

COST ANALYSIS: FREQUENTLY ASKED QUESTIONS AND INTRODUCTION TO THE SRAE GRANTEE COST TOOL

This document answers questions SRAE grantees may have about cost analysis and introduces an Excel-based tool that grantees can use to conduct their own cost analysis.

What is a cost analysis?

A cost analysis is the systematic collection, categorization, and analysis of a program's costs. It involves identifying and valuing all resources used to implement a program—for example, all personnel, materials, equipment, space, and other resources needed for program operation.

Common cost measures include the following:

- **Total cost**. The value of all resources needed to implement a program. This includes *fixed costs* that do not change based on the number of youth served (such as rent for office space) and *variable costs* that may change based on the number of youth served (such as supplies for participants or the number of staff needed to implement the program).
- **Average cost.** The cost for implementing the program for one unit, on average—for example, the cost per youth, classroom, or implementation cohort.
- **Marginal cost**. The cost of implementing one additional unit of a program—for example, the additional cost of serving one more youth or of adding one more program component.
- Allocation of cost across resource categories or to program components. The percentage of the total cost that is allocated to a particular type of cost or program component—for example, the percentage of total cost allocated to personnel or the percentage of total cost allocated to program delivery.

Why would grantees conduct a cost analysis?

A cost analysis shows grantees how much it costs to operate their program, which can help with future budgeting and implementation planning. It can also help organizations track costs over time and identify factors, or drivers, that are affecting their costs. By better understanding costs and how they change over time, organizations may be able to develop and implement cost-saving strategies. With cost-saving strategies, grantees may be able to expand programming or serve more youth within their existing budget.

In addition, cost estimates can be combined with program impact and participant data for cost-benefit or cost-effectiveness analyses.¹

What questions can a cost analysis answer?

A cost analysis can answer a range of questions, depending on the interests of the grantee organization. For example:

- What is the total cost to provide the program for one year?
- How much does it cost to provide each program component?
- On average, how much does it cost to serve one youth?
- What is the marginal cost of serving one more youth?
- How much does it cost to start up program implementation?

What should grantees consider before starting a cost analysis?

Before starting a cost analysis, grantees should consider three areas:

- 1. Perspective: whose costs will the analysis measure? Before conducting a cost analysis, one needs to specify the perspective of the analysis. Costs may be viewed from the perspective of the funding agency, the subawardee or implementing organization, the participants, or society, and costs vary by perspective. For instance, a grantee organization may receive funding from multiple organizations to operate the program. Costs to the grantee would include all resources to operate the program (drawing on funding from all sources), while, costs to one funding agency would include only the expenditures related to its funding to the grantee organization (and not funding from other sources). As another example, grantees that oversee subawardee organizations may wish to consider costs from the perspective of the subawardee organizations, which may differ by organization depending on the size and scale of their program implementation.
- 2. Time frame: what time period will the analysis include? A cost analysis may cover all program years (including a planning or pilot period), a span of specific program years, one program year, or a portion of a year. When estimating the costs of providing programming, grantees may focus on the period of steady-state implementation—that is, implementation once the program is fully operational, staff have been trained, and partnerships have been established.
- 3. Scope: will the analysis include all program components or only a subset of components? A cost analysis may assess costs for the entire program or for specific program components. For instance, suppose a grantee operates a program with three components: a classroom intervention, mentoring sessions, and connections to a clinic for health services. If

¹ For more information on types of economic evaluations see Schulte, T., B. Keating, and H. Zaveri. "<u>An Overview of Economic Evaluation Methods</u>." Washington, DC: U.S. Department of Health and Human Services, Office of Adolescent Health, 2016.

the grantee wishes to assess the total cost of program implementation (for all three components), the analysis should include all program components. If the grantee wants to understand the cost of only the classroom intervention, the analysis should include only costs related to implementing that program component (and exclude costs related to mentoring or connections to clinics).

What data do grantees need for a cost analysis?

Cost analysis must capture the value of the resources required to operate the program—namely, actual expenditures (not budgeted amounts) for personnel costs (salaries and fringe benefits), contractor costs, supplies and materials, equipment, facilities, and indirect (overhead) costs. Depending on the selected time frame of the analysis, the analysis may include costs related to training or program start-up.

Along with data on actual expenditures, a cost analysis may rely on additional data (Figure 1). The needed data depends on the questions being answered in the analysis (Table 1). Additional data may include:

- In-kind contributions data: These data capture the value of resources used without a charge (for example, volunteer labor, donated goods, or free space for implementation or training). In-kind contributions can be important to track, because they may change over time or differ by implementing organization. For organizations looking to replicate a program, knowing the value of in-kind contributions received by organizations already implementing the program helps provide a full picture of the cost to implement the program. New organizations may not receive the same resources through in-kind contributions.
- Staff time-use data: These data indicate how much time staff spend on specific activities (such as recruiting or providing services to youth, collecting data, or administering the program) or program components.² They can also help identify how much time staff members spend on the program (if they split their time across programs). These data can be collected through a staff survey, staff time logs, or timesheet accounting. Pairing staff time-use data with cost data can help grantees determine how much it costs to implement an activity or a program component (such as a classroom intervention or mentoring session).
- Participant and implementation data: These data measure information such as the number of youth served or the number of cohorts or classrooms that implemented the program. They can help grantees assess average costs, such as costs per participant or cohort.

² For more information on collecting staff time-use data, including a sample instrument for data collection, see Appendix C in Burwick, A., et al. "Costs of Early Childhood Home Visiting: An Analysis of Programs Implemented in the Supporting Evidence-Based Home Visiting to Prevent Child Maltreatment Initiative." Princeton, NJ: Mathematica, 2014.

Figure 1. Data grantees may use for a cost analysis

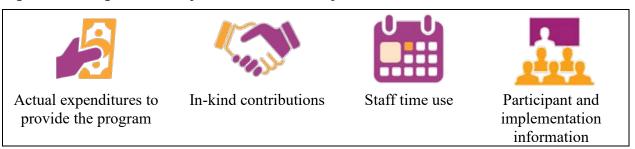


Table 1. Data requirements for sample cost analysis questions

Sample questions	Data on actual expenditures and in-kind contributions*	Data on staff time use	Data on participants and implementation
What is the total cost to provide the program for one year?	X		
What is the total cost to the grantee organization for providing the program for one year?	X		
How much does it cost to provide each program component?	Χ	Χ	
On average, how much does it cost to serve one youth?	Х		Χ
What is the marginal cost of serving one more youth?	Х		Χ
How much does it cost to start up program implementation?	Χ	X	

^{*} Data on in-kind contributions may not be necessary for each question, depending on the perspective and scope of the analysis.

What are the limitations of a cost analysis?

Findings from a cost analysis are limited in their generalizability, particularly when the analysis includes only one program implemented in one organization and one setting. These results may not apply to other programs, settings, or organizations.

A cost analysis also does not provide information about cost effectiveness or whether the benefits of the program outweigh the costs. To answer questions about those topics, grantees must complete additional analyses, such as assessing changes in participant outcomes and program impacts, and quantifying the program benefits (in monetary units).

How can grantees complete a cost analysis?

Before conducting a cost analysis, grantees need systems for tracking and recording the data necessary for the analysis, which could include data on actual expenditures, in-kind

contributions, staff-time use, and participants and implementation. With this data, grantees can compile information for the cost analysis.

The SRAE Grantee Cost Tool provides a template for grantees to collect and calculate costs for their program. The tool includes multiple sheets that each include detailed instructions. In the sheet entitled "Cost Worksheet," grantees can enter their data across eight categories: (1) personnel, (2) supplies, (3) equipment, (4) contracted services, (5) facilities, (6) indirect costs, (7) miscellaneous costs, and (8) in-kind contributions. Combining information in the cost worksheet with information on participants and implementation, the tool will calculate annual total cost, average cost per cohort, average cost per youth, and the percentage of the annual total cost incurred in each category. The tool does not support the collection or analysis of staff time use data.

What questions can grantees use the tool to address?

The tool supports grantees in answering questions such as:

- 1. What is the total cost to provide the program for one year?
- 2. On average, how much does it cost to implement the program to one cohort of youth?
- **3.** On average, how much does it cost to serve one youth?
- **4.** On average, how is the total cost allocated across the resource categories?

Because the tool does not support the collection and analysis of staff time use data, it does not answer questions that require staff time use data, such as questions about the cost of implementing specific program components. In addition, the tool does not calculate the marginal costs of serving one additional youth or adding one additional program component.

What is the intended perspective for cost analysis conducted using the tool?

The tool is organized to collect costs from the perspective of the implementing organization or direct service provider. Therefore, grantees should enter costs incurred by the organization to implement the program. Detailed information on actual expenditures is required to complete the tool, and state-level grantees may want to share the tool with their sub-awardees. The tool also allows grantees to enter the estimated value of any in-kind contributions received.

What is the suggested time frame for cost analysis conducted using the tool?

The tool is designed to capture the costs for one year of program implementation, during a "steady state" of implementation. Organizations can select the year, based on available data and preferences. If grantees are working in a school setting, their costs may vary across the year (for instance, grantees may have more expenditures during the school year if that is primarily when implementation occurs). In the tool, grantees should consider all the costs incurred across the selected year, even if the costs vary for different months of that year. If grantees prefer to assess costs for a different length of time, they can use the tool to help organize their cost data collection. However, the automated calculations in the tool are based on a one-year time frame; calculations may be inaccurate if a different time frame is used.

What is the scope for cost analysis conducted using the tool?

The tool is designed to analyze costs for the full program. Costs for all program components should be captured. Grantees should enter the cost of implementing all aspects of the program during the chosen year.

What are examples of existing cost analyses?

For more information, grantees can reference cost analyses of teen pregnancy prevention programs, including:

- Aos, Steve, Roxanne Lieb, Jim Mayfield, Marna Miller, and Annie Pennucci. "Benefits and Costs of Prevention and Early Intervention Programs for Youth." Olympia, WA: Washington State Institute for Public Policy, 2004.
- Philliber, Susan, Jacqueline Williams Kaye, Scott Herrling, and Emily West. "Preventing Pregnancy and Improving Health Care Access Among Teenagers: An Evaluation of the Children's Aid Society-Carrera Program." *Perspectives on Sexual and Reproductive Health*, vol. 34, no. 5, 2004.
- Rosenthal, Marjorie S., Joseph S. Ross, RoseAnne Bilodeau, Rosemary S. Richter, Jane E. Palley, and Elizabeth H. Bradley. "Economic Evaluation of a Comprehensive Teenage Pregnancy Prevention Program: Pilot Program." *American Journal of Preventive Medicine*, vol. 37, no. 6, 2009.
- Schulte, Theresa, and Brian Goesling. "<u>The Cost of Implementing a Teen Pregnancy Prevention Program in High School Health Classes.</u>" OPRE Report #2019-33. Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research, and Evaluation, 2019.
- Thomas, Adam. "Estimating the Effects and Costs of Three Pregnancy-Prevention Programs." Washington, DC: Brookings Institute, Center on Children and Families, 2011.
- Zaveri, Heather, Theresa Schulte, and Adam Swinburn. "<u>The Cost of Implementing Evidence-Based Programs that Prevent Teen Pregnancy: An Overview of Study Findings.</u>" Washington, DC: U.S. Department of Health and Human Services, Office of Adolescent Health, 2017.