

Reproducible Analytics at the World Bank

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IN THE SOCIAL SCIENCES

Issues:

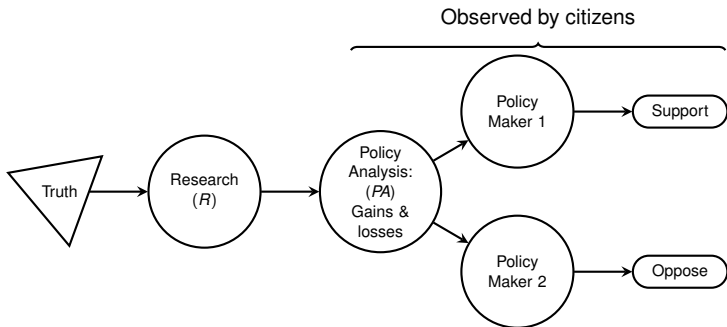
- Scientific misconduct
- Publication Bias
- Specification searching / P-Hacking
- Replications problems

Solutions:

- Ethical research
- Registrations
- PAPs
- Guidelines and Protocols

Want to learn more?: MOOC, RT2 Amsterdam, and more!

New Dimension to Increase Transparency and Reproducibility: Policy Analysis



Credibility Crisis

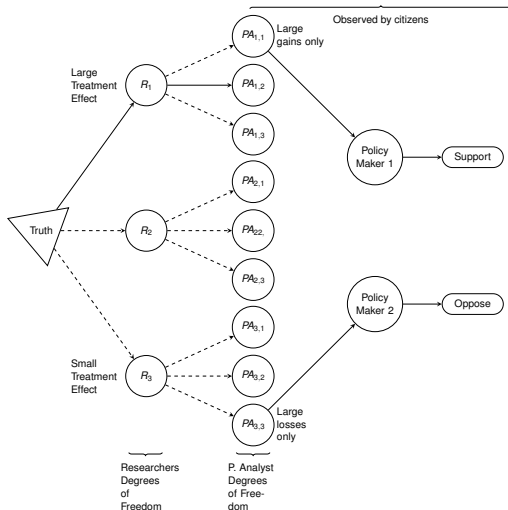


Figure: Policy-making with low TR in research and policy analysis

- Policy makers can cherry-pick facts
- Hinders automation and/or systematic improvements of reports
- Unclear how research affects policy estimates



Transparency and Reproducibility in Policy and Research

	Research	Policy Analysis
Output	Peer reviewed publication	Client-oriented policy report
Problems of low TR	Ex: Publication Bias.	Ex: Low credibility.
Common Solutions	Disclosure of key details. Open data and materials.	
Common Tools	Dynamic documentation. Distributed version control.	
Specific Solutions	Ex: Test for reproducibility	Ex: Develop reproducibility
Who increases TR	Researchers, Funders, Journals	Not the policy analysts (Maybe: Policy schools, Think tanks, Media. Yes: BITSS!)



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Let's follow science, open up the
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Our Proposal for Open Policy Analysis

- 1 Increase awareness (Motivational paper coming soon!)
- 2 Publish guidelines on transparency and reproducibility for policy analysis (similar to the TOP Guidelines for research).
- 3 Partner with agencies/think tanks interested in implementing these ideas. [Example here.](#)
- 4 Iterate.

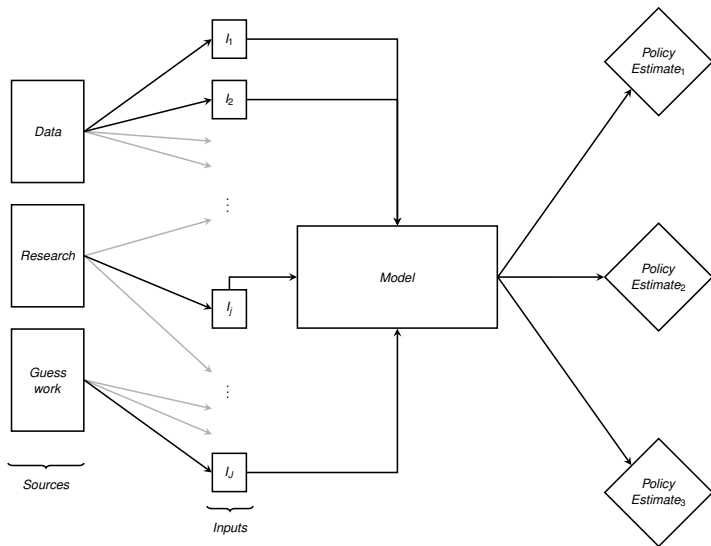


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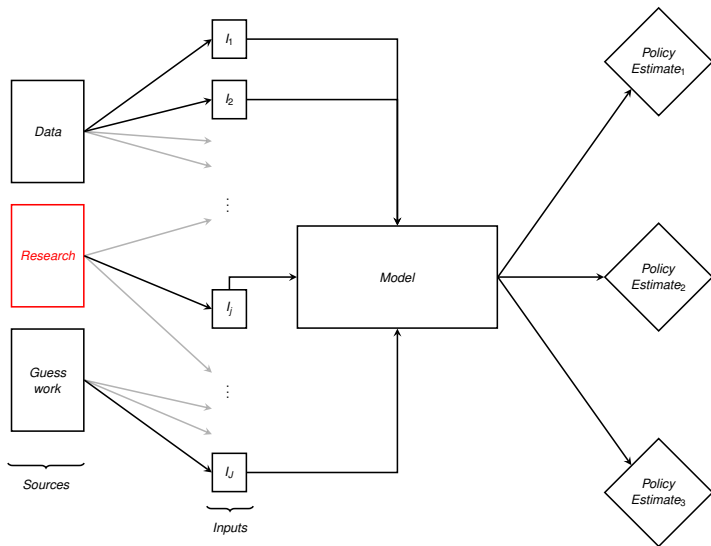
fhoces@berkeley.edu

Backup Slides

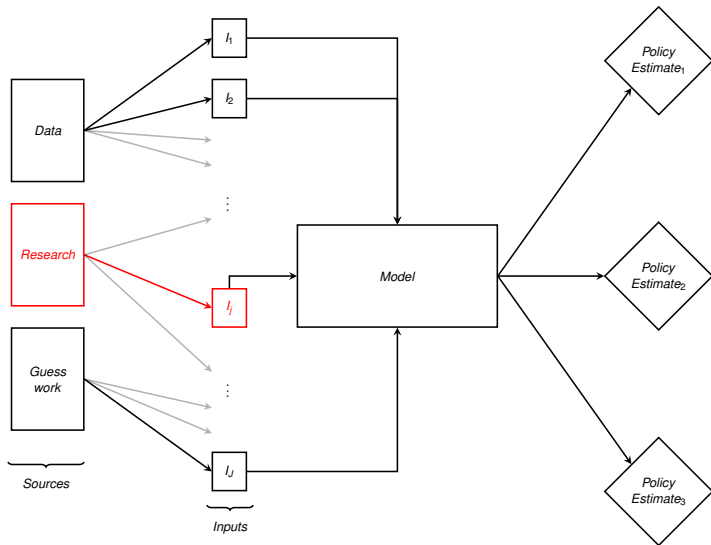
Guidelines Goal



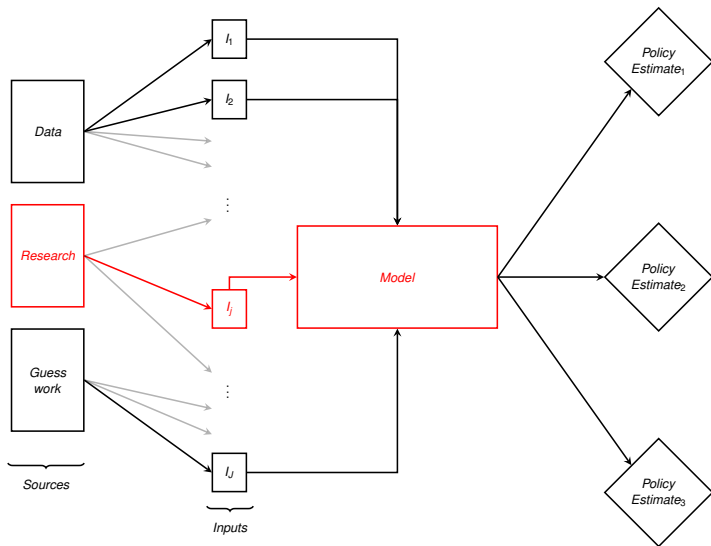
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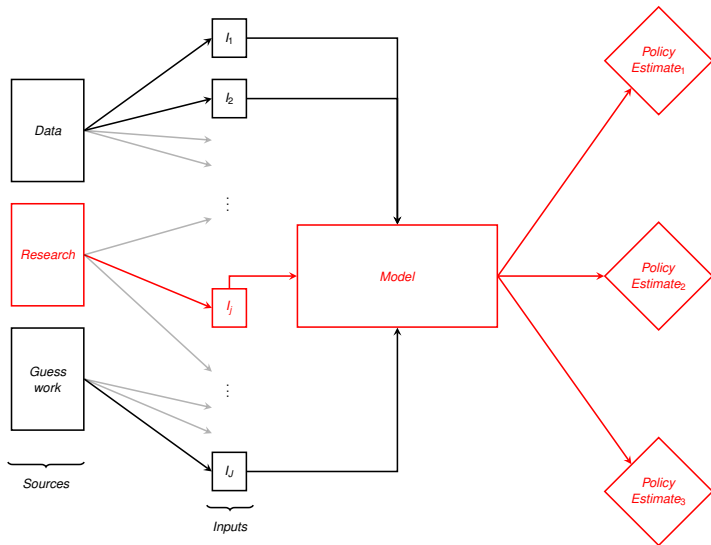
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Summary of Adapted Guidelines

Standard	Level 0	Level 1	Level 2	Level 3
Workflow	Policy estimates vaguely described	All the inputs, and their corresponding sources, used in the calculations are listed	Lvl 1 + Policy estimates are listed, in same unit if possible	Lvl 2 + all the components can be modified with little effort
Data	Report says nothing	Clearly stated whether all, some components, or none of the data is available, with instructions for access when possible.	Lvl 1 + report and data are in same place	Lvl 2 + Report has specific lines of code that call the data and changes in the data produce traceable changes in the report
Methods & Code	Key assumption are listed	Methods are described in prose. Large amount of work is required to reproduce qualitatively similar estimates	Methods and described in prose, with detailed formulas, and code is provided as supplementary material	Lvl 2 + All is in the same document where changes in the code affect the output automatically

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