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Researchers Imply, Policymakers Infer: the Relationship Between Evidence and Policy

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Abstract This paper considers what Ireland might learn from the growing body of international literature on the relationship between evidence and policy. It argues that the potential contribution of evidence to policy is generally underestimated in Ireland and that policymakers could make greater and better use of evidence. It cautions, however, that good policy cannot be inferred from objective evidence alone – subjective and normative considerations will always play a part. Lastly, the paper describes promising innovations in the relationship between evidence and policy in several other countries, whereby research and policymaking have been integrated to a greater extent than heretofore. Ireland might learn from these developments, though it is important to ensure that any increased integration of research and policymaking is accompanied by mechanisms designed to ensure that researchers strive for objectivity.

> Inspector Flint: "You're inferring that we're all thick aren't you?"
> Wilt: "No, no... I am implying that you are all thick, you are inferring it."
>
> *Wilt,* Tom Sharpe

1. INTRODUCTION

The analysis to follow rests on the straightforward claim that regardless of one's political views or values it is possible to use research evidence to improve public policy. Few would disagree with this claim. Policymakers of whatever stripe are more likely to achieve desirable outcomes if they are better informed about relevant facts and if they have superior understanding of the causal mechanisms that lead to those outcomes. In other words, inferences can be drawn from evidence about whether different policies are more or less likely to achieve their goals, whatever those goals might be. The rest of the paper takes this proposition as a given.[2]

[1] This article has its roots in the ESRI's 'Renewal' project, a series of papers and conferences that used evidence to inform specific policy issues in post-crisis Ireland. I thank all of the researchers involved, but in particular my co-editor on the project, Frances Ruane, for many illuminating conversations. The paper uses ideas and arguments from numerous sources, yet in some cases I cannot recall where I first heard them; nor do I know who originated them. I hence apologise for any misattributions and missing attributions. The paper undoubtedly benefitted from conversations (and sometimes debates) with Alan Barrett, Frank Barry, Liam Delaney, David Duffy, John Fitz Gerald, David Halpern, Seán Lyons, Robert Murphy, Sam Nguyen, Úna Ní Dhubhghaill, Dorothy Watson and Robert Watt, all of whom I thank. Various attendees at the Centre for Effective Services/ESRI roundtable on Informing Policy Through Research and Evidence also made helpful comments. All errors and omissions are my own. *Address for Correspondence:* ESRI, Whitaker Square, Sir John Rogerson's Quay, Dublin 2, Ireland.+353 1 863 2013 pete.lunn@esri.ie

[2] The focus throughout is on research evidence generated through the disciplines of social science, rather than the natural sciences or related branches of engineering. This is not to suggest that the way this latter type of evidence interfaces with

This apparently simple notion of inferring good policy from evidence is, however, deceptive. In recent years it has preoccupied institutions and individuals tasked with improving the use of evidence in policymaking in several countries, and in the meantime produced an expanding international academic literature (see Nutley *et al*., 2010). Issues have arisen regarding how best to produce evidence, how to ensure its quality, how to communicate evidence effectively to policymakers and stakeholders, and how to improve the relationship between researchers, policymakers and stakeholders. In the USA and the UK, some policymakers have begun to take a much more empirical approach to policy development (e.g. Sunstein, 2011; Behavioural Insights Team, 2011), attempting explicitly to integrate the processes of policy development and evidence gathering.

The present paper asks whether these recent developments offer lessons for Ireland. In doing so, it seeks to complement recent analyses that have addressed what evidence can and cannot do (Lunn and Ruane, 2013) and others that have highlighted shortcomings and suggested improvements in the way evidence is presently used in Ireland (Ruane, 2012; Ruane and Lunn, 2013). The paper is structured around the following three arguments. First, it proposes that research evidence has much greater potential to inform policy in Ireland than is often realised. Second, it describes how the legitimacy of inferences from evidence to policy is hard to establish and involves the consideration of factors that go beyond the domain of researchers and the evidence they produce. As a consequence, it contends that researchers have no business making policy recommendations and that policymakers have no business requesting them so to do. Note that this is not to say that research does not frequently have strong implications for policy – quite the contrary – only that the required inferences should be made by those responsible and accountable for policy decisions and not by independent researchers. Third, it proposes that Ireland may be able to learn from significant and potentially important developments in the relationship between evidence and policy in several other countries. Each of the three arguments is the subject of a separate section. A final section draws conclusions in the context of related work.

2. EVIDENCE AND POLICYMAKING IN IRELAND

In common with other countries, Ireland has seen increased interest in the relationship between evidence and policy over the past decade or so. This has included one notable collection of papers based on a conference hosted by the National Economic and Social Forum prior to the onset of the economic and financial crisis (NESF, 2007). Since the crisis, the issue of how evidence is used for policy has to a considerable extent become intertwined with civil and public service reform. Better use of evidence is being encouraged by central spending departments as a way to improve the efficiency of the public sector at a time when budgets are painfully tight. This section briefly describes these developments and then considers whether the understanding of how evidence can contribute to policy is sufficiently broad.

2.1 Evidence and Policy Development

Ruane and Lunn (2013) note some that some progress has been made in recent years in attempts to employ evidence systematically in the process of policymaking in Ireland. Some government departments and state agencies (notably including the Central Statistics Office) have shown greater willingness to make data available and in some cases devoted resources to improving data access, including via the internet. More efficient gathering and use of data across the public service is a commitment of the plan for public service reform (Department of Public Expenditure and Reform, 2011). In 2012 the government established the *Irish Government Economic and Evaluation Service* (IGEES), to which it recruited entry-level staff with specialist skills in economics. Ireland now has high-quality longitudinal data (e.g. Growing Up in Ireland, The Irish Longitudinal Study on Ageing) and there are initiatives underway to create more longitudinal data from administrative records.

These developments are suggestive of a greater availability of relevant research to inform policy, including in some cases research conducted by analysts within the civil service. Yet this increase in the potential supply of evidence does not necessarily mean that the additional evidence generated will be utilised effectively. In practice, how evidence informs policy will depend on whether people in key decision-making roles (e.g. government ministers, senior civil servants, state agency executives, politicians and other influential stakeholders) are exposed to the evidence, understand it, and are influenced by it.

In July 2012 a government decision was taken to introduce a new 'Public Spending Code' (Department of Public Expenditure and Reform, 2012), which came into force in September 2013. The code mandates

policy is in any way less worthy of consideration, only that the issues raised are largely distinct and beyond the scope of the paper, not to mention the expertise of the author.

procedures that public managers in government departments and agencies must follow to appraise not only capital expenditure but for the first time also current expenditure. All significant programmes of current expenditure must present business cases for scrutiny by the Department of Public Expenditure and Reform. The code provides detail and guidance on how to conduct the relevant analyses. Managers are directed to employ empirical research on the costs and benefits of proposed expenditure, to use empirical research to estimate the demand for the scheme concerned, and to gather empirical evidence for the effectiveness of schemes once implemented. At least in terms of formal policy and procedure, therefore, the code represents an increase in the intended use of evidence in the policymaking process.

2.2 Beyond Evaluation

The Public Spending Code focuses, however, only on the appraisal and evaluation of 'expenditure under consideration'. The 'Standard Appraisal Process' begins by requiring managers to define their objective, preferably one that can be measured precisely. The code says little about the origin of what is under consideration, or about how the policymaking process should first identify objectives; it does not discuss how to determine the most important policy challenges faced nor how to begin to devise potential responses to them. The closest the code comes to addressing the genesis of policy proposals is the following:

> "Identifying the most appropriate policy response to a "need" can be difficult. Every effort should be made to identify available research that will assist in identifying a problem properly and which may have looked at how different types of solutions work."
>
> (Department of Public Expenditure and Reform, 2012, p.49)

There is no accompanying guidance as to how managers are to go about this task, which is far from straightforward. Furthermore, the role of the policymaker here is envisaged as being one of 'identifying available research'; the policymaker is merely a consumer of relevant research rather than an instigator or, even, a producer of research. As Section 4 will describe, international evidence suggests that where policymakers take on these latter roles, where they not only consume research output but also involve themselves in decisions about what research questions are addressed and how, it may enhance the benefits that policymakers can expect to derive from evidence.

While recent developments thus signal an intention to increase the use of evidence in Irish policymaking, the potential to exploit evidence for policy is arguably greater than is widely understood. Lunn and Ruane (2013) argue that the conception of what research can do for policy in Ireland is frequently too narrowly focussed on evaluation. Evidence has the capacity to inform policy at every stage of the development of a policy, including the initial identification of the challenge that the policy is designed to meet. Researchers are often the first to notice developments, trends or relationships contained in statistical data, in connection with issues such as prices, health outcomes, employment, migration, family structures, trade, debt, etc. Such findings can improve understanding of the context in which policy operates, offering clear benefit to policymakers exposed to the research. This may be obvious where the evidence is factual in nature, but is perhaps less so where research measures the strength of a particular causal mechanism. Examples of the sort of causal connections that research can establish and measure might include the influence of direct contact with institutions on young people's educational choices, or the impact of the local environment on physical activity, or the influence of childcare availability on labour market activity, and so on. Research can test whether causal relationships such as these are significant and can estimate their strength. Such findings demand attention from policymakers, because they change understanding of how one thing leads to another and hence imply possible ways to obtain more desirable outcomes.

Once a policy goal is agreed, there may be many potentially relevant policy options that can be considered. The quote from the Public Spending Code above recognises this, but limits the role of research to identifying the problem properly and to looking at how different types of solutions work. Indeed, evidence can sometimes be found that allows policymakers to predict the effectiveness of different types of solution, perhaps because they have been tried elsewhere (although see Subsection 3.3), or maybe because they can be assessed with a theoretical model that has been validated against evidence. More often, however, predictions of likely outcomes will be beyond presently available research. Yet this does not imply that research evidence cannot assist in the policy decision. It may be able to identify and estimate the strength of the causal mechanisms involved, quantify and categorise those whom the policy affects, or highlight and assess potential risks or side-effects. Successful (and most unsuccessful) policies have causal impacts; evidence can help decision-makers to understand causal impacts, even where it stops short of predicting outcomes. Furthermore, by improving understanding of causal relationships research may inspire a new type of policy altogether. (An example concerning energy efficiency is given in Section 4.)

In summary, while there has been recent progress in Ireland regarding the potential for supplying better evidence for policy, and the intended use of evidence in policymaking, the conception of how evidence can and should be used remains narrow. Research evidence has more potential to inform policy than is often realised.

3. INFERENCES FROM EVIDENCE TO POLICY

While the previous section argued that the potential for research evidence to inform policy is often underestimated, this section argues that the extent to which good policy can be inferred from evidence is often overstated. Note that this is not a contradiction. The crucial distinction is between the variety and breadth of ways that evidence can be used to inform policy and how decisive it is determining good policy. These are separate issues. In almost all policy areas there will be a body of evidence that is of high relevance, with varying degrees of balance between international and domestic research. Knowledge and understanding of this body of evidence is likely to improve policy decisions. But good policy decisions require much more than evidence. This section aims to illuminate the nature of the inferences involved.

3.1 Positive, Normative, Objective and Subjective Judgement

Across the social sciences and the humanities it is standard to distinguish between normative and positive analysis – between what should be and what is. An overlapping but not coterminous distinction is between the subjective and the objective – between beliefs held or judgements made from an individual point of view and truths that are independent of individual perspective.

In most cases, normative analysis is subjective, because it depends on values or moral standpoints that are matters of individual preference. It is nevertheless possible to make objective contributions to normative analysis. Moral philosophers and political scientists aim to do so by highlighting contradictions in or locating counterexamples to normative positions or political ideologies. Economists do so when they conduct 'welfare analysis', which assumes that the primary goal of policy is efficiency and then attempts objectively to compare the efficiency of different policies. Cost-benefit analysis is a technique derived from this approach.

Similarly, positive analysis generally seeks to be objective and to elevate the status of facts and evidence. Consider, for instance, the simple situation where researchers subject a hypothesis to a well designed empirical test. Such analysis is positive rather than normative, since the aim is to establish a truth about the state of the world. The idea is also to establish this truth objectively, such that the outcome of the test depends on whether the hypothesis is a true reflection of the state of the world and is independent of the researchers' points of view. At least, that is the aim. In practice it has long been recognised that researchers can differ over what constitutes a well designed empirical test and frequently disagree over the implications of empirical findings, especially when their own theoretical position is at stake (e.g. Kuhn, 1970). Being truly objective is an ideal that good researchers strive for, but it is nevertheless an ideal. Prior experiences, personal involvement and willingness to abandon beliefs entail a degree of subjectivity in positive analysis, even where objectivity is the goal.

Both these distinctions, normative-positive and subjective-objective, are helpful in the present context. Keeping them in mind helps to expose the complexity of the relationship between evidence and policy. The level of complexity, particularly in the inference from evidence to policy, is arguably not well understood.

3.2 The Movement for Evidence-Based Policy

Recent decades have seen the international rise of the movement for evidence-based policy, perhaps most notably in the USA and the UK. Much of the appeal of this movement is derived from its claim to being objective. As the mission statement of the US Coalition for Evidence-Based Policy puts it, the aim is

> "...to increase government effectiveness through the use of rigorous evidence about what works."

because

> "...a concerted government effort to build the number of these proven interventions, and spur their widespread use, could bring rapid progress to social policy similar to that which transformed medicine."
>
> (www.coalition4evidence.org)

The notion that policy can stick to 'what works' is a powerful appeal to the benefits of positive analysis and the use of terms like 'rigorous' and 'proven' implies that what works can be objectivity determined. The movement promises to reduce the influence of ideology and party politics over policy decisions by elevating an alternative

and scientifically sound influence. This approach forms the basis of some UK public service reforms, including the establishment of a What Works Network, which aims to summarise and share research findings to achieve its mission of:

> "Using evidence to make better decisions to improve public services."
>
> (www.gov.uk/what-works-network)

Again, the analogy to evidence-based medicine features regularly in the official documentation, which also describes the inference between evidence and policy as straightforward and direct. The implied position is that science can determine which policies work better, through objective, positive analysis, while the normative prescription is to choose those policies that work best. Subjective beliefs and judgements are to be removed from policymaking to the greatest degree possible.

3.3 Inferring Policy

It is interesting to note, however, that in practice the movement for evidence-based policy has found the policymaking terrain to be much more hazardous than it appears from this normative standpoint. An international literature has begun to consider why. For instance, Pawson (2006) exposes the naivety of the approach when confronted with political systems, while Sanderson (2009) shows how it struggles to cope with real policy problems, which are often too dynamic and too complex for the evidence-based prescription to resolve. The remainder of this section uses arguments from this literature and elsewhere to shed some light on the matter. None of what follows should be taken to imply that the communication of research findings to decision-makers is anything other than beneficial. From the opening paragraph of this paper to the last, that remains a given. But the leap from evidence to good policy is far from straightforward.

Consider a brief and simple thought experiment, where evidence has been unearthed that points fairly conclusively to a beneficial policy. Suppose that data have been obtained from trials of an early intervention programme for young children. The data record substantial health benefits. For the sake of argument, let us suppose that the result is uncontroversial: the benefits are relatively large and have been recorded several times, in different contexts. In other words, it is a clear cut case of precisely the sort of evidence-based policy that proponents of the approach advocate; it is a policy that 'works'. Should policymakers implement the policy forthwith?

Any policymaker, be they a minister, civil service manager or agency executive, has a limited amount of resources at their disposal to perform a potential list of tasks. They must decide which tasks to prioritise and which resources to devote to which tasks. Thus, even if the evidence suggests that the policy works, a judgement is required regarding how to prioritise it relative to other policies, both in terms of timing and resources. At a central level, decisions must be made that devote resources to children's health outcomes as against other potential positive outcomes of policy. How are such decisions to be made? At the level of health policy, decisions must prioritise the programme concerned above other programmes that also appear to have positive benefits for children's health. Different programmes may differentially benefit physical health and mental health. Which is the bigger priority? At a lower level still, decisions must be made to devote the resources, including the workers who will deliver the programme, to this intervention rather than to others. What about the children who are just too old to benefit and have missed the boat – should the resources go only to those lucky enough to be in the right cohort at the right time?

The evidence is, of course, very helpful. It suggests that the intervention concerned is probably better value for money than some other potential policies for which equivalent effects have not be recorded. But the information is only one piece of evidence to be considered by policymakers in a context that requires a complex set of decisions that together determine whether this policy gets the go ahead and, if so, when. These decisions require value judgements to be made between the relative importance of different policy outcomes that affect different people. That is, decisions must identify priorities and consider issues of fairness. People differ over the relative importance of different outcomes and over perceptions of fairness. Such decisions can be informed by evidence but they are essentially normative.

Suppose that having considered issues of priorities and fairness, the early intervention policy is considered to be a priority and, perhaps in combination with other policies for other children, a fair policy. Should it now be implemented? All policy changes entail changed work practices for those delivering the policy. Thus, the policymaker must consider the impact of such changes. Might there be some opposition to the changes that limits the policy's effectiveness? Can the workers on whom delivery depends widely replicate the conditions that produced the successful trials? Are there other reasons why the trial conditions cannot be replicated when the policy is rolled out? Will there be any knock-on effects for other pre-existing policies?

The issue of whether a new policy is likely to replicate an effect obtained in trials has recently been subject to extensive analysis by Cartwright and Hardie (2012). They argue that inferring from the fact that an intervention has worked in one place that it will therefore work in another is often a dangerous business. More specifically, the inference may be unsound for at least two reasons. First, and most obviously, the central causal mechanism that produced the effect may not exist in both places. Second, and more awkwardly, the success of interventions will often depend on the existence of other factors without which it would not work. For instance, suppose the intervention that evidence suggests will improve young children's health works by coaching first-time mothers in infant nutrition. This policy might be less effective in one location than in another, not because of any difference in the impact of the programme on the knowledge of the mothers, but perhaps because of the availability and price of healthy food locally, or perhaps because of contradictory advice from other health professionals in the particular area, or perhaps because of less favourable attitudes to healthy eating among male partners in the locality concerned. Cartwright and Hardie point out that these sorts of support factors, on which hangs the validity of the inference that because a policy has worked in one place it will work in another, are, technically speaking, what philosophers call INUS conditions – insufficient but necessary parts of an unnecessary but sufficient condition. The idea is complex, but not impenetrable, provided one tackles the acronym in reverse. If a trial shows that a policy worked, then the policy created sufficient conditions for the good outcome (in the example, an improvement in infant nutrition). Assuming that there are other possible ways to achieve the outcome concerned, the conditions were sufficient but not necessary (there were many other ways to improve infant nutrition). So the trial found unnecessary but sufficient conditions for an improvement – the U and the S of INUS. Now suppose that an essential part of those conditions is missing when the scheme is tried elsewhere (the availability of affordable healthy food). This part is not sufficient itself to bring about the desired effect (available healthy food does not itself produce improved nutrition), but its absence is enough to prevent it. In other words, it is insufficient but necessary – the I and the N of INUS. The same analysis applies to the advice from other local health professionals or the attitudes of the local men. In each case, it may not be enough to bring about the desired outcome itself, but may need to be aligned for the main causal effect that underpins the whole policy to work; it is an INUS condition.

The point of going into all this technical detail is not only that it reveals quite how complex the inference from good evidence to good policy is, even when there appears to be good evidence, but also because for a particular policy to work there may in fact be many INUS conditions that must be met. Three are mentioned in the above example, but there may always be others that have not been taken into account. Much thought may be needed about what these additional factors might be and, if some are missing, whether and how they might be created.

Consideration of all these factors affecting success or failure requires the policymaker to assess the scale of risk and uncertainty attached to the proposed policy. It may be possible to obtain some helpful evidence of the scale of risk, but it also may not, especially if implementation of the policy is indeed thought to be a priority. In all probability there will not be an objective assessment available. Rather, the policymaker will rely on experience and judgement, combined with the experience and judgement of other trusted colleagues and stakeholders in the policy area. Ultimately, the view formed will hence be based on a subjective judgement. Having formed such a view, how much risk should the policymaker be willing to bear? People differ in risk preferences; the issue is unavoidably normative.

Suppose now that the policy appears to 'work', is widely considered to be a priority and to be fair, and its implementation appears to be low risk. Should the policy be implemented now? On the verge of pressing the 'go' button, the policymaker might have one last moment of reflection. Might there be better interventions that he or she is unaware of, or that have yet to be trialled? Suppose there are trials planned for some alternatives. What are the chances that a better policy will become apparent before implementation of the one presently being considered is complete? Is there a crucial factor (an INUS condition) that has not been taken into consideration? What are the chances that something negative occurs by chance that no-one has thought of, something that increases the costs or negates the positive effects? These are not judgements of risk, but of true uncertainty. They are probably objectively unquantifiable and, hence, necessarily subjective. Most policymakers would perhaps argue that they get better at such judgements with experience.

Overall, the above thought experiment is designed to make the following general points. Policy decisions require determination of priorities and the weighing up of fairness, both of which are unavoidably normative processes. Furthermore, all policy changes entail estimating the degree of risk and deciding how much risk is tolerable, which necessitates subjective judgement and a normative decision. Lastly, there will remain uncertainty regarding the possibility of important factors that have not been considered, which again involves subjective and normative considerations. Further evidence may assist all these judgements and decisions, but policymaking requires very much more than positive, objective analysis of what works, useful though that may be.

Note that the arguments introduced into this subsection steer clear of the two factors that are generally invoked when there appears to be a disjunction between evidence and policy, namely political and financial realities. Even where there is political will and available finance, good policy cannot be directly and straightforwardly deduced from evidence. This goes some distance to explaining why the movement for evidence-based policy has found the going to be rougher than perhaps its proponents anticipated. Good policymaking cannot really be *based* on evidence, but is instead *informed* by evidence.

3.4 Who Implies, Who Infers?

The above analysis is instructive for the relationship between researchers and policymakers. Researchers may differ in their familiarity with and knowledge of policymaking in general. Some researchers are also more connected than others to the specific institutions and systems in a policy area. Yet the core skills of the researcher are directed at the provision of technically competent studies, which produce evidence for policy that is as objective as possible. This is what they are trained and contracted to do. According to the starting assumption of the present analysis, the decisions of policymakers will benefit from good research. In other words, such research has *implications* for policy.

Policymakers, for their part, may differ in their familiarity with and ability to understand research output. But as the preceding argument has hopefully made clear, the evidence available is far from the only consideration when deciding policy. Priorities, fairness, risk, uncertainty, finance and politics may all create a complex context for any policy decision. These considerations are essentially normative and partly subjective. They are unavoidable for policymakers and part of the policymaking environment. The core skills of the policymaker are harder to define than those of the researcher, but they are those that help them to get results in such an environment. Evidence, and understanding the *implications* of evidence, is likely to help, but what can be *inferred* from it depends on these many other factors. Thus the skills required are very different skills from those required of researchers, who generally have neither training nor relevant experience of having to make such inferences.

This analysis therefore questions the common practice of making and requesting policy recommendations at the end of research studies. Researchers are not the people to make such recommendations. It is not their expertise, nor their experience, nor their responsibility. More importantly, researchers are not subject to the constitutional rules and democratic accountability mechanisms that surround policymakers. Moreover, where policymakers request such recommendations, they are asking researchers to go beyond their expertise and, more problematically, potentially failing to fulfil their own responsibility for difficult policy decisions for which they are accountable. Researchers imply, policymakers must infer.

This is not to argue that researchers should not write about policy or discuss the policy implications of their work – far from it. The policy implications of research can sometimes be hard-hitting and independent researchers should not shy away from them. Examples include instances where research records an output that implies that policy is failing, or where a study implies that a causal effect relied on by policy is weak or absent, or where evidence is found for a new effect that present policy does not take into account. Research evidence can sometimes conclusively show that present policy is not working or that is based on an incorrect understanding of the relevant causal relationships. Research can also throw up policy ideas that may be worth trying or assessing. These are all potential policy implications that may lead to policy changes and, ultimately, to better policy. But the responsibility for determining what those policy changes should be belongs in the domain of accountable policymakers, not independent researchers.[3]

4. EMPIRICALLY INFORMED POLICY DEVELOPMENT

Although the preceding argument calls for clear separation of roles between researchers and policymakers, international developments suggest that there may be benefits to greater integration of research and policymaking. This, again, is not as contradictory as it first appears. Researchers and policymakers can interact more systematically and dynamically without violating their distinct roles, although this is likely to present predictable challenges and a need for mechanisms to copper-fasten the researcher-policymaker distinction.

[3] The role of the expert group, which often blends policymakers (or former policymakers), researchers and other stakeholders, is worth considering in this context. With some modification, however, the same logic applies. Expert groups may assist in bringing together all the evidence and examining its policy implications, and by intensifying the interaction between researchers and policymakers they may do a better job of analysing the policy implications of research that researchers alone can. But inferences from evidence to policy require decisions and judgements that rightly belong with those who are accountable. "We are implementing the recommendations of the expert group" is not a sound justification for a policy decision.

In fact, it is the bringing together of different expertise, experience and roles that produces the potential for benefit. Bringing independent researchers with technical skills into policymaking circles is likely to improve understanding of research findings and their implications among policymakers, provided researchers continue to strive for objectivity. It may also mean that researchers are more inclined to address research questions that matter for policy. Yet, because the answers to research questions are by definition unknown until the appropriate study answers them, research always has the capacity to throw up findings that challenge policy. Research and policy should therefore co-exist in a constant state of creative tension.

4.1 The Knowledge-to-Action Framework

A growing international literature scrutinises the relationship between researchers and policymakers and asks how to get the most out of it (e.g. Levin, 2004; European Commission, 2007; Best and Holmes, 2010). These analyses document important differences it the various ways that researchers and policymakers interact in different countries and sectors. The 'knowledge to action framework', which is due to Allan Best and colleagues (described in Best and Holmes, 2010), derives initially from the experience of integrating evidence into health practice and is arguably particularly illuminating.

The framework describes three models of integration of evidence and policy. The first and most basic situation is where researchers supply evidence and policymakers consume it. In this 'linear' model the link between researchers and policymakers is distant and transactional. Communication is primarily from researchers to policymakers and the successful application of evidence to policy depends on the extent to which research findings are disseminated and diffused. A second, more sophisticated, model is where the communication between researchers and policymakers is two-way. In this 'relationship' model, researchers and policymakers collaborate, with the effect that useful contributions to research flow from policymakers. This closer relationship is likely to mean that policymakers become better versed in research findings and hence more likely to make good use of them, but also that researchers are more likely to produce evidence that addresses important questions for policy. Finally, there is the 'systems' model, where researchers become embedded within a network of relationships involving not only policymakers but other stakeholders in policy areas too. Within such a system, information, ideas and feedback can flow in multiple directions. The ultimate aim is 'engaged scholarship', with an increased likelihood that high-quality evidence is relevant and influential.

This tripartite framework arguably captures variation in the extent to which evidence is integrated into policy quite well. The implication is that the systems model is a higher standard to aim for, yet it is not without dangers. Most importantly, as Ruane (2012) points out, it is vital that where researchers form closer and more productive relationships with policymakers, they maintain their independence. This means that researchers must aim to be as objective as possible in the questions they ask, the methods they select and the interpretation of findings. They must strive to consider and test alternative hypotheses, regardless of the convenience or popularity of their implications for policy.

4.2 The Rise of Behavioural Science

In this context, there is a notable current example where advances in the social sciences are being rapidly applied to policy. In recent decades, behavioural economics and related disciplines (more broadly, and perhaps accurately, 'behavioural science') have revealed a number of systematic influences on individual decision-making that appear to have strong policy implications (see Thaler and Sunstein, 2008; Dolan *et al*., 2010; Lunn, 2012). The findings suggest that traditional economic models based on rational choice theory have more limited application than previously thought, and that governments can sometimes have large effects on behaviour by altering the context in which individual decisions are made. Particularly in the USA and the UK, this relatively new science is increasingly being exploited not only in the *design* of policy, but also in the *method* of policy development. Importantly, the application of behavioural science to policy is involving greater use of empirical research, including controlled trials and experiments, within government.

Sunstein (2011) documents how the rise of behavioural science has led to a more empirical approach being taken towards US regulatory policy. For instance, in a number of cases, this has involved experimentation to establish the impact on consumer decision-making of different regulations that stipulate how firms must disclose information. Typically, the regulations concerned mandate simplified descriptions of product attributes, environmental information, risk associated with financial products, etc. In many cases, the scientific literature suggests sensible hypotheses to test, i.e. whether one way to communicate the information is likely to have a greater impact than another, but the existing evidence is not definitive, such that how different regulations will actually perform in the market remains an empirical question. Thus, there is a need for experimentation and trials – integration between research and policy. Encouraged by the Office of Information and Regulatory

Affairs at the White House, government departments and state agencies have overseen accompanying integration of researchers and policymakers, with greater use of research commissioned by government to address specific policy initiatives and a number of behavioural economists being employed to conduct research studies from within the government system.

Although the USA has arguably been the earliest to exploit behavioural science for policy, the European Commission is increasingly integrating behavioural science into its policy development too (Van Bavel *et al*., 2013), again with a mixture of internal and commissioned research. The UK has adopted a somewhat different approach to exploiting the same scientific advances. Its *Behavioural Insights Team* is staffed by a group of behavioural scientists and works like an internal public sector consultancy. State agencies and government departments work with the team to develop and to test policy proposals empirically on a small scale (see Behavioural Insights Team, 2011, for examples), the aim being to roll out on a wider scale those policies that prove successful. One notable feature of this work is that the findings of the empirical studies often throw up surprises. An example includes the discovery that a main barrier to the adoption by households of economically advantageous energy efficiency measures is the immediate costs that householders perceive in having to deal with what is in their lofts. This discovery prompted an entirely new policy of subsidising loft clearance services to overcome the barrier.

Although it is early days in the application of behavioural science to policy, looking across these international examples of the integration of research and policymaking, there are signs that many initiatives are proving successful (for discussion, see Sunstein, 2011; Lunn, 2012; Behavioural Insights Team, 2012).

4.3 Integrating Research and Policymaking

These approaches to policy development inspired by behavioural science are recent innovations and constitute specific examples of the more sophisticated 'systems model' of Best and Holmes (2010). They entail a more intimate and dynamic relationship between evidence and policy. This has the potential to generate benefits. Among policymakers, it is likely to improve understanding of research and its implications. Among researchers, it is similarly likely to improve understanding of the policymaking process, but it may also have a beneficial effect on incentives. Where the link between research and policy is so direct and the impact therefore obvious, the researcher concerned may be more likely to be rewarded in the long run for addressing research questions that matter for policy. Presently, the primary incentive for many researchers is to tackle only those questions that are most likely to result in publications in leading academic journals, many of which have little interest in policy. Lastly, and most importantly, where high-quality objective evidence feeds into the policymaking process, there is a higher likelihood that the policies adopted will be effective.

Of course, the critical word in that last sentence is 'objective'. As the preceding subsection suggested, greater integration of research and policymaking is not without risks. Indeed, it is vital that the objectivity of the research undertaken to inform policy is not undermined by the fact that the researchers have been commissioned by or are employed by whatever arm of government instigates the research. There are several safeguards that can support objectivity. In the UK civil service, many professional researchers belong to the Government Economic Service or the Government Social Research Service, both of which recruit, train and manage researchers across departments. Separating the line management system for researchers from the policymaking hierarchy, can help to ensure that researchers are willing to ask questions and convey findings that may be inconvenient or troublesome for policy. Arguably, however, better guarantees of objectivity are offered by transparency and quality control. A situation where policy claims to be backed by sound research but where that research is not available for inspection should be regarded as intolerable. There is no reason why research that informs policy should not be made available for all to see, including other professional researchers. There is also no reason why research commissioned or conducted by government cannot be presented at open seminars, peer-reviewed to a high standard and published in an open access forum. Observing the integration of behavioural science into policy thus far, the degree to which these kind of accountability and transparency mechanisms have been built into the systems for producing research for policy is mixed.

5. CONCLUSIONS

Ireland, as part of its agenda to reform the public service, is placing greater emphasis on the use of evidence to inform policy. This emphasis is reflected in data policies, recruitment of staff with specialist skills and official methods of policy development. In such an environment, it is important to understand what evidence may be able to do for us, what evidence cannot do for us, and to learn from how evidence is being used to inform policy elsewhere. The analysis presented in the body of this paper drew on the growing international literature on evidence and policy to make three arguments of relevance to each of these issues.

First, evidence can, in principle, make a broader and consequently better contribution to policy in Ireland than is generally realised. The use of evidence by policymakers, at least as described in Irish government documentation, focuses to a great extent on the appraisal and evaluation of policies. Yet evidence can do much more than this. Specifically, good research can identify policy challenges, suggest creative policy solutions and measure the strength of important causal mechanisms. More generally, it can improve the understanding of policymakers.

Second, by contrast but not in contradiction, inferences from evidence to policy are considerably more complex than is often assumed. Policy cannot be deduced from evidence without reference to priorities and values, which are in essence normative concepts, and without taking into account the risk and uncertainty that is inherent in policy change, which requires policymakers to make both normative and subjective judgements. Research findings, have policy *implications*, often strong policy implications, but cannot be used to derive policy *recommendations* unless and until they are combined with considerations that lie beyond objective research and evidence. Consequently, while researchers can inform policy and discuss the implications of research, making policy recommendations should be considered beyond their domain. It is policymakers, those who are experienced in and accountable for policy decisions, who should determine policy.

Third, several countries have made recent innovations in the relationship between evidence and policy in the area of behavioural science, integrating researchers and the production of evidence into the policymaking system. While there are risks associated with this approach and it is important to ensure that the objectivity of research is maintained, there are signs that these innovations are contributing to improved policymaking.

Overall, these three arguments suggest that, provided objectivity is safeguarded, there may be much to be gained from widening and deepening the relationship between researchers and policymakers in Ireland, thereby increasing the contribution of objective evidence to policy. It is hoped that the analysis presented here does something to further that cause.

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SYMPOSIUM DISCUSSION

Richard Boyle: Thank you for the presentations. I have two points in response. First, I would like to comment on the issue of 'group think' which has come up several times this evening. I accept that the issue is one of some importance and that we need to examine how to minimise the dangers. But I also think that in the context of policy development as discussed here, we are in danger of overemphasising its importance, and indeed there is a real danger I think of developing 'group think' about the application of 'group think'! I am not sure it was or is quite as pervasive as some commentators have made out. Robert Watt in his presentation made the point that the Department of Finance warnings on the dangers of over-heating the economy were stronger than many other bodies such as the IMF and OECD.

Second, I would like to comment on the point made in Frank Barry's presentation on the need for more contestability in policy advice. I would strongly support this point. Frank mentioned the example of how academic papers are subject to extensive peer review and are thoroughly tested before they are published in an academic journal of high standing. However, as Pete Lunn pointed out, this may not be helpful in a policy environment, where decisions have to be made in days or months rather than the years it can sometimes take to get papers published. A better analogy than the academic paper one might be the legal one, where evidence is put forward by either the prosecution or defence, and is thoroughly tested by the other side before conclusions are reached as to the validity of the evidence. I do not suggest we subject policy to a legal test (!) but some lessons I think can be learned from this approach of subjecting the policy evidence to thorough critical scrutiny before it emerges as policy.

Tom Ferris: I would like to make a few comments on two of the papers presented here this evening – Frank Barry's paper and Muiris MacCathaigh's paper. My first comments relates to Frank Barry's paper. Among the issues he discussed were the weaknesses within the bureaucratic system in Ireland. I would like to comment specifically on one such weakness, described as 'group-think' within institutions. I think that Frank is correct in concluding that the extent to which as 'group-think' is a problem depends on the power of the organisation. He went on to refer to ways of tackling 'group-think', quoting Frank Convery (2012) and Don Thornhill (2009).

I would like to mention one other mechanism that goes some way towards tackling 'group-think', and that is Value-for-Money & Policy Reviews (VFMPRs), that are carried out in Departments and State Agencies. These reviews are designed to help secure improved value for money from public expenditure. The scheme was launched in 1997 with various amendments in 2006 and 2009. The current scheme includes a very useful Value for Money Code, which is available on the website of the Department of Public Expenditure and Reform. It brings together best practice in evaluation and appraisal. However, the point I really would like to emphasise, in the context of 'group-think', is the fact that the VFMPRs process now has a requirement that reviews be chaired by independent chairpersons, picked from a panel of names, usually retired civil servants. This requirement provides an important outside perspective to the examinations being carried out on various areas of public expenditure. I can speak with some experience in this regard, as I have chaired, as a retired civil servant, a number of these reviews in recent years.

My second set of comments relate to Muiris MacCathaigh's paper. Among the matters he discussed were the improvement in the range and type of information now available to policy-makers, particularly concerning the effects of different types of policy tools. As regards Regulatory Impact Assessment (RIA), he discussed the degree to which it is embedded into the Irish system, and he concluded that the position regarding RIA remains quite unclear. Certainly the situation could be clearer. While, the Programme for Government (April 2011) stated that "We will require Departments to publish Regulatory Impact Assessments (RIAs) before Government decisions are taken, thereby offering a further channel to obtain the views of civil society on new rules and regulations", it is quite difficult to easily ascertain the extent to which this commitment is being adhered to. Moreover, the management of the RIA process has changed in the recent past. Specifically, in May 2012, Minister Howlin, the Minister for Public Expenditure and Reform, announced that the oversight of Better Regulation, including RIAs, is now to be done by three Departments, instead of one. The 'three-way-split' means that the Department of Communication, Energy and Natural Resources now deals with economic sectoral regulation; the Department of Jobs, Enterprise and Innovation deals with interaction of business and citizens with Governmental organisation, reducing red tape etc., and the Department of Public Expenditure and Reform has functions relating to training and advice to Departments in their conduct of RIAs.

I believe that there would be greater clarity if all these functions came under one department, as had happened in the past. Moreover, a central "Better Regulation" website to replace the one previously serviced by the Department of the Taoiseach would also make for greater clarity. Without such a website, it is hard to know

what the latest developments on the regulatory front are; what are the most up-to-date guidelines and what supports are available for those doing RIAs. The Department of the Taoiseach had provided such information in the past, as well as servicing the network of officials doing RIAs in Government Departments. It is not clear whether or not this network currently remains in operation. While, the three designated Departments may be doing good oversight of the different parts of the Better Regulation agenda, including RIAs, it would be preferable to have a single Government Department shape the design of overall future regulatory policies; to facilitate the sharing of relevant experiences and recommendations and to help to make RIAs more widely available.

Noel O'Gorman: I would emphasise that the overall policy-making process involved players other than the Government (Oireachtas majority) and the permanent Civil Service. There were other important actors, notably the several interest groups, numerous lobbyists (increasingly professional), the Social Partnership process (whose influence was often positive but could be negative in some respects), the political opposition, and the media (ever more aggressive in influencing the political process). The academic community has, in my view, been slow to highlight the developing economic threats that culminated in the economic crisis, though I welcome the fact that it had subsequently recovered its voice, many good contributions to the policy debate being forthcoming.

Sara Burke: I have just completed a four year PhD which was an in-depth policy making analysis, looking at three policies which sought to increase for-profit hospital care between 2000 and 2005. The strongest finding from the research was the covert, closed, personalised, politicised nature of each of the policy making processes under examination. They were driven by key ministers, whom in tow out of three of the cases were not even in the Department of Health There was a complete absence of the use of evidence except post hoc to justify the policy three choices. While there was consensus on the problems eg shortage of public hospital beds, and long waits for public patients, there was no consensus on the causes of the problems and therefore the solutions. This absence of consensus allowed space for political choices.

I was writing up final parts of PhD in August and September 2013 when Roisin Shortall resigned over political interference on the selection of location for primary care centres. It seemed to me that little had changed or been learnt over ten years in health policy making processes and political preference over ruling evidence based decision making. Many of the policies currently being pursued by Minister Reilly have little if any evidence to back them up - the rationale for hospital trusts and the multiple insurer model jump to mind. Are there any ideas how evidence can be embedded in policy making processes? Also I think there is a ripe area for research on how political processes e.g PR STV and coalition government and ideology of their makeup influence policy choices. I am also interested in finding other examples of detailed academic policy making analyses in an Irish context.

Paul Sweeney: I would support Robert Watt in saying that the public sector was under severe and often hostile scrutiny. I agree with Noel O'Gorman that some of the media comment on the public service was bordering on the abusive. It was correct that the public sector should be subject to public scrutiny as it is funded by the taxpayer, but some of the comment over recent years has bordered on the prurient. In contrast, private sector firms, by their nature, are not subject to anything like the same scrutiny and some firms have made massive investments in physical assets which would never be used, but the public and even their own shareholders are unaware of such mistakes.

While I disagree with the artificial public/private divide, holding that both worked symbiotically and should gain from each other, Ireland's current crisis was not caused by public sector profligacy but by the reckless landing of the banks. The failure of the public sector was of oversight or regulation, but there had been a strong ideological policy consensus - against regulation, for privatisation, for tax cuts and for a smaller state and bigger market. If there is a lesson for future policy makers, it is to be wary of consensus and to welcome constructive criticism.