

Helping evidence inform policy: the use of eclectic approaches

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Outline

1. The Commission: bringing evidence to bear
2. The EBP movement
3. Some helpful methodology principles?
4. Some helpful institutional principles?

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2

The Commission: bringing evidence to bear

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About us

- The Commission is the Commonwealth Government's principal review and advisory body on microeconomic and social policy reform and regulation.
- Our aim is to achieve better informed policy decisions through principles enshrined in the *Productivity Commission Act*:
 1. independent analysis and advice
 2. processes that are open and public
 3. examining policy impact on the well-being of the community as a whole
- So we have a natural interest in the recent discussion of evidence-based policy

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4

The Commission is a 'broad church' in evidence-gathering and evaluation

- Approaches shaped by diverse government references
 - Paid parental leave
 - Drought relief policies
 - Parallel imports of books
 - Understanding and managing the costs of problem gambling
 - Conservation of historic heritage places
 - Review of the *Disability Discrimination Act*
 - Evaluation of Mutual Recognition Schemes
- and emergent policy issues and debates
 - Social capital: the concept and its implications
 - Behavioral economics: 2007 Roundtable
 - Environmental economics: 2008 Roundtable
 - Evidence-Based Policy: 2009 Roundtable

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5

Diverse challenges necessitate diverse approaches to evidence gathering

- A range of evidence sources, using both quantitative and qualitative information:
 - amassing official and other statistics
 - commissioned surveys, where no data initially existed
 - seeking the experience of community groups as revealed in submissions
 - conducting public hearings and roundtables
 - often building first off 'issues papers' and then off a draft report

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6

...and diverse methodologies

- A variety of evaluation methods, according to the case at hand:
 - Examination of competing explanations and elimination of those unlikely to be relevant
 - Formal quantitative tools where appropriate – e.g. effective rates of assistance, general equilibrium modelling
 - especially useful for teasing out whole of economy effects
 - but in some cases quantitative tools and experimentation are not applicable
 - Comparative case studies of experience in other countries
 - Analogies from similar policy changes

The Commission and the discussion of evidence-based policy

1. A methodology antecedent: 2004 Commission Roundtable: *Quantitative tools for microeconomic policy analysis*
2. Gary Banks: *Evidence-based policy-making: What is it? How do we get it?*
3. PC Roundtable 17-18 August 2009: *Strengthening Evidence-Based Policy in the Australian Federation*

Novel elements in *Evidence-based policy-making: What is it? How do we get it?*

- As well as stressing the role of data and sound methodology
- it stressed the **practicalities** of establishing evidence in the government context. Evidence building takes:
 - time
 - staff skills
 - independence
 - good resourcing and
 - a receptive policy environment
 - including a need for politicians and policy makers to design and resource data collection and evaluation plans from the early stages of policy design

2. The EBP movement

Key values in the evidence-based policy movement?

- The evidence-based policymaking movement seems identified by commitments to:
 - An investigative *process* (not a single methodology, or only quantitative evidence) that
 - *transparently* uses
 - *rigorous and tested evidence*
 - in the *design, implementation and refinement* of policy
 - to meet *designated policy objectives*
 - EBP doesn't tell what policy objectives to aim at
 - But evidence can sometimes inform the evolution of policy objectives

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11

The EBP movement is widespread

- US rise of 'policy sciences' and 'evaluation sciences' since 1950s (Brian Head)
- UK, Blair & Cunningham, 1999, *Modernising Government*
- Canada: 2003 state-of-play (Zussman)
- Aid community: impact analysis, aid effectiveness movement (CGD) and MIT 'Poverty Action Lab'
- Developing countries: eg Mexico's Progres-Oportunidades program
- US practice
 - Coalition for Evidence Based Policy
 - President Obama's inauguration speech
 - OMB: *What constitutes rigorous evidence?* Peter Orszag
- Australia:
 - PM Rudd, Deputy PM Gillard

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12

The aid effectiveness challenge is particularly instructive in thinking about EBP

- The difficulty of determining if (and whose) aid has impact
- Institutional ideas for defending evaluative independence
 - Design of the World Bank Group's *Independent Evaluation Group*
- Cooperation, illustrating economic theory of clubs and coalitions
 - Center for Global Development: the 'external benefits' of evaluation
 - *When will we ever learn?* and impact evaluation
 - MIT Poverty Action Lab: randomisation applications
 - Evaluation 'clubs'
 - Evaluation Cooperation Group (OECD DAC, WB and IMF)
 - OECD Evaluation Network of the DAC
 - International Initiative for Impact Evaluation ('3ie')

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13

Supply side advances in EBP: Heckman's 2000 Nobel Prize

"The single most important advance in the social sciences in the last 25 years has been the enormous improvements in the ability to analyze microdata in order to identify and quantify causal relationships.

"Some of these gains have come from technological progress, as the **vast increases in computing power** have enabled the analysis of larger data sets using more sophisticated statistical techniques.

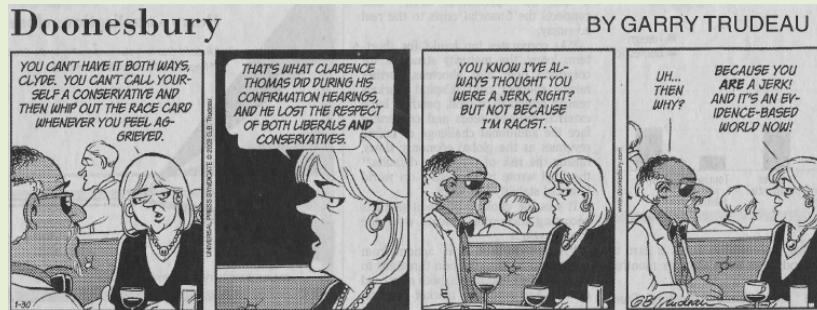
"Some of these gains have been organizational, as government and private entities have funded the collection of **an extensive array of data sets**.

"But the most intellectually intriguing developments have been scientific, as **the tools and methods of statistical analysis have been developed and sharpened.**" J.J. Donahue, 2001

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14

EBP passes into popular culture ...



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15

...but to uncertain effect!



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16

The UK: 12 years talk, little achievement?

- “ ... it is nearly impossible to know what to do given the scarcity of good evidence and good evaluation of current policy. Policy cannot be evidence-based if there is no evidence and evidence cannot be obtained without proper evaluation.”
- “... Governments rush in with insufficient thought, do not collect adequate data at the beginning, do not have clear objectives, make numerous changes to the policies and its objectives and do not maintain the policy long enough to know whether it has worked.”

(UK House of Commons Health Committee, 2009 p 5)

Is there an 'evaluation gap' in Australia?

- Great deal of evaluation going on, but often process- and compliance-oriented
- The notion of a domestic 'evaluation gap' in a federation
 - external benefits, political environment, and scarce resources
- The payoff from conducting, and acting on, better evaluation is attractive
 - Modern policy challenges seem increasingly complex
 - “Rossi’s Iron Law”: the expected value of any net impact assessment of a large scale social program is zero
- COAG innovation stresses better evaluation of policy outcomes

A COAG opportunity to close the 'evaluation gap'?

- 5 *National Agreements*, with high level performance targets (eg literacy & numeracy)
 - Agreements are designed to address policy areas with, *inter alia*, 'national public good' characteristics and **'spillover' benefits that extend beyond the boundaries of a single State or Territory**
 - The NAs map to 5 *Specific Purpose Payments*
- In addition, *National Partnership Payments* will be made conditionally, in respect of reforms with more detailed objectives, outcomes, outputs and performance indicators
- A 'performance management' approach, at this stage with simple indicators

Moving to more sophisticated evaluation will be important in COAG

- "If there is one law of economics, it is that if you reward people to do more of something, they will."
- "But ... if they do more of what you are rewarding them for, they will do less of those activities for which they are not rewarded or are rewarded less, with results that can eliminate the benefits you were seeking."
 - Examples from UK education and health sector disappointments (Henry Ergas, *The Australian*, 3 September 2008.)
- The COAG agenda could be advanced by including provisions to fund and conduct better quality, transparent evaluation, and compare and pool results.

Strengthening EBP: How to help?

- We asked ourselves: another 'how to evaluate' guide?
- Or identify and encourage support for the general principles that good evidence-based policy should meet?
 - Wider knowledge of key principles as a practical guide to governments, oppositions, officials, analysts, journalists and the general public in thinking through policy debate
- Suggested principles cover both
 - methodological issues (9) and
 - institutional issues (6)

3. Some helpful methodology principles?

Suggested principles: methodology

Methodological issues

1. Define the policy problem carefully
 2. Consider a range of options
 3. Ensure adequate baseline data
 4. Assess the quality of existing evidence
 5. Explicitly address the 'counterfactual'
 6. Consider attribution issues
 7. Consider selection bias and other possible sources of bias
 8. Account for indirect and second round effects
 9. Quantify where possible, even when incomplete
- Implicitly, use of theory lies behind several of these issues

Suggested principles: assess existing evidence

An evidence 'hierarchy' may be useful in sifting and testing evidence:

A possible evidence hierarchy for Australian policy makers

1. Systematic reviews (meta-analyses) of multiple randomised trials
2. High quality randomised trials
3. Systematic reviews (meta-analyses) of natural experiments and before-after studies
4. Natural experiments (quasi-experiments) using techniques such as differences-in-differences, regression discontinuity, matching, or multiple regression
5. Before-after (pre-post) studies
6. Expert opinion and theoretical analysis

Source: Leigh 2009

But:

- It depends on the policy question - no single perfect method
- What happens when there is limited 'evidence'?
- Do such hierarchies underplay the role of theory?

Methodology discussion at the Commission's 2009 roundtable:

1. In social and economic policies, effects are usually different across different groups
 - It is often misleading - especially to politicians! - to speak of 'the effect' of a policy
2. RCTs can be very powerful, done well in appropriate circumstances; Australia should do many more of them
 - But the circumstances well suited to RCTs are not universal
3. Where RCTs are useful, sometimes insufficient by themselves (because of scaling and spillover or general equilibrium issues)
 - Not all RCTs are well-executed, and some yield weak or misleading results
4. Other methods (including quasi-experiments and simpler methodologies that more roughly address the counterfactual and attribution issues) can be useful
 - No method of evaluation is so powerful as to substitute for careful thought

Suggested principles: methodology – consider the counterfactual and attribution issues

- Evaluation has to address **impact**: what the policy did, relative to what would have happened in the absence of the policy
- Serious, explicit treatment of the **counterfactual** is central to every serious assessment, by whatever methodology:
 - RCTs, quasi experiments, natural experiments, and case studies can all address the counterfactual
- Analysis then has to **attribute** weight to significant influences, relative to the counterfactual:
 - seldom do social or economic events occur for just one reason
 - sources of bias in attribution (e.g selection, omitted variable, attrition, publication, optimism biases)
- These issues are obvious to professional 'evaluators', but are very commonly overlooked in community and parliamentary policy debate

Suggested principles: methodology - Account for indirect and second-round effects

- Policy evaluation is often limited to considering only the benefits or the costs of a policy, the immediate effects or the impact on a single group
 - Sometimes by 'boutique trials' that do not scale up to community-wide application
- Estimating the community wide effects of a policy can give a very different answer to looking only at direct effect on beneficiaries.
- This principle is also commonly overlooked in community and parliamentary policy debate

4. Some helpful institutional principles?

Suggested principles: institutions

- Good evaluation requires more than good methods.
- Desirable features for institutions and processes:
 1. Design the most appropriate evaluator
 2. Maximise transparency and peer review
 3. Establish appropriate data and evaluation programs at policy commencement
 4. Consider sequential rollout or policy trials
 5. Disseminate evaluation and pool results
 6. Ensure evidence is linked to the decision-making process

Suggested principles: institutions - Transparency

- Transparency provides opportunities for correction or refinement where the evidence is not complete and analysis can be strengthened
- Broad view of transparency
 - public access to relevant information
 - access to data, assumptions and methods
 - peer review of analysis
 - contestable policy review with the opportunity for stakeholders to comment
- As evaluative methodologies become more sophisticated, the room for error grows and the need for peer review and replication rises (Donahue, 2001)

Suggested principles: institutions - On-going data & evaluation

- Many evaluations are limited to desk-top review because there are no data available: there has been little prior attention to monitoring, evaluating and reporting on the policy over time
- The ability to measure whether there has been progress made (or not) depends on deciding what to measure, gathering baseline data and setting up a system to monitor results
- Resource commitments to data gathering and commitments to making data widely available.

Suggested principles: institutions - Disseminate evaluation and pool results

- Evaluation 'clubs' can help narrow the evaluation gap:
 - committing members to principles of good evaluation
 - Perhaps a 'constitution' of principles such as listed earlier?
 - internalising evaluation benefits external to the sponsoring jurisdiction
 - funding higher levels of better evaluation
 - building scarce evaluation skills
 - spreading good evaluation practice
 - peer support and peer review
 - defending transparency and evaluative independence
- Opportunities for a COAG evaluation club?
 - Senior Premiers/PM/Treasury officials, key portfolio officials, evaluation practitioners and academics?
 - Sub-groups (eg health, education, indigenous)?

Suggested principles: institutions - Link evidence to decision making

- For evidence to influence policy decisions it must be tied to the decision making process.
- Some Australian examples:
 - Regulatory proposals that fail to meet RIS requirements are not permitted to proceed to cabinet (without a PM's exemption)
 - COAG national reform agenda ties funding to performance indicators
- Overseas examples:
 - Coalition for Evidence-Based policy
 - OMB guidelines and funding: *Building rigorous evidence to drive policy*: "initiatives with evaluation standards built into their DNA" (Orszag)
 - International Initiative for Impact Evaluation

Visit our website: www.pc.gov.au

The screenshot shows the Productivity Commission website in a Windows Internet Explorer browser. The page features a green header with the Productivity Commission logo and navigation links. The main content area is divided into several sections: 'About us', 'Projects', 'Publications', 'Supporting research', 'Media releases', 'Chairman's speeches', 'Employment opportunities', and 'Annual reports'. A 'What's new' section highlights recent releases, including 'Recovering Water in the Murray-Darling Basin' and 'Strengthening Evidence-based Policy in the Australian Federation in Canberra'. A 'Recent releases' section lists various reports and publications. The footer contains contact information and a subscription link.

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