

# Guidelines for Open Policy Analysis (OPA)

Berkeley Initiative for Transparency in the Social Sciences ([BITSS](#))

## About OPA

Open Policy Analysis ([OPA](#)) is an approach to policy analysis that involves making data, code, materials, and clear accounts of methodological decisions freely available to facilitate collaboration, discussion, and reuse. OPA adapts and applies simple and versatile tools, methods, and practices commonly used for transparency and reproducibility in scientific research.

## About these guidelines

In order to establish common standards and facilitate the creation of a community of practice around OPA, BITSS developed a set of guidelines that outline the main features of OPA and best practices for their implementation. In developing these guidelines, we drew inspiration from the Transparency and Openness Promotion ([TOP](#)) Guidelines for scientific research.

## How to interpret and use the guidelines

The OPA Guidelines feature *nine steps* for implementation, grouped by their relation to the three key principles of OPA: Open Output, Open Analysis, and Open Materials. Each step is *modular*, meaning it can be implemented independently from the rest, and features *three gradual levels of rigor*. Analysts can adopt each step at varying levels of rigor, depending on what is appropriate for their work. Status quo in policy analysis practices should be interpreted as Level 0.

## Sign on to the guidelines and submit your feedback

We are currently in the process of expanding these guidelines with a narrative section that will include more details and examples of recommended best practices and tools for implementation. If you are a policy analyst or conduct policy-relevant research, you can get involved in two ways. First, you can **become a signatory of the OPA Guidelines** by adding your name (or the name of your organization, if you sign as an organizational representative) to [this form](#) and including a statement in policy reports indicating they were developed in accordance with the OPA Guidelines (e.g., "This analysis complies with level 3 of the Open Policy Analysis (OPA) Guidelines developed by BITSS"). Second, you can submit your feedback to these Guidelines to BITSS Project Scientist Fernando Hoces de la Guardia ([fhoces@berkeley.edu](mailto:fhoces@berkeley.edu)).

	<b>Principles and steps of implementation</b>	<b>Level of Openness and Corresponding Tools or Practices</b>		
A	<b>Open Output</b>	<i>Level 1</i>	<i>Level 2</i>	<i>Level 3</i>
1	Ensure <b>unified output</b> by defining the most appropriate format for the report before publishing, and justifying changes to format output across reports	One table or graph is highlighted as the best reflection of all the relevant gains and losses associated with the analyzed policy.	A detailed description of output is provided, including a sample output published pre-release of final results.	A detailed description of output is provided, including a sample output published pre-release of final results, using version control within and across reports.
2	Establish a <b>clear link between input and output</b> by displaying how the output changes under different assumptions.	Static output is presented for various assumptions.	An interactive tool allowing for adjusted inputs is provided.	An interactive tool allowing for adjusted inputs is provided, and its underlying code shares the same key sections of code behind the analysis section.
B	<b>Open Analysis</b>	<i>Level 1</i>	<i>Level 2</i>	<i>Level 3</i>
3	Provide <b>clear accounts of all methodological procedures</b> in a way that is easily interpreted by an informed reader.	Code or spreadsheet is made available through a trusted repository	Code or spreadsheet is made available through a trusted repository with sufficient annotation for code, or an explanation of spreadsheet interaction.	Code is clearly documented into a dynamic document, or open notebook. No spreadsheets.
4	<b>Share raw (or analytic) data and materials</b> in a way that the analysis is reproducible with minimal effort.	Analytic (processed) data is made available in a website	Analytic data is made available through a trusted repository.	Analytic and raw data are made available through a trusted repository. Detailed instructions are provided for accessing raw data that is proprietary or contains sensitive information.

5	Share an <b>open report</b> that includes clear accounts of all methodological procedures, data, and assumptions.	Share a final report that describes the methodology in a way that can be reproduced.	Share a final report that describes the methodology in a way that can be reproduced with minimal effort, and include version control tracking.	Share a final report in the form of a dynamic document or an open notebook, and include version control tracking.
C	<b>Open Materials</b>	<i>Level 1</i>	<i>Level 2</i>	<i>Level 3</i>
6	<b>Standardize the file structure</b> so that materials are organized in a way that is accessible to an informed reader.	All project components can be found in a self-contained folder.	All project components are organized in a self-contained folder using a Standard File Structure (SFS).	All project components are organized in a self-contained folder using a Standard File Structure (SFS), and a readme file is included.
7	<b>Label and document each input</b> , including data, research, and guesswork.	List all inputs used in the analysis according to their origin: data, research, guesswork.	Provide a list with all inputs and their sources.	List all inputs, their sources, and provide links or detailed references.
8	<b>Ensure that code/spreadsheets are reproducible.</b>	<i>For code:</i> All scripts are stored in a self-contained folder through a trusted repository. <i>For spreadsheets:</i> All spreadsheets and a standard operating procedures (SOP) document are stored in a self-contained folder through a trusted repository.	<i>In addition to level 1:</i> <i>For code:</i> Code is easily readable and possible to run regardless of software dependencies. <i>For spreadsheets:</i> A diagram and narrative is provided to describe the role of each component.	<i>For code:</i> Code is easily readable and possible to run with just one click. <i>For spreadsheets:</i> N/A.
9	<b>Use a version control</b> strategy.	All team members use standardized naming and saving conventions.	All team members use version control software at an individual level.	All team members use version control software and track changes in a shared project repository.