team Management	120 (49.4%)	123 (50.6%)	243 (100%)
Project Management	188 (48.1%)	203 (51.9%)	391 (100%)
Research Management	107 (35.3%)	196 (64.7%)	303 (100%)
Ex-ante policy appraisal/impact assessment	170 (81.3%)	39 (18.7%)	209 (100%)
Ex-post policy evaluation/impact assessment	108 (61%)	69 (39%)	177 (100%)
Research procurement	82 (34.6%)	155 (65.4%)	237 (100%)
Training others	105 (50%)	105 (50%)	210 (100%)
Networking	136 (52.9%)	121 (47.1%)	257 (100%)
Advisory/expert capacity	151 (52.2%)	138 (47.8%)	289 (100%)
Other	12 (54.%)	10 (45.5%)	22 (100%)

Source: Survey of social scientists (Policy Impact et al, 2011).

Table 21: Social scientists tasks by management grade

Task	Junior	Middle	Senior	Senior	Total
	Manager	Manager	Manager	Civil Service	
Data gathering (qualitative and quantitative)	141 (39.2%)	73 (20.3%)	137 (38.1%)	9 (2.5%)	360 (100%)
Synthesis of evidence (literature, evidence reviews)	169 (36%)	92 (19.6%)	195 (41.5%)	14 (3%)	470 (100%)
Development of analytical tools, conceptual approaches and frameworks	132 (35.3%)	66 (17.6%)	163 (43.6%)	13 (3.5%)	374 (100%)
Analysis	198 (36.9%)	97 (18.1%)	227 (42.4%)	14 (2.6%)	536 (100%)
Preparation of reports and briefing notes	189 (35%)	103 (19.1%)	234 (43.3%)	14 (2.6%)	540 (100%)
Briefing policy officials	118 (30.5%)	65 (16.8%)	188 (48.6%)	16 (4.1%)	387 (100%)
Modelling and forecasting	77 (41.4%)	15 (8.1%)	89 (47.8%)	5 (2.7%)	186 (100%)

Initiating and implementing policy	24 (26.1%)	6 (6.5%)	51 (55.4%)	11 (12%)	92 (100%)
Team Management	22 (8.7%)	37 (14.6%)	177 (69.7%)	18 (7.1%)	254 (100%)
Project Management	107 (26.6%)	95 (23.6%)	183 (45.5%)	17 (4.2%)	402 (100%)
Research Management	71 (22.8%)	89 (28.6%)	138 (44.4%)	13 (4.2%)	311 (100%)
Ex-ante policy appraisal/impact assessment	72 (34%)	21 (9.9%)	113 (53.3%)	6 (2.8%)	212 (100%)
Ex-post policy evaluation/impact assessment	49 (27.7%)	33 (18.6%)	88 (49.7%)	7 (4%)	177 (100%)
Research procurement	47 (19.8%)	70 (29.5%)	112 (47.3%)	8 (3.4%)	237 (100%)
Training others	50 (22.4%)	53 (23.8%)	111 (49.8%)	9 (4%)	223 (100%)
Networking	75 (28.1%)	44 (16.5%)	133 (49.8%)	15 (5.6%)	267 (100%)
Advisory/expert capacity	67 (22.6%)	53 (17.9%)	159 (53.7%)	17 (5.7%)	296 (100%)
Other	5 (22.7%)	4 (18.2%)	10 (45.5%)	3 (13.6%)	22 (100%)

Source: Survey of social scientists (Policy Impact et al, 2011).

Table 22: Social scientists tasks by education

Task	Degree	Masters	PhD	Total
Data gathering (qualitative and quantitative)	78 (21%)	248 (67%)	42 (12%)	368 (100%)
Synthesis of evidence (literature, evidence reviews)	95 (20%)	318 (66%)	66 (14%)	479 (100%)
Development of analytical tools, conceptual approaches and frameworks	64 (17%)	263 (70%)	51 (13%)	378 (100%)
Analysis	114 (21%)	365 (67%)	65 (12%)	544 (100%)
Preparation of reports and briefing notes	114 (21%)	360 (65%)	75 (14%)	549 (100%)
Briefing policy officials	69 (17%)	266 (68%)	58 (15%)	393(100%)
Modelling and forecasting	39 (21%)	130 (68%)	21 (11%)	190 (100%)
Initiating and implementing policy	15 (16%)	61 (66%)	17 (18%)	93 (100%)
Team Management	33 (13%)	175 (68%)	50 (19%)	258 (100%)
Project Management	67 (16%)	271 (66%)	69 (17%)	407 (100%)
Research Management	50 (16%)	203 (64%)	63 (20%)	316 (100%)
Ex-ante policy appraisal/impact assessment	35 (16%)	155 (72%)	25 (12%)	215 (100%)

Task	Degree	Masters	PhD	Total
Ex-post policy evaluation/impact assessment	29 (16%)	125 (69%)	27 (15%)	181 (100%)
Research procurement	31 (13%)	170 (70%)	42 (17%)	243 (100%)
Training others	34 (15%)	156 (69%)	35 (16%)	225 (100%)
Networking	41 (15%)	182 (68%)	45 (17%)	268 (100%)
Advisory/expert capacity	41 (14%)	209 (69%)	51 (17%)	301 (100%)
Other	2 (9%)	15 (65%)	6 (26%)	23 (100%)

Source: Survey of social scientists (Policy Impact et al, 2011).

Table 23: Frequency of tasks by education

Task	Degree	Masters	PhD	Total
Data gathering (qualitative and quantitative)	61%	63%	55%	61%
Synthesis of evidence (literature, evidence reviews)	75%	81%	87%	75%
Development of analytical tools, conceptual approaches and frameworks	50%	67%	67%	50%
Analysis	90%	93%	86%	90%
Preparation of reports and briefing notes	90%	92%	99%	90%
Briefing policy officials	54%	68%	76%	54%
Modelling and forecasting	31%	33%	28%	31%
Initiating and implementing policy	12%	16%	22%	12%
Team Management	26%	45%	66%	26%
Project Management	53%	69%	91%	53%
Research Management	39%	52%	83%	39%
Ex-ante policy appraisal/impact assessment	28%	39%	33%	28%
Ex-post policy evaluation/impact assessment	23%	32%	36%	23%
Research procurement	24%	43%	55%	24%
Training others	27%	40%	46%	27%
Networking	32%	46%	59%	32%
Advisory/expert capacity	32%	53%	67%	32%
Other	2%	4%	8%	2%
Average	42%	52%	59%	42%

Source: Survey of social scientists (Policy Impact et al, 2011).

Note: Percentages based on responses per task compares to overall respondents by group i.e. n=127 for Degrees, n=393 for Masters, and n=76 for PhDs.

Table 24: Social scientists frequency of involvement by stage of the policy cycle

Stage	Occasional contributions (Annually)	Regular contributions (Quarterly)	Regular contributions (Monthly)	Continuous contributions (Weekly)	Continuous contributions (Daily)	Totals
Clarification of policy objectives	186 (38%)	108 (22%)	111 (23%)	52 (11%)	31 (6%)	488 (100%)
Design of policy instruments	188 (41%)	107 (23%)	87 (19%)	41 (9%)	35 (8%)	458 (100%)
Appraisal (ex-ante assessment of policy effects)	147 (30%)	120 (25%)	85 (18%)	81 (17%)	52 (11%)	485 (100%)
Implementation	206 (46%)	86 (19%)	81 (18%)	42 (9%)	33 (7%)	448 (100%)
Evaluation of policy results (ex-post implementation)	200 (42%)	112 (23%)	88 (18%)	49 (10%)	32 (7%)	481 (100%)
Averages	185 (39%)	107 (23%)	90 (19%)	53 (11%)	37 (8%)	472 (100%)

Source: Survey of social scientists (Policy Impact et al, 2011).

Table 25: Social scientists frequency of involvement by stage of the policy cycle by membership

Stage of the policy cycle	Service	Annual		Quarterly		Monthly		Weekly		Daily		Total	
		Count	% GES vs. GSR	Count	% GES vs. GSR	Count	% GES vs. GSR	Count	% GES vs. GSR	Count	% GES vs. GSR	Count	% GES vs. GSR
Rationale/ clarification of objectives	GES	103	36.10%	58	20.40%	60	21.10%	44	15.40%	20	7.00%	285	100%
	GSR	78	41.70%	43	23.00%	48	25.70%	8	4.30%	10	5.30%	187	100%
	Total	181	38.30%	101	21.40%	108	22.90%	52	11.00%	30	6.40%	472	100%
Design of Policy Instruments	GES	99	36.30%	62	22.70%	56	20.50%	30	11.00%	26	9.50%	273	100%
	GSR	79	46.50%	42	24.70%	29	17.10%	11	6.50%	9	5.30%	170	100%
	Total	178	40.20%	104	23.50%	85	19.20%	41	9.30%	35	7.90%	443	100%
Ex-ante appraisal	GES	57	19.90%	65	22.60%	53	18.50%	67	23.30%	45	15.70%	287	100%
	GSR	80	44.00%	53	29.10%	29	15.90%	13	7.10%	7	3.80%	182	100%
	Total	137	29.20%	118	25.20%	82	17.50%	80	17.10%	52	11.10%	469	100%
Implementation	GES	128	49.20%	39	15.00%	46	17.70%	25	9.60%	22	8.50%	260	100%
	GSR	71	41.00%	44	25.40%	32	18.50%	16	9.20%	10	5.80%	173	100%
	Total	199	46.00%	83	19.20%	78	18.00%	41	9.50%	32	7.40%	433	100%
Ex-post evaluation	GES	132	48.20%	57	20.80%	49	17.90%	24	8.80%	12	4.40%	274	100%
	GSR	60	31.60%	50	26.30%	37	19.50%	24	12.60%	19	10.00%	190	100%
	Total	192	41.40%	107	23.10%	86	18.50%	48	10.30%	31	6.70%	464	100%

Source: Survey of social scientists (Policy Impact et al, 2011).

Table 26: Social scientists frequency of involvement by stage of the policy cycle by education

Stage of the policy cycle	Education	Annual		Quarterly		Monthly		Weekly		Daily		Total	
		Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Rationale/ clarification of objectives	Degree	47	50%	19	20%	15	16%	7	7%	6	6%	94	100%
	Masters	117	36%	71	22%	74	23%	40	12%	21	7%	323	100%
	PhD	22	32%	16	24%	22	32%	4	6%	4	6%	68	100%
	Other	0	0%	1	50%	0	0%	1	50%	0	0%	2	100%
	Total	186	38%	107	22%	111	23%	52	11%	31	6%	487	100%
Design of Policy Instruments	Degree	45	51%	19	21%	15	17%	4	5%	6	7%	89	100%
	Masters	117	39%	69	23%	62	21%	28	9%	26	9%	302	100%
	PhD	25	39%	17	27%	10	16%	9	14%	3	5%	64	100%
	Other	1	50%	1	50%	0	0%	0	0%	0	0%	2	100%
	Total	188	41%	106	23%	87	19%	41	9%	35	8%	457	100%
Ex-ante appraisal	Degree	37	40%	20	22%	15	16%	8	9%	13	14%	93	100%
	Masters	90	28%	77	24%	57	18%	68	21%	33	10%	325	100%
	PhD	20	31%	20	31%	13	20%	5	8%	6	9%	64	100%
	Other	0	0%	2	100%	0	0%	0	0%	0	0%	2	100%
	Total	147	30%	119	25%	85	18%	81	17%	52	11%	484	100%
Implementation	Degree	41	46%	17	19%	15	17%	9	10%	7	8%	89	100%
	Masters	145	49%	54	18%	50	17%	26	9%	21	7%	296	100%
	PhD	19	32%	14	23%	15	25%	7	12%	5	8%	60	100%
	Other	1	50%	1	50%	0	0%	0	0%	0	0%	2	100%
	Total	206	46%	86	19%	80	18%	42	9%	33	7%	447	100%
Ex-post evaluation	Degree	45	49%	17	19%	20	22%	6	7%	4	4%	92	100%
	Masters	131	41%	74	23%	55	17%	37	12%	22	7%	319	100%
	PhD	22	33%	21	31%	12	18%	6	9%	6	9%	67	100%
	Other	2	100%	0	0%	0	0%	0	0%	0	0%	2	100%
	Total	200	42%	112	23%	87	18%	49	10%	32	7%	480	100%

Table 27: Social scientists most important tasks, overall and by membership

Task	GES	GSR	Total
Analysis	107 (38%)	34 (17%)	141 (29%)
Synthesis of evidence	23 (8%)	48 (23%)	71 (15%)
Briefing policy officials	27 (10%)	33 (16%)	60 (12%)
Preparation of reports and briefing notes	20 (7%)	20 (10%)	40 (8%)
Ex-ante policy appraisal/impact assessment	33 (12%)	1 (0.5%)	34 (7%)
Data gathering	5 (2%)	25 (12%)	30 (6%)
Development of analytical tools, conceptual approaches and frameworks	24 (8%)	5 (2%)	29 (6%)
Advisory/expert capacity	12 (4%)	12 (6%)	24 (5%)
Research Management	0 (0%)	14 (7%)	14 (3%)
Other	30 (11%)	13 (6%)	43 (9%)
Total	281 (100%)	205 (100%)	486 (100%)

Source: Survey of social scientists (Policy Impact et al, 2011).

Table 28: Social scientists most important tasks, overall and by education

Task	Degree	Masters	PhD	Other	Total
Data gathering	7 (7%)	20 (6%)	4 (5%)	0 (0%)	31 (6%)
Synthesis of evidence	9 (10%)	54 (16%)	11 (15%)	0 (0%)	74 (15%)
Development of analytical tools, conceptual approaches and frameworks	3 (3%)	26 (8%)	1 (1%)	0 (0%)	30 (6%)
Analysis	34 (36%)	94 (28%)	20 (27%)	1 (33%)	149 (29%)
Preparation of reports and briefing notes	9 (10%)	25 (7%)	7 (10%)	1 (33%)	42 (8%)
Briefing policy officials	15 (16%)	32 (10%)	12 (16%)	1 (33%)	60 (12%)
Research Management	3 (3%)	9 (3%)	3 (42%)	0 (0%)	15 (3%)
Ex-ante policy appraisal/impact assessment	5 (5%)	28 (8%)	2 (3%)	0 (0%)	35 (7%)
Advisory/expert capacity	2 (2%)	19 (6%)	4 (5%)	0 (0%)	25 (5%)
Other	7 (7%)	29 (9%)	10 (14%)	0 (0%)	46 (9%)
Total	94 (100%)	336 (100%)	74 (100%)	3 (100%)	507 (100%)

Source: Survey of social scientists (Policy Impact et al, 2011).

Table 29: Social scientists most important tasks, overall and by management grade

Most important task	Junior managers	Middle managers	Senior managers	Senior Civil Service	Total
---------------------	-----------------	-----------------	-----------------	----------------------	-------

Most important task	Junior managers	Middle managers	Senior managers	Senior Civil Service	Total
Data gathering	9 (5%)	15 (16%)	7 (3%)	0 (0%)	31 (6%)
Synthesis of evidence	15 (9%)	23 (25%)	30 (14%)	3 (20%)	71 (14%)
Development of analytical tools, conceptual approaches and frameworks	10 (6%)	1 (1%)	18 (9%)	0 (0%)	29 (6%)
Analysis	66 (8%)	15 (16%)	60 (28%)	5 (33%)	146 (30%)
Preparation of reports and briefing notes	17 (10%)	11 (12%)	11 (5%)	1 (7%)	40 (8%)
Briefing policy officials	16 (9%)	10 (11%)	33 (1%)	0 (0%)	59 (12%)
Research Management	5 (3%)	5 (3%)	5 (3%)	0 (0%)	15 (3%)
Ex-ante policy appraisal/impact assessment	17 (10%)	1 (1%)	17 (8%)	0 (0%)	35 (7%)
Advisory/expert capacity	5 (3%)	5 (5%)	12 (6%)	2 (3%)	24 (5%)
Other	14 (8%)	7 (8%)	20 (9%)	4 (27%)	45 (9%)
Total	174 (100%)	93 (100%)	213 (100%)	15 (100%)	495 (100%)

Source: Survey of social scientists (Policy Impact et al, 2011).

Table 30: Most important individual characteristics for effective contributions to policy

Characteristic	Not important	Some importance	Quite important	Very important	Total
Specific area expertise	3 (1%)	109 (21%)	233 (44%)	184 (35%)	529 (100%)
Communication and presentational skills	0 (0%)	25 (5%)	199 (37%)	308 (58%)	532 (100%)
Interpersonal skills	0 (0%)	42 (8%)	205 (39%)	283 (53%)	530 (100%)
Management and leadership skills	8 (2%)	101 (19%)	259 (49%)	160 (30%)	528 (100%)
Risk assessment skills	28 (5%)	147 (28%)	258 (49%)	92 (18%)	525 (100%)
Qualitative analytical skills	9 (2%)	78 (15%)	256 (48%)	188 (35%)	531 (100%)
Quantitative analytical skills	2 (0%)	55 (10%)	245 (46%)	229 (43%)	531 (100%)
Developing constructive relationship skills	1 (0%)	38 (7%)	206 (39%)	287 (54%)	532 (100%)
Ability to work across a broad range of areas	13 (3%)	114 (22%)	238 (45%)	164 (31%)	529 (100%)
Critical analysis and decision-making skills	3 (1%)	23 (4%)	181 (34%)	323 (61%)	530 (100%)
Other	9 (18%)	3 (6%)	12 (24%)	27 (53%)	51 (100%)

Characteristic	Not important	Some importance	Quite important	Very important	Total
Average	7 (1%)	67 (14%)	208 (43%)	204 (42%)	486 (100%)

Source: Survey of social scientists (Policy Impact et al, 2011).

Table 31: Most important individual characteristics for effective contributions to policy by education

Skill	Education	Not important		Some importance		Quite important		Very important		Total	
		Count	%	Count	%	Count	%	Count	%	Count	%
Specific Area Expertise	Degree	0	0%	20	21%	44	46%	31	33%	95	100%
	Masters	2	1%	78	22%	148	42%	127	36%	355	100%
	PhD	1	1%	11	15%	39	52%	24	32%	75	100%
	Total	3	1%	109	21%	233	44%	183	35%	525	100%
Communication and Presentational Skills	Degree	-	-	3	3%	38	40%	55	57%	96	100%
	Masters	-	-	18	5%	127	36%	212	59%	357	100%
	PhD	-	-	4	5%	33	44%	38	51%	75	100%
	Total	-	-	25	5%	198	37%	305	58%	528	100%
Interpersonal skills	Degree	-	-	6	6%	40	42%	49	52%	95	100%
	Masters	-	-	28	8%	132	37%	197	55%	357	100%
	PhD	-	-	7	10%	31	42%	36	49%	74	100%
	Total	-	-	42	8%	204	39%	283	54%	526	100%
Management and Leadership skills	Degree	4	4%	17	18%	53	55%	22	23%	96	100%
	Masters	4	1%	67	19%	171	48%	114	32%	356	100%
	PhD	0	0%	16	22%	33	46%	23	32%	72	100%
	Total	8	2%	100	19%	257	49%	159	30%	524	100%
Risk assessment skills	Degree	7	7%	29	31%	45	48%	13	14%	94	100%
	Masters	18	5%	98	28%	176	50%	63	18%	355	100%
	PhD	3	4%	19	26%	35	49%	15	21%	72	100%
	Total	28	5%	146	28%	256	49%	91	18%	521	100%
Qualitative skills	Degree	1	1%	13	14%	49	52%	32	34%	95	100%
	Masters	6	2%	54	15%	165	46%	132	37%	357	100%
	PhD	2	3%	11	15%	41	55%	21	28%	75	100%
	Total	9	2%	78	15%	255	48%	185	35%	527	100%

Skill	Education	Not important		Some importance		Quite important		Very important		Total	
		Count	%	Count	%	Count	%	Count	%	Count	%
Quantitative skills	Degree	1	1%	8	8%	54	56%	33	34%	96	100%
	Masters	0	0%	39	11%	150	42%	167	47%	356	100%
	PhD	1	1%	7	9%	39	52%	28	37%	75	100%
	Total	2	0%	54	10%	243	46%	228	43%	527	100%
Developing constructive relationships	Degree	0	0%	11	12%	38	40%	46	48%	95	100%
	Masters	0	0%	25	7%	138	39%	195	55%	358	100%
	PhD	1	1%	2	3%	28	37%	44	59%	75	100%
	Total	1	0%	38	7%	204	39%	285	54%	528	100%
Ability to work across a broad range of areas	Degree	1	1%	24	25%	45	47%	26	27%	96	100%
	Masters	11	3%	77	22%	160	45%	107	30%	355	100%
	PhD	1	1%	12	16%	31	42%	30	41%	74	100%
	Total	13	3%	113	21%	236	45%	163	31%	525	100%
Critical analysis and decision-making skills	Degree	0	0%	2	2%	40	42%	54	56%	96	100%
	Masters	2	1%	18	5%	118	33%	217	61%	355	100%
	PhD	1	1%	3	4%	21	28%	50	67%	75	100%
	Total	3	1%	23	4%	179	34%	321	61%	526	100%
Other	Degree	6	40%	2	13%	4	27%	3	20%	15	100%
	Masters	3	11%	1	4%	6	21%	18	64%	28	100%
	PhD	0	0%	0	0%	2	25%	6	75%	8	100%
	Total	9	18%	3	6%	12	24%	27	53%	51	100%

Source: Survey of social scientists (Policy Impact et al, 2011).

Note: A one-way ANOVA revealed no statistically significant differences on any of these variables between respondents with a degree, a Masters degree or a PhD (all p values > 0.05). Similarly, a comparison by location revealed no statistically significant differences on any of these variables (all p-values > 0.05).

Table 32: Most important mechanism for acquiring policy relevant skills

Skill	Mechanism				Total
	On-the-job-training	Doctoral training	Graduate/Under graduate training	Other	
Specific area expertise	386 (74.7%)	22 (4.3%)	93 (18%)	16 (3.1%)	517 (100%)
Communication and presentational skills	436 (84%)	16 (3.1%)	35 (6.7%)	32 (6.2%)	519 (100%)
Interpersonal skills	426 (82.7%)	3 (0.6%)	25 (4.9%)	61 (11.8%)	515 (100%)
Management and leadership skills	456 (89.2%)	4 (0.8%)	9 (1.8%)	42 (8.2%)	511 (100%)
Risk assessment skills	399 (80.3%)	11 (2.2%)	58 (11.7%)	29 (5.8%)	497 (100%)
Qualitative analytical skills	136 (26.5%)	43 (8.4%)	311 (60.5%)	24 (4.7%)	514 (100%)
Quantitative analytical skills	101 (19.7%)	49 (9.6%)	340 (66.3%)	23 (4.5%)	513 (100%)
Developing constructive relationship skills	438 (85.7%)	6 (1.2%)	19 (3.7%)	48 (9.4%)	511 (100%)
Ability to work across a broad range of areas	424 (82.7%)	6 (1.2%)	62 (12.1%)	21 (4.1%)	513 (100%)
Critical analysis and decision-making skills	322 (62.8%)	30 (3.6%)	139 (27.1%)	22 (4.3%)	513 (100%)
Other	43 (74.1%)	N/A	5 (8.6%)	10 (17.2%)	58 (100%)
Average	324 (69%)	19 (4%)	100 (21%)	30 (6%)	471 (100%)

Source: Survey of social scientists (Policy Impact et al, 2011).

Table 33: Mechanisms for acquiring policy relevant skills by education, percentage of all respondents by category

Skill/Mechanism	On-the-job-training			Doctoral training			Graduate/ Undergraduate training			Other		
	All Degree holders	All Masters	All PhDs	All Degree holders	All Masters	All PhDs	All Degree holders	All Masters	All PhDs	All Degree holders	All Masters	All PhDs
Specific area expertise	54%	68%	64%	2%	2%	14%	13%	16%	14%	3%	2%	5%
Communication and presentational skills	61%	77%	68%	0%	1%	18%	5%	6%	4%	7%	4%	8%
Interpersonal skills	61%	74%	71%	0%	1%	1%	2%	5%	3%	8%	9%	21%
Management and leadership skills	65%	80%	74%	0%	0%	4%	2%	1%	3%	6%	6%	17%
Risk assessment skills	58%	67%	75%	0%	2%	5%	6%	11%	8%	4%	5%	8%
Qualitative analytical skills	24%	24%	13%	0%	2%	46%	46%	58%	32%	2%	4%	7%
Quantitative analytical skills	22%	16%	13%	2%	3%	45%	47%	64%	34%	2%	4%	5%
Developing constructive relationship skills	64%	77%	68%	0%	1%	1%	2%	3%	5%	6%	6%	21%
Ability to work across a broad range of areas	61%	73%	75%	0%	1%	3%	9%	11%	9%	2%	3%	9%
Critical analysis and decision-making skills	43%	59%	47%	1%	2%	30%	23%	25%	13%	5%	3%	7%
Other	11%	7%	3%	2%	1%	0%	0%	0%	0%	1%	1%	4%
Average	48%	56%	52%	1%	1%	15%	14%	18%	11%	4%	4%	10%

Source: Survey of social scientists (Policy Impact et al, 2011).

Note: PhD N=76, Masters N=393, Degree holders N=127.

Table 34: Factors and processes that enabled policy contribution

Process	Education	Not important		Some importance		Quite important		Very important		Total	
		Count	%	Count	%	Count	%	Count	%	Count	%
Understanding the evidence collected	Degree	0	0%	1	1%	20	27%	54	72%	75	100%
	Masters	1	0%	11	4%	66	21%	237	75%	315	100%
	PhD	0	0%	3	5%	9	13%	55	82%	67	100%
Understanding the policy question	Degree	0	0%	1	1%	10	13%	64	85%	75	100%
	Masters	2	1%	5	2%	30	10%	279	88%	316	100%
	PhD	0	0%	0	0%	7	10%	61	90%	68	100%
Understanding Government requirements	Degree	2	3%	6	8%	37	49%	30	40%	75	100%
	Masters	5	2%	29	9%	123	39%	159	50%	316	100%
	PhD	0	0%	5	8%	19	29%	42	64%	66	100%
Presenting the analysis clearly	Degree	0	0%	0	0%	15	20%	59	80%	74	100%
	Masters	2	1%	5	2%	68	22%	240	76%	315	100%
	PhD	0	0%	2	3%	16	24%	49	73%	67	100%
Timeliness of the work to Government needs	Degree	0	0%	2	3%	26	35%	46	62%	74	100%
	Masters	4	1%	20	6%	106	34%	186	59%	316	100%
	PhD	1	2%	4	6%	20	29%	43	63%	68	100%
Discussion with colleagues	Degree	0	0%	2	3%	32	43%	40	54%	74	100%
	Masters	1	0%	25	8%	137	44%	152	48%	315	100%
	PhD	0	0%	10	15%	28	42%	29	43%	67	100%
Quality of the evidence	Degree	1	1%	6	8%	27	37%	40	54%	74	100%
	Masters	3	1%	33	11%	131	42%	148	47%	315	100%
	PhD	0	0%	4	6%	25	37%	38	57%	67	100%
Working in multidisciplinary teams	Degree	5	7%	14	19%	43	59%	11	15%	73	100%
	Masters	18	6%	84	27%	139	44%	75	24%	316	100%
	PhD	3	5%	21	31%	26	39%	17	25%	67	100%
Other (specify; enter manually here)	Degree	0	0%	1	33%	2	67%	0	0%	3	100%
	Masters	0	0%	1	6%	3	19%	12	75%	16	100%
	PhD	1	33%	0	0%	0	0%	2	67%	3	100%

Source: Survey of social scientists (Policy Impact et al, 2011).

Table 35: Most important contribution, overall and by membership

Contribution	GES	GSR	Total
Developed evidence/arguments to inform policy decisions/strategies	127 (50%)	88 (49%)	215 (49%)
Developed evidence/arguments that helped policymakers develop policies	52 (20%)	29 (16%)	81 (19%)
Developed evidence/arguments	31 (12%)	26 (14%)	57 (13%)

Contribution	GES	GSR	Total
to evaluate whether policies are soundly based			
Introduced innovative ways of looking at problems	33 (13%)	15(8%)	48 (11%)
Introduced or helped develop data sets to help address policy problems	7 (3%)	14 (8%)	21 (5%)
Other	5 (2%)	8 (4%)	13 (3%)
Total	255 (100%)	180 (100%)	435 (100%)

Source: Survey of social scientists (Policy Impact et al, 2011).

Table 36: Most important contribution, by education

Contribution	Degree	Masters	PhD	Other	Total
Introduced or helped develop data sets to help address policy problems	1 (1%)	16 (5%)	6 (9%)	0 (0%)	23 (5%)
Introduced innovative ways of looking at problems	5 (6%)	36 (12%)	7 (10%)	3 (100%)	51 (11%)
Developed evidence/arguments to inform policy decisions/strategies	47 (60%)	148 (49%)	28 (42%)	0 (0%)	223 (49%)
Developed evidence/arguments to evaluate whether policies are soundly based	11 (14%)	41 (13%)	7 (10%)	0 (0%)	59 (13%)
Developed evidence/arguments that helped policymakers develop policies	12 (15%)	58 (19%)	13 (19%)	0 (0%)	83 (18%)
Other	2 (3%)	6 (2%)	6 (9%)	0 (0%)	14 (3%)
Total	78 (100%)	305 (100%)	67 (100%)	3 (100%)	453 (100%)

Source: Survey of social scientists (Policy Impact et al, 2011).

Table 37: Most important contribution, by management grade

Contribution	Junior managers	Middle managers	Senior managers	Senior Civil Service	Total
Introduced or helped develop data sets to help address policy problems	10 (7%)	7 (9%)	6 (3%)	0 (0%)	23 (5%)
Introduced innovative ways of looking at problems	21 (14%)	5 (6%)	23 (12%)	0 (0%)	49 (11%)
Developed evidence/arguments to inform policy decisions/strategies	69 (45%)	38 (48%)	103 (52%)	9 (64%)	219 (49%)

Contribution	Junior managers	Middle managers	Senior managers	Senior Civil Service	Total
Developed evidence/arguments to evaluate whether policies are soundly based	23 (15%)	13 (17%)	20 (10%)	1 (7%)	57 (13%)
Developed evidence/arguments that helped policymakers develop policies	28 (18%)	13 (17%)	39 (20%)	2 (14%)	82 (19%)
Other	2 (1%)	3 (4%)	7 (4%)	2 (14%)	14 (3%)
Total	153 (100%)	79 (100%)	198 (100%)	14 (100%)	444 (100%)

Source: Survey of social scientists (Policy Impact et al, 2011).