Preparing impact submissions for REF 2014: An evaluation

Findings and observations

Catriona Manville, Molly Morgan Jones, Michael Frearson, Sophie Castle-Clarke, Marie-Louise Henham, Salil Gunashekar and Jonathan Grant

RAND EUROPE

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Prepared for HEFCE, SFC and HEFCW – June 2014

RR-727-HEFCE

For more information on this publication, visit www.rand.org/t/rr727

Published by the RAND Corporation, Santa Monica, Calif., and Cambridge, UK

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Preface

The higher education funding councils for England and Wales and the Scottish funding council asked RAND Europe to review the preparation process for the impact element of the Research Excellence Framework (REF) 2014 within higher education institutions in the UK, in order to assess the process and understand how it could be further improved.

This report details our headline findings, and is supported by an *Approach and evidence* report that provides further detail about the data gathered and analysis conducted. It is intended for those responsible for the REF and, more broadly, for those in the higher education sector. It may also be of interest to others working in the evaluation of research impact.

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The Research Excellence Framework (REF) is a new nationwide initiative to assess the quality of research in UK higher education institutions (HEIs). For the first time, REF 2014 introduced an assessment of the wider impact of research, alongside an assessment of the quality of research outputs and the vitality of the research environment. HEIs were expected to submit examples of impact that occurred between 2008 and 2013, as impact case studies, as well as a more general description of how they were and would continue to facilitate impact, as an impact template. The impact of research is weighted at 20 per cent of the total assessment for 2014. Understanding how the impact element of the REF 2014 submission process worked for HEIs and research users will be important for future rounds of assessment.[1]

The higher education (HE) funding councils for England, Scotland and Wales commissioned RAND Europe to work with a sample of 21 HEIs to evaluate the submission process for the impact element of REF 2014.[2] The project aimed to:

- Identify and describe the perceived benefits and burdens to HEIs and research users in preparing their impact submissions.
- Identify intended and unintended consequences of assessing research impact for different institutions and disciplines.
- Formulate evidence-based conclusions and recommendations for improving the processes of preparing submissions for impact assessment.
- Highlight innovative and good practices for institutions, research users, HE funding councils and other stakeholders.

This report summarises the approach adopted for the evaluation and describes the key findings and observations arising from the analysis. It is accompanied by a second *Approach and evidence* report that provides a detailed account of methods used and associated evidence underpinning the analysis (Manville et al. 2015).

The evaluation was based on a representative systematically selected sample of 21 HEIs across the UK and involved consulting with three broad stakeholder groups: HEI research leadership teams; HEI impact case study and impact template authors; and non-academic research users. A mixed-methods approach was used including: 126 one-to-one and group interviews during 21 HEI site visits; an online survey of 2,153 authors of impact case studies (REF 2014 Section: REF3b) and impact templates (REF 2014 Section: REF3a) with a response from 1,248 (or 58 per cent); telephone interviews with 29 research users; and costs estimation analysis provided by 20 HEIs. Twelve key findings and observations were drawn from this evidence base.

Key findings and observations

Participants saw a number of benefits from the increased focus on the assessment of impact as part of REF 2014, along with other policies (such as Research Council UK's 'Pathways to impact') and the broader 'impact agenda'

Participants in REF 2014 identified a number of benefits resulting from their involvement in the process. This was evident from the site visits and surveys. Four

[1] We use the terms 'research user' and 'beneficiary' as these were adopted in the guidance provided by the funding councils. However, it should be noted that at our site visits participants were uncomfortable with this terminology and also research users did not identify with it.

[2] From England 18 HEIs were selected to produce a systematic and representative sample. The Scottish and Welsh HEIs were nominated by their respective funding councils.

key benefits were identified: the ability to identify and understand impact; the stimulation of broader strategic thinking about impact; the increased recognition within HEIs of those academics undertaking impact activities; and the opportunity to review and reaffirm relationships with external stakeholders. However, it should also be noted that about one in eight survey respondents stated that there were no benefits to undertaking the exercise. Furthermore, there were noticeable differences in attitudes within institutions. Staff responsible for managing institutional preparations for REF 2014 research impact assessment were considerably more positive about the process and identified more benefits than faculty staff, who held more equivocal views.

The assessment of impact as part of REF 2014 was a significant new burden for HEIs

It cost UK HEIs around £55m to prepare impact submissions as part of REF 2014. This is our 'best estimate' derived from data provided by 20 of the 21 HEIs and scaling that up, based on the number of submitted impact case studies and impact templates, for all UK HEIs. The estimated median costs of producing an impact case study were around £7,500 (median cost was £7,360, the range: £3,216–£26,890; interquartile range: £4,899–£11,011) and around £4,500 for an impact template (the median cost was £4,368, the range: £1,318–£13,523; interquartile range: £2,745–£6,631). There was evidence of economies of scale: the median cost per impact case study for HEIs producing 100 or more of them was £4,983, compared to £8,630 for those with less than 100. Although HEIs reported low levels of start-up cost at around 5 per cent, training accounted for about one-third of all labour costs and less training may be required for future iterations of the REF.

HEIs were able to identify and articulate their impact as part of REF 2014. However, views on guidance from the HE funding bodies for demonstrating research impact ranged widely, from full support to great concern

Across the sector, 6,975 impact case studies were submitted for assessment as part of REF 2014, split evenly across Panels A, B, and D, but with Panel C generating 20 per cent more cases. Within our sample of HEIs, 1,997 impact case studies were submitted. The HEIs in our sample included submissions to all 36 Units of Assessment (UOAs), and interviews at the site visits covered 35 out of the 36 UOAs (with the exception of 'Anthropology and Development Studies' (UOA24)). Through the site visits and surveys, we established that HEIs were able to identify and articulate their impact. However, it is important to remember that whether they did so successfully will be determined by the panel assessment. Interviewees and survey respondents did identify a number of challenges in applying the 'rules' set out in the guidance documents provide by HE funding bodies.[3] In particular, the requirement to gather evidence to support claims, the definition and concept of 'reach' and 'significance' as the criteria for assessing impact, the timeframe within which impact activity could be claimed (1 January 2008 to 31 July 2013), and the concept of institutional ownership of impact all presented challenges for HEIs preparing for research impact assessment.[4]

The biggest challenges (and burdens) in preparing impact case studies (REF3b) were the requirement to 'evidence' impact and the need to develop an understanding of the concept of impact

While many challenges and burdens emerged over the course of our evaluation, two in particular came to the fore in our analysis: the requirement to 'evidence' research impact in the case studies and the process of developing a shared understanding of the concept of impact within HEIs. Evidencing impact was particularly challenging because (i) some types of impact were difficult to measure and evidence and (ii) the lack of records meant that evidence often had to be reconstructed. In addition, there was a perception among HEI staff that research users did not trust the confidentiality arrangements that had been put in place by the HE funding councils. It was acknowledged that these issues may have been exacerbated because this was the first assessment of impact for a REF cycle and in future information management systems will be in place to capture data on an ongoing basis. Hence we

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3 'Rules' within the context of this report are the eligibility criteria against which the impact documents were produced. These were presented in the guidance to the sector provided by the funding bodies.

4 Institutional ownership is the concept that impact can be claimed by the institution at which the underpinning research was done, rather than the current location of the research author(s). This is contrary to publications that move with individuals and can be claimed by the institution of which an academic is currently part.

might reasonably expect both of these burdens to lessen in future.

HEIs perceived that the exercise had put an undue burden on research users, although this was not their experience

Through the site visits we observed widespread concern that providing evidence and testimonials put an undue burden on the research user community. There was a perception in HEIs that engaging research users and beneficiaries had (often adversely) changed the dynamics of the relationship with key stakeholders. Interestingly, research users did not report that engagement in REF 2014 had been overly burdensome. However, it is important to note that we spoke to a limited sample of research users in this study.[5]

There was uncertainty about how panels will assess impact and this has led to unease in the sector

There was a concern from the sector that the guidance provided by the HE funding councils could be interpreted in different ways by the panels when assessing HEIs' impact submissions. HEIs have been working with the REF 2014 definition of impact and the rules associated with its assessment since the guidance was published in July 2011. There was a feeling that the panels may be less familiar with the guidance and its intricacies and therefore may not follow the 'rules' when assessing impact case studies, or could decide that an impact case study was ineligible without proper consideration. In some instances uncertainty about panel behaviour when assessing the impact element of the submission encouraged risk-averse behaviour in the selection of case studies, as well as the exclusion of case studies where HEIs were concerned they might be ruled ineligible.

As a result of the impact agenda and changing culture, HEIs are changing their practices

There is evidence of cultural change within HEIs. Institutional strategies and processes have been or are being put in place to maximise and evidence the impact of current and future research. There is a recognition that impact needs to be thought about from the outset and throughout the research life cycle. In some cases, institutions have raised the profile of research impact through inclusion of impact within their institutional research strategy or by the creation of a dedicated research impact strategy. Research impact strategies are also being developed at departmental and faculty levels, and some HEIs are using the REF 2014 impact templates (REF3a) to shape ongoing strategies within departments.

There was as much diversity of views and attitudes towards the assessment of impact as part of REF 2014 within HEIs as there was between them

HEIs within our sample had different attitudes towards the preparation process and were positive or negative in their attitude to varying extents. It was apparent through our visits that within HEIs there were a variety of attitudes towards the preparation process for the impact element of REF 2014. In general, central staff regarded the process as a positive experience. The benefits of the process were also perceived by some faculty staff, but there were proportionally fewer comments identifying these positive aspects and many more identifying negative aspects. In particular, they felt the process was disproportionately burdensome on a few individuals upon whom fell the work required to produce the impact element of the REF submission. The divergence in the views and attitudes presented here suggest that there is a risk that if the HE funding councils do not deal with the issues at the faculty level the culture shift and change in behaviour (described in the paragraph above) will not be sustained.

The impact case studies (REF3b) submitted may not be representative of the actual impact of research occurring within HEIs

A recurring theme that was reported in the site visits was a concern that the impact case studies submitted were not representative of the actual impact occurring within HEIs. For example, it was reported that in some HEIs impact case studies were not included in the submission where there was uncertainty about their eligibility. This limited the range of research impacts presented. Staff at some HEIs expressed the view that their institution's

5 A total of 29 randomly selected research users who provided a testimonial were approved by the HEIs in our sample.

submission did not capture all the impact they felt their research was having.

There is a concern that the impact agenda may begin to undermine 'blue skies' research

Interviewees at the site visits noted (to varying degrees) that the broader 'impact agenda' (including Research Councils UK's 'Pathways to Impact') has implications for the types of research undertaken at UK universities. Specifically there was a concern that applied research will be promoted over basic 'blue skies' research. A more subtle concern was that the assessment of impact in the REF will prioritise research that can more easily demonstrate impact.

There is a strong desire among HEIs for the HE funding councils to indicate as soon as possible whether and how impact will be assessed for the next round of the REF

It was clear from our site visits that HEIs want to know as soon as possible how impact will be assessed for the next round of the REF, so they can put in place the appropriate management systems. There are two interrelated concerns: a desire for clear guidance from the HE funding councils, and a desire for stability and minimal changes to the 'rules' for demonstrating impact. Although there was not consensus on which 'rules' should be changed and how, the majority of HEIs in our sample felt that improvements or changes to the 'rules' should not be radical in nature. HEI staff felt they have invested time and financial resource in demonstrating research impact for REF 2014 and they want to retain the benefits of that investment.

There were examples of notable practices that HEIs identified as supporting the preparation of the impact element of REF 2014 submissions

Across all the HEIs in our evaluation there were examples of notable practices identified as supporting the preparation of the impact element of REF 2014 submissions. These practices emerged from our site visits and from responses to our surveys of impact case study and impact template authors. We cannot make definitive statements about the relative merits of these practices, in part because the REF assessment is not yet complete and we do not yet know how successful different practices were in relation to the assessment outcome. However, we do comment on themes and issues that arose across multiple HEIs and which appeared likely to be helpful to others.

Concluding comment

Based on our key findings and observations, and looking across all the evidence collected during this evaluation and other studies we have been involved in (e.g. Grant et al. 2010; Grant & Wooding 2010; Morgan Jones et al. 2013; Morgan Jones & Grant 2013), and also with a view to future assessments, we make the following concluding comments:

Based on our experience, our overall judgment is that preparations for the assessment of impact as part of REF 2014 appear to have worked, with HEIs able to articulate the wider impacts of their research. Clearly the definitive answer will only be known once the panel deliberations are published. However, the addition of the impact element has doubled the absolute costs of the exercise for the sector (although overall 'transaction costs' remain low at less than 4 per cent). Whether the costs of assessing research impact as part of REF provide value for money is a strategic question for the HE funding bodies to address.

Going forwards, success will be measured by the cultural change that occurs and whether HEIs exhibit a sustainable shift in their strategies relating to and focussing on their broader contribution to society. The strategic focus on research impact through the REF and Research Council UK's 'Pathways to Impact' is also incentivising HEIs to be more focussed on their broader impact.

To ensure progress continues to be made, there is a need for transparency from HE funding councils on the panels' assessment of research impact. In addition, there is a need for funders to engage with all stakeholders (including the academic community and research users) to create understanding, value and buy in.

Looking to the future, and assuming that assessment of impact continues through the REF, it is our opinion that the use of impact case studies remains the most appropriate means of assessment. The challenge for assessing and evidencing research impact is in understanding what kinds of impact categories and (qualitative and quantitative) indicators will be most appropriate, and in what contexts.

Acknowledgements

RAND Europe would like to thank Steven Hill, Alex Herbert and Kim Hackett at HEFCE for their guidance throughout this project, as well as the REF Impact Steering Group (Michelle Coupland, Claire Craig, Alice Frost, Laura Gibson, Roger Kain, Ian Leslie, Albert Rodger, Malcolm Skingle, Robert Slater, Jeremy Watson). We are also very grateful to all the institutions in our sample, in particular the interviewees and impact case study and impact template survey respondents. In addition, we would like to thank the research users who spoke to us about their impressions of the process.

The authors are grateful for the interest and assistance of all those who contributed to this report, in particular Jessica Plumridge, Claire O'Brien, Siobhán Ni'Chonaill, Jennie Corbett, Morgan Robinson, Emma Harte and Susanne Sondergaard. In particular, we would like to acknowledge the valuable input provided by our Quality Assurance reviewers, Steven Wooding and Linda Butler.

Authors' contributions

On this study JG was the project leader and CM the project manager. MMJ and MF were senior researchers and SG, SCC and MLH junior researchers on the project. The analysis of the site visit data was led by MF and CM. The development and analysis of the survey was conducted by CM and MLH. The research user interview task was led and analysed by MMJ and SCC. The analysis of the cost estimations was undertaken by JG and SG. During the course of the project, JG was appointed to and took up the position of Director of the Policy Institute at King's and Professor of Public Policy at King's College London. He continued to lead the project through his ongoing affiliation with RAND Europe as an honorary senior research fellow.

Abbreviations

EIA	Excellence in Innovation for Australia
ERiC	Evaluating Research in Context
FTE	Full-Time Equivalent
HE	Higher Education
HEFCE	Higher Education Funding Council for England
HEFCW	Higher Education Funding Council for Wales
HEI	Higher Education Institution
PART	Program Assessment Rating Tool
PIRLS	Principal Investigator and Research Leader Survey
QR	Quality-Related
RAISS	RAND/ARC Impact Scoring System
RAE	Research Assessment Exercise
RCUK	Research Councils UK
REF	Research Excellence Framework
REF3a	REF 2014 section for the impact template document
REF3b	REF 2014 section for the impact case study document
RQF	Research Quality Framework
R&D	Research and Development
SFC	Scottish Funding Council
UOA	Unit of Assessment

Chapter 1 Introduction

The Research Excellence Framework (REF) is a new system for assessing the quality of research in UK higher education institutions (HEIs).[6] It replaces the Research Assessment Exercise (RAE), which has occurred on a (near) quinquennial basis since 1986. The outcomes of REF 2014 will be published in December 2014. The REF is being undertaken by the four UK higher education (HE) funding bodies,[7] but is being managed by the REF team based at the Higher Education Funding Council for England (HEFCE) and overseen by the REF Steering Group, consisting of representatives from the UK HE funding bodies.

The REF has three main purposes:

- To inform the selective allocation of funding body research funding to HEIs, with effect from the academic year 2015–16.
- To provide accountability for public investment in research and produce evidence of the benefits of this investment.
- To provide benchmarking information and establish reputational yardsticks.

The REF is a process of expert review. HEIs are invited to make submissions to 36 units of assessment (UOAs) across four main panels (A, B, C and D) and each submission is assessed by an expert sub-panel, working under the guidance of the four main panels.[8] Sub-panels apply a set of generic assessment criteria to produce an overall quality profile for each submission (REF, 2011b).

The allocation of research funding based on non-academic impact is relatively new, with the REF being the first example of its application across a research system (Morgan Jones & Grant 2013). In 2006 a pilot exercise was carried out during the development of the national Research Quality Framework (RQF) in Australia. The RQF was to have introduced impact assessment into the national research assessment exercise (Roberts et al, 2005; Peacock et al, 2006), but the impact element was dropped with a change of government in 2007. The Australians have recently reconsidered adopting an impact assessment exercise (ATN & Group of Eight 2012; Morgan Jones et al. 2013).

The REF will assess universities on the basis of the *quality* of research outputs, the *wider impact* of research and the *vitality* of the research environment. Following a pilot exercise (Technopolis 2010), the HE funding bodies concluded that peer review of research impact case studies was a workable approach. The weighting for the impact assessment part of the REF will be 20 per cent of the total assessment in 2014. Documentation from the HE funding bodies has stated 'a weighting of 25 per cent for impact would give due recognition to the economic and social benefits of excellent research. However, given that the impact assessment in the 2014 REF will still be developmental, the weighting of impact in the first exercise will be reduced to 20 per cent, with the intention of increasing this in subsequent exercises' (REF 2011a). Indeed some have already begun to call for impact weighting to be increased to 25 per cent in the future (Witty 2013).

1.1. Origins and aims of this report

This report, commissioned by HEFCE, presents the findings of an evaluation of the institutional submission

6 A higher education institution is a university or higher education college. All HEIs across the UK are eligible to submit to the REF, which leads to funding allocation. Submissions are organised by subject areas, defined as Units of Assessment.

7 The Higher Education Funding Council for England (HEFCE), the Higher Education Funding Council for Wales (HEFCW), the Scottish Funding Council (SFC), and the Department for Employment and Learning, Northern Ireland.

8 Further information on the panels and their membership is available at http://www.ref.ac.uk/panels/panelmembership/

process for the impact assessment element of REF 2014. It should be noted that the reports from this evaluation were finalised in June 2014 but publication has been delayed until the results and feedback of REF 2014 have been published, in order to avoid affecting panel decisionmaking. It should be stressed from the outset that this study does not evaluate how panels assess impact, nor does it look at the other elements of REF (that is the preparation, submission and assessment of outputs and environment statements). A separate evaluation has been commissioned to review the assessment of impact by the panels. The aims of this evaluation are set out in Box 1-1.

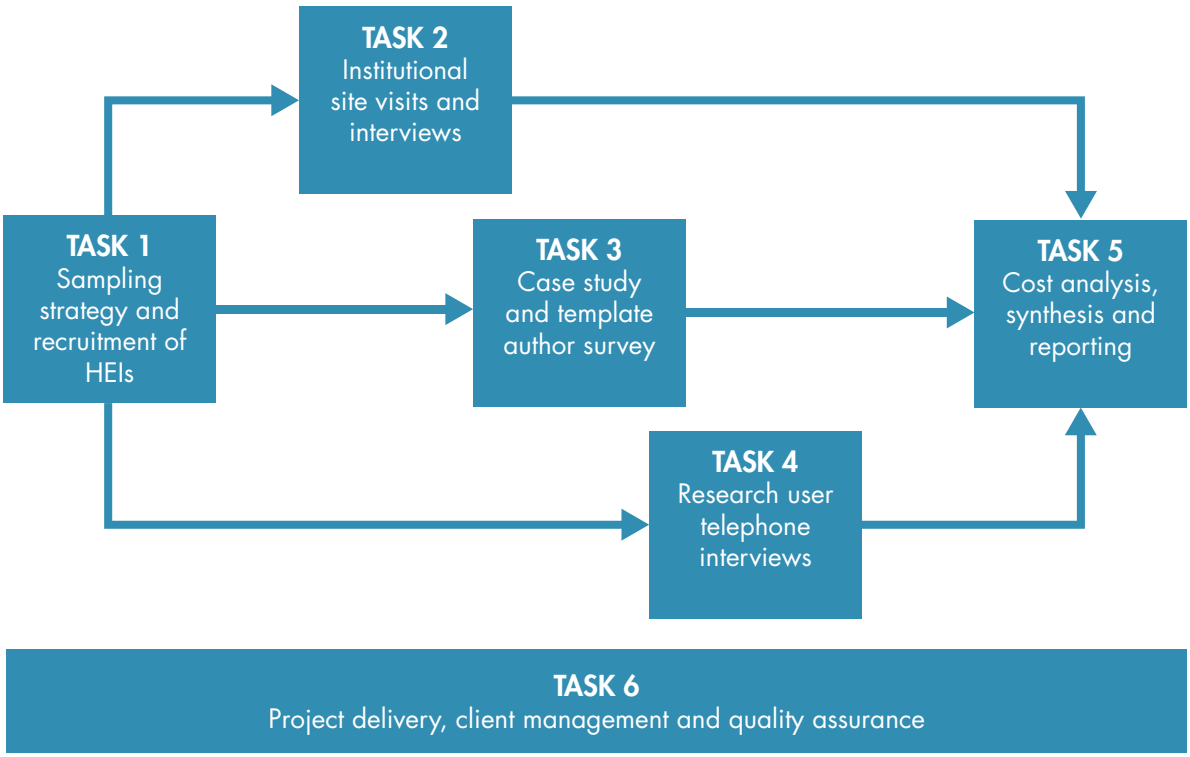
1.2. Methodology overview

Our overall approach to this evaluation is summarised in Figure 1-1 and Table 1-1 and described in more detail in the accompanying *Approach and evidence* report. The evaluation was divided into six tasks: (i) determining the sampling strategy and recruitment of HEIs; (ii) HEI site visits and interviews with those associated with the leadership and administration of the impact assessment element of REF 2014 in HEIs; (iii) a survey of those involved in developing the case studies within HEIs; (iv) telephone interviews with end users of the research who have been engaged in the impact case study process; (v) a cost analysis for the REF 2014 impact process and (vi) project delivery, management and quality assurance.

Box 1-1: Aims of the evaluation

- Identify and describe the perceived challenges and benefits to HEIs and research users in preparing impact submissions to REF 2014
- Identify and describe the intended and unintended consequences of assessing research impact for HEIs and disciplines
- Formulate sound, evidence-based conclusions and recommendations to improve the process for preparing and submitting impact assessments for future REF exercises
- Ensure that innovative and good practices in research impact assessment as used during the submission process are identified and highlighted to HEIs, research users, HE funding councils and other stakeholders

Figure 1-1: Project schema



To arrive at the sample of HEIs in England we selected 18 HEIs from the population of 123 who indicated their 'intention to submit' to REF 2014 (thus the sample represented about 15 per cent of HEIs in England). HEIs were selected to oversample institutions making larger submissions, but also ensuring representation of the smaller ones (Figure 1-2).

To ensure balanced representation, we then assessed our initial selection of HEIs in England against a series of pre-defined quotas. These were:

- At least one HEI from each of the nine regions used by HEFCE (North East, North West, Yorkshire and the Humber, East Midlands, West Midlands, East of England, London, South East, and the South West).
- One monotechnic HEI, defined as submitting in only one UOA.
- No institutions from the same location outside London, or two institutions from the University of London within a group.

The sample was then checked for a representative mix of the four main panels i.e. within 15 per cent of expected number of submissions. In addition, we included one HEI from Wales (Cardiff University, nominated by the Higher Education Funding Council for Wales) and two from Scotland (the University of Stirling and the University of Highlands and Islands, both nominated by the Scottish Funding Council in consultation with Universities Scotland), resulting in a total sample of 21 HEIs (Figure 1-3).

We collected data from three stakeholder groups from within our evaluation sample of 21 HEIs across England, Wales and Scotland:

- Those associated with the leadership and administration of the impact assessment element of REF 2014 in HEIs.
- Those who were the lead authors (generally research academics) of the submission documents (impact case studies and impact templates).
- Research users (i.e. the beneficiaries of research).

We used a multi-method evaluation approach, including face-to-face and telephone interviews with key informants, an on-line survey, and a cost analysis using estimated cost data from HEIs (see Table 1-1 and the *Approach and evidence* report for details). Data were analysed using a systematic and structured approach to

Figure 1-2: Distribution of the intended number of FTEs to be submitted to REF 2014 by HEIs, split into three sampling groups

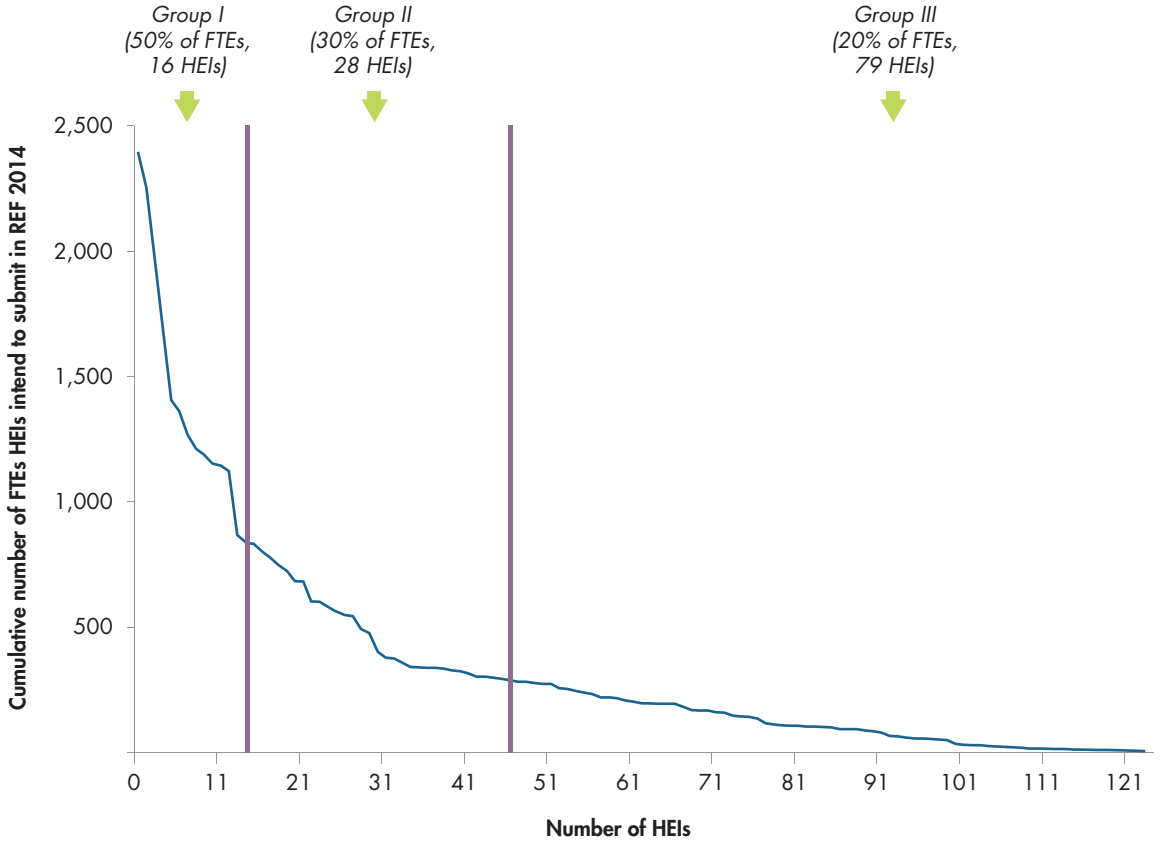
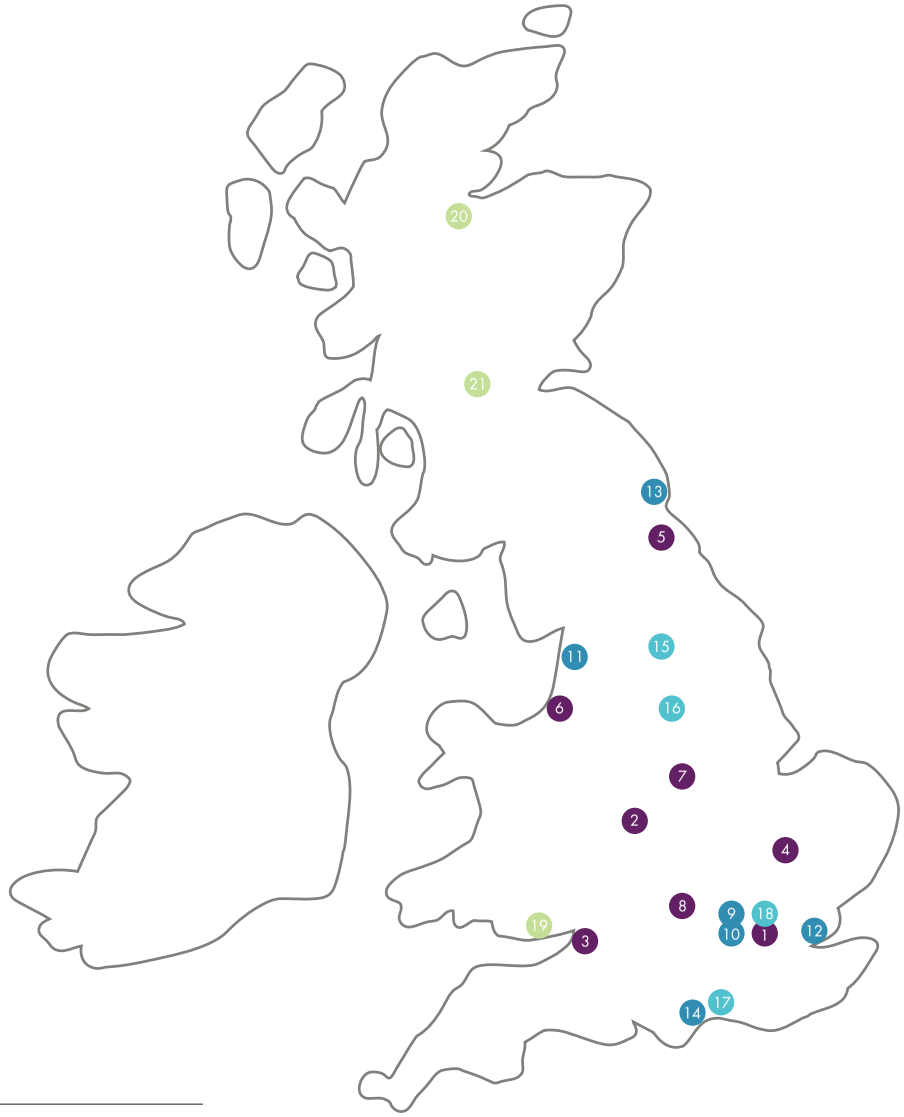


Figure 1-3: Geographical location of selected HEIs[9]



Group I - first 50%

1. University College London
2. University of Birmingham
3. University of Bristol
4. University of Cambridge
5. University of Durham
6. University of Liverpool
7. University of Nottingham
8. University of Oxford

Group II - next 30%

9. Brunel University
10. Royal Holloway, University of London
11. University of Central Lancaster
12. University of Kent
13. University of Northumbria at Newcastle
14. University of Portsmouth

Group III - final 20%

15. Leeds Metropolitan
16. Sheffield Hallam University
17. University of Chichester
18. Royal College of Arts

Other

19. Cardiff University
20. University of the Highlands and Islands
21. University of Stirling

[9] The numbers assigned to universities in this figure were randomly assigned for the purposes of illustration only. They are not indicative of any ordering and are not related in any way to the manner in which data are presented throughout this report.

coding and synthesising across data sources by stakeholder group, institution type, respondent characteristics, etc. As summarised in Table 1-1, this approach is not without its limitations and caveats; however, by triangulating different data sources we identified 12 key findings and observations and an associated set of conclusions.

1.3. The structure of this report

The report is organised around our 12 key findings and observations. These are presented in four themes: the first addresses benefits and burdens (Chapter 2); the second looks at implementing the process (Chapter 3); the third reviews HEI staff and research user attitudes to the implementation of the process (Chapter 4); and the fourth discusses suggested improvements to the preparation and submission process (Chapter 5). While it is clear that these themes do not have a one-to-one relationship to the aims of the evaluation listed in Box 1-1, they are a logical way to present the findings of our multi-method approach. Chapters 2 and 3 relate to the benefits and challenges of the process (i.e. Box 1-1, aim 1). Consequences of the process are discussed in Chapter 4 (i.e. Box 1-1, aim 2). The subject of unintended consequences was not a key theme that came across in our evaluation; however where they were touched on this is noted in the text and picked up on in the conclusion. Recommendations to improve the process are discussed in Chapter 5 (i.e. Box 1-1, aim 3). On reflection the fourth objective (to identify innovative and good practice) was very difficult without knowing the outcome of REF 2014. We do, however, highlight in Chapter 5 good practices that HEIs identified as supporting their process (i.e. Box 1-1, aim 4). We finish this report with concluding comments that are broader in scope than our findings, and which draw on the wider knowledge of impact in the policy context (Chapter 6).

Full accounts of the analyses of each workstream are provided in the accompanying *Approach and evidence* report, which is a longer and more detailed account of our evaluation structured around the methodological tasks. It is aimed at those who wish to better understand the underlying evidence of our key findings and how we collected and collated that evidence, and should be read alongside this report. It should be noted that the reports from this evaluation were finalised in June 2014 but publication was delayed until the results and feedback of REF 2014 had been published in order to avoid affecting panel decisionmaking.

Table 1-1: Summary of data sources and approach

	Site visits	Surveys	Research user telephone interviews	Cost estimations	Data synthesis
Process and purpose	Individuals and group interviews with those responsible for impact submission during day-long site visits to each of the 21 HEIs To gain a qualitative insight into the process that HEIs went through in preparing submissions and to understand their perception of the benefits, challenges and consequences	Two online surveys for leads of impact case studies (REF3b) and impact templates (REF3a) To capture the perspective and views of those who worked directly on the case studies and impact templates (and may not have been present during site visits)	Short (20 minute) telephone interviews or email correspondence with research users To ascertain how research users engaged with REF 2014 and whether the process of providing evidence to researchers produced any particular benefits or challenges	Completion of a cost estimation worksheet by 20 HEIs To estimate the costs of preparing submissions for the impact assessment element of REF 2014	Independent generation of five key themes by researchers for each of the 21 HEIs and analysis across all evidence streams To provide a cross-cutting analysis of the key themes that emerge from a 'top-down' perspective on the data and to triangulate across all evidence streams
Sample size	21 higher education institutions invited to participate	1,793 impact case study 'lead' authors and 456 impact template 'lead' authors invited to respond	57 individual research users and 9 organisations invited to be interviewed	20 HEIs	210 themes identified by the evaluation team from site visits
Volume of evidence	327 interviewees during 126 interviews	964 impact case study and 259 impact template survey responses; 58 per cent survey responses in total	23 individual and 6 organisational interviews were conducted; 29 interviews in total (44 per cent response rate)	18 fully completed cost estimation worksheets, 2 partially completed worksheets	12 key findings and observations identified
Analysis	126 interview memos coded in QSR NVivo using 48 codes, tagging 12,567 phrases	Quantitative analysis was conducted in Excel Qualitative responses were analysed in QRS NVivo using 110 codes, tagging 10,978 phrases	Qualitative analysis used to synthesise and extract key themes from the interviews	Data analysed in Excel	NVivo analysis of themes
Limitations and caveats	Contradictory points could be raised within an HEI and views are not necessarily representative of an institution Different coding styles of the evaluation team Semi-structured interview protocol meant not all questions were asked at all interviews	Self-reported data Sample may have been incomplete Accuracy of time estimations may vary	Not all individuals interpreted all questions in the same way Small sample size relative to the entire pool of research users Sampling bias	Exact data relating to time spent were not available and we requested indicative estimates from HEIs. Our analysis therefore does not provide a precise estimate	Views are restricted to those of the project team

Chapter 2 The benefit and burden of assessing research impact as part of REF 2014

This chapter provides an overview of the benefits and burdens experienced by HEIs in preparing impact submissions for REF 2014. In particular it provides detail about the following two key findings:

- Participants saw a number of benefits from the increased focus on the assessment of impact as part of REF 2014, along with other policies (such as Research Council UK's 'Pathways to Impact') and the broader 'impact agenda'.
- The assessment of impact as part of REF 2014 was a significant new burden for HEIs.

2.1. Participants saw a number of benefits from the increased focus on the assessment of impact as part of REF 2014, along with other policies (such as Research Council UK's 'Pathways to Impact') and the broader 'impact agenda'

I noticed my perception of research changing slightly and my passion to make an impact with my research enhanced; this was due to constant in-depth thinking about what we (and I) do in the unit and why we do it. I can say that I became totally immersed in the topic of impact and became fascinated by the area.[10]

Participants in REF 2014 identified a number of benefits resulting from their involvement in the process. This was evident from the site visits and surveys completed by lead authors of the impact documents that contributed to the submission. The results illustrated in Table 2-1 come from the survey; four key benefits are identified: the ability to identify and understand impact; the stimulation of broader strategic thinking about impact; increased recognition within HEIs of those academics undertaking impact activities; and the review and reaffirmation of relationships with external stakeholders. Affirming relationships, understanding impact and recognition were benefits that were also identified in the Excellence in Innovation for Australia (EIA) trial (Morgan Jones et al. 2013).

These benefits were also confirmed in our site visit interviews. The salient themes identified in these interviews are listed in Table 2-1. It should also be noted, however, that 7 per cent of ideas relating to the impact case study and 6 per cent relating to the impact template stated that there were no benefits to undertaking the exercise, and on average survey respondents provided fewer benefits than challenges in their responses.[11] Furthermore, and as discussed in Section 4.2 and in the *Approach and evidence* report in more detail, there were noticeable differences in attitudes within institutions. Central staff, with responsiblity for managing institutional preparations for REF 2014 research impact assessment, were consistently more positive about the process and identified more benefits than faculty staff.

The most frequently mentioned benefit in both the impact case study and impact template surveys was being able to **identify and understand the impact** of research, with over a quarter of the ideas associated with this type of benefit.[12] Nearly half of the respondents

[10] Quotations used throughout this report are taken from the site visits and survey responses.

[11] None of the fields was mandatory and therefore data were not always entered for each question.

[12] In the results of the survey presented below we use the following terminology: analytical categories refer to the main questions asked in the survey; themes refer to the further breakdown of response data within an analytical category (e.g. type of challenge identified); ideas refer to the different opinions reflected within a response, which were coded to a theme within an analytical category; respondent refers to the individual who responded to the survey; responses refer to the entire response any respondent gave to an individual question (any one response might contain more than one idea, and thus could have been coded to multiple themes and analytical categories). Further detail can be found in Section 3.2 of the accompanying Approach and evidence report.

Table 2-1: The top five benefits referenced in the surveys of lead authors of the impact case study (REF3b) and impact template (REF3a) documents

Impact case studies (REF3b)				Impact templates (REF3a)			
Types of benefit	% of total ideas about benefits (n=2338)	% of total respondents to survey (n=962)	Number of institutions (n=21)	Types of benefit	% of total ideas about benefits (n=635)	% of total respondents to survey (n=259)	Number of institutions (n=21)
Identifying and understanding impact	25%	48%	21	Identifying and understanding impact	29%	66%	20
Promotion or recognition	17%	33%	21	Thinking about strategy	27%	66%	20
Review and affirm relationships	9%	22%	21	Promotion and recognition	8%	20%	19
Benefits for the next REF	7%	17%	21	Gathering data	6%	15%	14
No benefits	7%	12%[13]	20	No benefits	6%	15%	9

to the impact case study survey and two-thirds of the respondents to the impact template survey mentioned it, and the idea was confirmed in the site visit interviews (Box 2-1). Individuals noted the value of being able to identify and document what impacts had led from the research they or their faculty had been involved in.

Many respondents noted that it allowed researchers to comprehend the impact of their work to a greater extent than before the exercise. As one impact case study survey respondent noted:

> *[It] highlight[ed] the broader way in which [their] research had impacted on society, sometimes quite unexpectedly.*

Two-thirds of respondents to the impact template survey (27 per cent of ideas) related to authors being afforded the opportunity to **reflect on strategy**. Again this was confirmed as a key theme at our site visits (Box 2-1). Some respondents said that the process helped them to reflect on their own research and strategy for impact, whilst others noted that it helped them to think about the wider faculty or HEI's strategy. Two-thirds of the total comments relating to strategy from the impact template survey were specifically about the benefit of being able to think about a strategy and plan individual research and future impact strategies at a faculty and HEI level. Whilst some individuals stated that the process 'helped [them] develop more impactful future project plans' others noted that it helped them to 'think carefully about future plans for generating impact' in regards to 'clarifying the future impact strategy for the uni[versity]'. Interviewees at our site visits also acknowledged that there had been evidence of culture change within their institution through strategies and processes put in place to 'capture' impacts. As one person told us, 'It's been like a shot in the arm for universities, academics will have been trained up, they will understand language and will have proper data collection exercises in place and will start thinking about impact at the outset of projects'. And another said, '[It] forced you to think more strategically about how you were going about achieving impact and what you needed in place strategically in order to develop [impact] going forwards'.

The role of impact assessment in **promoting and recognising** the work of colleagues came up in both the impact case study and impact template surveys as well as the site visits. This accounted for 17 per cent of the ideas and was mentioned by one-third of respondents in the impact case study survey. Fewer respondents (20

[13] Due to the nature of the analysis of the survey response data, this figure includes every time a respondent stated there was no benefit regardless of any previous responses.

Box 2-1: Salient benefits of preparing impact submissions identified in site visit interviews

The impact submission process:

- Alerted researchers to previously unknown impact arising from their research
- Provided insight into what colleagues do, which in future could lead to increased collaborations and interdisciplinary research
- Helped to bring together areas of the support services and link academic and academic support departments to work more closely, through the acceptance that research and impact are a continuum
- Placed impact on the HEIs' agenda and informed strategy development
- Attached value to impact-related activities, which has benefitted applied subject areas as well as staff who were already undertaking engagement activities
- Encouraged greater awareness of and engagement with research users, strengthened relationships and helped HEIs to identify groups to work with
- Allowed researchers to articulate and evidence the value of research, which is important in forming collaborations and justifying public sector funding
- Provided useful information for advocacy and marketing materials

per cent) felt this was a benefit of preparing the impact template documents. Some individuals commented that the process enabled the value of their own work to be recognised by colleagues and more widely within the HEI, as well as by funders and those in society. Individuals said that '[it] made [me] feel good about my research [and gave me an] opportunity to demonstrate the value of [my] research to [my] institution' and was 'good for promotion prospects'. Others noted that the process had enabled their faculty or institution to be more widely recognised, suggesting that it 'enhance[d] the reputation of the School [and the] status [of] the university'.

A common benefit referenced in the impact case study survey (9 per cent of the ideas from 22 per cent of respondents) highlighted that the drafting process enabled HEIs to **review and affirm relationships**. With regards to research users, individuals noted that it 'further developed [their] contact with those [they] impacted' and that a 'stronger relationship with users' was built up. This was also a benefit identified by research users.[14] Others survey respondents described benefits to relationships with research collaborators and within the HEI.

2.2. The assessment of impact as part of REF 2014 was a significant new burden for HEIs

During the past year, I have written zero papers, I have not given the usual attention to gaining research funding and I believe that the process… has been disastrous for my research and potential, and potentially my own growing international reputation.

We estimate that it cost UK universities around £55 million to prepare impact submissions as part of REF 2014.[15] This was our 'best estimate',[16] derived from scaled-up data provided by 20 of the 21 HEIs,[17] and based on the number of submitted impact case studies and impact templates for all UK HEIs. As illustrated in Figure 2-1, the estimated costs of producing an impact case study are around £7,500 and those for an impact template £4,500. The median cost per impact case study was £7,360 (range: £3,216–26,890; interquartile range: £4,899–11,011) and the median cost per impact template was £4,368 (range: £1,318–13,523; interquartile

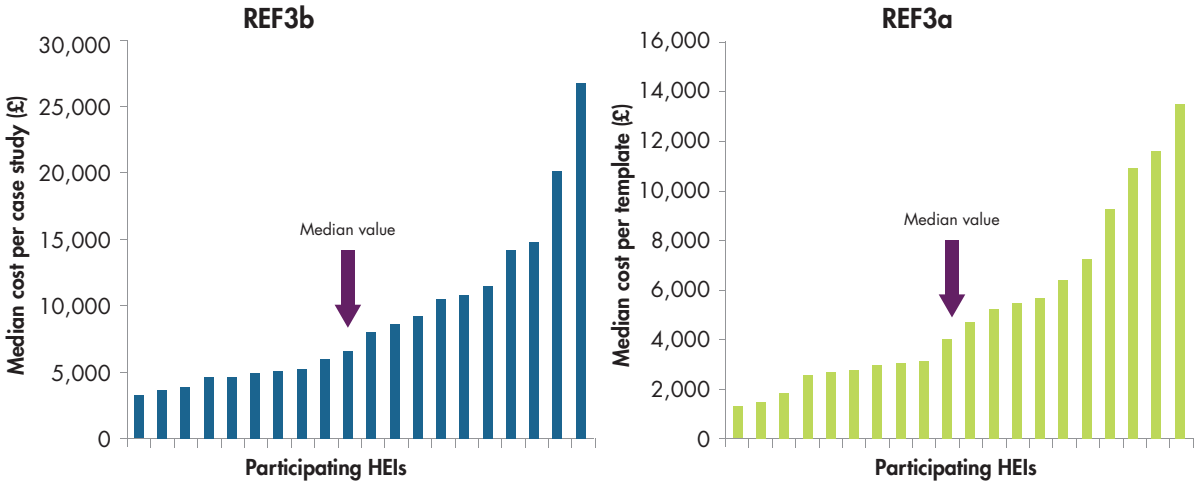
14 Mentioned by five individuals and two organisations in our research user interviews.

15 The approach we used for estimating costs is detailed in Chapter 5 of the accompanying *Approach and evidence* report.

16 In the *Approach and evidence* report, we undertake one-way sensitivity analysis of key assumptions; this would suggest the most optimistic cost estimate per impact case study is £7,000 and the most pessimistic £8,000.

17 One HEI decided not to participate in this element of the evaluation as it had declined previous Freedom of Information requests.

Figure 2-1: Estimated costs from 20 HEIs of producing impact case studies and impact templates



range: £2,745–6,631).[18] There was evidence of economies of scale, with the median costs per impact case study being lower for larger submissions, as illustrated in Figure 2-2: the median cost per impact case study for HEIs producing 100 or more of them was £4,983, compared to £8,630 for those with less than 100. Although in cost breakdowns HEIs reported low levels of start-up cost at around 5 per cent, training accounted for about one-third of all labour costs and less training may be required for future iterations of the REF.

Combined with previous estimates of the costs of RAE 2008 (PA Consulting Group 2008), this would suggest overall REF 2014 costs to the sector (excluding the work of panels, which in 2008 was about 10 per cent of the total) of about £121m.[19]

The 'transaction costs' – that is the cost of preparation versus the funding allocated from quality-related (QR) funding – were 1.5 per cent (i.e. £121m of £8.2bn, where the latter figure is conservatively estimated as six years of QR funding at 2013–14 levels for the UK). It is important to note that some other aspects of recurrent research funding are informed by the outcome of research assessment. The transaction costs for the impact element – that is comparing the costs of impact submissions (£55m) with 20 per cent of QR funding determined by impact (£1.6bn) – were 3.4 per cent. By means of comparison, the proportion of the funds awarded by UK Research Councils to universities spent on administration costs was historically estimated to be around 10 per cent, but this figure may have declined in recent years (DTZ Consulting & Research 2006; Morgan Jones & Grant 2013).

The costs or effort of preparing impact case studies can be compared with the REF Impact Pilot Evaluation (Technopolis 2010) and the evaluation of the Excellence in Innovation Australia (EIA) trial (Morgan Jones et al. 2013). In both cases, the estimated costs/effort are lower than those we have estimated for REF 2014. For example, the REF Impact Pilot Evaluation estimated that it took 3.2 staff-days on average to prepare an impact case study and 2.1 'coordination days per output'. In our cost analysis it took a median of 30 days per impact case study, but that includes training and other activities that may not have been included in the REF pilot.[20] In the EIA trial, the median length of time taken to produce an impact case study was 3 days[21] and

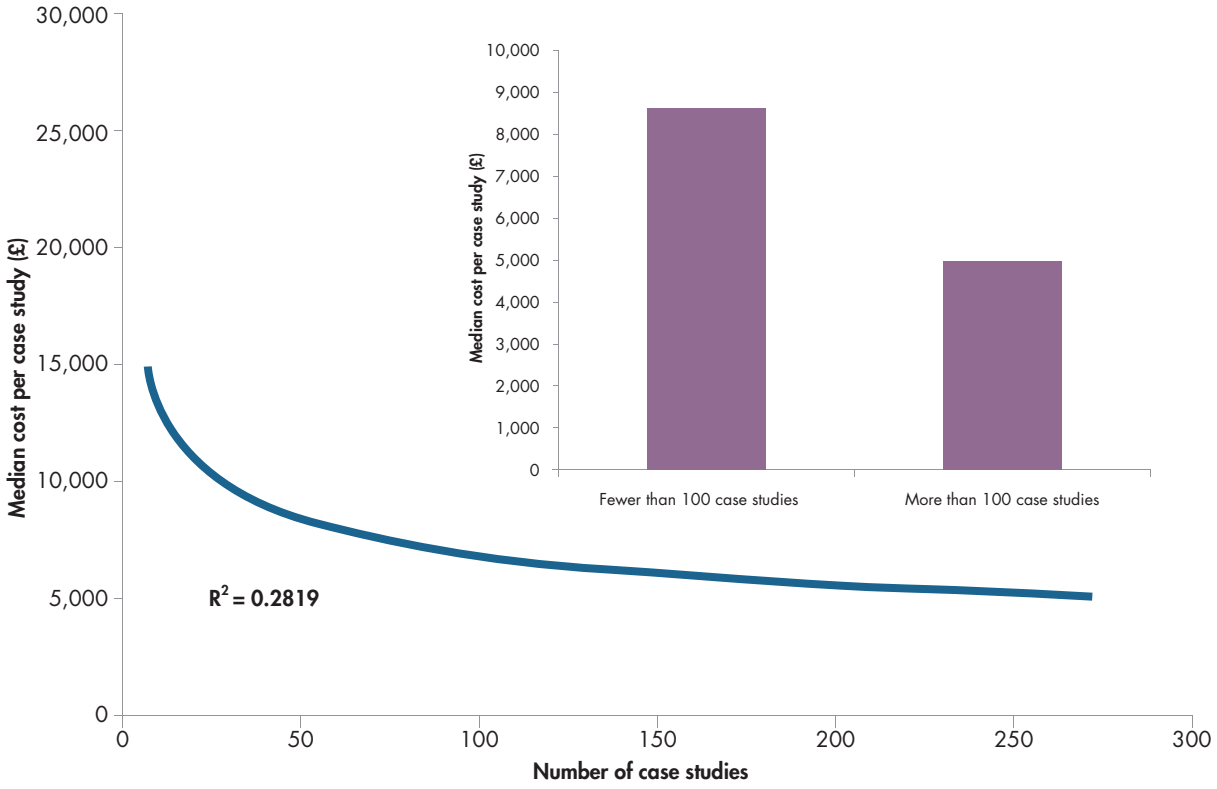
[18] There was substantial difference in the estimated time spent on preparing impact case studies by institutions from the cost analysis (30 days) compared with survey estimates from impact case study authors (8 days). This may in part be because the case study authors did not account for other activities organised centrally. Either way, to err on the side of caution (i.e. a possible overestimate of burden), we used the higher institution estimates in our analysis.

[19] The RAE 2008 Accountability Review estimated the total sector cost to HEIs in England to be approximately £47m. For comparative purposes we removed costs associated with 'RAE national panels and consultation' and then applied a multiplication factor to arrive at a figure for all of the UK. This was increased by the rate of inflation, resulting in a comparable estimate of £66m. This is discussed in detail in Chapter 5 of the *Approach and evidence* report.

[20] It is also worth noting that the survey of authors of case studies and impact templates estimated a median time spent of 8 days (interquartile range: 4–15 days) and 15 days (interquartile range: 9–29 days) respectively. However this is focused on one element of preparation and does not include, for example, central support and management.

[21] It is important to note here that institutions that participated in the EIA trial noted lack of time as a challenge due to the limited timeframe available to produce and submit case studies. Therefore it could be expected that if more time had been available this figure may have been higher.

Figure 2-2: The effect of submission size on the cost per impact case study



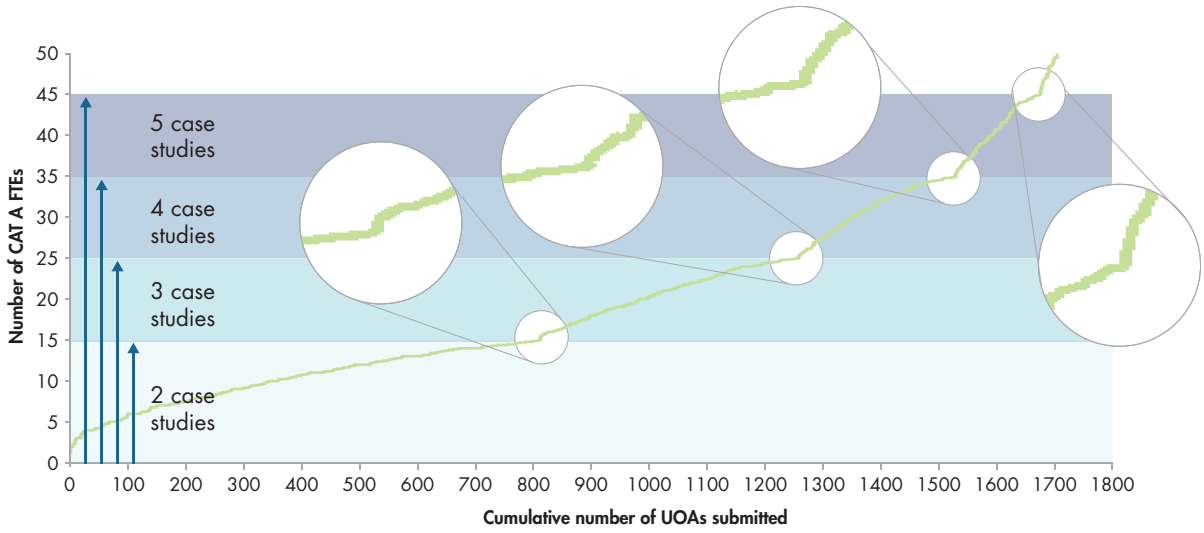
the estimated costs per impact case study were between AU$5,000 and AU$10,000 (or £2,740 to £5,490 at current exchange rates).[22] The difference between these estimates may provide some upper bound indication of the costs associated with 'gold plating' of impact case studies, a cost driver identified in the Accountability Review of RAE 2008 and evident from our site visits. Gold plating is driven by the competitive dynamics of the REF process, resulting in repeated reviews and rewrites, often irrespective of the marginal associated benefits. For example, on our site visits we were told of many instances of impact case studies being rewritten more than ten times, and in one extreme example 30 times. Such gold plating would not necessarily have been seen to the same extent in the REF Impact Pilot Evaluation or the EIA trial, as monetary benefits were not associated with either.

In addition to the monetised costs, and as discussed in more detail in Section 3.2, it was evident that there were a number of intangible burdens largely associated with personnel issues. At our site visits it become evident that the workload in preparing impact case studies and impact templates was concentrated into a small proportion of people who felt overworked, and who were at times very negative towards the process. Those responsible for developing impact case studies invested a lot of time and effort in both understanding the new requirements and then perfecting the final impact case study narrative. However, as around one impact case study was required for every 10 Full-Time Equivalents (FTEs) submitted to the REF, this meant that in effect one person (or team) was 'carrying' the workload of nine other people.

We also came across anecdotal evidence that the 'rules' on the number of impact case studies submitted also influenced the number of people submitted to REF 2014 by HEIs (see Figure 2-3), despite guidance from the HE funding bodies to promote fair and transparent selection of staff for submission (REF, 2011c). As one interviewee noted: 'We didn't want to submit weak or ineligible [impact] case studies just to include more people'. Conversely, HEIs may have added extra staff so that additional impact case studies could be showcased. Figure 2-3 shows, across the whole HE sector, the number of UOAs that submitted a given number of staff and impact case studies. At the threshold for including a new impact case study there is a discontinuity, indicating that UOAs did not submit

22 On 2 May 2014.

Figure 2-3: Effect of the number of impact case studies required on the number of FTEs



numbers of staff around the boundaries. Although not a dominant issue, this was confirmed by some interviewees who acknowledged that the required number of impact case studies influenced the number of FTEs they submitted, and these individuals also acknowledged the sensitivities of such behaviours. It is worth noting that the consequences of selecting staff for previous rounds of RAEs have consistently arisen in other evaluations and therefore this is not a new issue (Farrant at al. 2003; PA Consulting Group 2008). The novelty is the association of this behaviour with the impact element of the REF.

Chapter 3 Implementing the assessment of research impact as part of REF 2014

Our interviewees raised a number of issues relating to the implementation of the guidance provided by HE funding councils and also raised queries around the process of producing documentation for the impact element of the REF 2014 submission. This chapter discusses the following key findings:

- HEIs were able to identify and articulate their impact as part of REF 2014. However, views on guidance from the HE funding bodies for demonstrating research impact ranged widely, from full support to great concern.
- The biggest challenges (and burdens) in preparing impact case studies were the requirement to 'evidence' impact and develop an understanding of the concept of impact.
- HEIs perceived that the exercise had put an undue burden on research users, although this was not their experience.
- There was uncertainty about how panels will assess impact and this has led to unease in the sector.

3.1. HEIs were able to identify and articulate their impact as part of REF 2014. However, views on guidance from the HE funding bodies for demonstrating research impact ranged widely, from full support to great concern

We have been able to re-gather and show what has been done when you write it down on paper. The recording has been valuable to stimulate a positive feeling about research… its potential… and [in particular its] impact.

Across the sector, 6,975 impact case studies were submitted for assessment as part of REF 2014. These were evenly split across Panels A, B, and D, but with Panel C generating 20 per cent more case studies (Table 3-1).[23]

Table 3-1: Number of impact case studies submitted per panel

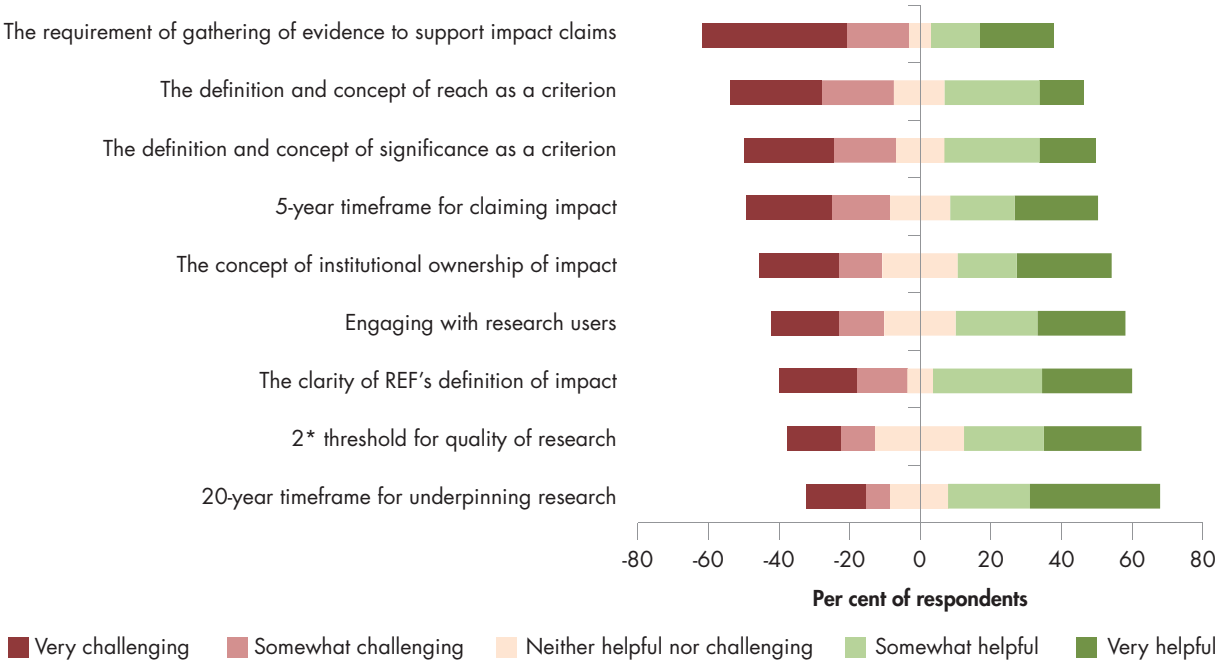
Panel	Number of impact case studies submitted
A	1,621
B	1,667
C	2,040
D	1,647

Within our sample of HEIs, 1,997 impact case studies were submitted**.** During discussions at the site visits, interviewees provided examples of the impact case studies that they had submitted. Through these discussions, as well as through the surveys conducted, we established that HEIs believed that they were able to identify and articulate their research impact. The HEIs in our sample included submissions to all 36 UOAs, and interviewees at the site visits covered 35 out of the 36 UOAs (the exception was 'Anthropology and Development Studies'). However, it is important to remember that ultimately the success with which HEIs identified and articulated their impact will be decided by the panels. Our evaluation of the EIA trial, which reviewed a sample of the case studies submitted, also found that researchers could identify, communicate and articulate impact through case studies (Morgan Jones et al. 2013).

Although they were able to articulate impact, interviewees and survey respondents identified challenges relating to the application of the 'rules' within the guidance documents. The 'rules' provided detail on eligibility criteria (for example, what could be counted as impact, the

[23] A full list of the UOAs within each panel is detailed in Appendix A of the *Approach and evidence* report.

Figure 3-1: Challenges in operationalising the guidance identified by impact case study authors in the survey



timeframes within which claims could be made and what level of evidence was required). In the survey, impact case study respondents identified some of the rules for preparing impact case studies as more challenging than others (Figure 3-1). In particular, the requirement to gather evidence to support claims of impact (discussed in further detail in Section 3.2), the definition and concept of reach and significance as the criteria for assessing impact (particularly in Panels C and D), and the timeframe within which impact activity could be claimed (1 January 2008 to 31 July 2013) were thought to be somewhat or very challenging in the production of impact case study documents. Notably, the criteria of reach and significance were also found to be problematic in the REF pilot (Technopolis 2010). This assessment of the main challenges was also reflected in our site visits, where interviewees raised concerns about aspects of the guidance as well as timeframes and the implications for interdisciplinary and multi-institutional research.

A number of the challenges identified focussed on the effect of the impact element of the REF on smaller or newer UOAs within institutions. The need for institutional ownership of research, the requirement for 2* quality, and the relationship between the number of case studies and FTEs were all thought to be particularly challenging for smaller or new units to overcome, as a broader track record was required. For new UOAs, the issues were compounded by the fact that they did not have a 20-year history of underpinning research to draw on.

Not everything was thought to be challenging, and some rules were thought to be relatively easy to operationalise by most interviewees and survey respondents (e.g. the 2* threshold for the quality of underpinning research). From our interviews it is clear there was no single voice on any given rule, and there were as many different views within an institution as between them (see Section 5.2). Nevertheless, through the interviews we gained a more nuanced understanding of the challenges associated with various elements of the guidance (Table 3-2). Further detail can be found in Chapter 2 of the *Approach and evidence* report. Where challenges were described, we also asked interviewees to suggest improvements and changes. These are discussed in more detail in Section 5.

3.2. The biggest challenges (and burdens) in preparing impact case studies (REF3b) were the requirement to 'evidence' impact and the need to develop an understanding of the concept of impact

Evidence was the most difficult element of creating the [impact case study] document and as a result, you ended up thinking more about the evidence rather than the impact. The question was, can I evidence this?

[It] took 12–18 months to understand what impact was. [It was] not an easy process.

Table 3-2: Challenges associated with HE funding bodies' rules identified at site visit interviews

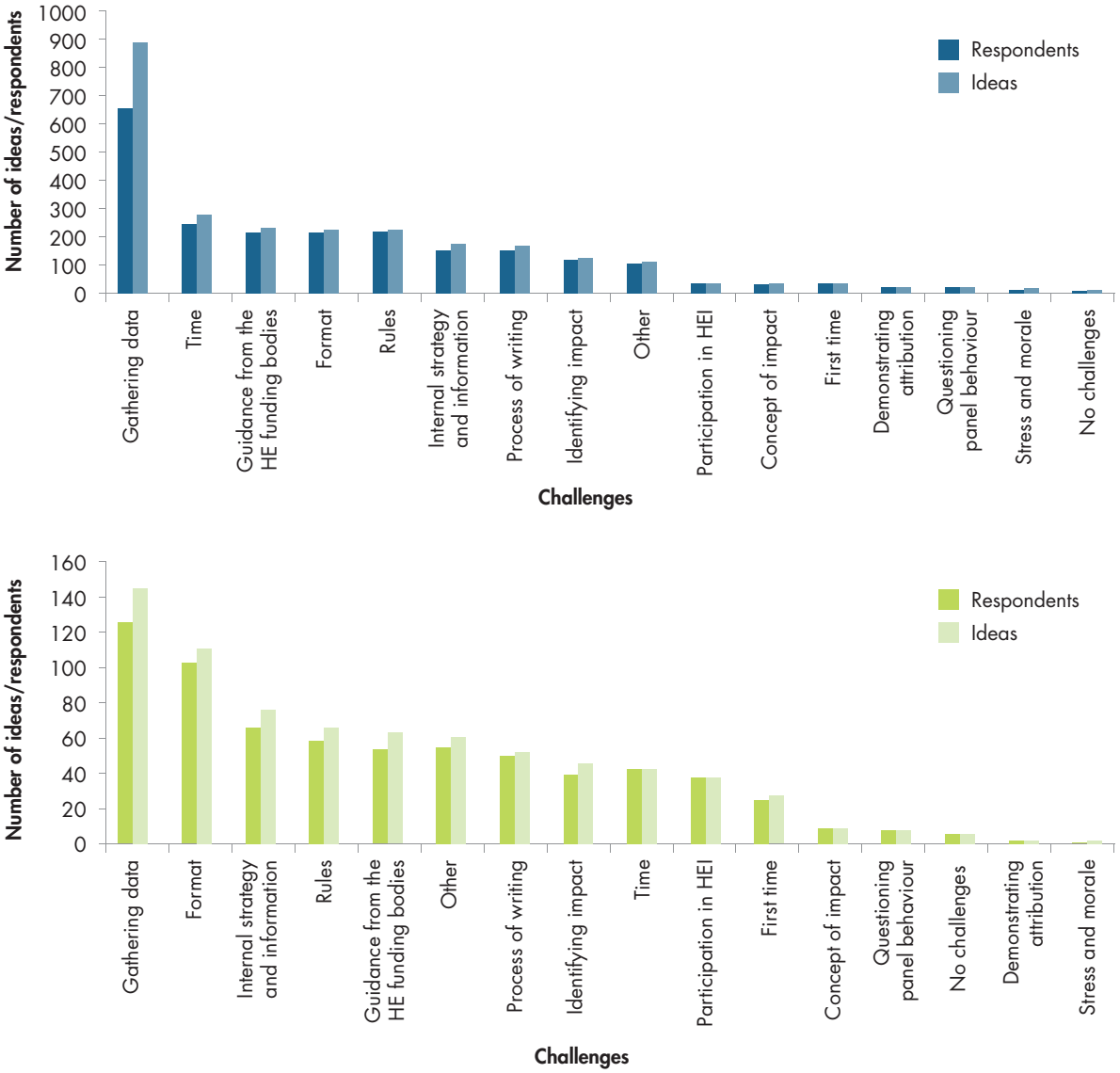
Rule	Challenges
Definition of impact	• Understanding what impact is • Types of impact not covered by the definition • Linear definition of impact • Differences between the definition used by the REF and that used by RCUK in 'Pathways to Impact' • Weighting of types of impact
Criteria of reach and significance	• Understanding what reach and significance are • Understanding how the criteria will be assessed and weighted • Evidencing the criteria
Linking the number of case studies to FTEs	• In large or small UOAs • In newly established subject areas • In departments with a high turnover
Institutional ownership of impact	• In new departments or those with a high turnover • Getting input from academics who had left the HEI
Underpinning research quality	• Requirement for 2* • Retrospective assessment of research quality • In small and newer UOAs • Link between research and impact quality
Research timeframe	• In new disciplines without a history of established research • Non-linear model of impact, i.e. where research output occurred after impact • Length of the window • For younger researchers
Impact timeframe	• Time lag issue[24] • How to claim continuing impact • End date of 31 July 2013
Requirement to evidence	• Difficult to evidence some types of impact • Retrospective collection of evidence
Impact template (REF3a)	• Page limit • Weighting of non-scored sections • Document narrative • Reverse engineering of impact strategy

While many challenges and burdens emerged over the course of our evaluation (discussed in Section 3.1), two in particular came to the fore in our analysis: the requirement to 'evidence' impact case studies and the process of developing a shared understanding of the concept of impact across the HEI. Interestingly, these were also significant challenges identified in the REF pilot exercise (Technopolis 2010).

One of the key requirements of the guidance was to evidence the impact claims presented: 'Each case study must include evidence appropriate to the type(s) of impact that supports the claims, including who or what has benefitted, been influenced or acted upon' (REF, 2012). Although an assessment of impact requires evidence of impact to be presented, our evaluation found that evidencing impact was particularly challenging because some types of impact were difficult to measure and evidence, and the lack of records meant that evidence had to be reconstructed. In addition, there was a perception among HEIs that research users did not trust the confidentiality arrangements that had been put in

[24] Several individuals considered the cut-off point to be too recent given that many notable impacts were dependent on research which that had been conducted decades earlier. For some subjects, such as physics, research can take up to 50 years to achieve impact (Morgan Jones and & Grant, 2013). This was also an issue identified in the REF pilot (Technopolis, 2010)

Figure 3-2: Challenges identified by survey respondents in developing impact case studies (above) and impact templates (below)



place by the REF. However, it was acknowledged that these issues may have been exacerbated because this was the first assessment of impact for a REF cycle and that in future information management systems to capture data or training courses about impact may be more widely available. Hence it might reasonably be expected that both of these burdens will lessen in future.

The requirement to 'evidence' impact was highlighted as a challenge in both the site visits and the surveys. Although HEIs believed they could articulate their impact, providing the necessary evidence to substantiate those claims for assessment was one of the most difficult aspects of the entire exercise. The greatest number of survey responses about challenges related to gathering data (Figure 3-2). Also, as discussed in Section 3.1, when asked to rate the guidance criteria, over 50 per cent of impact case study authors rated the requirement to evidence claims as somewhat or very challenging.

Many respondents in the EIA trial assessment reported difficulties with collecting evidence (Morgan Jones et al. 2013). It was noted that it was possible to reduce the burden and the time taken to produce an impact case study by building on material previously collected as part of the research project itself.

When we look at the nature of the comments from both the site visits and the interviews with research users, there were three main issues related to the requirement to provide evidence for the impact case studies. First, **some types of impact were particularly difficult to measure and evidence**. These included:

- Policy changes, where original research is not always referenced in documentation and there are many influences that could lead to the action taken (and the impact claimed). Additionally there are sometimes sensitivities for policymakers in acknowledging the influence and impact of external parties, including researchers.
- Public engagement impacts, where impact beyond the dissemination activity is difficult to trace.
- Cultural impacts, for example improvements to people's lives where there is not an obvious baseline, and data from individual research projects are not routinely collected.
- Evidence of something *not* happening, for example a product not being used, or improving a safety standard which meant that accidents did not happen.
- Unpopular but important research where research users would not acknowledge or recognise that the research has been important.
- International impacts where research users outside the UK had to be involved and provide evidence to meet the requirements.
- Where confidential or commercially sensitive information was required.

Second, because this was the first time impact was being assessed and because the final guidance was not issued until part way through the research funding cycle, in 2011, **much evidence had to be reconstructed retrospectively**. In many cases either the academic responsible for the impact or the research user might have moved on by the time evidence was being collected. One interviewee said: 'In the private sector, people change jobs on a frequent basis [and] therefore getting testimonials from past projects is challenging'. Identifying the appropriate person to provide evidence can also be problematic. As a consequence nearly half of the HEIs in our sample have started to capture research impact evidence on a contemporaneous basis.

Third, there was a perception that **research users did not trust the confidentiality arrangements** of the REF process and this may have biased impact case study selection.[25] Quantitative data were especially difficult to access, in particular confidential and sensitive commercial information regarding sales, revenues and figures about expanding markets, and new product lines. This concern may apply to many industries, but specific ones mentioned during our site visits were the pharmaceutical sector, trade publishers and oil, gas and mineral exploration industries. On occasion, even the use of a confidentiality clause was not sufficient to convince companies to provide information:

> *Companies naturally withhold information, even if you tell them it can be redacted from [impact] case studies. Why would they take the risk of sharing sensitive information when they don't have to?*

As a result there were indications that users would say things verbally but would not put anything in writing, which made the provision of concrete evidence, as required by the REF guidance, challenging. As noted in Section 4.3, one of the consequences of this is that the case studies submitted to REF 2014 are not necessarily representative of the research impact of UK HEIs.

The other most significant challenge in preparing impact case studies that emerged from the evaluation was the need to **develop an understanding of the REF 2014 concept of impact**. Interviewees at all HEIs highlighted that understanding the definition of impact was an initial challenge for their institution, with many commenting that, even now, only those who had fully engaged with the impact part of the REF had a full understanding.

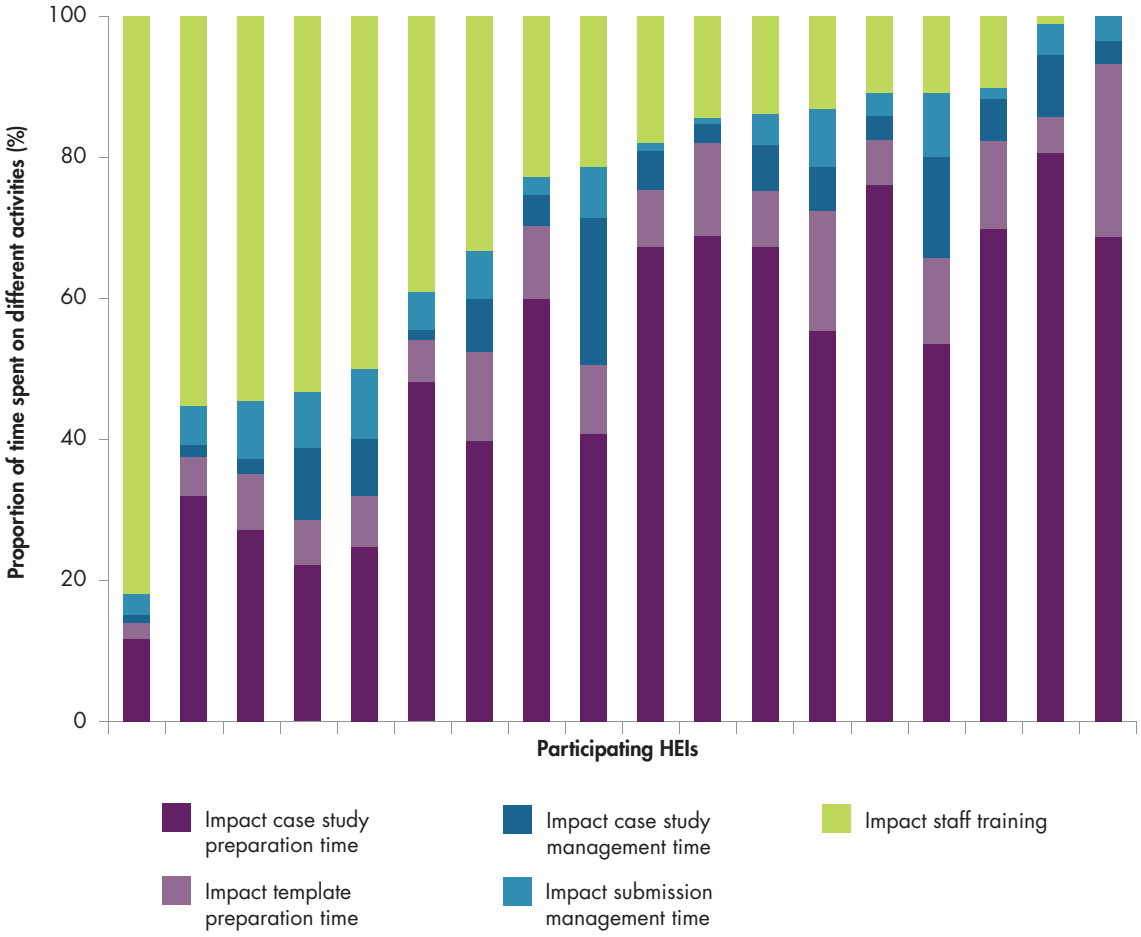
> *We didn't previously think of impact in these terms.*
>
> *[It was] hard to get peoples' heads round what impact was.*

In all cases, there were also particular challenges to understanding the definitions associated with 'reach' and 'significance'. Data from the survey show that even when the definition of impact itself was not considered to be challenging, the guidance on the criteria for 'reach' and 'significance' was considered among the most challenging aspects of the REF rules and guidelines (see Section 3.1).

In order to further develop their understanding, the majority of HEIs undertook training activities and held workshops, seminars or small conferences for their staff to learn about impact. Other notable practices in this regard are listed in Section 5.2. Our cost analysis confirms this and shows that training comprised a large fraction of the

[25] The REF has set out arrangements to enable institutions to submit impact case studies that include confidential information, with the agreement of the relevant organisation(s). The arrangements are described in REF (2012), Part 1, paragraphs 58–59. Approximately 10 per cent of the impact case studies submitted to REF 2014 were redacted or confidential

Figure 3-3: Breakdown of time spent developing the impact element of the submission by type of activity for 18 HEIs



total cost (Figure 3-3), although the amount of training required may decrease for future assessments.

As this was the first time HEIs were experiencing REF impact assessment, one can reasonably expect that some of the burden of both understanding impact and gathering evidence may reduce in the future.[26] However, it is worth bearing in mind the distribution of burden, discussed in Section 2.2, and that if the majority of individuals did not engage in the impact part of the REF at their institution, they may not have gained a good understanding of impact.

3.3. HEIs perceived that the exercise had put an undue burden on research users, although this was not their experience

[Academics were] worried that pestering people they collaborate with could jeopardise their relationship. – HEI interviewee

It was a manageable task…. Requests were not overly onerous. – Research user interviewee

Research user corroboration could occur either as a factual statement provided to the HEI by the user, or through the provision of contact details to enable HE funding councils to approach the user to confirm the claims after submission. One of the salient themes that we observed at our site visits was widespread concern

26 Although some of the challenges described above, such as measuring certain types of impact, are likely to remain.

that providing evidence and testimonials put an undue burden on the user community.[27] This was also mentioned in the survey, with one respondent noting that it was 'embarrassing to approach people for evidence, particularly as it made our relations feel transactional'. There was a perception in HEIs that engaging research users and beneficiaries had (often adversely) changed the dynamics of the relationship with key stakeholders. Interestingly, the research users that we spoke to did not perceive engagement in REF 2014 to be overly burdensome. Interviewees could also highlight positive benefits of this engagement such as strengthening relationships with research users and reaffirming relationships that had lapsed. This was also described as a main benefit of the process by survey respondents (Section 2.1).

During our site visit interviews it became clear that REF management teams within HEIs preferred to rely on factual statements from research users as they were 'in control' of the process and what was said. Indeed, among our sample of 21 HEIs, about two-thirds of the research user corroborating evidence was in the form of factual statements and one-third was in the form of provision of contact details. Moreover we were told of a number of anecdotal examples where statements were drafted on behalf of the research user/beneficiary, with the user only 'signing off' the statement.[28]

The sensitivity surrounding perceived 'user burden' was illustrated to us when four of the 21 HEIs in our sample asked us not to contact any research users they had engaged with in preparing their impact case studies. They were concerned about the additional burden and associated reputational risk. We did speak to 29 research users randomly selected from the remaining 17 HEIs and they had a very different perspective. They noted that there was a general lack of awareness of the REF and impact assessment outside the HE sector, and that the request for corroborating evidence was at first a new concept. They did not, however, perceive engagement in REF 2014 to be overly burdensome: on average, individual (rather than organisational) interviewees estimated that the length of time taken to provide input to testimonials was around two hours[29]; where additional data were provided to inform the testimonial letter the time taken rose to a median of four hours (across ten individuals who had provided such additional data). When asked about challenges, three-quarters (18 of 23) of individual respondents stated that there were no significant challenges to providing evidence, although of these, three people did state insignificant challenges. Challenges reported across the individual respondents included:

- Time taken and knowing how much energy to invest.
- Sourcing data retrospectively and gathering sales data.
- The fact this was a new exercise and the data collection was unstructured.

Challenges noted by organisational respondents included:

- Commercial sensitivities around data requested.
- Lack of institutional memory.
- Attributing the level of contribution of the research of a single research group to a wider impact.
- The time and effort of the process and the fact it acted as a distraction.
- The ability to do anything other than validate a fact (e.g. to provide confirmation of impact magnitude).
- Ensuring consistency in all evidence provided across the organisation.

The analysis suggests perceived user burden may be less of an issue in future REFs. The degree of uncertainty about what was required in testimonials and incentives to 'gold plate' impact case studies meant that on occasion HEIs had to contact research users several times.[30] To prepare for future assessments, a number of interviewees at HEIs noted that they would now capture this information on an ongoing basis and endeavour to keep track of and stay in contact with research users when they change roles or jobs.

In making these observations, it should be emphasised again that our sample of research users is small and not completely random. As discussed above, we only spoke to users who responded to our request and who had agreed to support an HEI's impact submissions. There is thus a population of research users who decided not

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27 We use the terms 'research user' and 'beneficiary' as these were adopted in the guidance provided by the HE funding bodies. However, it should be noted that at our site visits participants were uncomfortable with this terminology and also research users did not identify with it.

28 Data provided by HEFCE.

29 This is the median.

30 As discussed in Section 2.2, gold plating is driven by the competitive dynamics of the REF process resulting in repeated reviews and rewrites, often irrespective of the marginal associated benefits.

to engage in the process and whose views are not represented in this analysis.

3.4. There was uncertainty about how panels will assess impact and this has led to unease in the sector

How the panel is going to [assess impact] is the important thing and how this affects the grading and the reporting and how institutions are seen by others and their peers.

We hoped members of sub-panels could confirm or help alter our understanding [of the REF guidance] but… they have no uniform understanding of what these words mean.

There was a concern from the sector that guidance will be interpreted in different ways by the panels when assessing impact submissions. HEIs have been working with the REF 2014 definition of impact and the rules associated with its assessment since the guidance was published in July 2011. Interviewees at the site visits expressed concern that the panels may be less familiar with the guidance and its intricacies and therefore may not follow the 'rules' when assessing impact case studies, or could classify impact case studies as ineligible without proper consideration. In some instances this made HEIs risk averse in their selection for submission, excluding impacts that they were concerned would not meet all eligibility criteria. This was also identified as a challenge in the survey.

The impact case studies will be assessed by members of the panel and by research users. There is a lack of clarity in the sector about who had been selected as research users and what their role in the assessment was. It was accepted that, this being the first exercise of its kind, panel members as well as submitting HEIs will be learning about the process, but interviewees felt their uncertainty was more the result of a lack of information from the HE funding councils.

In particular, concerns were expressed over how different types of impact would be weighed against each other; for example, would a cure for a disease automatically warrant a higher impact score than a diagnostic tool? Another key aspect was how the criteria of reach and significance would be assessed. Other areas of concern included the level of evidence required to corroborate statements of impact made in impact case studies, how multi-institutional and interdisciplinary research would be assessed, and whether the publication quality of the underpinning research would influence the impact score. Interviewees at the majority of HEIs noted that the actual process that would be used in assessing impact, as well as the ways in which the rules should be interpreted, was unclear.

A concern raised by a minority of interviewees was that if the panels cannot differentiate in the assessment of impact case studies, then impact case studies will score similarly across the sector. This would result in the impact-associated element of QR funding being spread equally across HEIs (or at least based solely on submission volume). This could undermine the competitive, performance-related aspects of the REF as well as any cultural shift (and by implication increase concerns about the costs associated with impact assessment within REF).

To address these concerns and ensure credibility in the process, interviewees requested reassurance from the HE funding councils and clarification on the following issues. There was:

- A need to ensure standardisation in the assessment of the impact element of the REF 2014 submission.
- A call from interviewees for training of the panel members to ensure common understanding.
- A request for further detail on the research users contributing to the assessment.
- A need for transparency about the assessment process to support understanding in assessment decisions.
- A request to provide valuable feedback on the impact case studies at an individual or UOA-specific level. In some instances there were calls for the publication of scores for individual impact case studies to support learning.[31]

As this is the first time that impact has been included in an assessment process such as the REF, there is little in the way of comparison we can make as to how other impact assessment procedures were done and what might be learned from other circumstances. The closest comparison is the EIA trial, where the panel scores were assessed in some detail. This analysis led to the conclusion that, in general, inter- and intra-panel reliability was good.[32] However, there did appear to be a bias towards case studies that were well written and presented, as opposed to those containing the

[31] This is an issue that all allocation and research assessment systems face. It is essential to ensure that the assessment can provide an unambiguous rating and comparison of submissions (Grant et al. 2010).

[32] In this instance panels were based on type of impact using Socio Economic Objective (SEO) codes.

appropriate content. This may have been an artifact of the scoring process or the way the scoring template was laid out. Assessment of panel behaviour is beyond the scope of this evaluation, but we note here that HEIs were uncomfortable with not being able to anticipate REF 2014 panel behaviour in the assessment of their impact submissions.

Chapter 4 Attitudes to and consequences of assessing research impact as part of REF 2014

The process of preparing the impact element of the REF has changed behaviour and culture in some HEIs. This chapter provides detail to support the following key findings:

- As a result of the impact agenda and changing culture, HEIs are changing their practices.
- There was as much diversity of views and attitudes towards the assessment of impact as part of REF 2014 within HEIs as there was between them.
- The impact case studies (REF3b) submitted may not be fully representative of the actual impact of research occurring within HEIs.
- There is a concern that the impact agenda may undermine 'blue skies' research.

4.1. As a result of the impact agenda and changing culture, HEIs are changing their practices

REF3a is informing the [impact] strategies that are currently being written.

We can't guarantee impact but there needs to be a culture change to cultivate it.

There is evidence of culture change within HEIs. Institutional strategies and processes have been or are being put in place to foster a culture of impact and maximise the impacts that occur from research being undertaken. There is a recognition that impact needs to be thought about from the outset and throughout the life cycle of the research. In some cases, the HEI has raised the profile of impact through inclusion of impact within their research strategy, or by production of an independent strategy to address impact. The level at which the strategies are being put in place ranges from department, school and faculty to whole institution. Some HEIs are using the experience of preparing the impact template (REF3a) to inform ongoing research impact strategies and operations.

The impact element of the assessment has also had an effect on resourcing, retention, promotion and recruitment of staff within HEIs, including the creation and retention of impact-related positions, some of which have been turned into permanent roles. However, some temporary impact-related staff have not been retained, which is a loss of experience and talent. Some HEIs have begun including impact as a formal criterion on personnel specifications, and using it as an area for consideration in career development at annual appraisals.

Looking towards the next assessment, strategies and processes have been or are being put in place to 'capture' impact on a contemporaneous basis. Some HEIs are considering an institution-wide approach to collecting and recording impact for research (e.g. a universal data collection system or an impact file approach at a local level). Others hope that even without formal mechanisms in place, colleagues will now value impact and thus track and log it for future use. It is recognised that capturing impact has ongoing cost implications and may become a distraction from core research functions.

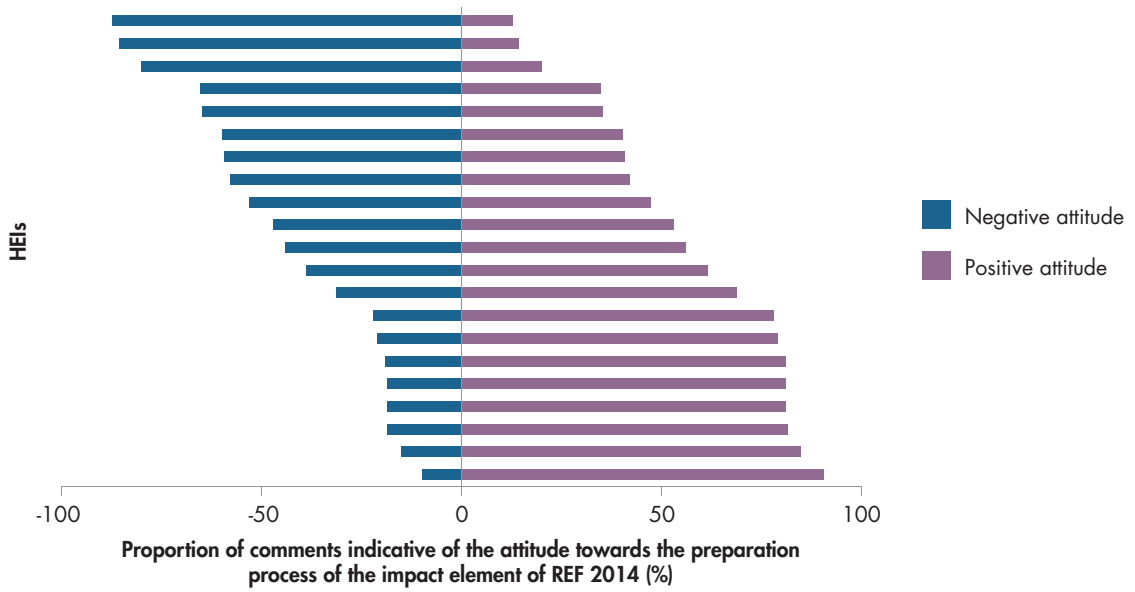
4.2. There was as much diversity of views and attitudes towards the assessment of impact as part of REF 2014 within HEIs as there was between them

Impact is not an issue that fills us with fear, dread and loathing but it is part of what we do as an university.

It is wrong to try [to] quantify impact of research and even to try and compare [it].

HEIs within our sample had different attitudes towards the preparation process and were positive or negative

Figure 4-1: Attitude of interviewees at each HEI to the preparation process for the impact element of REF 2014



in their attitude to varying extents.[33] A range of perspectives was also expressed within individual HEIs. However, as indicated in Figure 4-1, in general across the sample there were some HEIs that were largely positive and others that were predominantly negative in their attitude towards the process.

Central staff, responsible for managing institutional preparations for REF 2014 research impact assessment, were considerably more positive about the process than faculty staff within the HEI who contributed to it (Figure 4-2).[34]

On the whole, the positive and negative statements are not unique to either central or faculty staff, but proportionally more central staff comments described the process of preparing for REF 2014 research impact assessment as a positive experience and faculty staff identified more negative aspects. The latter viewed the process as disproportionately burdensome on a few individuals. This view is supported in the responses to the surveys, where on average over two-thirds of the work fell to one individual (over 73 per cent and 66 per cent for the impact case studies and impact template surveys respectively).

There is also a difference in attitude by panel. There was a higher proportion of negative comments associated with Panel B, and a higher proportion of positive comments associated with Panel C (Figure 4-3). This is consistent with data from the Principal Investigator and Research Leader Survey (PIRLS) 2013, which found a higher proportion of respondents in Panel C felt demonstrating impact was very important compared to those in other panels (Vitae 2013). In analysing these comments the attitudes expressed did not appear to be related to panel specificities, although it may be the case that overall perceptions of the process were informed by panel-specific experiences. It should also be noted that our analysis of challenges relating to specific aspects of the guidance did not reveal panel-specific differences.

4.3. The impact case studies (REF3b) submitted may not be representative of the actual impact of research occurring within HEIs

It is a sliver of what impact actually is going on. There is still a lot of other impact work that we do which wasn't included.

33 Attitude was assessed by coding the statements from the interviews relating to consequence or culture as positive or negative.

34 Central staff were defined as either administrative or senior leaders of the institution. Faculty staff were defined as academic staff at a department or UOA level who have contributed directly to the development of impact case studies and/or templates. Site visit interview comments concerning 'culture' and 'consequences' were coded as 'positive' or 'negative' depending on the nature of the views expressed, and analysed by 'central' and 'faculty' staff. Figure 4-2 shows the proportion of positive and negative comments made within all comments by 'central' and 'faculty' staff concerning 'culture' and 'consequences'.

Figure 4-2: Positive and negative comments coded to central and faculty staff

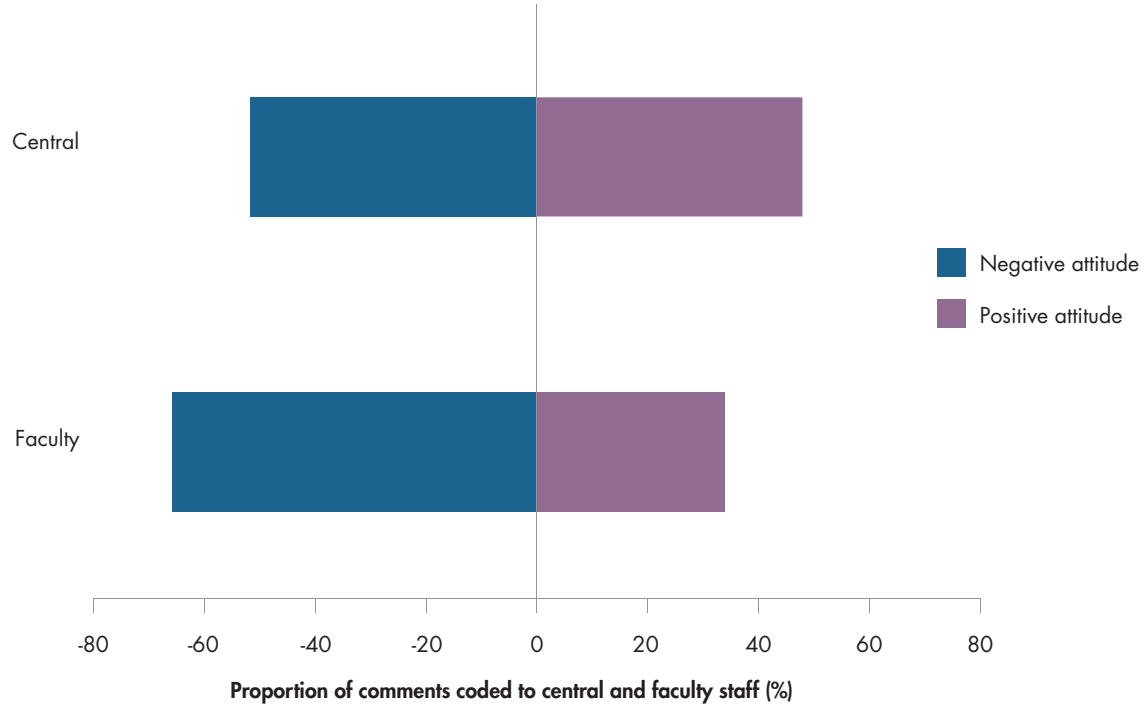
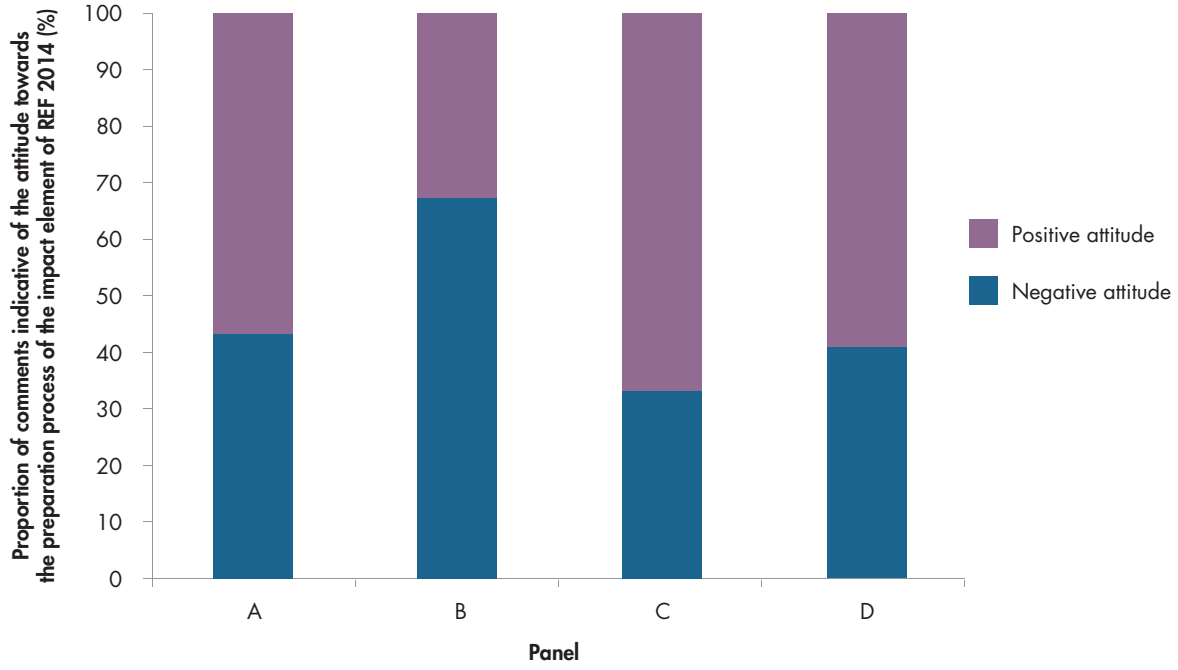


Figure 4-3: Positive and negative comments about the submission process coded to the four panels



A recurring theme reported in the site visit interviews was a concern that the impact case studies submitted for assessment were not representative of research impact generated by HEIs. Elements of the rules on impact case study eligibility were said to limit the range of research impacts presented.

There were two aspects of the rules that emerged as having a particular effect on representation: the definition of impact and the requirement to provide evidence supporting impact claims. HEIs reported during the site visits that they had impact case studies that they viewed as illustrating impact but which they did not feel could be submitted under the guidelines. These

included, but were not limited to, impact case studies relating to public engagement, those with impacts on HEI practice and teaching, and those that included work undertaken by PhD students. It was felt that the eligibility rules led to the first two of these areas being perceived as 'riskier' because there were more applicable caveats in the guidance. For example, impacts on HEI practice and teaching could only be claimed if they were outside the home institution and extended beyond impacts on academic research. HEIs did not, therefore, want to risk claiming impacts that could have been perceived not to extend significantly beyond the home institution or outside academia. One interviewee said: 'the assumption that research-led teaching doesn't have an impact is a large omission'.

As reported earlier, the highest proportion of impact case study survey responses about challenges (29 per cent) related to gathering evidence and over 52 per cent of respondents found the requirement of gathering evidence to support impact claims somewhat or very challenging. There were various reasons given during our site visits about why evidence was difficult to obtain and these are discussed in more detail in Section 3.2. The requirement to gather evidence retrospectively meant that HEIs often could not access or obtain the necessary material to support claims in an impact case study. The following possible reasons for this were mentioned during site visits:

- The movement of people between organisations meant that original contacts were often no longer available, and the organisational memory was limited.
- Within HEIs, people may have moved and there may be no institutional record or memory of the evidence for the impact.
- Organisations were unable to provide evidence, particularly evidence that might have required significant additional analysis or was commercially sensitive or classified as confidential.
- Certain types of impact indicating 'softer' change (e.g. change in attitude and cultural impact) are hard to evidence.

As a result of these difficulties, there were instances were impact case studies were withdrawn, refocussed around available evidence, or submitted but perceived to be weaker due to a lack of availability of evidence.

4.4. There is a concern that the impact agenda may begin to undermine 'blue skies' research

People are thinking about changing the nature of their research to be more applied. Is this a bad thing? It may be if it damages the underlying blue skies [research] which can develop outstanding impact areas [and] if [it] gives less imaginative science.

Interviewees at the majority of HEIs where site visits were conducted noted (to varying degrees) that the broader 'impact agenda' (including Research Councils UK's 'Pathways to Impact') has, or will have, implications for the types of research undertaken at universities. Specifically there was a concern that applied research will be promoted over pure, basic or 'blue skies' research. Indeed, analysis of net government R&D expenditure by Frascati type of research activity suggests that the amount of research council and government department expenditure on 'pure basic research' has declined from a peak of 62 per cent in 2005–6 to 35 per cent in 2011–12 (Department for Business, Innovation & Skills 2013, table 2.6).[35] A more subtle concern was that the assessment of impact by REF 2014 could direct research funding and activity towards areas that can more easily demonstrate impact, and away from areas where impact is harder to establish (see Section 4.3). For example, because assessing action-based research in the current framing of REF 2014 has proved difficult, it may lead to less of this type of activity.

Similar concerns were also raised in relation to the REF pilot exercise, in which some academics believed the wider impact agenda may bring about a 'diminution in the total amount of excellent, fundamental research being performed' (Technopolis, 2010), thereby harming the reputation of UK science and reducing the economic benefits attributable to UK research.

However, it may be that unintended consequences are inevitable in assessing research. In a review of four research evaluation frameworks, encompassing the Research Quality Framework (RQF), the RAND/ARC Impact Scoring System (RAISS), the Program Assessment Rating Tool (PART) and Evaluating Research in Context (ERiC), Grant et al. (2010) found that none of the frameworks rated well when assessed against the 'lack of undesirable incentives' criterion.

35 'Pure basic research' is 'research carried out for the advancement of knowledge, without working for long-term economic or social benefits and with no positive efforts being made to apply the results to practical problems or to transfer the results to sectors responsible for its application' according to the OECD Frascati Manual (OECD 2002).

Chapter 5 Improving the preparation and submission process for future REF exercises

Looking forwards there are points that could be addressed and issues that could be resolved to improve the preparation process for the next REF. This chapter discusses the following key findings:

- There is a strong desire among HEIs for the HE funding councils to indicate as soon as possible whether and how impact will be assessed for the next round of the REF.
- There were examples of notable practices that HEIs identified as supporting the preparation of the impact element of REF 2014 submissions.

5.1. There is a strong desire among HEIs for the HE funding councils to indicate as soon as possible whether and how impact will be assessed for the next round of the REF

HEFCE need to tell us what they want right now.

It was clear from our site visits that regardless of the overall structure of the next REF, HEIs want to know as soon as possible how impact will be assessed for the next round of REF so they can put in place appropriate systems to capture impact. There are two interrelated concerns: a desire to clarify the guidance in key areas and a range of views about changes to the rules. Although there was not consensus on which rules should be changed and how, the majority of HEIs we visited felt that improvements or changes to the rules should not be radical. This was because they had invested a significant amount of time and money in the impact part of REF this time around, and they wanted to build on the benefits of that investment.

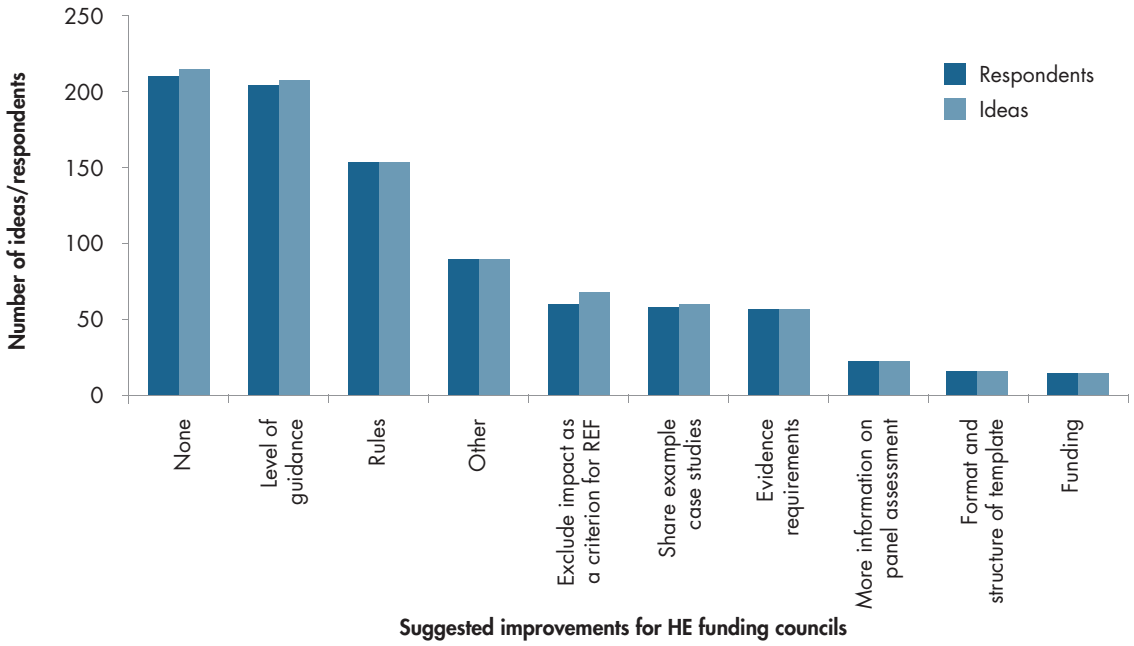
HEIs sought improved **clarity from the guidance documents** in key areas. Some of these areas of clarification overlap with a desire for changes, but it is useful to distinguish them as they are indicative of where people struggled to interpret and adhere to the rules presented in the guidance documents. Overall, nearly a quarter of ideas in the surveys regarding suggested improvements to the HE funding council's policy (this equated to 25 and 28 per cent of respondents to the impact case studies and impact template surveys, respectively) specifically referenced the level of guidance provided. Respondents highlighted that guidance could be 'more subject focused' and provide 'more clarity on [what] type of information is expected in the various subsections'. Points were also raised about the criteria for assessing impact, evidence requirements, the assessment by panels, and the impact template guidance.

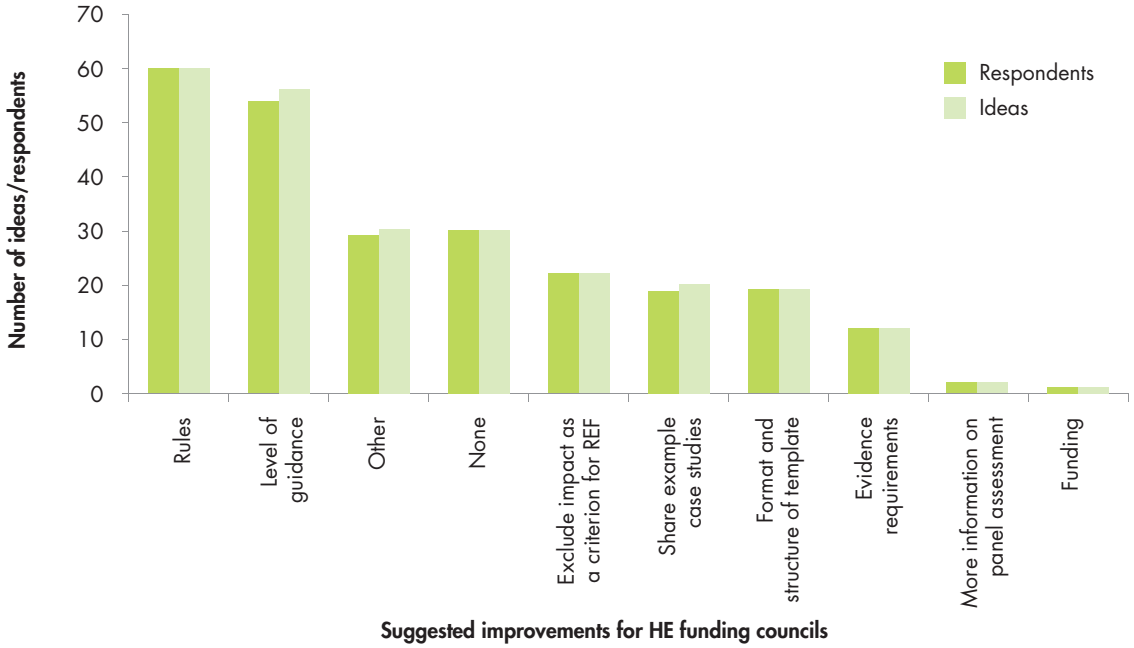
First, although most people felt the definition of impact was relatively clear once they understood it, there was more confusion expressed around the criteria of 'reach' and 'significance'.[36] Many felt the definitions provided were not clear and they were not sure how the panels would apply them. Several people noted that the oft-repeated line by panel members about the criteria, 'we'll know it [high significance or reach] when we see it', was unhelpful. It was felt there should not only be clarifications on the definitions provided, but also illustrative examples made available. There were also requests for clarity around the circumstances under which public engagement and outreach activities could be claimed as impact. Once the REF is completed the HE funding bodies will have a total of 6,975 impact case studies, a selection of which could be used to showcase exemplars in relation to these and other areas where additional explanation was sought from the guidance.[37]

[36] The definition of impact and its application to the development of case studies was also highlighted as a challenge in the REF pilot exercise (Technopolis 2010). In the REF pilot, this was overcome through persistence in ongoing communication around the development of case studies.

[37] The provision of impact case study examples was also an improvement suggestion in the EIA trial evaluation.

Figure 5-1: Suggested improvements that HE funding councils could make to the process, as identified by impact case study (above) and impact template (below) survey respondents





Second, HEIs requested clarity around the requirements for evidence. Here, the same types of issues and challenges that HEIs struggled with throughout the impact preparation process came to the fore (see Sections 3.1 and 3.2). There was a commonly held view that more specific guidance was needed on the type and level of evidence required, how corroborating sources will be used, what constitutes a valuable source, what material to provide research users with as guidance, and how HEIs should present and handle international impact case studies where evidence may be particularly difficult to obtain.

Finally, many HEIs found the guidance for the impact templates vague and limited. As one interviewee at a site visit commented, 'We are doing a best guess as to how to approach it. But things were unclear, for example, do we need to demonstrate reach in the [impact] template?'

Additional areas of uncertainty included whether impact case studies needed to explicitly link to the impact template, to what extent evidence needed to be provided for the impact template, and whether additional examples of impact not in the impact case studies should be highlighted in the impact template.

HEIs also identified a number of **specific, incremental changes** that could be considered for future REFs. The survey data show that the **main areas for improvement were around the rules and guidance**, although it is important to note that over one-third of ideas in the survey about good practice stated that the guidance was helpful.[38] Figure 51 shows all of the main areas of improvement and then the specific areas around the rules and guidance that were further highlighted.

It is important to note that, despite some clear themes emerging, contradictory views were often presented across the sample and there was no overall consensus. The discussion below therefore provides a summary of the range of views presented regarding different rules, not a shared view across HEIs.

From both the survey and institutional site visit data, there were many specific comments about how to make incremental changes to the rules.

The definition of impact was identified as a significant problem. Many people made suggestions for how the definition could be improved, and the similarity and number of these comments suggests scope for refining the definition. Ideas were largely related to clarity and a request for the HE funding councils to provide examples of what really works:

- Make the definition of impact broader by, for example, allowing dissemination activities to be included.
- Align the definition of impact with that of other research councils to provide clarity for the sector.
- Clarify the definition and provide discipline-specific examples of exemplar case studies.
- Change what was perceived by many to be an overly linear definition of impact to reflect the more iterative relationship between research and impact (particularly in relation to underpinning research).
- Clarify what can and cannot be used for impacts relating to public engagement and outreach within the definition of impact.

Linked to problems with the definition of impact were concerns over the criteria of 'reach' and 'significance'. As indicated above, there was a widely held view that these criteria were not as helpful as they could be and that additional examples and greater clarity could be provided. Some suggested dropping the criteria altogether, though this was not a majority view.

Institutional ownership of impact was a particular source of contention throughout our site visits, with polarised views on both sides.[39] For some people, institutional ownership was thought to be a real problem, particularly in the case of older impact case studies or in instances where academics involved with the underpinning research had left the institution. It also has the potential to disincentivise young researchers (who are likely to be more mobile) from focusing on impact, or to prove a barrier to new departments being established within institutions. However, this is not a problem that is easily solved. Despite the challenges, researchers acknowledged that allowing impact to travel with the individual would only exacerbate the so-called 'transfer market' of academics that exists in relation to publications, particularly if there are no associated changes to the FTE ratio requirements (1 impact case study for every 10 FTEs). It is likely, therefore, that caveats or exceptions may be the only way to improve this rule. For example, impact could be allowed to travel with the individual within the first five years of their academic career. Other exceptions could also be explored.

Site visit interviewees and respondents to our survey also expressed varying levels of concern around the ratio of impact case studies to FTEs. There were particular challenges voiced by those in both large and small UOAs (although the scale of the challenge was different in each), in newly established subject areas, and in departments with high turnover where FTE numbers could be changing significantly in the run-up to the REF. Again, there was little consensus on how to improve this rule, with suggestions for doing away with the ratio, increasing it, and decreasing it all mentioned. Some suggested allowing for flexibility for larger or smaller UOAs so as to ease the burden on large UOAs and relieve pressure on small UOAs to come up with a minimum of two impact case studies. Others suggested that instead of fixed ratios, a sliding scale might be more appropriate.

In addition to difficulties around the definition of impact and the criteria of reach and significance, the gathering of evidence was one of the biggest challenges HEIs faced in preparing their impact submissions. Several improvements were suggested that would make

[38] 35 per cent and 43 per cent for impact case studies and impact templates respectively.

[39] Unlike publications that are linked to individuals currently based at the submitting HEI, impact is claimed by the institution at which the underpinning research was conducted.

this less of a burden for institutions in future. Again, there were requests to both increase and decrease the amount of evidence permitted and/or required, and there was little consensus on this point. However, there were some suggestions about how to improve the wider system supporting evidence generation, which could help to decrease the burden. It was thought that more 'buy-in' to the process from outside the HEI sector was needed, particularly within the private sector, and that both HEIs and HEI funding councils could support this for the next REF. Another suggestion was to provide evidence from government departments through a centralised system or repository, in order to enable access to data, and to produce a standardised reporting template for research users to complete instead of a corroborating statement.

It was also suggested that the time windows for both the underpinning research and the impact itself could be modified. While the research window was thought to be appropriate for some disciplines, there were some areas of impact, notably in Panels A and B, for which it was felt that the time windows were too short. Indeed, in the biomedical field there is research that suggests the average length of time for research to have a clinical impact is 17 years (Slote Morris et al. 2011). A commonly suggested improvement to the time window rules was that the impact and research windows should be aligned, since many people felt confused as to why the cut-off for impact had to be 31 July 2013, but research outputs could be submitted if they were published by 31 December 2013.

HEIs also requested clarity on what the rules would be for resubmission, particularly in relation to resubmitting impact case studies from REF 2014. There was also concern as to what would happen in future REFs to any impacts generated between 1 August 2013 and 31 December 2013, on the basis that the next REF cycle will begin on 1 January 2014.

In addition to their views on the guidance for the impact case studies, respondents to the survey and at the site visits also offered suggestions for improving the impact templates. The most frequently mentioned suggestion was to combine the impact (REF3a) and environment (REF5) templates, because most people felt there was significant overlap between these two documents, particularly in the area of strategy and profile. As one interviewee said, 'The impact and environment templates had to talk to each other – a difficult line to walk – and they could be amalgamated. There was confusion about what should go where'. Others saw the value of the template in defining the strategy for the assessment, but questioned its ongoing value.

Another suggestion was to increase the page limits in the impact template. Although there were opposing views about the page limit being too long for smaller units, most people felt it was too restrictive, particularly for large UOAs where several research themes or disciplines are brought together across an HEI. In response to the lack of clarity on how to relate impact case studies to impact templates, and vice versa, there was a suggestion by some that section 'd' of the impact template, entitled 'Relationship to case studies', should be dropped.

As with the impact case studies, HEIs were keen to understand how panels would be assessing the impact templates and many suggested that feedback and examples of good practice would be helpful. It was pointed out that developing an impact strategy in a retrospective way was a real challenge, and that in many cases the strategies written were not necessarily reflective of any pre-existing strategy that had been formally implemented. 'It was a crazy thing to suggest we had a strategy for creating impact – we wrote stuff. It's well written, but it's lies'. Nevertheless, this did lead some to suggest that future REF guidance on the impact templates could be improved to allow people to focus more on the breadth of impact in their UOA, as opposed to their strategy or approach to impact.

Finally, there were mixed views on the weighting of impact. Some thought that the impact template was a huge burden and that a disproportionate amount of time was spent on it in relation to the 4 per cent weighting; they felt that the main focus should be on the impact case studies. Others felt the weighting of the impact template relative to the impact case studies should be increased to allow UOAs to highlight a broader range of impact and their strategic approach. This would lead to less of an emphasis on specific examples, thus reducing the effect of staff turnover and the related inability to return impact of researchers who had recently joined the department on the HEI's submission. These differences of opinion were also seen in the REF pilot exercise, in which a significant proportion of institutions involved believed that the impact statement was challenging and costly to prepare, while a significant minority noted the importance of the document – particularly to smaller units (Technopolis 2010).

5.2. There were examples of notable practices that HEIs identified as supporting the preparation of the impact element of REF 2014 submissions

The feedback from the process of reviewing [impact] case studies outside of our own UOAs and departments was extremely valuable.

Across all the HEIs in the evaluation there were examples of notable practices identified as supporting the preparation of the impact element of REF 2014 submissions. These practices emerged from our site visits and from responses to our survey about what worked well within the respondent's institution. We cannot make definitive statements about the relative merits of these practices, in part because the REF assessment is not yet complete and we do not know how successful different practices were in relation to the assessment. However, we can comment on the themes and issues that arose across multiple HEIs and in this context define notable practices as those that appeared to us to be helpful to others.

First, there is a need for strong support from institutions for those preparing the impact element of the REF. There was a difference across the HEIs in our sample in relation to the amount of support received by individual academics and provided by the HEI. Of the 20 HEIs that provided cost data, 13 indicated they had allocated resources for new posts within the HEI. These included coordinators of REF impact activity or positions to monitor how research can have policy impacts. There were also examples of dedicated teams, run either centrally or coordinated via a central team, responsible for reviewing, guiding, editing and developing impact case studies. Moreover, the highest proportion of survey respondents (38 per cent) focussed their ideas about improvements that HEIs could make for the next REF around 'increase in internal support' (38 per cent of ideas). Further analysis shows that survey respondents at HEIs that were perceived by the evaluation team to have low or medium levels of central support had a higher percentage of ideas about the need for greater internal support for the next REF. As shown in the graph below (Figure 52), this included ideas such as a need for more resources, greater guidance, greater involvement from a central team, and provision of time off in lieu for work done on REF.

The importance of central support within HEIs was also noted in relation to the REF pilot exercise (Technopolis 2010). The pilot evaluation found that 'people were settling to the idea that there needed to be a strong and substantial contribution by senior research administrators, and their support staff, to minimise the burden on key academic staff, and a faculty-wide input to the long-listing and selection of impacts and a more cooperative approach to drafting' (Technopolis 2010).

In addition to internal support, 16 of 20 HEIs providing cost data employed external contractors to help support the REF impact submission. Contractors played a variety of roles: for example, freelance journalists, analysts to gather evidence, consultants to help write the impact case studies, external impact case study reviewers, and trainers to deliver courses.

Second, all HEIs ran training for those involved in preparing the submission, and in some instances the training was available more widely to academic staff. In addition, many HEIs conducted internal reviews, held workshops and facilitated cross-UOA discussions. Many interviewees at the site visits felt these were important for improving impact case studies and helping interpret the rules and guidance. Some form of internal review process was thought to be useful by interviewees at the majority of HEIs and these took many forms, including:

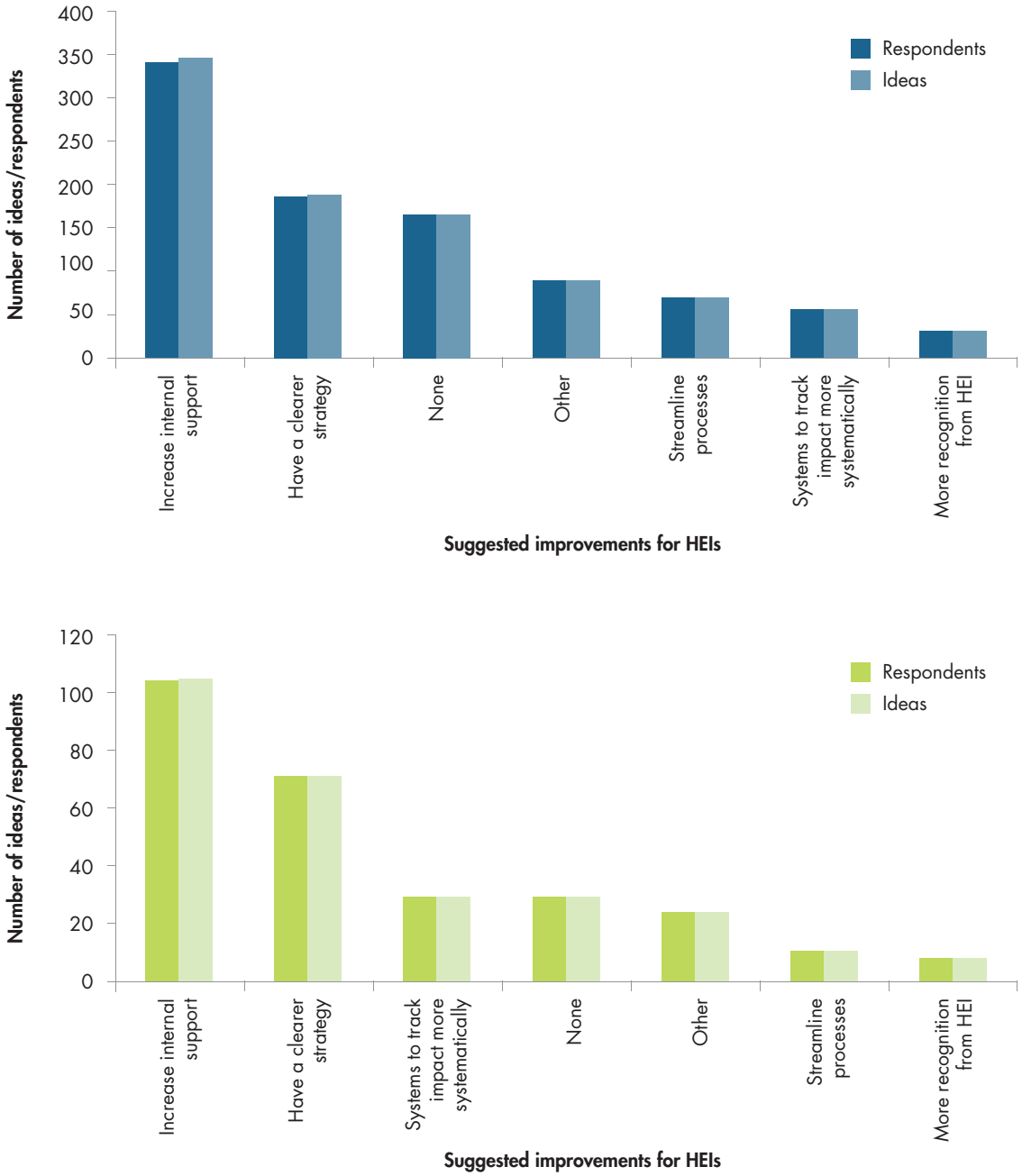
- Mock exercises with external panels and solicitation of research user feedback.[40]
- Sharing of best practice through internal reviews across UOAs, departments and main panels.
- Ongoing assessment panels that reviewed and ensured guidance was being followed in a consistent manner.
- Internal REF consultation exercises held after submissions were already underway.

A minority of HEIs also held internal discussions within and across departments in order to achieve consensus on the rules and guidance across the institutions. These included the following:

- Providing worked examples of impact
- Providing worked examples of reach and significance
- Developing a summary document for the rules and guidance
- Providing a ten-point checklist for the basic principles of impact.

[40] Only one HEI explicitly stated they had done this, and they acknowledged that the process did not work equally well across all disciplines.

Figure 5-2: Suggested improvements that HEIs could make in preparing impact submissions, as identified by impact case study (above) and impact template (below) survey respondents



Many HEIs commented on how to 'construct' an impact case study or impact template. There was agreement that it was necessary to start the preparation process early. Particular practices for designing an impact case study included:

- Identifying and distributing exemplar impact case studies across the institution
- Involving the lead academic in writing the impact case study
- Employing the communications team to work with a shortlist of potential impact case studies.

Practices for designing an impact template included:

- External training sessions
- Allocating centralised responsibility for the impact template to either a UOA lead or a central REF team.

Finally, discipline-specific lessons were important in some cases and notable practices were mentioned at a minority of HEIs. These included:

- Subject networks to gather consensus within the subject community.

- Discipline-specific discussions and advice, as in some cases panels were felt to be too big to be helpful (particularly in Panel D).
- Subject events with panel chairs and panel members to receive feedback from the disciplinary community.

As noted above, whilst these practices are interesting and notable, the preparation of impact submissions as part of REF 2014 was new and hence all are experimental. It will be important, following publication of the results of REF 2014, that further research is undertaken to understand what worked and what was most efficient, in order to move our understanding of notable practice towards best practice.

Chapter 6 Concluding observations

As discussed in the introduction to this report, the REF assesses universities on the basis of the *quality* of research outputs, the *wider impact* of research and the *vitality* of the research environment. While the quality and vitality components are not new, the assessment of the wider impact of research outside the academic sector is. As a result of the inclusion of impact, REF 2014 was a new exercise for HEIs in the UK to adapt and respond to. The allocation of research funding based on non-academic impact is also new, with REF 2014 being the first example of its application across a research system (Morgan Jones & Grant 2013). The Australian Research Quality Framework planned to introduce an impact element, but this was never implemented.[41]

Our evaluation sought to understand the perceived challenges and benefits of preparing impact submissions to REF 2014; to identify the intended and unintended consequences of assessing research impact for HEIs and academic disciplines; to highlight, where possible, practices HEIs identified that supported their preparation process; and, finally, to formulate evidence-based conclusions to improve the process of preparing and submitting impact assessment for future REF exercises.

Looking across all the evidence collected during this evaluation and combining that with other studies we have been involved in (e.g. Grant et al. 2010; Grant & Wooding 2010; Morgan Jones et al. 2013; Morgan Jones & Grant 2013), and with a view to future assessments, we make the following concluding comments:

Preparations for the assessment of impact as part of REF 2014 appear to have worked, with HEIs able to articulate the wider impacts of their research by producing 6,975 case studies. However, there are areas for improvement that HE funding councils will need to address, but these are largely around clarity and a need for incremental, not radical, changes.

The inclusion of impact in REF 2014 doubled the absolute costs of the exercise for the sector, but overall 'transaction costs' remain low (less than 4 per cent). Our analysis shows that the transaction costs of assessing impact as part of the REF are less than previously estimated costs of traditional peer review. As this is the first time HEIs had to go through the REF impact assessment, one can expect that some of the most significant burdens in both understanding impact and gathering evidence may reduce in the future. It is worth bearing in mind, however, that only individuals who participated in the process in this round will have developed that learning.

Whether the costs of assessing research impact as part of the REF provide value for money is a strategic question. If the UK government wishes to incentivise HEIs to make a greater contribution to society then inclusion of impact as part of a performance review cycle is sensible. Moreover, the inclusion of impact in the REF is part of a global trend in understanding the wider benefits of funding research. The concept of 'Pathways to Impact' from RCUK has been an example of this approach for many years and REF 2014 could be seen as extending this idea.

To ensure value for money from REF 2014 it is important that there is a sustainable shift in the strategies and culture of HEIs around making a broader contribution to society. The sustainability of a culture of impact will require continued engagement within the sector to create understanding, demonstrate the value of the exercise, and provide assurance that perceived risks to the research base will not materialise. The divergence in the views and attitudes presented in our evaluation reveal

41 See, for example, Roberts et al. (2005) and Peacock et al. (2006).

a marked difference between the views of those in senior leadership positions within the sector and academics on whom a disproportionate element of the time burden appears to have fallen. There is a risk that if the HE funding councils and wider government do not address these issues at all levels of the sector, the desired cultural shift and change in the way some, but not necessarily all, research is conducted will not succeed.

The strategic focus on research impact through the REF and RCUK 'Pathways to Impact' is incentivising HEIs to be more focused on their contribution to society beyond academia. Some of the shift described above is already happening. The broader impact agenda in the UK has begun to shape the way that HEIs think about their future strategies and their broader societal contribution beyond the traditional focus on research and teaching. This may change research agendas – for example, shifting them away from funding 'pure basic research'.

To achieve a shift in culture will require transparency from the HE funding councils on panels assessing research impact. Once REF 2014 is completed, HE funding councils will have 6,975 impact case studies, a selection of which should be used to showcase exemplars in relation to these and other areas where additional explanation was sought from the guidance.

The 6,975 impact case studies submitted to REF 2014 are not fully representative of the range of impact occurring across the entire HEI sector. The case studies prepared for the REF had to follow a specific format and set of rules. This is likely to have resulted in many types of impact not being able to be submitted. However, it is worth noting in this context that the REF is not intended to be an inclusive exercise and the publications submitted do not aim represent all research conducted across the sector.[42] This must be taken into account in any future analysis of the wider impacts of research on 'UK plc' as a whole. However, the case studies can be used to provide examples of the types of impact occurring across UK research.

The use of impact case studies remains the most appropriate means of assessing impact. Based on this evaluation and our wider experience of understanding research impact we believe that the breadth and depth of impact likely to have been submitted can only be captured through qualitative case studies. The benefits of an impact case study-based approach set under the auspices of a deliberately broad definition of impact as provided in the REF guidance is that the sector is relatively free to submit a variety of impacts to the exercise. Although there were some areas where HEIs did not feel this to be the case, in general they felt free to submit impacts across a wide range of areas. In effect, they could develop their own impact metrics and should be encouraged to do so in future. Any effort to define impact indicators up front risks unnecessary limitations on the exercise and this has been found to be the case in other pilot impact exercises.[43]

The challenge for assessing and evidencing research impact is in understanding what kinds of impact categories and (qualitative and quantitative) indicators will be most appropriate, and in what contexts. A diverse set of indicators will be required for understanding the types of impact that different disciplines generate, and providing ways to measure them. The fact that there were as many views about impact within institutions as between them suggests we should allow for flexibility in the ways in which impact is assessed in future. The strength of REF 2014 was that the case study approach allowed for disciplinary differences to emerge. Any future analysis of the outcomes and case studies should seek to further explore this diversity and use it as an advantage in future assessments. HE funding councils should resist efforts to standardise impact categories, in order to ensure that disciplinary differences can continue to emerge.

There were some unintended consequences of the process. A number of specific cases of unintended consequences are highlighted in the report. Firstly, data from the whole sector indicate that UOAs did not submit numbers of staff around the boundaries of case study numbers. This is in line with the risk-averse strategies described at the site visits where anecdotal examples stressed that the numbers of researchers returned were limited in line with the number of case studies available. This led to instances where individuals were excluded based on the threshold for the number of case studies required rather than the quality of the researcher. Although the REF does not aim to be a comprehensive exercise, rather selecting quality, the impact element has had an effect on selection strategies. Secondly, there is a risk that the need to evidence impact will drive academics to apply for funding to measure their impact,

42 Only four research outputs are listed for each member of staff included (REF, 2012).

43 See, for example, Donovan (2008); Ovseiko et al. (2012).

detracting from the resource within the system available to conduct research. Finally there is the potential to discourage collaboration between HEIs and within institutions, as it is difficult to disaggregate the underpinning research.

To ensure the sustainability of a culture of impact within the sector there is a need to engage with all stakeholders to create understanding, value and buy-in. The divergence in the views and attitudes presented here suggests that there is a risk that if the HE funding councils do not deal with issues at the faculty level the culture shift and change in behaviour will not succeed.

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