



Center for Transportation Analysis
Research Capabilities Brief
Oak Ridge National Laboratory

Program Performance Metrics

Center for Transportation Analysis
(CTA) Research Capabilities

Asset Management
Economic Modeling
Geographic Information Systems
Program Performance Metrics
Remote Sensing
Simulation Analysis
Statistical Analysis
Supply Chain Analysis
Transportation Decision Support Systems
Transportation Network Routing Models

Program evaluation is not new; nor is it going away. President Lyndon Johnson's "Planning, Programming & Budgeting System" is still used by the Pentagon; Nixon's "Management by Objective" identified goals and results and eliminated redundancies; Carter's "Zero-Based Budgeting" forced programs to prove their value each

which components within their programs work and which do not.

Why are metrics important?

A results-oriented government requires accountability. Goals must be quantifiable, measurable, and outcome oriented.

What are the benefits of program evaluation?

Testing and evaluation are means of measuring success. Evaluations come in many formats and have various purposes – e.g., cost-benefit analyses, needs assessments, process evaluations, and impact analyses. Program evaluation measures how well a program is meeting one or more specific program goals.

An outcomes-based program evaluation includes an identification of the objectives and goals of the program, a set of criteria that will be used to measure success, and an assessment methodology. The methodology may include analyses of existing data or information; it may require additional data collection using surveys, interviews, or focus group discussions.

"Program evaluation means an assessment, through objective measurement and systematic analysis, of the manner and extent to which Federal programs achieve intended objectives."

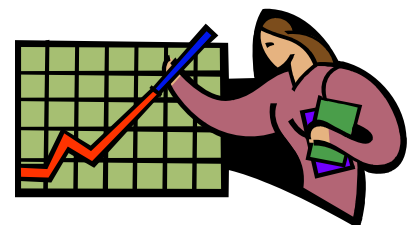
Government Performance Results Act
of 1993

year; and Clinton's "Reinventing Government" made government cost less and do more. Bush's "Program Assessment Rating Tool" (PART) is the culmination of prior efforts to develop tools for measuring program value.

"The PART [Program Assessment Rating Tool] establishes a high, "good government" standard of performance and will be used to rate programs in an open, public fashion."

Office of Management and Budget,
October 2003

Upper-level managers are not the only beneficiaries of this effort; program managers can use these metrics techniques to determine



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Program evaluation assists managers in identifying Best Practices and pin-pointing areas that are not meeting the program's objectives. A program evaluation will provide recommendations for program improvements that enhance effectiveness and increase efficiency. One important benefit is the in-depth attention paid to over-arching goals away from the distractions of day-to-day processes. Through program evaluation, managers identify steps to trim waste and improve a program's impact on its ultimate goal.

What can ORNL do for you?

- Develop criteria for assessment.
- Analyze existing data.
- Design, conduct, and analyze results from surveys and focus groups.
- Identify best practices.
- Document results in the form of charts, tables, and text.
- Provide recommendations for improvement.



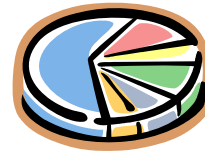
What experience does ORNL have in conducting performance evaluations?

CTA personnel have completed training requirements for the Institutional Review Board's Course in the Protection of Human Subjects. Two full-time CTA statisticians work in the field of program evaluation. In addition, ORNL has conducted evaluations for the following government agencies:

Department of Energy

- Annual Metrics Evaluations for the BestPractices Program of the Industrial Technologies Program, beginning in FY01.
- On-going (since 1997) Evaluations for the Industrial Assessment Center Program.

- Web-based Toolbox for Deployment Program Evaluation.
- Estimation of the Benefits of Government-Sponsored R&D Programs.
- State Energy Program Metrics Development and Evaluation.
- Weatherization Assistance Program Evaluations.
- Evaluation of Program Synergies for the New York State Energy Research and Development Authority.
- Evaluation of the Benefits and Costs of the Automotive Lightweighting Materials Programs.
- Knowledge and Opinions Surveys for the Baseline Knowledge Assessment of the Hydrogen, Fuel Cells, and Infrastructure Technologies Program.



Department of Defense

- Evaluation plan, test sets, and qualification testing for the Worldwide Port System (1994).

Department of Transportation

- Federal Highway Administration, Evaluations of Intelligent Transportation Systems.
- Federal Motor Carrier Safety Administration, Program Evaluations of the Commercial Driver's License (CDL) Program, SafeStat Program, Carrier Inspection Programs, and Enforcement Programs.
- Federal Motor Carrier Safety Administration, Surveys of Divisions, States, and Service Centers regarding the CDL Program.

Transportation Research Board

- D2063: NCHRP Project Panel on Performance Measurement System and Tool Box for Research Programs and Projects.