

March 2021

*Strengthen*

*Perform*

*Identify*

*Review*

*Engage*

*Develop*

*Conduct*

*Create*

Program Evaluation

# Key Terms and Concepts

Accessible Version

*Ensure*

*Inform*

*Establish*

## Program Evaluation: Key Terms and Concepts

Both the executive branch and congressional committees need evaluative information to help them make decisions about the programs they oversee—information that tells them whether and why a program is working well or not. The Government Performance and Results Act of 1993 (GPRA) and GPRA Modernization Act of 2010 (GPRAMA) established a framework for performance management and accountability within the federal government. Building on that foundation, Congress has since passed, among other laws, the Foundations for Evidence-Based Policymaking Act of 2018 (Evidence Act) to strengthen the evidence-building efforts of executive branch agencies. The Evidence Act, for example, created a framework for a more comprehensive and integrated approach to federal evidence-building efforts.

This product updates our previous glossary (GAO-11-646SP) to highlight different types of evaluations for answering questions about program performance, as well as relevant issues to ensure study quality. As agencies identify the key questions they will address in their Evidence-Building Plans (Learning Agendas) and Annual Evaluation Plans, they may consult guidance provided by the Office of Management and Budget (OMB). This glossary can help agency officials better understand fundamental concepts related to evaluation and enhance their evidence-building capacity.

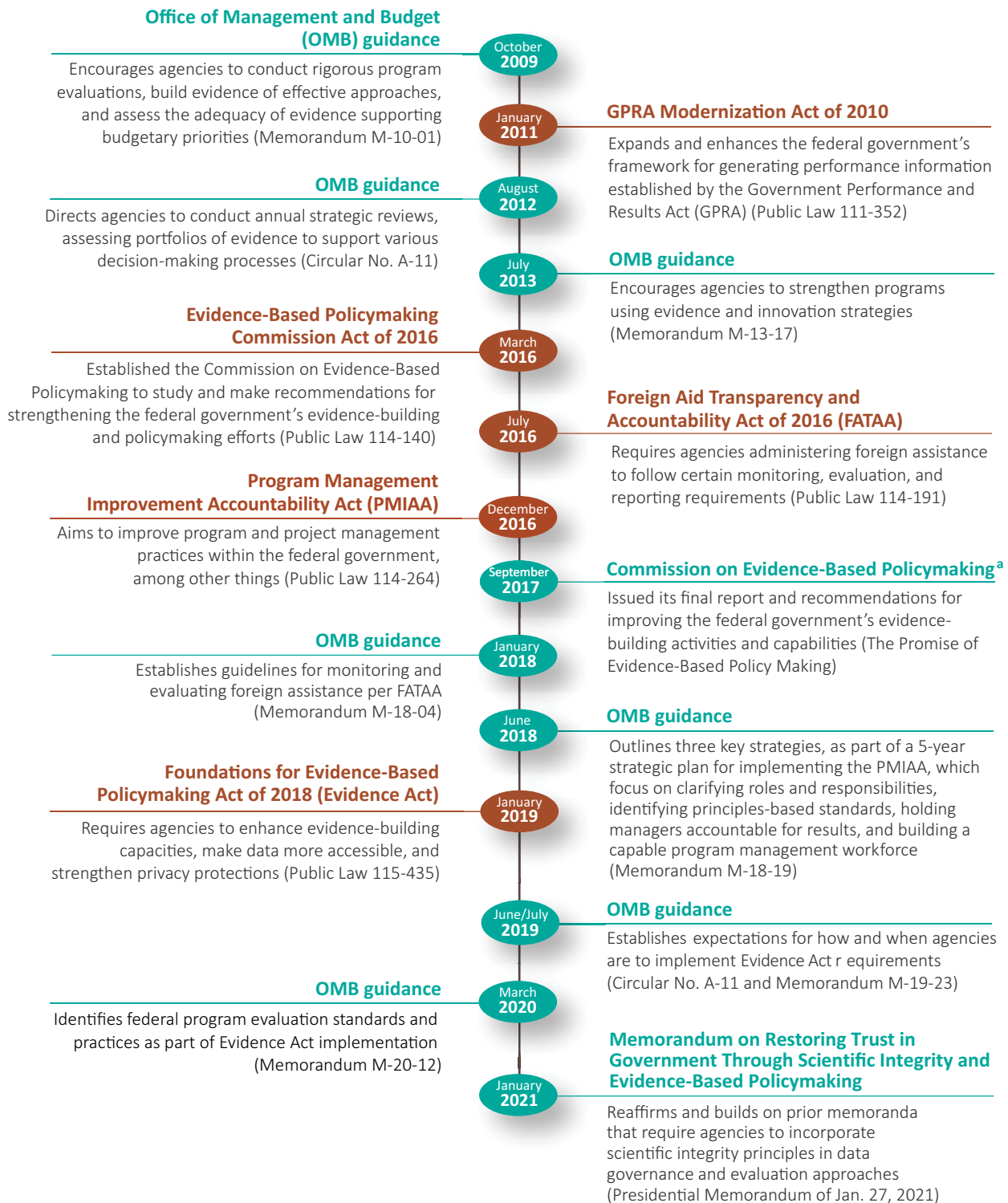
To develop this glossary, we examined relevant information from executive and legislative branch agencies and consulted with knowledgeable stakeholders and GAO internal experts. We conducted a systematic review of terminology from relevant documents including GAO reports, relevant statutes, OMB guidance, and publications from the American Evaluation Association. We also reviewed terminology with authors of established evaluation literature.

Major contributors were Terell P. Lasane, David Blanding, Valerie J. Caracelli, Eleanor Thompson, Benjamin T. Licht, Jehan Chase, Pille Anvelt, and Dani Greene. Please address any questions to Terell P. Lasane, Assistant Director for the Center for Evaluation Methods and Issues (CEMI) in the Applied Research and Methods Team (ARM) at (202) 512-5456 or [lasanet@gao.gov](mailto:lasanet@gao.gov).

Lawrance L. Evans, Jr.

*Managing Director, Applied Research and Methods*

# Relevant statutes and guidance issued since 2009 encourage federal agencies to use multiple sources of evidence in program management

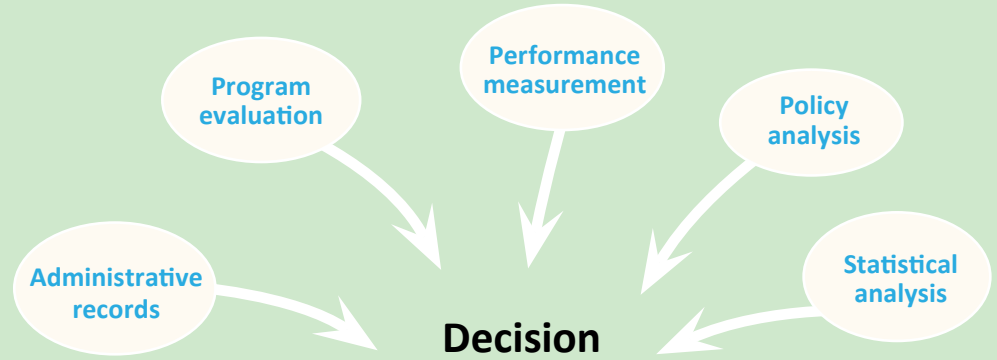


Source: GAO analysis of select laws and executive branch materials.

<sup>a</sup> In accordance with the Evidence-Based Policymaking Commission Act of 2016, the Commission was comprised of academics and experts appointed by the President (including an OMB representative) and congressional leadership.

# Agencies should consider different sources of evidence

Some sources of evidence used to support decision-making, program improvement, and continuous learning



**Administrative records** - A source of evidence consisting of qualitative or quantitative data collected or produced as part of a program’s operation.

**Policy analysis** - A source of evidence consisting of a systematic process of identifying and comparing potential options for addressing a policy problem based on certain criteria, and choosing the option that best meets the criteria.

**Program evaluation** - An assessment using systematic data collection and analysis of one or more programs, policies, and organizations intended to assess their effectiveness and efficiency.

**Performance measurement** - The ongoing monitoring and reporting of a program’s accomplishments and progress, particularly towards its pre-established goals.

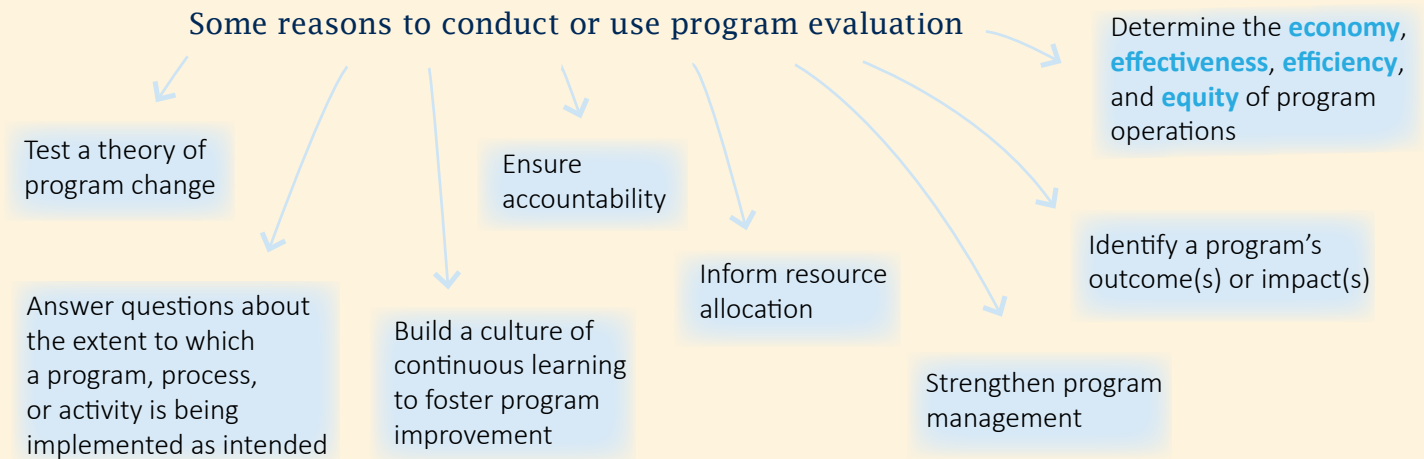
**Statistical analysis** - A form of evidence that uses quantitative measurements, calculations, models, classifications, and/or probability sampling methods to describe, estimate, or predict one or more conditions, outcomes, or variables, or the relationships between them.

Program evaluation and performance measurement are distinct but complementary

Different sources of evidence hold distinct value. For example, program evaluation and performance measurement are key tools for federal program management but differ in the following ways:

	What drives it	What data it uses	What frequency	What it can tell
<b>Program evaluation</b> →	Theory of program change	Quantitative or qualitative	Discrete	Whether a program is working and why
<b>Performance measurement</b> →	Agency goals	Typically use quantitative data	Ongoing	How well a program is performing

# Program evaluation is key to program learning, program improvement, and statutory compliance



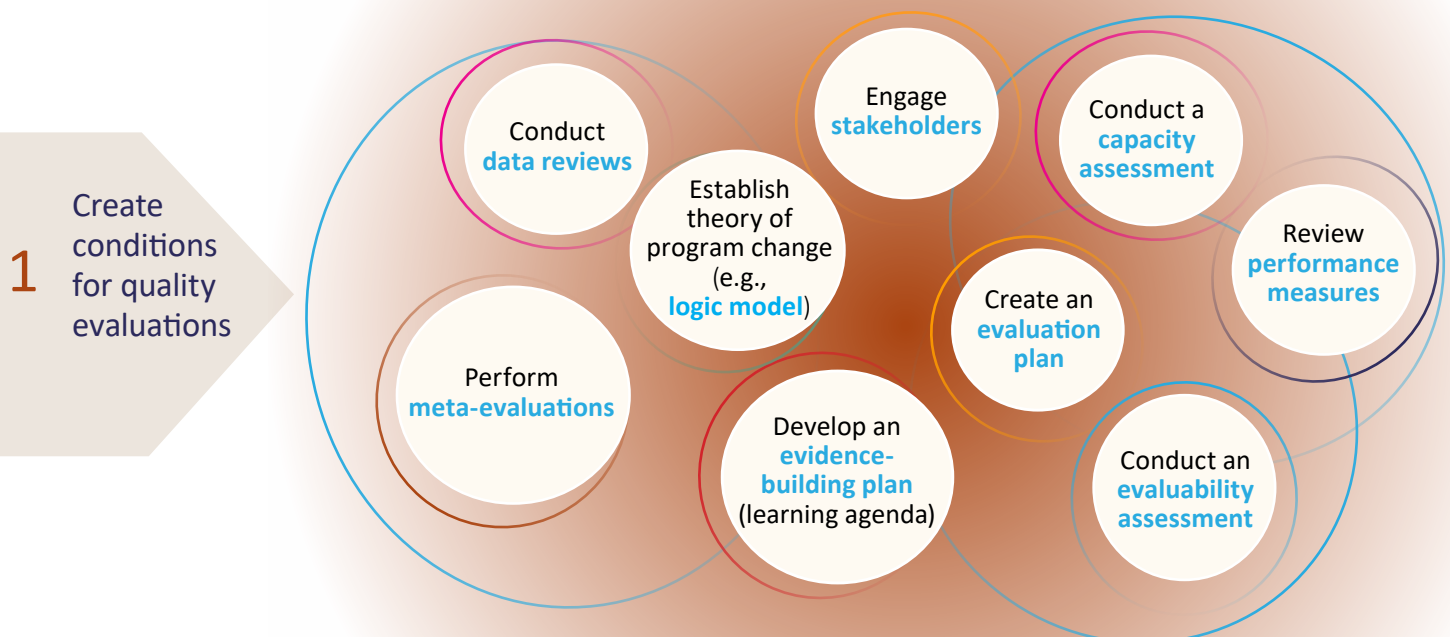
**Economy** - The extent to which a program or intervention is operating at minimal cost, as determined by a program evaluation.

**Effectiveness** - The extent to which a program or intervention is achieving its intended goals, as determined by a program evaluation.

**Efficiency** - The ratio of monetary and/or nonmonetary program inputs (such as costs or hours worked by employees) to outputs (amount of products or services delivered) or outcomes (the desired results of a program).

**Equity** - The consistent, systematic, fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment.

## How agencies can maximize the value of program evaluation



**Data review** - A systematic process for exploring whether data may be used for a program evaluation by assessing the data's quality (e.g., accuracy, reliability, validity) as well as related limitations, efforts to address limitations, and procedures for safeguarding the data against misuse and breaches of security.

**Meta-evaluation** - A systematic assessment of the quality of one or more program evaluations using criteria such as transparency, independence, objectivity, ethics, relevance, utility, and rigor.

**Logic model** - A diagram that documents a program's theory of change, including expected inputs, activities, outputs, and outcomes.

**Stakeholder** - Any person, group, or organization interested in or knowledgeable about a program that is being evaluated and may affect or be affected by the results of an evaluation.

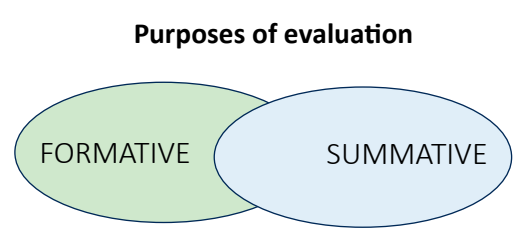
**Evaluability assessment** - A pre-evaluation examination of the extent to which a program can be evaluated in a reliable and credible fashion or to which an evaluation is worthwhile based on the evaluation's likely benefits, costs, and outcomes.

**Evidence-building plan** - A systematic plan (also known as a learning agenda) for identifying and addressing policy questions relevant to the programs, policies, and regulations of the agency. The plan—a component of the agency's strategic plan and developed in consultation with relevant stakeholders—is to include, among other things, the data, methods, and analytic approaches that the agency may use to develop evidence and any challenges faced in obtaining evidence to support policymaking.

**Evaluation plan** - An annual agency-wide plan that is to describe, among other things, (1) the key questions for each significant evaluation the agency intends to begin in the next fiscal year and (2) the key information collections or acquisitions the agency plans to begin during the year covered by the plan.

**Capacity assessment** - An assessment agencies are to include in their strategic plans of the coverage, quality, methods, effectiveness, and independence of the statistics, evaluation, research, and analysis efforts of the agency.

2 Select the appropriate techniques, methods, and tools



**Techniques, methods, and tools**  
Cost-benefit analysis  
Cost-effectiveness analysis  
Process evaluation  
Outcome evaluation  
Impact evaluation

**Formative** - An evaluation that is conducted when researchers want to examine the extent to which a program is being implemented as intended, producing expected outputs, or could be improved.

**Needs assessment** - An evaluation, often used for formative purposes, designed to understand the resources required for a program to achieve its goals.

**Process evaluation** - Often used for formative purposes, an evaluation that assesses the extent to which essential program elements are in place and conform to statutory and regulatory requirements, program design, professional standards, or customer expectations.

**Summative** - An evaluation that is conducted when researchers want to determine the extent to which a program has achieved certain goals, outcomes, or impacts.

**Cost-benefit analysis** - A method of identifying and comparing relevant quantitative and qualitative costs and benefits associated with a program or activity, usually expressed in monetary terms.

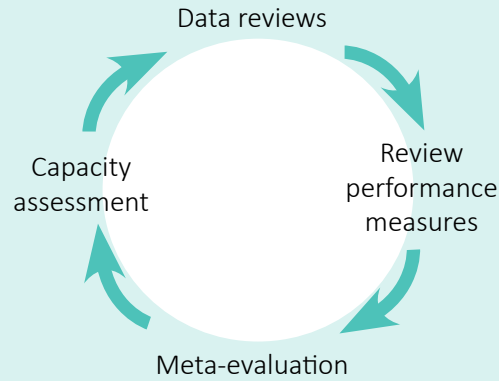
**Cost-effectiveness analysis** - A method of identifying the cost of achieving a single goal, nonmonetary outcome, or objective, which can be used to identify the least costly alternatives for meeting that goal.

**Impact evaluation** - Often used for summative purposes, a type of evaluation that focuses on assessing the impact of a program or aspect of a program on outcomes by estimating what would have happened in the absence of the program or aspect of the program.

**Outcome evaluation** - Often used for summative purposes, a type of evaluation that assesses the extent to which a program has achieved certain objectives, and how the program achieved these objectives.

**3** Build a culture of continuous learning

**Evaluate the quality of evidence periodically**



**Commit to certain quality principles**



**Transparency** - This is achieved when all phases of the evaluation are available for review and critique by interested parties.

**Ethics** - This is achieved when the evaluation safeguards such things as the dignity, rights, safety, and privacy of evaluation participants and stakeholders.

**Independence** - This is achieved when the conduct and use of an evaluation are free from the undue control, influence, and bias of stakeholders.

**Relevance** - This is achieved when the evaluation addresses the most critical questions identified by key stakeholders and can be leveraged for decision-making, program improvement, and program learning.

**Rigor** - This is achieved when the data collection, analytical methods, and interpretations employed are valid, reliable, and appropriate given the research question(s).

This is a work of the U.S. government and is not subject to copyright protection in the United States. The published product may be reproduced and distributed in its entirety without further permission from GAO. However, because this work may contain copyrighted images or other material, permission from the copyright holder may be necessary if you wish to reproduce this material separately.

## GAO's mission

The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

## Obtaining copies of GAO reports and testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through our website. Each weekday afternoon, GAO posts on its [website](#) newly released reports, testimony, and correspondence. You can also [subscribe](#) to GAO's email updates to receive notification of newly posted products.

## Order by phone

The price of each GAO publication reflects GAO's actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO's website, <https://www.gao.gov/ordering.htm>.

Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537.

Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information.

## Connect with GAO

Connect with GAO on [Facebook](#), [Flickr](#), [Twitter](#), and [YouTube](#). Subscribe to our [RSS Feeds](#) or [Email Updates](#). Listen to our [Podcasts](#). Visit GAO on the web at [www.gao.gov](http://www.gao.gov).

## To report fraud, waste, and abuse in federal programs

Contact FraudNet website: <https://www.gao.gov/about/what-gao-does/fraudnet>. Automated answering system: (800) 424-5454 or (202) 512-7700

## Congressional Relations

**Orice Williams Brown**, Managing Director, [WilliamsO@gao.gov](mailto:WilliamsO@gao.gov), (202) 512-4400, U.S. Government Accountability Office, 441 G Street NW, Room 7125, Washington, DC 20548

## Public Affairs

**Chuck Young**, Managing Director, [youngc1@gao.gov](mailto:youngc1@gao.gov), (202) 512-4800 U.S. Government Accountability Office, 441 G Street NW, Room 7149 Washington, DC 20548

## Strategic Planning and External Liaison

**Stephen J. Sanford**, Acting Managing Director, [spel@gao.gov](mailto:spel@gao.gov), (202) 512-4707 U.S. Government Accountability Office, 441 G Street NW, Room 7814, Washington, DC 20548



**GAO@100**

A Century of Non-Partisan Fact-Based Work