

## Waiver Demonstration

# Cost Evaluation Toolkit

## Introduction and Module A: Program-Level Cost Analysis

December 2017

The Children’s Bureau within the Administration for Children and Families requires jurisdictions with a title IV-E waiver to conduct evaluations of their demonstrations using an independent third-party evaluator. The evaluation must include a [cost](#) evaluation in addition to process and outcome evaluations. This toolkit will help evaluators and program and financial staff to conduct a cost evaluation that meets the waiver requirements.

If you are new to cost evaluation, first review the Children’s Bureau publication *Cost Analysis in Program Evaluation: A Guide for Child Welfare Researchers and Service Providers* (2013) for an overview of the subject. Then use this toolkit for hands-on assistance. For further insight and best practices on economic evaluation, see the National Academies of Sciences, Engineering, and Medicine report *Advancing the Power of Economic Evidence to Inform Investments in Children, Youth, and Families* (2016).

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## Waiver Demonstration Cost Evaluation Toolkit—Introduction and Module A: Program-Level Cost Analysis

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Suggested citation: James Bell Associates. *Waiver demonstration cost evaluation toolkit—Introduction and Module A: Program-level cost analysis*. (2017). Arlington, VA: Author.

This toolkit was developed by James Bell Associates under Contract No. HHSP23320095612WC, Task No. HHSP23337003T. It does not necessarily reflect the views or policies of the Children's Bureau, the Administration for Children and Families, or the U.S. Department of Health and Human Services.





## What Is Cost Analysis?

Cost analysis is a way of understanding how resources are used. For child welfare stakeholders, it can provide information about the value of resources used to deliver services along the continuum of child welfare programs, from prevention to permanency (Children’s Bureau, 2013).

### Using This Toolkit

The toolkit contains four interrelated modules. Each module is divided into steps.

The appendix provides tools such as worksheets and spreadsheets, resources, a glossary, and frequently asked questions (FAQs).

Some of the tools are presented with mock data from a fictitious waiver program, “Wilson County,” to illustrate their use.

### Toolkit Objectives

This toolkit will help users to—

- ⚙ Consider the strengths and weaknesses of each type of cost analysis in relation to the need for cost information
- ⚙ Understand options for conducting each type of cost analysis with different levels of resources
- ⚙ Plan the cost evaluation
- ⚙ Collect data on labor and other cost categories
- ⚙ Analyze costs within the limitations of the selected type of cost analysis
- ⚙ Synthesize and report analysis findings

#### Module A

Program-Level Cost Analysis

#### Module B

Case-Level Cost Analysis

#### Module C

Cost-Effectiveness Analysis

#### Module D

Benefit-Cost Analysis and  
Return on Investment Analysis

Throughout the toolkit, click on links to navigate to tools, FAQs, and glossary terms in the appendix.



## Getting Started: Selecting a Cost Analysis Type
























This toolkit includes four types of cost analysis that are appropriate for use in child welfare programs ([FAQ 0.1](#)). Jurisdictions are not required to conduct a particular type of cost analysis. They can choose one or more based on their research question(s), available data, and resources.

- ⚙️ ***Program-level cost analysis***: This most basic cost analysis captures program-level costs by expenditure category and program activity type, either at a point in time or over a designated period (e.g., cost of operating an evidence-based child neglect prevention program over 1 year).
- ⚙️ ***Case-level cost analysis***: This analysis allocates program-level costs to individual cases (e.g., cost per case of foster care among children with different backgrounds).
- ⚙️ ***Cost-effectiveness analysis***: This analysis examines the relationship between a program's costs and a relevant unit of program effectiveness. For example, a cost-effectiveness analysis might assess a program's cost per case of child maltreatment prevented (Children's Bureau, 2013).
- ⚙️ ***Benefit-cost analysis* and *return on investment analysis (ROI)***: These analyses are similar but they structure their results differently. Benefit-cost analysis quantifies program benefits in monetary terms and assesses whether they exceed program costs (Children's Bureau, 2013). For example, a benefit-cost analysis could compare the costs of two parenting programs for reunifying families versus their benefits in avoided costs associated with reentry into foster care. ROI compares program net costs and outcomes in dollars; the comparison is expressed as the percentage gained or lost. For example, an ROI analysis could compare two parenting programs for reunifying families whose returns are avoided costs associated with reentry into foster care minus the program's costs—with one program returning an additional 15 percent of the costs and the other returning 22 percent.

The *Cost Analysis Decision Guide* ([Tool 0.1](#)) provides details on what to consider when choosing a cost analysis type. All types must start with a program-level analysis, which is the least intensive type. For cost-effectiveness, benefit-cost, and ROI analyses, it is helpful to conduct a case-level analysis following the program-level analysis. Your research questions will determine which cost analysis type is most appropriate, as illustrated in exhibit 1 ([FAQ 0.2](#)).

Before you begin a program-level analysis, decide how far you want to go from there. Do you want to go on to case-level, cost-effectiveness, or benefit-cost/ROI? There are advantages to making this decision early. Case-level analysis builds on the work done in program-level analysis, and cost-effectiveness and benefit-cost/ROI analyses build on case-level analysis. Doing program-level and case-level analyses concurrently, for example, saves time because you do not have to go back and update your program-level costs for the case-level analysis. Collecting the outcome data for effects (cost-effectiveness analysis) and benefits (benefit-cost analysis/ROI) during case-level analysis reduces the data gathering effort.

## Exhibit 1. Selecting a Cost Analysis Type

Cost Research Question	Program-Level	Case-Level	Cost-Effectiveness	Benefit-Cost/ROI
How much would it cost to sustain the program after the current funding ends?				
How much would it cost to expand the program by 25 percent?				
Have program costs increased or decreased over time?				
How much would it cost to add 100 cases per year?				
How much does the organization spend per case on service delivery activities?				
Did cost per case change after new policies were instituted?				
What is the program's cost per case of child maltreatment prevented?				
Which of two parenting programs for reunifying families costs less, based on the programs' costs versus their benefits in avoided costs associated with reentry into foster care?				



# **Module A**

## **Program-Level Cost Analysis**

## Navigating Module A: Program-Level Cost Analysis

Program-level cost analysis is the foundation for other types of cost analysis. It will help you understand your program's spending patterns over time and provide the program activity costs needed for other types of cost analysis. This module describes a five-step process for planning, implementing, and reporting on a program-level cost analysis:



### **Step 1: Preplanning**



### **Step 2: Data Collection Planning**



### **Step 3: Data Collection**



### **Step 4: Analysis**



### **Step 5: Reporting**



# Step 1: Preplanning

Once you have identified the program you will evaluate, use the *Cost Analysis Preplanning Worksheet* ([Tool A-1.1](#)) to move through preplanning. This will involve forming the evaluation team, considering audience expectations, defining the research questions and evaluation parameters, and assessing available resources. You will then have the information you need to plan data collection (step 2).

**If you are planning to conduct a concurrent case-level cost analysis, you will save time by doing the preplanning for both at the same time.**

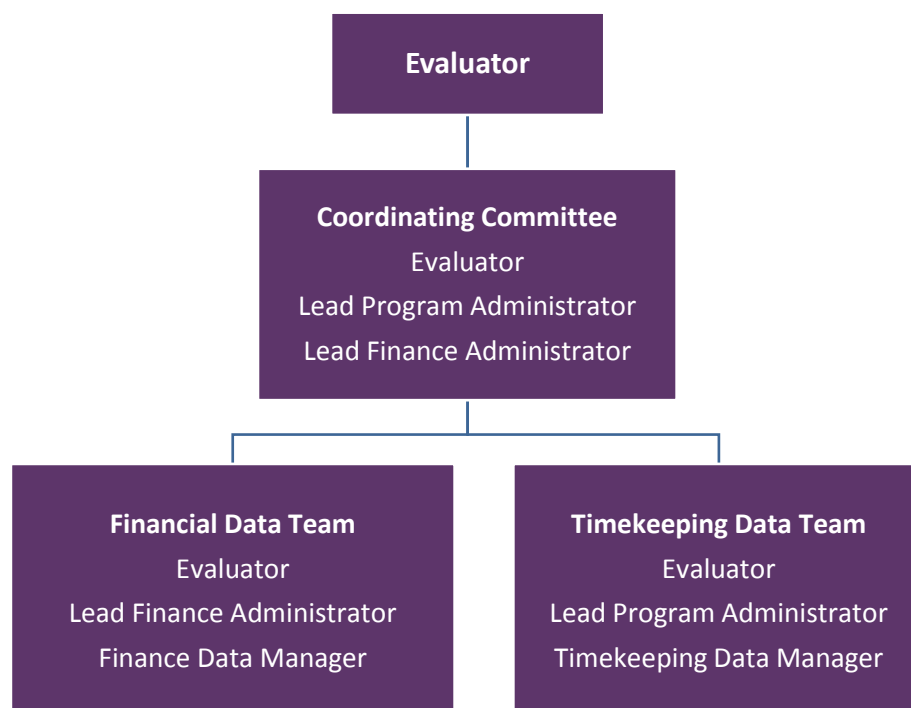


## Form Cost Evaluation Team

The evaluator will assemble and lead the cost evaluation team. This toolkit uses “the evaluator” to mean whomever the program has engaged to conduct the evaluation, whether that is an individual or a group.

Program and administrative staff will work alongside the evaluator as part of the evaluation team. Include on the team a lead program administrator and a lead finance administrator. They should have strong knowledge of the program’s activities and administrative and financial systems, and the authority to navigate roadblocks to accessing data. Also designate a staff member to serve as finance data manager and another to serve as timekeeping data manager. They should be able to ensure good communication, keep everyone on schedule, and provide quality assurance ([FAQ A-1.1](#)). See exhibit 2 for a suggested cost evaluation team structure.

### Exhibit 2. Cost Evaluation Team



## Consider Audience Expectations

Who will use the findings, and how? Funders and policymakers may use the information to decide whether to continue to support the program, while program leadership and managers may use it to increase efficiency. The audience, in part, will guide the research questions and evaluation parameters ([FAQ A-1.2](#)).

## Define Research Questions

Construct clear research questions that will guide the evaluation. You can adjust them throughout the preplanning stage. Examples are below.

- 1 What are the overall costs of delivering the program?
- 2 What are the direct costs of delivering the program?
- 3 What is the distribution of costs across different program activity types?  
What is the largest cost?
- 4 How do client-related expenditures change over time?
- 5 How are labor hours used to deliver the program?
- 6 How do the expenditures on specific program activities change over time?
- 7 What is the proportion of indirect costs to direct costs?
- 8 What is the proportion of expenditures for activities conducted with the client compared to those conducted on behalf of the client?
- 9 What is the uncertainty around the overall costs of delivering the program?
- 10 What is the uncertainty around the direct costs?

## Define Evaluation Parameters

The evaluation parameters define the limitations on data collection and analysis, so consider them carefully with the following in mind.

### *Perspective*

Who incurs the costs? Is it the organization that operates the program, the agency that funds the program, the clients the program serves, or the community or society? Costs that are important from one perspective may not be important from another. For example, a government agency may want to ignore costs not included in approved contract budgets, while an organization that operates a grant-funded program may want to know the full cost, including costs not covered by the grant ([FAQ A-1.3](#)). A community or societal perspective is the most encompassing, such as the cost of maltreatment recurrence in terms of increased foster care expenditures.

### *Scope*

How is “the program” defined? This could be one component of a larger program, all program components together, or all programs operated by an organization. Analyzing all programs is useful for executive-level decision making but not for staff or funders of just one of the programs.

### *Observation Period*

What is the time frame in which cost data will be collected and analyzed? Remember that the observation period and the program period are not necessarily the same. The observation period can be long or short, depending on resources and the time it takes to show results. For a program like wraparound, that might be more than a year, while a brief parenting program might have an observation period of a few months.

An evaluation may look backward at past data ([retrospective](#)) or forward at data collected during the observation period ([prospective](#)). Evaluations that use retrospective data are simpler and less expensive, but the data may not be as accurate or consistent as prospective data, due in part to staff recall errors. Planning an evaluation that will use prospective data also provides an opportunity to develop data collection protocols that may be more likely to yield results that will answer the research questions. Use prospective data if your resources allow it.

### *Implementation Stage*

Is the program in the exploration, installation, initial implementation, or full implementation stage (Blase, van Dyke, & Fixsen, 2013)? Early stages often involve one-time staff training and coaching; staff develop mastery and build efficiency in later stages. An extended data collection period allows investigation of cost changes as a program progresses through implementation stages. You can conduct a cost analysis during any stage, but make sure you understand and document the stage to help inform the results.

## Assess Available Resources

Aim to design the most rigorous cost analysis that is feasible for you. Consider audience expectations, the research questions, and the evaluation parameters in relation to the following resources.

### *Evaluator*


The evaluator's resources determine the extent of data collection, analysis, and reporting that will be possible. Assess whether the evaluator can support the duration and scope of the evaluation you are considering ([FAQ A-1.4](#)).

### *Acceptable Burden on Program and Administrative Staff*

Staff members serving on the evaluation team will play key roles in coordinating the evaluation and collecting data, and other program and administrative staff will contribute as well. The burden on staff will depend on the data needed and the existing systems. Determine the acceptable level of burden before beginning. ([FAQ A-1.5](#))

### *Existing Systems*

Robust timekeeping and financial systems speed data collection and mean less burden on program and administrative staff. For example, an existing system that allocates staff time consistently and accurately to well-defined program activities will save time and effort during the study.



**The burden on staff will depend on the data needed and the existing systems. Determine the acceptable level of burden before beginning.**



## Step 2: Data Collection Planning

This step builds a solid framework for data collection with the stakeholders who will be most involved in it—frontline staff, supervisors, and financial and administrative staff ([FAQ A-2.1](#)). The financial data team and timekeeping data team will plan data collection, including defining expense categories and program activity types and establishing data collection procedures. Once you have completed all of these tasks, you will have the products you need for step 3, data collection.

The extent of data collection planning depends on evaluation scale, existing definitions of expense categories and activity types, and intended precision of cost measurement. For example, a large evaluation might involve interviews, focus groups, and surveys to define activity types, while a small evaluation might require just one or two meetings with a few knowledgeable staff members.

The data collection procedures and data sources should be described in the evaluation plan. The roles and responsibilities of the evaluator and the organization are typically defined in their contract's scope of work.

## Define Expense Categories

### How precise should your categories be?

That depends on the purpose of your evaluation, your evaluation questions, and the data and resources available to you.

For example, within the total personnel expense category, you can further define classes of labor (level B, such as caseworkers and supervisors) and even individual personnel expense data within a class (level C).

General categories are fine for small evaluations as long as their limitations are acknowledged ([FAQs A-2.8](#) and [A-2.9](#)).

Input from financial staff is key to defining expense categories ([FAQ A-2.2](#)). With their help, the financial data team will identify all the direct and indirect costs of the program—the program “ingredients” (Boulatoff & Jump, 2007; Levin & McEwan, 2001; Plotnick & Deppman, 1999).

[Direct costs](#) solely support the program, while [indirect costs](#) support the entire organization’s infrastructure, such as overhead and payroll. We will address indirect costs in step 3.

Financial accounting systems typically capture expenses in multiple personnel and nonpersonnel categories ([FAQ A-2.3](#)). A chart of accounts, which lists all expense categories or line items, offers a good starting point.

The financial data team can choose to define direct expense categories broadly or precisely, ranging from level A (the most general) to level C (the most precise). At a minimum, there will be two level A direct expense categories ([FAQ A-2.4](#)):

1

Total [personnel](#) aggregates employee compensation (salaries, bonuses, and fringe benefits) and the costs of contract or consultant personnel ([FAQs A-2.5](#) and [A-2.6](#)).

2

Total [nonpersonnel](#) aggregates costs for all other resources, such as direct charges to the program for office space, utilities, materials and supplies, travel and local transportation, contractual services other than contract workers and consultants, and equipment ([FAQ A-2.7](#)).

## Define Program Activity Types

Does your program already have well-defined activity types? Most don't. A focus group with program staff will help the timekeeping data team define activity types ([Tool A-2.1](#)). (If you are conducting a concurrent case-level cost analysis, use the more detailed version of the focus group protocol in module B. Having the same activity types for both analyses will reduce your case-level cost analysis burden.)

**A focus group with program staff will help the timekeeping data team define activity types.**

Similar to expense categories, you may choose up to three levels of precision ranging from A (the most general) to C (the most precise), as illustrated in the *Activity Type Definition Worksheet* ([Tool A-2.2](#)). Again, at a minimum, use the two level A types: client service delivery and program management and administration. The use of level B (activities conducted with client and activities conducted on behalf of client) and level C (e.g., advocate with client) depends on your evaluation purpose, data, and resources ([FAQ A-2.10](#)). Some questions may need a high level of precision, while others may not. Don't waste resources by requiring more precision than you will use in your analyses.

As in the worksheet, avoid using jargon or new terms. For example, don't name an activity "peer-led parenting skill group" if staff know it as "Monday Afternoon Group." Keep the existing name; the evaluator can later classify the activity as peer-led for analysis purposes.

When defining activity types, make sure they are—

### *Totally inclusive*

The activity types should encompass all labor by all program personnel. It is often useful to include an "other" activity type to ensure this.

### *Mutually exclusive*

There should be no overlap in activity type definitions.

### *Understandable*

All staff should share a common understanding of the definitions and be able to apply them ([FAQ A-2.11](#)).

### *Meaningful*

Combine activity types that account for small proportions of program labor (5 percent or less) ([FAQ A-2.12](#)).

## Establish Procedures to Collect Expense Data

Expense data are usually already available in the organization's financial and accounting systems, but the financial data team may need to resolve problems such as incompatibility between systems. Establish procedures, responsibilities, and a schedule for transferring the data into the proper expense categories. The expense data section of the *Data Collection Checklist* ([Tool A-2.3](#)) contains guidance for establishing expense data collection and quality assurance (QA) procedures.


## Establish Procedures to Collect Timekeeping Data

Most programs have good financial and accounting systems, but few have good timekeeping systems. The timekeeping data team and program staff will need to assign labor hours to activity types either concurrently (through daily, weekly, or at most monthly timekeeping logs) or later (through estimates made at least monthly). In both methods, you will assign labor hours to the activity types you have already defined.

Tracking time by activity type concurrently, or more or less as it happens, takes more time but is more accurate, despite some risk of staff errors. Ideally, use logs to record all time daily, coded by activity type—including labor by staff, contract workers, and consultants ([FAQs A-2.13](#) and [A-2.14](#)).

If it is too great a burden on staff to assign labor hours to activity types concurrently, you can instead assign them later. Record program activities by type as they occur, and then have staff complete individual timekeeping surveys at the end of each week or month. Alternatively, have groups of staff meet each month to estimate the labor spent on activities. Group estimates are less accurate than other methods but can work with small groups that make consistent estimates. The evaluator should be aware of the limitations of each approach ([FAQs A-2.15](#) and [A-2.16](#)).

The timekeeping data section of the *Data Collection Checklist* ([Tool A-2.3](#)) contains guidance for establishing timekeeping data collection and QA procedures. With expense categories and activity types defined and data collection procedures established, you are ready to move on to step 3.



**The timekeeping data team and program staff will need to assign labor hours to activity types.**





# Step 3: Data Collection

Step 3 will build a master cost data file using the data collection instruments and procedures developed in step 2 ([Tools A-3.2](#) and [A-3.4](#)). The data file will contain a mix of raw timekeeping and expense data and constructed variables such as compensation rates, labor hours and their costs, and [indirect cost rates](#). The evaluation team will collect data, perform QA, and allocate and summarize expenses.

**Data collection is a dynamic process, and the plan created in step 2 may require adaptations as you go. For example, as training for a new program decreases over time, combine it with another activity type.**

## Begin Data Collection

The evaluator, finance data manager, and timekeeping data manager should provide initial training to staff. That includes the program staff who will be tracking their time and the administrative and financial staff who will be tracking other expenses. Combine written instructions with training delivered in person or through teleconferences or Webinars, which are especially useful for organizations with multiple sites or high turnover. Plan for supplemental group training and individual technical assistance throughout the data collection period to prepare new staff or to address QA issues.

Data collection proceeds on a schedule along two tracks. First, the timekeeping data team and program staff create timekeeping records, often using spreadsheets ([Tool A-3.1](#)). Second, the financial data team collects expense data ([Tool A-3.3](#)). If time permits, a small pilot data collection can help fine-tune the plan.


## Monitoring and Quality Assurance

The first submission of raw timekeeping and expense data marks the start of monitoring and QA. First the data managers and then the evaluator will review the data and conduct QA tasks as planned in step 2. Address systematic omissions quickly—for example, a section missing from most timekeeping logs. Check for logic errors, typos, and inconsistencies ([FAQs A-3.1–A-3.3](#)). Throughout the evaluation, ensure that the

activity type and expense category definitions established in step 2 are applied consistently ([FAQ A-3.4](#)). Once QA has been completed, the evaluator will enter the data into the master data file.

The data managers and the evaluator should log each batch of data as it is received, moved through QA, and entered into the master file. Large-scale evaluations may need a more complex data management system.

QA may require substantial team effort, but it is essential to ensure accurate data. Without it, your findings and policy recommendations may be flawed.



**QA may require  
substantial team  
effort, but it is  
essential to ensure  
accurate data.**

## Expense Allocations and Summaries

Following QA, the evaluator will allocate expenses across activity types. Two tools will help: the *Monthly Timekeeping Summary* ([Tool A-3.2](#)) and the *Monthly Expense Summary* ([Tool A-3.4](#)).

The *Monthly Timekeeping Summary* ([Tool A-3.2](#)) breaks down all the program staff hours into the activity types defined in step 2. Staff are in rows, and activity types are in columns. Note the following, based on the example provided for the fictitious Wilson County waiver program:

- ⚙ Program staff with similar duties are grouped. Case managers and social work interns reported the same allocations across activity types.
- ⚙ Total monthly hours (column V) are used to check that all time is allocated, including for part-time interns ([FAQ A-3.5](#)).
- ⚙ The program director is involved in both direct and indirect activities, so time is recorded in several activity types: client service delivery (direct), program management and administration (direct), and general administration (indirect).
- ⚙ Several activity types fall below the 5 percent criterion for “meaningful” suggested in step 2. If this pattern persists, the team could merge some activity types—for example, research and training.

Next, the evaluator will use the *Monthly Expense Summary* ([Tool A-3.4](#)) to allocate expenses across activity types to show how dollars are being spent. Personnel and nonpersonnel expenses are in rows, and activity types are in columns ([FAQs A-3.6](#) and [A-3.7](#)). Tool A-3.4 is not shown with mock data due to space restrictions. Note the following:

- ⚙ The spreadsheet calculates the dollar value of time for each activity type based on the number of hours recorded on the *Monthly Timekeeping Summary*.
- ⚙ Nonpersonnel expenses are allocated proportionally across activity types.
- ⚙ The spreadsheet provides a row total for the activity category subtotals to ensure all costs have been allocated.
- ⚙ The program director’s compensation expenses are divided between indirect and direct activities.

Program stakeholders often want to understand the full cost of the program and of each program activity, which means allocating indirect costs using an [indirect cost rate](#) (ICR). Wilson County has just one program and no established ICR. Find the ICR by dividing total indirect expenditures by total direct expenditures:

$$ICR = \frac{\text{Total Indirect Expenditures}}{\text{Total Direct Expenditures}}$$

Application of this formula for the Wilson County program would yield an ICR of 35 percent. The structure of the *Monthly Expense Summary* would be modified for an organization with a different structure (i.e., multiple programs and/or an established indirect cost rate) ([FAQ A-3.8](#)). Keep the completed *Monthly Expense Summary* in the master data file to include in later analyses as more data accumulate.



## Step 4: Analysis

In collaboration with program staff, the evaluator will analyze all “cleaned” expense and timekeeping data for the observation period ([FAQ A-4.1](#)). The analysis will begin with estimated total and program expenditures and then become more focused. The evaluator will use the results to answer the research questions formed in step 1. Last, the evaluator will conduct [sensitivity analyses](#) to test the robustness of the estimates.

The examples below stay within the limitations of the mock financial data created for the Wilson County program in step 3; the data are not shown in Tool A-3.2 due to space limitations ([FAQs A-4.2](#) and [A-4.3](#)).

## Estimate Total Expenditures

The *Monthly Expense Summary* ([Tool A-3.4](#)) covers five types of total expenditures, with some as subtotals of the others: total [direct personnel expenditures](#) (row 15); total [indirect personnel expenditures](#) (row 18); total personnel expenditures (direct and indirect, row 19); total nonpersonnel expenditures (direct and indirect, row 26); and total monthly expenditures (row 29).

## Estimate Program Expenditures

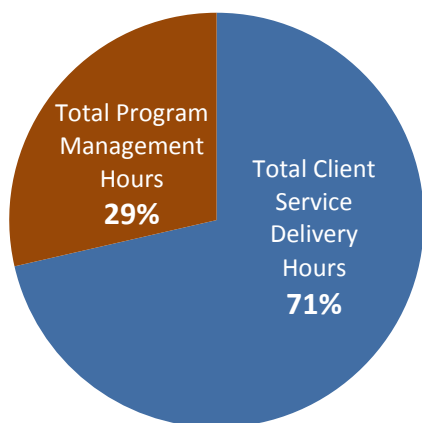
The example illustrated in Tools A-3.2 through A-4.5 for Wilson County focuses on program activities in client service delivery and program management and administration (columns G through T in the *Monthly Expense Summary*, [Tool A-3.4](#)). *Total Expenditures by Program Activity Type* ([Tool A-4.2](#)) includes the nine precise (level C) client service delivery activities, with both direct and indirect costs (rows 15 and 28 respectively of Tool A-3.4). The *Distribution of Client Services Expenditures* ([Tool A-4.3](#)) summarizes the total monthly expenditures for each client service delivery activity.

Other analyses can help you think broadly about where resources are allocated. For example, group the nine client service delivery activities into two level B types: activities conducted with client and activities conducted on behalf of client. You can also group activities into client service delivery and program management and administration. General administration appears in the *Monthly Expense Summary* as a single category, total indirect personnel expenditures (row 18).

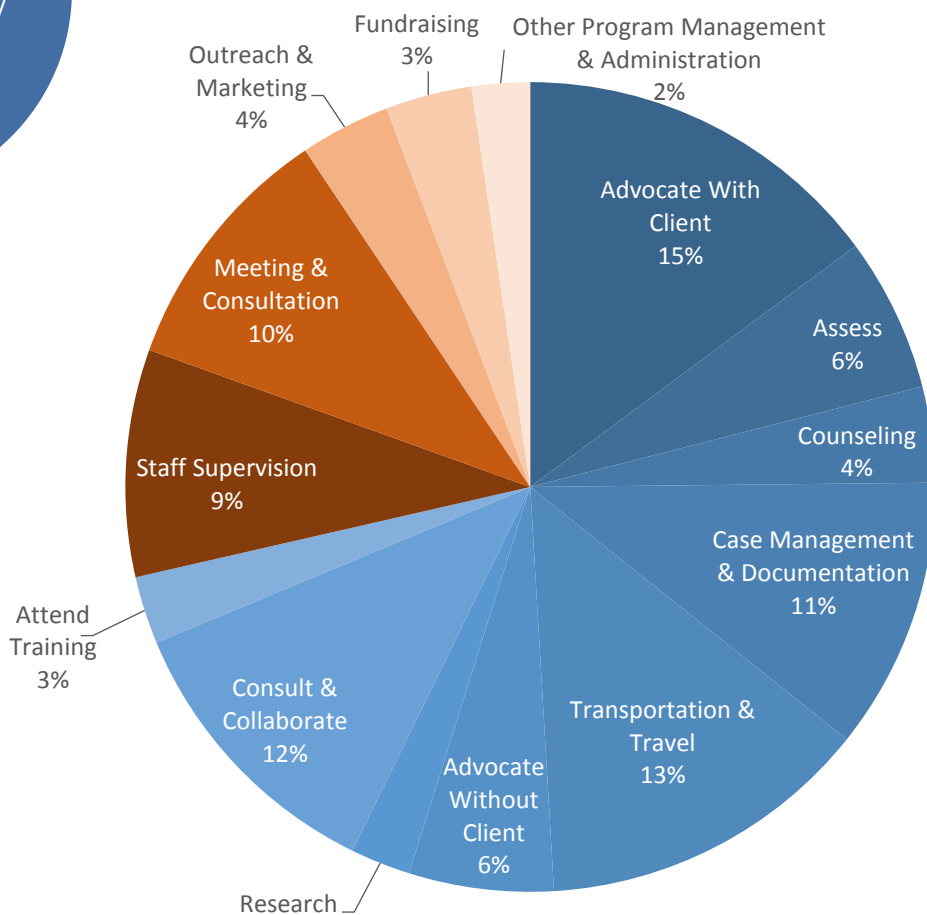
## Estimate Labor Use

*Timekeeping Data Analysis* ([Tool A-4.1](#)) provides two examples of analyses of mock timekeeping data from Wilson County's *Monthly Expense Summary*, including pie charts. The first chart (exhibit 3) shows that client service delivery accounts for most of the personnel hours (71 percent), and program management and administration accounts for the remainder (29 percent). The second chart (exhibit 4) displays the percent of total direct personnel hours for more precise (level C) activity types. The proportions range from a low of 2 percent for research and other program management and administration activities to a high of 15 percent for advocate with client activities. Many analyses can be applied to labor use data.

### **Exhibit 3. Staff Time on Client Services Versus Program Management and Administration**



### **Exhibit 4. Staff Time by Program Activity**



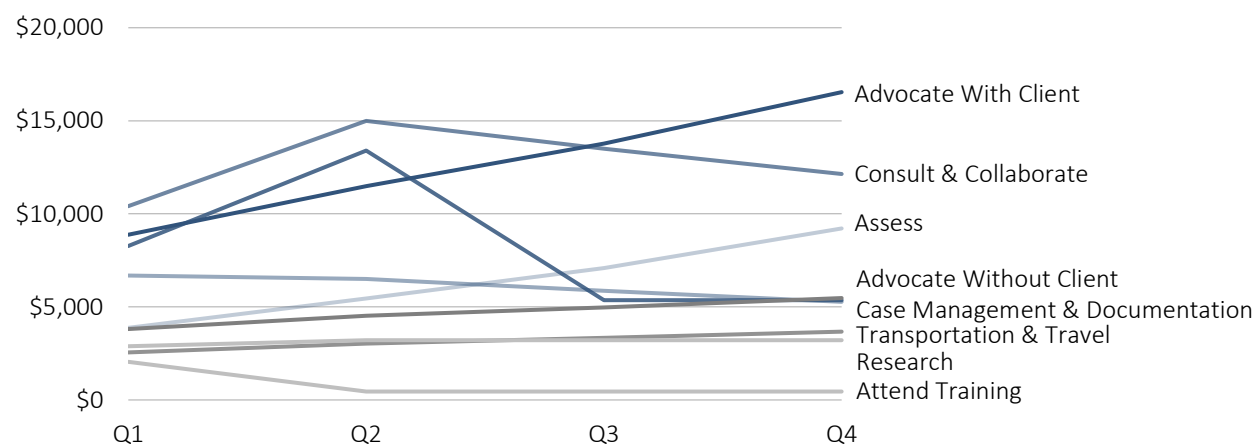
## Develop Distributions and Summary Statistics

The evaluator will design distributions and summary statistics to answer the research questions. Data on program activities can be analyzed quarterly, semiannually, annually, and across years using any of the total expenditures. For example, using the *Monthly Expense Summary* and Microsoft Excel, you can display expenditures across program activities in a pie or bar chart. See *Expenditures for Client Service Delivery Versus Program Management and Administration* ([Tool A-4.4](#)).

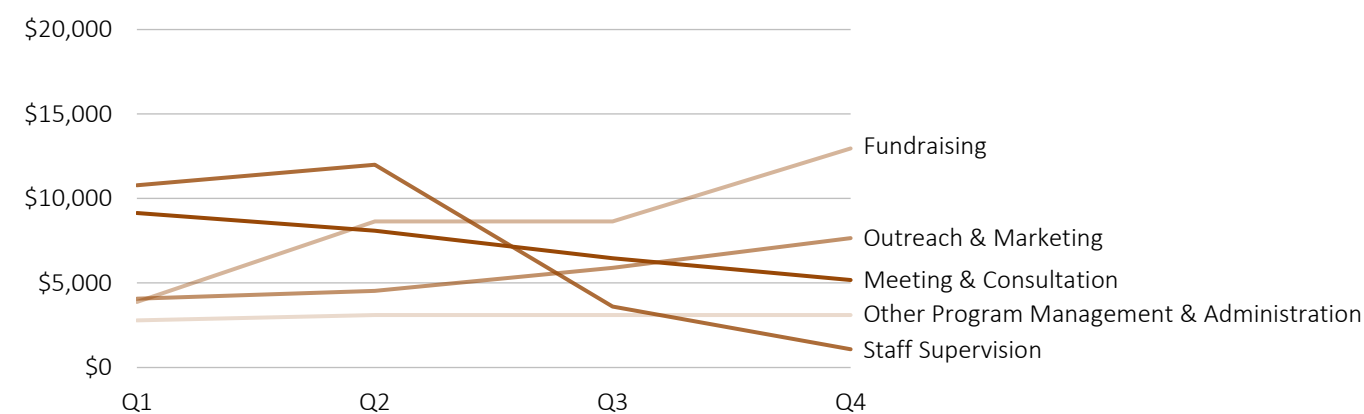
*Program Activities Across Time* ([Tool A-4.5](#)) shows how you can display expenditure patterns with at least 2 months of data. You can calculate the average and median expenditures for each program category. Including the minimum and maximum expenditures will show variability over time. See the example in exhibit 5.

### Exhibit 5. Program Activity Expenditures Across Quarters

#### Client Service Delivery



#### Program Management



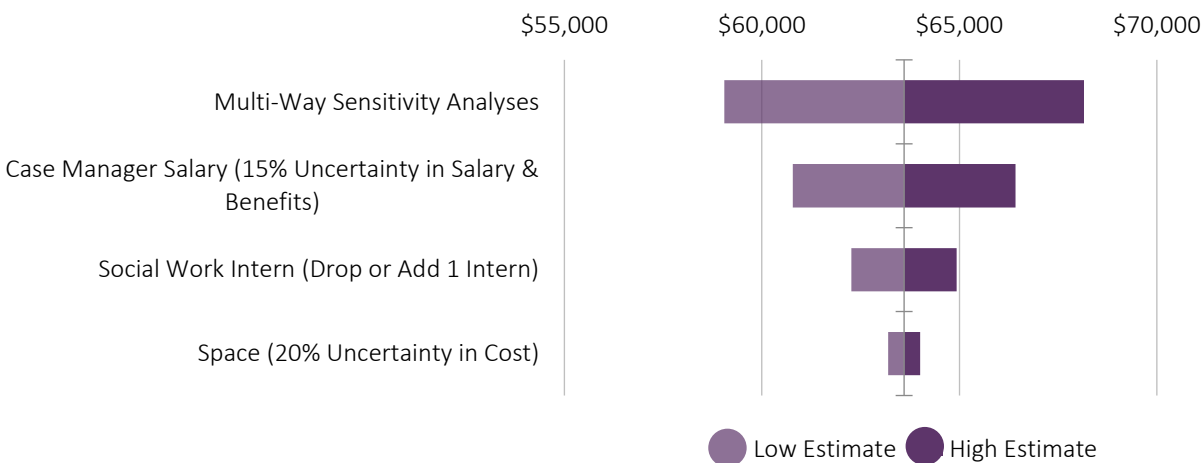
## Conduct Sensitivity Analyses

This toolkit is based on assumptions related to personnel and nonpersonnel expenses. Assumptions can be imprecise, and variations may occur when different assumptions are used. The evaluator will conduct [sensitivity analyses](#) ([Tool A-4.6](#)) that alter those assumptions to see what changes may result. For example, a shortage of qualified clinical supervisors may require increasing the salary to attract candidates for the position.

The evaluator can estimate the impact of a single assumption on costs, known as a one-way sensitivity analysis, or the cumulative impact of multiple assumptions, known as a multiway sensitivity analysis. An “extreme scenario” sensitivity analysis gives best- and worst-case estimates of program costs for each assumption and for all assumptions together. These estimates can then be depicted using a [tornado diagram](#) (see exhibit 6).

**The evaluator will conduct sensitivity analyses that alter assumptions to see what changes may result.**

### Exhibit 6. Impact on Total Expenditures







# Step 5: Reporting

It is important to plan your report's objectives and structure before you begin to write. The content in step 5 can help you develop a thorough report your audience will act upon.

**To customize your report, refer back to the research questions and audience expectations you defined in step 1.**

## Define Report Objectives

Before beginning to write the report, consider the following.

### *Expectations*

The evaluation team should revisit the expectations in step 1 by asking critical questions: Does the analysis answer the research questions? Have the parameters (e.g., scope and perspective) been maintained throughout the evaluation?

### *Audience*

The audience will guide the report's style, content, and organization. The report should focus on the most relevant findings and be clear, concise, and well organized.

Different audiences may require different kinds of reports ([FAQ A-5.1](#)). For example, policymakers may only need general results to make budgeting and other planning decisions. Program managers, on the other hand, may need detailed analyses to inform continuous quality improvement.

### *Content*

How will the results be presented? Develop a draft outline and get feedback from the evaluation team during conference calls or by email. Craft key messages or headlines for the overall report and for each section. Estimate the number of pages in each section. Plan the visual presentation of data using exhibits such as tables, bar graphs, or pie charts.

Report writers can borrow tools from creative writers such as storyboarding. Seeing how the report will reach an effective conclusion can help you develop a storyline with an effective beginning and a meaningful interpretation of the findings.

**Develop a draft outline and get feedback from the evaluation team during conference calls or by email.**

### *Format*

For audiences like policymakers, a briefing using PowerPoint, either in person or via Webinar, may be the only required reporting. A briefing could also supplement a traditional report or replace an executive summary.

### *Timeline*

Report writing is an iterative process. Develop a timeline that allows for review, revisions, editing, and formatting. Save drafts with naming conventions to ensure version control.

## Develop Report Outline

Use the *Sample Cost Evaluation Report Outline* ([Tool A-5.1](#)) as a starting point. Your evaluation may require more or fewer elements, depending on its complexity.

### *Executive Summary*

Keep this section to about five pages, summarizing the major findings and policy implications.

### *Introduction*

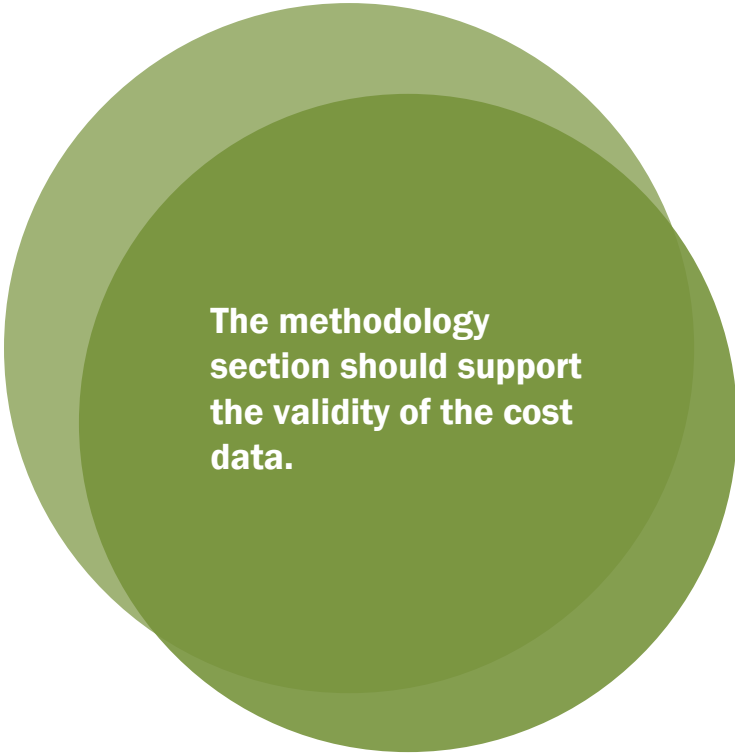
The level of background information needed will depend on the audience's familiarity with the program and with cost evaluation.

### *Methodology*

The methodology section should support the validity of the cost data: how costs were defined, what data sources were used, how costs were gathered and recorded, how data were aggregated, and what methods were used to analyze the data. Some of this information could be referenced here but placed in an appendix.

### *Results*

The report's usefulness to its audience will be determined by how well the findings are presented. The results should be structured as a narrative, progressing from simple descriptive data to more complex analyses. The conclusion should contain a concise answer to the research questions and discuss any policy implications.



**The methodology section should support the validity of the cost data.**

# **Appendix A: Tools**

Tool 0.1. Cost Analysis Decision Guide

This matrix provides an overview of alternatives for conducting a cost analysis in child welfare and other human service program settings, including criteria for selecting an approach that is useful and feasible. For more information, see the Children’s Bureau monograph *Cost Analysis in Program Evaluation: A Guide for Child Welfare Researchers and Service Providers*, available at: <http://www.acf.hhs.gov/programs/cb/resource/cost-workgroup>.

Description	Program-Level Cost Analysis	Case-Level Cost Analysis	Cost-Effectiveness Analysis	Benefit-Cost (BCA) & Return on Investment (ROI) Analyses
	<ul style="list-style-type: none"><li>Point-in-time or longitudinal reporting of aggregate data in programmatically meaningful cost/expenditure categories</li></ul>	<ul style="list-style-type: none"><li>Distinguishes and reports program costs and activities for an individual or case (e.g., family unit)</li></ul>	<ul style="list-style-type: none"><li>Compares two or more programs/interventions on costs and effectiveness</li><li>Effectiveness is measured in terms of person or case-level effect size</li><li>Analysis results in cost per unit of effect (e.g., cost per prevented case of child maltreatment)</li></ul>	<ul style="list-style-type: none"><li>Compare two or more programs/policies in terms of their net costs and benefits/returns—both expressed in monetary units</li><li>Allow for standardized comparison of results across programs/policies with different types of effects</li><li>ROI is expressed as a ratio of net gains or losses divided by investment costs</li></ul>
Uses/Information It Provides	<ul style="list-style-type: none"><li>Understand current spending patterns on major program activity types and changes over time</li></ul>	<ul style="list-style-type: none"><li>Understand current spending patterns, labor use, and changes over time</li><li>Manage existing resources</li></ul>	<ul style="list-style-type: none"><li>Choose one or more program/intervention options</li><li>Identify cost savings</li><li>Manage existing resources</li></ul>	<ul style="list-style-type: none"><li>Choose one or more program/policy options</li><li>Identify cost savings (BCA) and programs that produce higher returns per dollar expended (ROI)</li></ul>
Level of Technical Knowledge and Skill Required	Low	Medium	Medium/High	High
Personnel Time/Resources Required*	Low/Medium	Medium	Medium/High	High
Level/Scope of Data Collection Required	<ul style="list-style-type: none"><li><b>Low</b>—Can usually be done using existing fiscal/accounting systems for aggregate data on labor use by program categories</li></ul>	<ul style="list-style-type: none"><li><b>Medium</b>—Benefits from a management or accounting information system that links program activities/receipt of services to specific cases</li><li>Usually requires prospective data collection on labor use through time logs, surveys, etc.</li></ul>	<ul style="list-style-type: none"><li><b>Medium/High</b>—Benefits from a management or accounting information system that links program activities/receipt of services to specific cases</li><li>Usually requires prospective data collection on labor use through time logs, surveys, etc.</li><li>Usually benefits from data collection on effects that can be linked to specific cases at more than one point in time</li></ul>	<ul style="list-style-type: none"><li><b>High</b>—Benefits from a management or accounting information system that links program activities/receipt of services to specific cases</li><li>Usually requires prospective data collection on labor use through time logs, surveys, etc.</li><li>Usually requires data on effects that can be linked to specific cases at more than one point in time and expressed as a monetary value</li><li>May require collection of data on a broader range of societal costs (e.g., long-term economic impact of educational achievement)</li></ul>
Case-Level Data Required	No	Yes	Yes	Yes



\* The level of personnel time/resources required is relative to other cost analysis options implemented with a similar number of sites and sample sizes.

### **Tool A-1.1. Cost Analysis Preplanning Worksheet: Wilson County**

Complete this tool as you move through preplanning as described in step 1.

1. **Target Program:** Wilson County Waiver Demonstration Program

2. **Cost Evaluation Team**

Team Member	Estimated Time Commitment	Planning Notes
<b>Evaluator</b>	30 hours per month for 15 months	Consultant, affiliated with local university
<b>Lead Program Administrator</b>	8 hours per month for 15 months	Director of Department for Children and Families, Wilson County Program Director
<b>Lead Finance Administrator</b>	8 hours per month for 15 months	Director of Administration and/or Finance, Wilson County Program Director
<b>Finance Data Manager</b>	12 hours per month for 15 months	Financial or IT staff
<b>Timekeeping Data Manager</b>	12 hours per month for 15 months	Program frontline staff supervisor

3. **Audience:** Who needs the information and how will it be used? The Children’s Bureau (waiver funder) is one audience; evaluation is a funding requirement. The report should also be relevant to decision makers considering sustaining the program and possibly to program management staff.

4. **Research Question:** What is the monthly and annual cost of the Wilson County program during a period of full implementation?

5. **Evaluation Parameters**

Evaluation Parameter	Questions To Ask	Possible Responses	Planning Notes
<b>Perspective</b>	Who incurs the costs?	Funder, government, service provider, implementing agency, client, society	Agency perspective
<b>Scope</b>	What is the “program” being evaluated?	Program component, single program, multiple programs	Single program

Evaluation Parameter	Questions To Ask	Possible Responses	Planning Notes
<b>Observation Period</b>	When is the period of analysis?  Is the observation period in the past, present, or future?	Funding period, intervention duration, fiscal year	12 month, prospective study
<b>Implementation Stage*</b>	In what implementation stage is the target program?	Exploration, installation, initial implementation, full implementation	Full implementation

## 6. Available Resources

Resource Parameter	Questions to Ask	Planning Notes
<b>Evaluator</b>	How much time will the evaluator need to spend on the evaluation?	The evaluator will need to spend 30 hours per month for 15 months on the evaluation.
<b>Acceptable Burden on Program and Administrative Staff</b>	How much time will the staff on the evaluation team need to spend on the evaluation? What other program and administrative staff will be required to participate? What is the acceptable amount of labor they may contribute?	Excluding the evaluator, the four staff members serving on the evaluation team will need to spend a combined 40 hours per month for 15 months. For other staff, the Director of the Department for Children and Families has approved an additional 6 combined financial staff hours per month for 12 months and 16 combined direct staff hours per month for 12 months.
<b>Existing Systems</b>	Prospective or retrospective study? How will data be collected? Is the system already in place to collect this data, or does one need to be created or modified?	Data collection is needed to move forward (prospective). The system is already in place to collect some accounting data, and other information will need to be collected from direct staff. Need to think more about the protocol for collecting this information from direct staff in a standardized way.

#### \* Implementation Stages

- Exploration: Examine the degree to which a particular model, program, or plan meets the needs of identified children, youth, and families and examine feasibility of and support for implementing the intervention successfully.
- Installation: Create a hospitable environment for the new way of work by hiring and preparing staff and preparing the organization for the change.
- Initial implementation: Begin providing the new program or service.
- Full implementation: Workers demonstrate skillful practices; practice at all levels reflects changes in policies.

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\* Adapted from the National Implementation Research Network, <http://implementation.fpg.unc.edu>



### **Tool A-2.1. Activity Type Definition Process: Wilson County Caseworker and Supervisor Focus Group Guide**

This tool scripts a focus group meeting with the Wilson County program provider staff that will complete the Final Activity Type Definition Worksheet (Tool A-2.2). Use this script as a model process to develop your own definitions.

#### **Focus Group Meeting**

Introduction (10 minutes)

Lead Facilitator's Scripted Comments: We would like to start off today's discussion by thanking you for agreeing to share your experiences conducting casework and supervision activities under the **Wilson County Waiver program**. My name is **[Focus Group Lead Facilitator]** and with me is my colleague **[Focus Group Facilitator #2]**.

The U.S. Department of Health and Human Services is a Federal agency that funded the **Wilson County waiver program**. We are studying the cost of operating the program and four other projects like it across the country so that child welfare agencies in other jurisdictions will be informed about resource requirements as they consider possibly implementing the program in their jurisdictions. The information you give us also will be used to help make improvements to the **Wilson County waiver program** and future programs like this one and to inform the Federal Government and other jurisdictions regarding the cost of operating an intervention to reduce long-term foster care.

Each of you was selected to be here today because you understand through practical experience the common names and definitions of casework and supervision activities involved in serving and supporting children and families under the **Wilson County waiver program**. You also understand from direct experience how much of your time is needed to carry out casework and supervision activities under the program.

Let me briefly mention some of the procedures for our discussion. Throughout most of the meeting you will work in two small groups composed of caseworkers and supervisors. The discussion will last approximately 4 hours including breaks and will adjourn at **5:00 p.m.** The meeting time will be divided into four exercises: three devoted to the **Wilson County waiver program** casework and supervision activities and one focused on the structure, content, and procedures for completing the Weekly Casework Activity Log and the Weekly Supervision Activity Log.

**[Focus Group Facilitator #2]** and I will ask you questions and to share your thoughts and opinions. Remember, we are here to learn and gather information from you, the experts on the **Wilson County waiver program** casework and supervision. There is no right or wrong answer to the questions we will be asking. Please share your point of view even if it is different from what others have said. We expect that you might have different points of view. You are encouraged to add something to what someone has said or you may want to agree, disagree, or add an example. We are here to ask questions, listen to your insights, and make sure everyone has an opportunity to share knowledge gained through actual experiences. Sometimes you may notice we are shifting the conversation so that other people have a

chance to talk or closing the discussion on a particular topic so we can be sure to cover all the topics on today's agenda. While we are talking, please feel free to ask a question at any time, stand up, or get more refreshments. **[Focus Group Facilitator #2]** and I **[Focus Group Lead Facilitator]** will be recording key points on worksheets and easels and taking notes to help us remember what you said. No names will be included in any of the reports. Anything you say during your involvement in the focus group will be kept confidential and will not be shared with other agency personnel involved in the **Wilson County waiver program**. We also ask you not to discuss what anyone else says outside of this room. If you agree, you will be acknowledged as a "key contributor" in reports and publications on the **Wilson County waiver program** cost evaluation.

Let's begin by having each person in the room tell us his/her name, position title, and how long he/she has been involved with the **Wilson County waiver program**.

### **Exercise A: Names and Definitions of Wilson County Waiver Program Casework and Supervision Activities (60 minutes)**

Step 1: Lead Facilitator Reviews Exercise Aim—Gain agreement on standard names and definitions of **Wilson County waiver program** casework and supervision activities.

Step 2: Caseworkers and supervisors form separate breakout groups. Lead Facilitator reviews and leads a brief discussion of the caseworker breakout group on the general definitions of "direct client service casework" (casework activities that directly involve children and families, such as conducting a meeting with a parent or observing a visitation between parent and child) and "indirect client service casework" (casework activities conducted on behalf of a client's child and family, such as case management documentation/MIS data entry, locating resources, advocating without the client, and caseworker travel). Facilitator #2 reviews and leads a brief discussion of the supervisor breakout group on the general definitions of "individual supervision activities" (supervisory activities conducted with an individual caseworker, such as case status review meetings, coaching sessions, and individualized training) and "group supervision activities" (supervisory activities conducted with multiple caseworkers, such as conducting team meetings).

Step 3: Working in separate breakout groups of caseworkers and supervisors, complete Worksheet A, Names and Definitions of Direct and Indirect Client Service Casework Activities, or Worksheet B, Names and Definitions of Individual and Group Supervision Activities. The columns of Worksheets A and B contain a preliminary listing of the names and short definitions of casework and supervision activities, respectively. These names and short definitions will be developed by the **Wilson County waiver program** Cost Evaluation Team and will have been reviewed and commented upon by participants before the focus group meeting. The Facilitator for each breakout group will ask participants to consider the following for each listed casework or supervision activity:

- a) Does the activity account for more than 10 percent of casework or supervision time in a typical week? [Yes, Not Sure, No] Activities with a "no" response will be eliminated from further consideration during the focus group meeting.
- b) Is the activity name accurate and likely to be understood by other caseworkers or supervisors that work on the **Wilson County waiver program**? [Yes, Not Sure, No] For activities with a "no" or "not sure" response, the Facilitator will lead a discussion on a workable solution: rename the

activity, combine the activity with another activity, eliminate the activity, or temporarily “park” the activity without resolution.

- c) Is the activity definition accurate and likely to be understood by other caseworkers or supervisors that work on the **Wilson County waiver program**? [Yes, Not Sure, No] For activities with a “no” or “not sure” response, the Facilitator will lead a discussion on a workable solution: eliminate the activity, redefine the activity, combine the activity with another activity, eliminate the activity, or temporarily “park” the activity without resolution.

Step 4: Focus group participants conduct a final all-group review of Worksheets A and B.

### **Break (15 minutes)**

### **Exercise B: Names, Definitions, and Person-time Estimates for Wilson County Waiver Program Management and Administration Activities (40 minutes)**

Step 1: Lead Facilitator Reviews Exercise Aim—Gain agreement on standard names, definitions, and person-time requirements for **Wilson County waiver program** service delivery management and program administration activities.

Step 2: Facilitators review and lead a brief discussion by the focus group on the general definitions of **Wilson County waiver program** “service delivery management activities” (activities that support the delivery of client services, such as working on issues with other **Wilson County waiver program** staff members, attending training, and attending team meetings) and “program administration activities” (activities that foster **Wilson County waiver program** intervention development, implementation, and maintenance, such as attending grantee organization meetings, serving on committees or work groups, screening candidate referral agencies, outreach and marketing, and grants management).

Step 3: Working in separate breakout groups of caseworkers and supervisors, complete Worksheet E, Names, Definitions, and Time Estimates for Service Delivery Management Activities, and Worksheet F, Names, Definitions, and Time Estimates for Program Administration Activities. The worksheets contain preliminary responses developed by the **Wilson County waiver program** Cost Evaluation Team with input from participants before the focus group meeting. The facilitators asked participants to consider the following for each listed service delivery management and program administration activity:

- a) Does the activity account for more than 10 percent of the time spent on service delivery management or 10 percent of the time spent on program administration activity time in a typical week? [Yes, Not Sure, No] Activities with a “no” response will be eliminated from further consideration during the focus group meeting.
- b) Is the activity name accurate and likely to be understood by other caseworkers or supervisors that work on the **Wilson County waiver program**? [Yes, Not Sure, No] For activities with a “no” or “not sure” response, the facilitator will lead a discussion on a workable solution: rename the activity, combine the activity with another activity, eliminate the activity, or temporarily “park” the activity without resolution.
- c) Is the activity definition accurate and likely to be understood by other caseworkers or supervisors that work on the **Wilson County waiver program**? [Yes, Not Sure, No] For activities with a “no” or “not sure” response, the facilitator will lead a discussion on a workable solution:

redefine the activity, combine the activity with another activity, eliminate the activity, or temporarily “park” the activity without resolution.

- d) Is the preliminary estimate of required person-time for each service delivery management or program administration activity reasonably accurate and agreed upon by the breakout group (and, in the breakout group’s opinion, likely to be generally agreed upon by other caseworkers or supervisors that work on the **Wilson County waiver program**)? [Yes, Not Sure, No] The breakout group facilitator will lead a discussion on a workable solution for activities with “no” or “not sure” response.

Step 4: Focus group participants conduct a final all-group review of Worksheets E and F.

### Tool A-2.2. Activity Type Definition Worksheet: Wilson County

Complete this worksheet using the process described in Tool A-2.1. Then use it to train staff for the collection of timekeeping data and for quality assurance (ensuring data reliability and validity) throughout the evaluation. This example is based on Wilson County program activities.

KEY:

Level A	Level B	Level C
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Activity Name	Activity Definition	Notes
<b>Client Service Delivery</b>	Any activity with the client, in support of the client, or related to management of client service delivery	Distinct from general administrative activities unrelated to direct service delivery and/or program management
<b>Activities Conducted With Client</b>	Any activity conducted with the family or family members	Activities can be face-to-face, by telephone, or written
<b>Advocate With Client</b>	To work with the family to obtain services and resources that might not otherwise be provided	Include standing up for the family's interests with third parties and attending appointments
<b>Assess</b>	To analyze the client, family, and contextual factors with client present	Include administering clinical instruments, using clinical diagnostics (e.g., blood pressure), administering research measures to guide clinical services, and examining progress
<b>Counseling and Support</b>	To assist the client in processing life events, listen, and provide affirmation	Include attending meetings for family support, counseling on parent issues, and child behavior modification
<b>Activities Conducted on Behalf of Client</b>	Any activity in support of the client without the family or family members present	
<b>Case Management and Documentation</b>	To complete written materials that describe activities with and on behalf of the client	Include completing case notes, writing service plans, creating summary assessments, and writing memos
<b>Transportation and Travel</b>	Travel for client-related activities	Include travel to/from a family visit, travel to meetings with or on behalf of the family, travel to appointments that include the family, and travel to advocate for the family
<b>Advocate Without Client</b>	To work on behalf of the family to access services or resources or to shape or change policies related to resource provision and/or social justice	Include phone calls to schools, welfare offices, and housing offices on behalf of the family; meetings in support of the family; and advocacy with third parties
<b>Research</b>	To search for information that assists in assessing or developing services for a client, formulating ideas for treatment plans, and preparing for client sessions	Include searching for information and reviewing books and articles in the development of services or activities for the family

Activity Name	Activity Definition	Notes
<b>Consult and Collaborate</b>	To provide information to staff/external providers or seek/receive information from them to assist or work with the family	Include discussion and coordination with other staff and external providers
<b>Attend Training</b>	To attend activities that teach or inform practice	
<b>Program Management and Administration</b>	Any activity to manage the client service delivery program	Exclude activities performed with or on behalf of the family
<b>Staff Supervision</b>	To provide supervision to staff providing services	Include all supervisory activities for all levels of program staff
<b>Meeting and Consultation</b>	To participate in team meetings/group case consultation on providing services to families	
<b>Outreach and Marketing</b>	To educate other agencies, organizations, schools, and families about the services available through the program	Include the development and distribution of brochures, fliers, and newsletters; presentations; meetings; and travel associated with outreach/marketing
<b>Fundraising</b>	To seek or facilitate program funding	Does not include new business development for contracts
<b>Other Program Management and Administration</b>	To conduct program administration tasks not previously defined	

### Tool A-2.3. Data Collection Checklist

Use this tool to prepare to collect expenditure and timekeeping data.

Action		✓
<b>Expense Data</b>		
1	Designate who collects data for each expense category.	
2	Establish the data collection period (e.g., monthly, semimonthly, quarterly).	
3	Define the period for estimated expenses.	
4	Document the data source (e.g., payroll) for each expense category.	
5	Establish the format for electronic data transfer.	
6	Create written quality assurance procedures.	
7	Create written data security procedures.	
8	Other	
<b>Timekeeping Data</b>		
1	Create written activity type definitions.	
2	Create data collection forms to record labor use by type over the collection period.	
3	Define the collection period.	
4	Create written instructions for collection methods (e.g., time logs, group estimates).	
5	Define the period for assigning labor to activity types.	
6	Designate who records the data onto the data collection forms.	
7	Create written quality assurance procedures to be used each period.	
8	Obtain OMB approval for data collection, if required.	
9	Obtain institutional review board approval for data collection, if required.	
10	Obtain labor union approval for data collection, if required.	
11	Other	

### **Tool A-3.1. Monthly Timekeeping Report: Wilson County**

This tool is an example of a timekeeping report used to assign labor hours to activity types for the reporting period. Wilson County has selected a monthly reporting period with assignments collected at the end of each month. The hours are assigned to activity types through group discussions among staff members with the same, or similar, job descriptions.

#### **Monthly Cost Evaluation Timekeeping Report**

Month \_\_\_\_\_ Year \_\_\_\_\_

Report completed by \_\_\_\_\_

Date completed \_\_\_\_\_

Please follow these instructions when assigning your hours to the activity types:

1. Break into discussion groups of staff members with the same job description, if there is more than one person in your personnel category.
2. Review the activity types in the table below. Discuss any questions regarding the proper use of the types.
3. Think about how you used your time during the past month. You may use any notes, journals, daily calendars, or other documentation you might have kept for the reporting period to assist in the discussion.
4. Assign time in hours for each activity type that best represents the estimated average for the group as a whole. Round any increments less than an hour to the nearest half-hour.
5. If there was no activity for an activity type during the reporting period, enter 0.
6. The total work hours during the reporting period have been entered in the **Total Hours** row at the bottom of the table. The sum of the hours in all the categories must equal the previously entered total on the bottom row.
7. If your group has any questions, please consult the staff member assigned to conduct this session.
8. Submit the report as directed.



Activity Type	Personnel Category			
	Program Director	Clinical Supervisor	Case Manager	Social Work Intern
<b>Advocate with client:</b> To work with the family to obtain services and resources that might not otherwise be provided				
<b>Assess:</b> To analyze the client, family, and contextual factors with client present				
<b>Counseling and support:</b> To assist the client in processing life events, listen, and provide affirmation				
<b>Case management and documentation:</b> To complete written materials that describe activities with and on behalf of the client				
<b>Transportation and travel:</b> Travel for client-related activities				
<b>Advocate without client:</b> To work on behalf of the family to access services or resources or to shape or change policies related to resource provision and/or social justice				
<b>Research:</b> To search for information that assists in assessing or developing services for a client, formulating ideas for treatment plans, and preparing for client sessions				
<b>Consult and collaborate:</b> To provide information to staff/external providers or seek/receive information from them to assist or work with the family				
<b>Attend training:</b> To attend activities that teach or inform practice				
<b>Staff supervision:</b> To provide supervision to staff providing services				
<b>Meeting and consultation:</b> To participate in team meetings/group case consultation on providing services to families				
<b>Outreach and marketing:</b> To educate other agencies, organizations, schools, and families about the services available through the program				
<b>Fundraising:</b> To seek or facilitate program funding				
<b>Other program management and administration:</b> To conduct program administration tasks not previously defined				
<b>General administration:</b> Any administrative activity related to the Wilson County organization but not related to the waiver program				
<b>Total Hours</b>				

### Tool A-3.2. Monthly Timekeeping Summary: Wilson County

This tool is an example of monthly labor assignment to program activities using predefined activity types. The timekeeping summary forms the basis for the distribution of all program costs, as demonstrated in Tool A-3.3.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1							Hourly Time Allocations by Program Activity Types															Totals*
2							Client Service Delivery							Program Management and Administration					General Admin.			
3							Activities Conducted With Client			Activities Conducted on Behalf of Client												
4	Personnel Expenditure Categories						Advocate With Client	Assess	Counseling & Support	Case Mgmt. & Documentation	Transportation & Travel	Advocate Without Client	Research	Consult & Collaborate	Attend Training	Staff Supervision	Meeting & Consultation	Outreach & Marketing	Fundraising	Other		
5		Staff Title	Month Salary	Month Fringe	Total Month Compensation	Hourly Compensation																
6	Direct Personnel Labor	Program Director											11	32	4	41	26	16	16	11	11	168
7		Clinical Supervisor						6	5	7	8	7	11	24	4	40	24	12	10	10		168
8		Case Manager A						34	12	8	22	28	12	2	15	4	8	13	4	4	2	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
9		Case Manager A					34	12	8	22	28	12	2	15	4	8	13	4	4	2		168
10		Case Manager B					34	12	8	22	28	12	2	15	4	8	13	4	4	2		168
11		Case Manager B					34	12	8	22	28	12	2	15	4	8	13	4	4	2		168
12		Contract Case Manager B					34	12	8	22	28	12	2	15	4	8	13	4	4	2		168
13		Social Work Intern A					14	8	3	14	15	5		11	4		10					84
14		Social Work Intern A					14	8	3	14	15	5		11	4		10					84
15	<b>Total Hours</b>						198	82	51	145	178	77	32	153	36	121	135	48	46	31	11	1,344

- Full time = 168 hours

#### Technical Notes:

Program Activity Type Key	Level A	Level B	Level C
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Program staff with similar duties are grouped. Case managers, for example, reported the same assignments across activity types.

Total monthly hours (column V) are used to check that all time is assigned, including for part-time interns. ([FAQ A-3.5](#))

The program director is involved in both direct and indirect activities, so time is recorded in several activity types: client service delivery (direct), program management and administration (direct), and general administration (indirect).

Several activity types fall below the 5 percent criterion for “meaningful” suggested in step 2. If this pattern persists, the team could merge some activity types—for example, “research” and “attend training.”

### **Tool A-3.3. Monthly Expenditure Report: Wilson County**

This tool is an example of an expenditure report used to collect waiver program expenditure data. Wilson County does not have an established indirect cost rate and must therefore itemize indirect expenditures.

#### **Monthly Cost Evaluation Expenditures Report**

Month \_\_\_\_\_ Year \_\_\_\_\_

Report completed by \_\_\_\_\_

Date completed \_\_\_\_\_

#### **A. Waiver Program Personnel Expenditures**

##### **Instructions**

1. Enter data for all program personnel for the first monthly report of the evaluation.
2. After the first report, enter data only for changes in personnel or changes in in the compensation of ongoing personnel. Enter a brief explanation of the change in the Notes column.
3. Address any questions to the evaluator.
4. Submit the report as directed.

Name	Position	Monthly Salary	Monthly Fringe	Notes

## B. Nonpersonnel and Administrative Personnel Expenditures

### Instructions

1. Enter the monthly expenditure for each category in the indicated column.
2. Enter D for direct expenditures charged only to the waiver program in the indicated column. Enter I if the expenditures benefited the entire Wilson County organization and were not charged directly to the waiver program.
3. All indirect costs should be charged to the waiver program based upon the program's percentage of personnel expenditures for all direct program staff in the Wilson County organization.
4. Enter A if the expenditures were incurred and paid within the monthly period in the indicated column. Enter B if the expenditures occurred over a greater time period (e.g., bimonthly, quarterly, semiannually, annually).
5. Budgeted costs should be checked periodically after actual expenditures are paid to ensure budget figures were accurate. If the budgeted figures were not accurate, expenditure data should be retroactively adjusted for all monthly expenditure summaries.
6. Address any questions to the evaluator.
7. Submit the report as directed.

Expenditure Category	Personnel Category		
	Monthly Expenditure	Direct (D) or Indirect (I)	Actual (A) or Budget (B)
<b>Administrative Personnel Compensation:</b> Compensation for organization-level personnel not directly charged to any program. These costs are treated as indirect expenditures.			
<b>Space and Utilities:</b> All costs for facilities used by the waiver program, which can include rent, amortized capital investment for real property, taxes, and depreciation. Utilities can include electricity, gas, water and sewer, telecommunications, and Internet service.			
<b>Materials and Supplies:</b> All costs for consumable materials, supplies, and equipment with a usable life of 5 years or less, including paper, copy toner, writing implements, calculators, computers, and phones.			
<b>Durable Equipment:</b> Amortized charges for capital investment in equipment with a usable life greater than 5 years, including vehicles, furnishings, refrigerators, copy machines, and certain telecommunications components. Property taxes may apply to specific categories of equipment in certain localities.			

<b>Travel and Local Transportation:</b> Business-related travel by organizational personnel, including transportation for staff attending professional meetings, meeting with clients, traveling to vendors, and advocating for clients.			
<b>Contractual Services:</b> Any service obtained through contract, except for program provider personnel, including janitorial, legal, tax preparation, payroll, employee benefits, and information technology.			
<b>Other Nonpersonnel Services:</b> Any nonpersonnel service not included in the above categories.			
<b>Total Monthly Expenditures</b>			

### Tool A-3.4. Monthly Expense Summary

This tool calculates monthly personnel expenditures based on the hours you recorded in Tool A-3.2 and combines them with other monthly expenditures. Once the monthly costs are entered, the spreadsheet will allocate them proportionally to the activity categories.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
1							Monthly Expenses by Activity Type																Totals
2							Client Service Delivery								Program Management and Administration				General Admin.				
3							Activities Conducted With Client			Activities Conducted on Behalf of Client													
4	Personnel and Nonpersonnel Expenditure Categories and Monthly Personnel Expenses						Advocate With Client	Assess	Counseling & Support	Case Management & Documentation	Transportation & Travel	Advocate Without Client	Research	Consult & Collaborate	Attend Training	Staff Supervision	Meeting & Consultation	Outreach & Marketing	Fundraising	Other Program Management & Administration			
5		Staff Title	Month Salary	Month Fringe	Total Month Compensation	Hourly Compensation																	
6	Direct Personnel Expenditures	Program Director																					
7		Clinical Supervisor																					
8		Case Manager A																					
9		Case Manager A																					
10		Case Manager B																					
11		Case Manager B																					
12		Contract Case Manager B																					
13		Social Work Intern																					
14	Social Work Intern																						
15	Total Direct Personnel Expenditures																						

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
16	Indirect Personnel	All Full-Time General Administration																				
17		Program Director																				
18	Total Indirect Personnel Expenditures																					
19	Total Personnel Expenditures																					
20	Nonpersonnel	Space & Utilities																				
21		Materials & Supplies																				
22		Annual Cost of Durable Equipment																				
23		Travel & Local Transportation																				
24		Contractual Services																				
25		Other Nonpersonnel Expenses																				
26	Total Nonpersonnel Expenditures																					
27	Subtotal Monthly Expenditures																					
28	Indirect Cost Rate (Total Indirect Expenditures Divided by Total Direct Personnel Expenditures)																					
29	Total Monthly Expenditures																					

#### Technical Notes:

**Tool Example Steps:** The Wilson County example used in the toolkit is a single-program organization. This assumption simplifies the example and keeps the tools at a reasonable size for presentation. The steps below include further guidance for larger and more complex organizations.

1. Enter the salary and fringe (if applicable) expenditures for each of the direct personnel in columns C and D. For contract personnel, enter the contract expenditure in the salary column and nothing in the fringe column. Salary and fringe columns are summed to get total compensation in column E.
2. Total compensation is divided by the number of hours worked in the month for each direct personnel and entered into column F as hourly compensation.



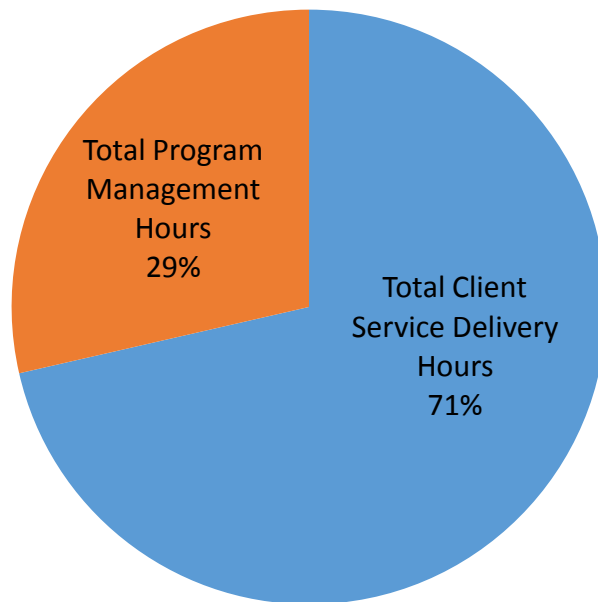
3. The number of hours worked in each direct activity category is multiplied by the hourly compensation in column F and entered into columns G–T. Columns G–T are summed as row totals for each direct personnel in column V. Check to make sure columns E and V are equal as a QA measure. Total direct personnel expenditures by activity are summed in row 15.
4. Enter the total monthly personnel compensation for administrative staff in cell V16. For organizations with only one program, this will include 100 percent of all monthly administrative compensation. For organizations with multiple programs, enter only a pro rata share for the program being evaluated.
5. Personnel with both direct and indirect (organization-level administrative) activities require rows in the direct and indirect personnel sections. Their general administration hours are multiplied by their hourly compensation rate and entered as total monthly compensation in column U.
6. Rows 16 and 17 are summed on line 18 for monthly total indirect personnel expenditures.
7. Rows 15 and 18 are summed on row 19 for monthly total personnel expenditures.
8. Enter monthly total expenditure for each nonpersonnel expense category in column V. For organizations with only one program, this will include 100 percent of all monthly nonpersonnel expenditures. For organizations with multiple programs, enter only a pro rata share for the program being evaluated.
9. Rows 20 to 25 are summed for monthly total nonpersonnel expenditures and entered on row 26.
10. Rows 19 and 26 are summed for subtotal monthly expenditures and entered on row 27.
11. The program's indirect cost rate is calculated by dividing cell V15 by the sum of cells V18 and V26 and entered in cell V28.
12. The spreadsheet will apply the indirect cost rate in cell V28 to total direct personnel costs in cells G15–T15 and enter the result in cells G29–T29. Row 29 represents the total cost of the program allocated to direct activity categories. As a QA check, cells V27 and V29 should be equal.

### Tool A-4.1. Timekeeping Data Analysis: Wilson County

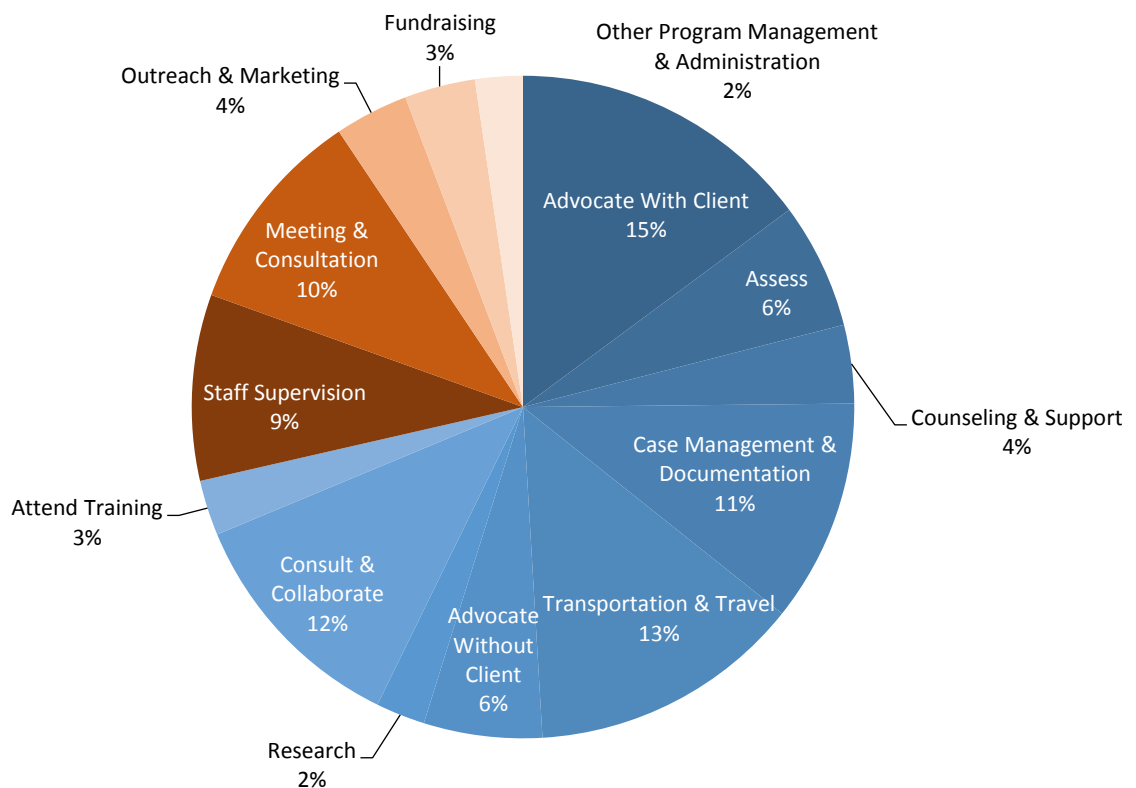
#### Staff Time by Activity

	Client Service Delivery (CSD)									Program Management and Administration (PMA)				
	Advocate With Client	Assess	Counseling & Support	Case Management & Documentation	Transportation & Travel	Advocate Without Client	Research	Consult & Collaborate	Attend Training	Staff Supervision	Meeting & Consultation	Outreach & Marketing	Fundraising	Other Program Management & Administration
Program Director	0	0	0	0	0	0	11	32	4	41	26	16	16	11
Clinical Supervisor	0	6	5	7	8	7	11	24	4	40	24	12	10	10
Case Manager A	34	12	8	22	28	12	2	15	4	8	13	4	4	2
Case Manager A	34	12	8	22	28	12	2	15	4	8	13	4	4	2
Case Manager B	34	12	8	22	28	12	2	15	4	8	13	4	4	2
Case Manager B	34	12	8	22	28	12	2	15	4	8	13	4	4	2
Contract Case Manager B	34	12	8	22	28	12	2	15	4	8	13	4	4	2
Social Work Intern	14	8	3	14	15	5	0	11	4	0	10	0	0	0
Social Work Intern	14	8	3	14	15	5	0	11	4	0	10	0	0	0
Total Hours	198	82	51	145	178	77	32	153	36	121	135	48	46	31
Totals by Type	952									381				
Ratio of CSD to PMA Hours	2.5													
Ratio of direct service delivery staff to supervisory staff hours	3.0													

## Staff Time on Client Services Versus Program Management and Administration



## Staff Time by Program Activity Type

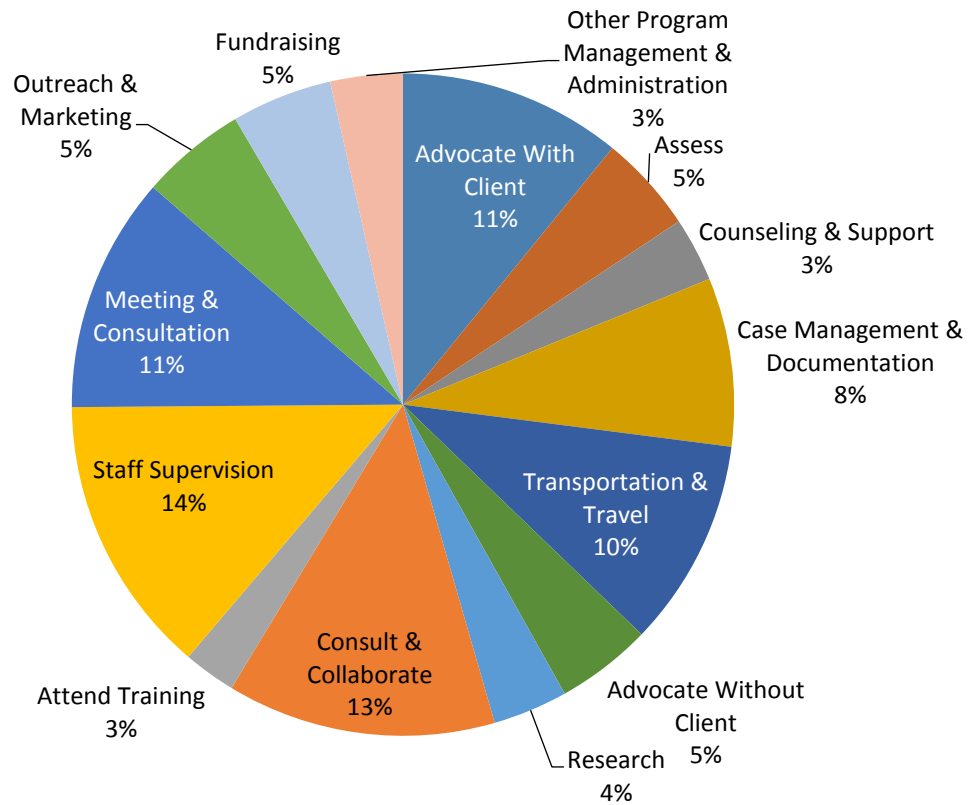


#### **Tool A-4.2. Total Expenditures by Program Activity Type: Wilson County**

##### **Total Expenditures by Program Activity Type**

<b>Program Activity</b>	<b>Expenditure in Dollars</b>
Advocate With Client	7,049.81
Assess	3,077.13
Counseling & Support	2,027.74
Case Management & Documentation	5,307.58
Transportation & Travel	6,564.96
Advocate Without Client	3,024.88
Research	2,291.59
Consult & Collaborate	8,269.15
Attend Training	1,625.56
Staff Supervision	8,568.56
Meeting & Consultation	7,261.76
Outreach & Marketing	3,234.92
Fundraising	3,082.29
Other Program Management & Administration	2,215.28
<b>TOTAL</b>	<b>63,601.22</b>

## Total Expenditures by Program Activity Type

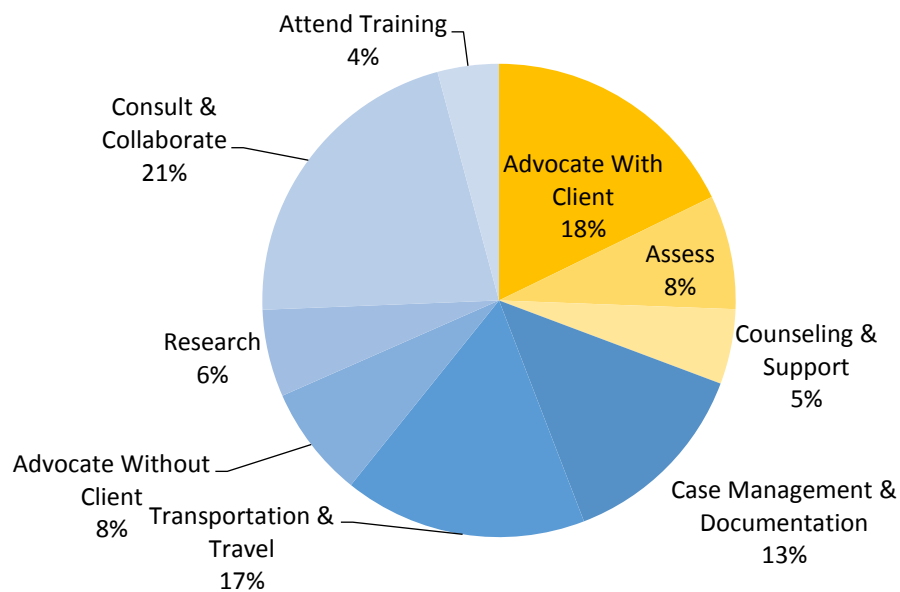


### Tool A-4.3. Distribution of Client Services Expenditures: Wilson County

#### Distribution of Client Services Expenditures

	Program Activity	Expenditure in Dollars
Activities Conducted With Client	Advocate With Client	8,876.49
	Assess	3,874.45
	Counseling & Support	2,553.15
Activities Conducted on Behalf of Client	Case Management & Documentation	6,682.84
	Transportation & Travel	8,266.01
	Advocate Without Client	3,808.66
	Research	2,885.37
	Consult & Collaborate	10,411.78
	Attend Training	2,046.77

#### Distribution of Client Services Expenditures

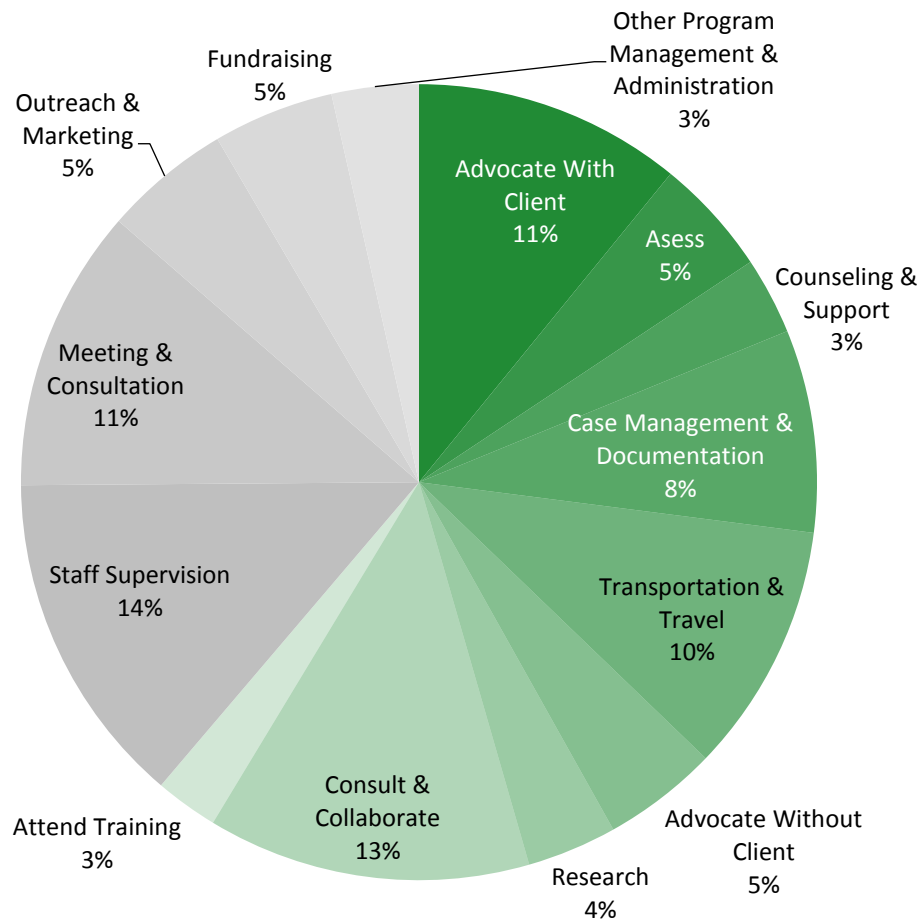


**Tool A-4.4. Expenditures for Client Service Delivery Versus Program Management and Administration: Wilson County**

**Expenditures for Client Service Delivery Versus Program Management and Administration**

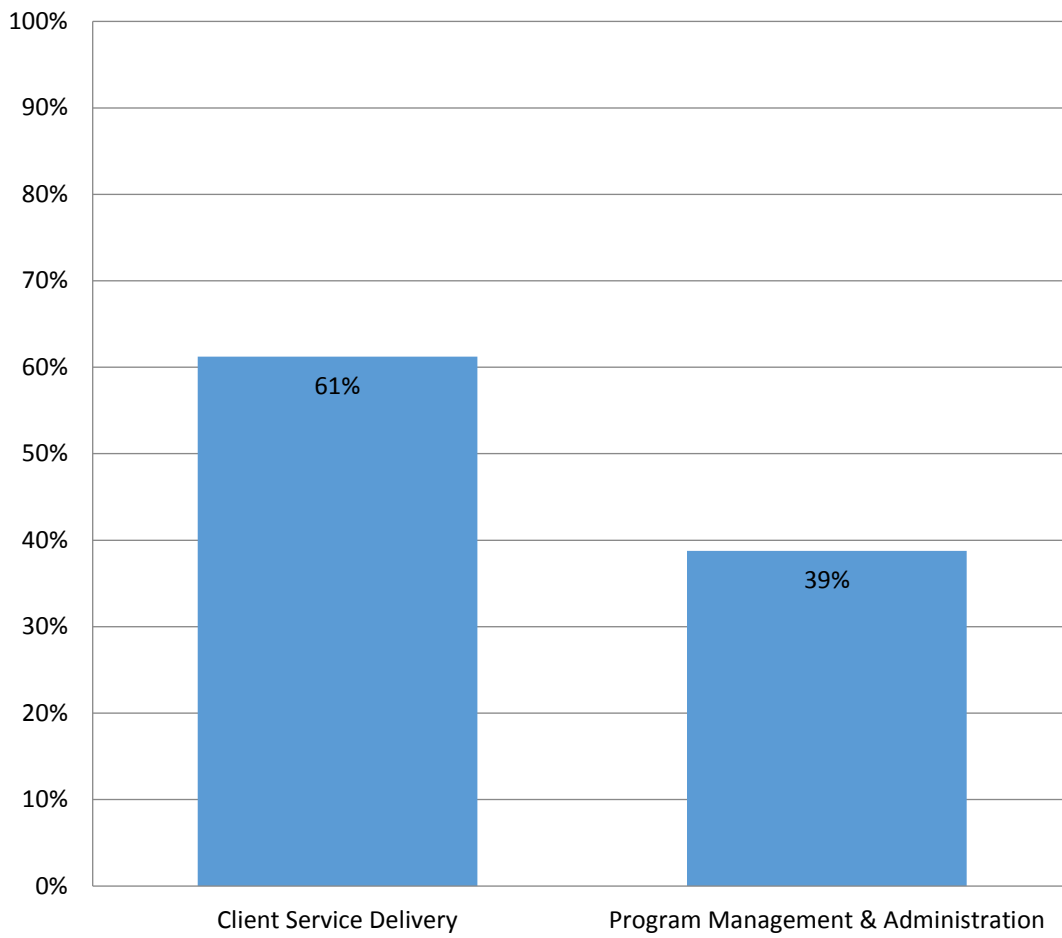
	Program Activity	Expenditure in Dollars
Client Service Delivery	Advocate With Client	8,876.49
	Assess	3,874.45
	Counseling & Support	2,553.15
	Case Management & Documentation	6,682.84
	Transportation & Travel	8,266.01
	Advocate Without Client	3,808.66
	Research	2,885.37
	Consult & Collaborate	10,411.78
	Attend Training	2,046.77
Program Management & Administration	Staff Supervision	10,788.77
	Meeting & Consultation	9,143.36
	Outreach & Marketing	4,073.13
	Fundraising	3,880.95
	Other Program Management & Administration	2,789.29

## Expenditures for Client Service Delivery Versus Program Management and Administration





### Expenditures for Client Service Delivery Versus Program Management and Administration

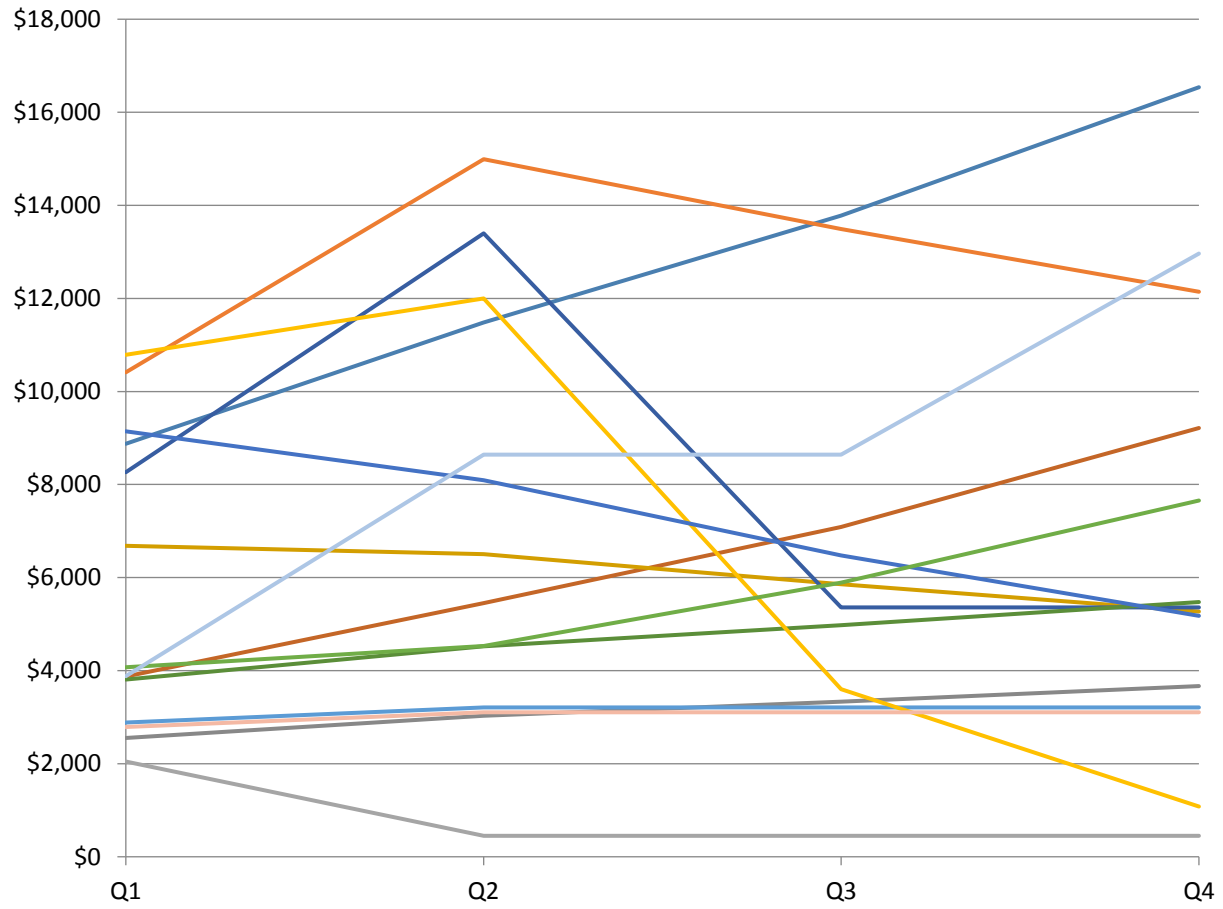


#### **Tool A-4.5. Program Activities Across Time: Wilson County**

##### **Program Activities Across Time**

<b>Program Activity</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
Advocate With Client	8,876.49	11,484.61	13,781.54	16,537.84
Assess	3,874.45	5,452.21	7,087.88	9,214.24
Counseling & Support	2,553.15	3,032.07	3,335.28	3,668.81
Case Management & Documentation	6,682.84	6,506.59	5,855.93	5,270.34
Transportation & Travel	8,266.01	13,397.99	5,359.20	5,359.20
Advocate Without Client	3,808.66	4,524.22	4,976.64	5,474.31
Research	2,885.37	3,209.29	3,209.29	3,209.29
Consult & Collaborate	10,411.78	14,991.87	13,492.69	12,143.42
Attend Training	2,046.77	450.46	450.46	450.46
Staff Supervision	10,788.77	11,999.12	3,599.74	1,079.92
Meeting & Consultation	9,143.36	8,091.08	6,472.87	5,178.29
Outreach & Marketing	4,073.13	4,530.22	5,889.29	7,656.07
Fundraising	3,880.95	8,642.47	8,642.47	12,963.71
Other Program Management & Administration	2,789.29	3,105.32	3,105.32	3,105.32

## Program Activities Expenditures Across Time



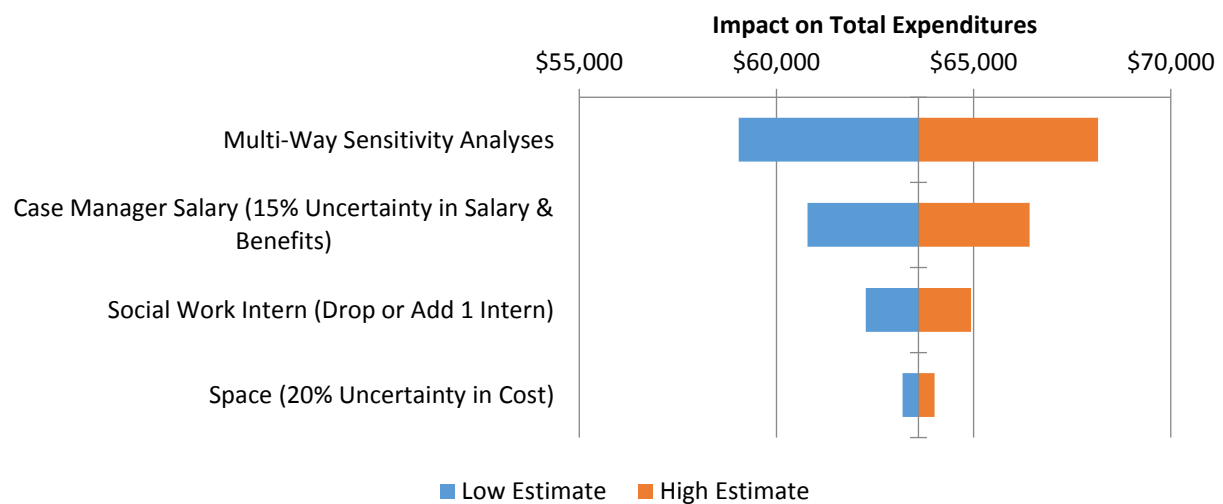
- Advocate with Client
- Assess
- Counseling & Support
- Case Management & Documentation
- Transportation and Travel
- Advocate Without Client
- Research
- Consult and Collaborate
- Attend Training
- Staff Supervision
- Meeting & Consultation

### Tool A-4.6. Sensitivity Analyses: Wilson County

#### Impact on Total Expenditures in Dollars

Base Estimate of Total Expenditures	63,601.22		
Assumptions	Low Estimate	High Estimate	Variation in Estimate in Percent
Multiway Sensitivity Analyses	59,045.98	68,156.47	
Case Manager Salary (15% Uncertainty in Salary & Benefits)	60,784.45	66,418.00	15
Social Work Intern (Drop or Add 1 Intern)	62,267.72	64,934.72	100
Space (20% Uncertainty in Cost)	63,196.26	64,006.19	20

#### Impact on Total Expenditures



### **Tool A-5.1. Sample Cost Evaluation Report Outline**

Use this outline as a guide for your cost analysis report. Depending on the scope of your study and the complexity of your research questions, your report may address fewer or more topics.

#### **1. Executive Summary**

- Program, cost evaluation objective, research question(s), and intended audience
- Research methodology—including why a program-level cost model was chosen, how costs were defined, what program activities were included, and how the data were analyzed
- Report findings to include concise answers to the research question(s), how the data changed over time, policy implications of the results, sensitivity analysis results (if performed), and discussion of any methodological implications that affect validity

#### **2. Introduction**

- Background on why the cost evaluation is needed
- Description of the program(s) being evaluated
- Summary of any relevant previous studies and/or evaluations and how this cost evaluation relates to the previous body of knowledge
- Description of the report's structure

#### **3. Methodology**

- Description of objectives, research question(s), intended audience, and how the results will be used
- Summary of why a program-level cost evaluation was chosen to answer the research question(s)
- Definition of the perspective, scope, and period of study (analytic horizon)
- Description of the cost data gathering planning process
- Definition of program activity and cost categories
- Definition of expenditure data sources and any estimation procedures
- Discussion of any methodological issue(s) that would affect the reliability and/or validity of the report's findings—including the reliability of cost estimates
- For multiyear evaluations, description of procedure used to adjust annual expenditures for inflation
- Definition of any outcome measures, associated data gathering procedures, and how the outcome data will be used
- Description of procedures used to adapt to changes in the data gathering procedures, program activity categories, and expenditure data due to program modifications or unforeseen external factors
- Description of analytic procedures used on the cost data
- Description of any sensitivity analysis used for estimated costs

#### **4. Results**

- Display and discuss descriptive data analysis results to include total program costs; program cost for personnel and nonpersonnel categories, direct and indirect categories, and each program activity category; total program cost per output measure (if used); and how costs changed over time
- For multisite evaluations, discuss the data variability across sites, statistical significance of the variations, potential causes for the variations, and implications for answering the research question(s)
- Display and discuss any bivariate or multivariate statistical analysis results
- Display any sensitivity analysis results for estimated cost data and the implications for research validity
- Answer the research question(s)
- Discuss any methodological limitations and their potential impact on the validity of the results and implications for setting future policy
- Summarize the results in a clear and concise manner with an emphasis on policy implications for the intended audience

# **Appendix B: Frequently Asked Questions**

## Introduction

### 0.1 [Q. Are there other types of cost analysis than the five listed?](#)

A. Yes, but those five are the major ones that apply to waiver programs. Cost-utility analysis (CUA), for example, is a specific type of cost-effectiveness analysis often used in pharmacology and medical cost analyses to compare two or more treatments. CUA's outcomes are defined as utilities instead of effects and usually expressed as quality-adjusted life years. Other than the name of the outcome, the two analyses are identical. Since child welfare programs rarely express their outcomes in quality-adjusted life years, CUA was not included in this toolkit.

### 0.2 [Q. What criteria guide the fit between the research question\(s\) and the choice of analysis type?](#)

A. There must be a connection between the question, the available data, and the proposed analysis. The most important consideration is the characteristics and quality of the available data. For example, a research question might ask: What is the distribution of the program's expenditures on each of its program activities? To calculate the distribution, valid and reliable data on expenditures for each activity must be available.

## Step 1

### A-1.1 [Q. What about privacy protection for program staff members?](#)

A. Privacy protection for staff is not necessary if labor use collection is defined as part of their regular duties. The labor use data being shared essentially becomes normal administrative data. If institutional review board (IRB) approval is required, allow at least 40–50 hours of evaluator labor to prepare protocol for IRB review. If the choice of an IRB is flexible, consider using a reputable, commercial IRB that can produce exceptionally fast and high-quality reviews with a higher standard of consistency than typical local IRBs. Available evidence suggests that local IRBs are prone to misapply provisions for exempt and expedited review.

### A-1.2 [Q. What audience\(s\) should a waiver jurisdiction consider when planning a cost evaluation?](#)

A. There are multiple audiences for waiver jurisdiction cost evaluations. Waiver authority was granted by Congress to the Secretary of the U.S. Department of Health and Human Services. Waiver demonstration projects, at the Federal level, fall under the auspices of the Administration for Children and Families Children's Bureau. States, tribes, and the District of Columbia are responsible for implementation at the local level. County and city government agencies and community-based organizations are also typically involved. Recipients of services implemented under waiver demonstration projects are also important stakeholders. All of these are potential audiences for your evaluation.

### A-1.3 [Q. How does perspective affect data collection planning?](#)

A. The question of who incurs the costs to be evaluated affects the cost evaluation's objectives and research questions. The Wilson County example adopts an agency perspective on the definition of costs. Only those costs incurred by Wilson County are used in the analysis. Costs incurred by the program's clients and other societal costs, for example, are not included.



A-1.4 [Q. How many hours of the evaluator's time will be required?](#)

A. This will vary depending on the scope of the evaluation. For example, a small-scale program-level cost analysis could require about 30 hours of evaluator staff time per month for more than a year.

A-1.5 [Q. How many hours of program and administrative staff time will be required?](#)

A. Staff time will vary depending on the scope of the evaluation, existing systems, and the staff person's role in the evaluation. For a small-scale program-level cost analysis, staff serving on the evaluation team may spend 8–12 hours per month on evaluation tasks. Hours required for other staff will vary but will be significantly less.

## Step 2

A-2.1 [Q. In what ways do evaluation and program interests overlap?](#)

A. The evaluation supports the program's interests in determining program effectiveness and ensuring continuous quality improvement. Demonstrating effectiveness to funders and other program stakeholders is fundamental for the future of the program and the overall organization.

A-2.2 [Q. Why is it important to involve the organization's staff in creating expenditure categories?](#)

A. The administration and finance staff are familiar with the organization's financial and accounting systems and therefore are essential to data collection planning. They know how the accounts are structured, what expenditure data are captured, when payroll data (a function commonly outsourced) are posted to their accounts, and which costs are accrued annually rather than expended monthly. Without their input, expenditure data would not be accurate.

A-2.3 [Q. Can budget numbers be used as expenditure data and, if so, how?](#)

A. Expenditure data are more accurate than budget data and should be used whenever possible. Budget numbers may, however, be used in the absence of monthly expenditures. Certain types of expenditures, like depreciation on durable goods, do not accrue monthly. Depreciation expenditures are typically estimated in the budget for the calendar year. Working with the organization's financial staff, the evaluator should check the accuracy of the estimates at the end of the year and make adjustments to the cost evaluation's annual expenditure summaries.

A-2.4 [Q. Under what circumstances are just two highly aggregated expense categories sufficient?](#)

A. Highly aggregated expense categories are acceptable when they are fully supported by the organization's financial systems and do not impede the complete answering of all research questions. Aggregated expenditure categories can weaken quality assurance, as they bypass the evaluator's ability to ensure that all required resources are accounted for. Aggregated expenditure categories also restrict the analysis opportunities to examine specific types of expenditures.

A-2.5 [Q. Should the opportunity costs for volunteer labor and unpaid interns be included in the organization's expenditures?](#)

A. Inclusion of opportunity costs for donated labor depends on the perspective of the evaluation (see step 1). Evaluations that adopt a societal perspective should estimate and include opportunity costs as

expenditures. This toolkit assumes that the cost evaluation has adopted an agency perspective that includes only the agency's actual financial expenditures.

A-2.6 [Q. How are fringe benefit expenditures accounted?](#)

A. Fringe benefits are treated the same as salary. Both are part of total compensation and are captured from payroll data. Most organizations have two payrolls per month, so the data entry process for payroll will need to sum the payrolls to match up with the evaluation's summary period.

A-2.7 [Q. Aren't there many more types of expenditures? How should the evaluator handle those expenses?](#)

A. The list does not include all possible expenditure categories. The number of categories depends on how many "ingredients" the administration and finance staff identify. Some ingredients may be bundled for accounting purposes. Space and utility, for instance, might include rent, property insurance, electricity, telephone, and Internet expenditures.

A-2.8 [Q. Under what circumstances should level B or C expenditure categories be defined?](#)

A. For nonpersonnel expenditures, it may not be necessary to define subcategories. For personnel expenditures, the need to capture subcategory data depends on the evaluation's research questions.

A-2.9 [Q. Should costs incurred by the program's clients \(e.g., foster care\) be included in creating expenditure categories?](#)

A. Client costs should be included as expenditures when the cost evaluation has adopted a societal perspective. This toolkit assumes that the cost evaluation has adopted an agency perspective that includes only the agency's actual financial expenditures.

A-2.10 [Q. How many separate activity types are advised?](#)

A. The evaluation's intended audience and research questions guide the number of activity types. The number might be lower in an evaluation whose intended audience is policymakers who are interested primarily in total program costs, and it might be higher for an intended audience of program managers interested in detailed studies of personnel time usage as part of a continuous quality improvement effort. In general, the objective should be the lowest number of categories that satisfies the needs of the intended audience and answers the research questions, because greater numbers of activity types increase the burden on staff and can cause fidelity issues for the evaluator—as long as the criteria for categories set in step 2 are met (e.g., mutually exclusive and totally inclusive). The example in Tool A-2.2 has 14 level C categories, which is probably toward the high end of the scale for a manageable evaluation.

A-2.11 [Q. How does the evaluator know staff members are correctly applying the activity type definitions?](#)

A. Initial staff training at the beginning of the evaluation is key to ensuring that staff correctly allocate time across the activity categories. An evaluator-led pilot of data collection procedures is an additional method to increase accuracy. If staff are allocating time by estimating for groups of staff performing the same tasks, the evaluator could spot check the application of activity definitions by attending the monthly or quarterly group allocation meetings. If staff are allocating time by keeping detailed individual time usage logs, the evaluator could periodically hold structured discussions with sampled staff members concerning their allocation procedures to determine how they are applying the definitions or, alternatively, use an online survey to gather the same information.

A-2.12 [Q. Are there exceptional circumstances when activity types that consume very small proportions of labor should be included?](#)

A. Such types should be included only when they are essential to answering a research question or when that activity cannot be combined with another activity or activities in a way that meets the “mutually exclusive” and “totally inclusive” criteria.

A-2.13 [Q. Why is timely recording of labor use so important?](#)

A. Staff recall diminishes quickly. Every additional day increases the potential for inaccuracy.

A-2.14 [Q. What types of problems could occur in this ideal approach?](#)

A. Staff could overestimate or underestimate the person-time allocations to the activity types. Staff might also misapply the activity type definitions.

A-2.15 [Q. What limitations are associated with different methods of labor use data collection?](#)

A. Different labor use data collection methods involve a trade-off between data accuracy and required resources. The least resource-intensive methods are also the least accurate, and vice versa. Individual daily logs require more staff resources and result in more accurate labor use data. Group estimation requires less staff resources but results in less accurate labor use data. Random sampling (described in FAQ A-2.16) requires great effort and methodological sophistication on the part of the evaluator. To be effective and cost effective, random sampling should only be used for evaluations of large programs.

A-2.16 [Q. Are there other methods for tracking labor use? What is the role of random sampling in timekeeping, if any?](#)

A. There are a number of methods for tracking labor use based on random sampling of staff by the evaluator. Random moment sampling, for example, is accomplished by contacting the staff sample at different points in their daily routine and asking them to identify what they’re doing at that moment and which activity type that effort represents. A second example is a sample day; sampled staff are contacted at the end of the day and asked to create a daily log allocating their work time across the activity types. The data from all the sampling methods are compiled to create an estimated allocation for groups of personnel with the same or similar job tasks.

### Step 3

A-3.1 [Q. What other types of issues are identified through cost data quality assurance?](#)

A. A variety of reliability and validity issues can be identified through a data quality assurance program. Financial systems, such as accounts payable or payroll, can be programmed to produce periodic reports for crosschecking data entered into the cost evaluation database. These crosschecks might detect, for example, if some payroll compensation for the designated period was not entered into personnel expense categories.

A-3.2 [Q. How does an evaluator address within-activity type variations between staff in the same or similar positions when using individual time usage logs?](#)

A. There are many reasons why such variations might occur. The evaluator should determine if the variations are the result of inconsistent use of data collection procedures or differences in program task parameters, such as caseload complexities or increased travel time to the assigned client area. When significant variances are observed, the evaluator should follow up with the staff to assess the root causes and apply appropriate training or technical assistance to bring data collection procedures into compliance.

A-3.3 [Q. How does an evaluator address within-activity type variations between staff when using group consensus to allocate staff time?](#)

A. The evaluator should determine if the variations are the result of inconsistent use of data collection procedures or differences in program task parameters, such as caseload complexities or increased travel time to the assigned client area. If the variance is caused by differences in program task parameters that are consistent across reporting periods and the variance is meaningful, the evaluator may choose to adjust the time allocations.

A-3.4 [Q. How do cost evaluation team members responsible for quality assurance check for integrity in applying activity type definitions?](#)

A. If staff are allocating time by estimating for groups of staff performing the same tasks, the evaluator should spot-check the application of activity type definitions by attending the monthly or quarterly group allocation meetings and discussing definition fidelity. If staff are keeping detailed individual time usage logs, the evaluator should periodically hold structured discussions with sampled staff members about their allocation procedures to determine how they are applying the definitions or use an online survey to gather the same information. Misapplication of the definitions should be corrected through additional training and technical assistance.

A-3.5 [Q. Should the labor of interns be assigned a monetary value?](#)

A. Paid interns should be treated the same as other personnel with their labor monetized on the basis of salary and benefits, although interns in most organizations receive no benefit package. Because this toolkit has adopted the agency perspective and is therefore only concerned with agency expenditures, no costs for unpaid interns would be included in the evaluation. If the evaluation chooses a societal perspective, an estimated cost for unpaid labor would be included.

A-3.6 [Q. What periods, other than monthly, might be summarized?](#)

A. That depends on the capabilities of the organization's financial and accounting systems and the method of allocating labor hours to program activities. Monthly is often selected because most financial and accounting systems are programmed to produce monthly reports. Monthly reports can be aggregated to produce bimonthly, quarterly, semiannual, and annual summary reports. If labor is assigned to activity types later rather than concurrently, periods longer than a month would increase recall variability and risk of inaccurate assignments. If an analysis of change in expenditure patterns over time is planned, longer summary periods yield fewer analytical data points and potentially reduced power and reliability.

A-3.7 [Q. Is it acceptable to use budget data for categories whose expenditures are accrued on an annual or semiannual basis? What if some, or all, categories of nonpersonnel expenditures are not available on a monthly basis?](#)

A. While most normal business expenditures occur monthly, weekly, or daily, some occur on a quarterly, semiannual, or annual basis. In the absence of monthly expenditure data, budget estimates may be used. Certain types of expenditures, like depreciation on durable goods, do not accrue monthly. Depreciation expenditures are typically estimated in the budget for the calendar year. Working with the organization's financial staff, the evaluator should prorate the budgeted amount for the expenditure category to a monthly estimate and then check the accuracy of the estimates at the end of the year to make adjustments to the cost evaluation's annual expenditure summaries as required.

A-3.8 [Q. How would the Monthly Expense Summary be adapted for a program that has direct nonpersonnel expenditures, such as local transportation and/or facility charges for office space, but other nonpersonnel expenditures are indirect?](#)

A. A section for direct nonpersonnel expenditures would be added below the Total Direct Personnel Expenditure line. The monthly totals would be entered into the row total column and distributed back across the activity type columns based on the percentage of each type's total direct personnel expenditures. The total direct personnel and direct nonpersonnel expenditures would be summed in a new row for Total Direct Expenditures, which would then become the denominator for the indirect cost rate.

#### Step 4

A-4.1 [Q. When should data analysis begin?](#)

A. Start the analyses as soon as the data for the first data collection period (e.g., month, quarter) have been cleaned. Beginning the data analysis while data collection is still ongoing has several advantages. First, it begins to build your analytical database and gives the evaluator an opportunity to test the evaluation's processes and QA procedures while there is still time to adjust them. Second, the program's managers can react to the interim analytical findings sooner.

A-4.2 [Q. What other analyses are feasible with accumulated cost data that are not shown as examples?](#)

A. The analyses selected for the cost evaluation are driven by the need to answer the study's research questions. For multisite evaluations employing the same program, for example, you might compare the relative distribution of labor hours by activity and/or total cost by activity per client. Do costs vary across States with programs that have the same desired outcomes?

A-4.3 [Q. What additional data from other sources might be included in a program-level cost analysis? Might data from similar analyses be included?](#)

A. Answering the cost evaluation's research questions may mean gathering information from a variety of outside sources. If, for example, the evaluation compared two or more programs with different client characteristics, you might need to gather demographic data from each site to understand the impact of diverse populations on program services and costs. Another type of outside data might include labor cost indexes from the Bureau of Labor Statistics to accurately compare costs over time for longitudinal cost evaluations. If your cost evaluation adopts a societal perspective, you could use outside sources to identify, for example, accurate opportunity costs for donated labor. Data from similar analyses may be

used in specific circumstances, particularly when programs have similar client populations, treatments, location demographics, and research methods.

## Step 5

### A-5.1 [Q. Which sources offer further information on effective dissemination of results?](#)

A. See “Value Added Research Dissemination Framework,” a publication of the Administration for Children and Families, at <http://www.acf.hhs.gov/programs/opre/resource/the-value-added-dissemination-framework>. The framework emphasizes dissemination as a strategic communication process incorporating concepts from the communication field.

# **Appendix C: Glossary**

**Benefit-cost analysis:** Quantifies program benefits in monetary terms and assesses whether they exceed program costs.

**Case-level cost analysis:** Allocates program-level costs to individual cases.

**Cost:** Resources that are exchanged to deliver a service or sustain an organization.

**Cost analysis:** A way of understanding how resources are used.

**Cost-effectiveness analysis:** Examines the relationship between a program's costs and a relevant unit of program effectiveness.

**Direct cost:** Resources spent on personnel, equipment, and goods related directly to the program in the production of goods and services.

**Direct personnel expenditure:** Annual salary payments, bonus payments, and fringe benefits related directly to the program in the production of goods and services.

**Expenditure:** A resource outlay from an organization that is quantified in monetary terms.

**Indirect cost:** Resources not directly used in the production of goods and services spent to operate and sustain existing organizational infrastructure shared with other operations and program activities.

**Indirect cost rate:** The ratio of indirect costs to direct costs.

**Indirect personnel expenditure:** Annual salary payments, wages, bonus payments, fringe benefits, and contract labor not related directly to the program in the production of goods and services.

**Nonpersonnel expenditure:** Payments for any good or service that is not compensation for the organization's personnel, such as office space rent, utilities, supplies, and equipment.

**Personnel expenditure:** Payments for salaries and wages, bonuses, fringe benefits, and contract labor.

**Program-level cost analysis:** Captures program-level costs by expenditure category and program activity type, either at a point in time or over a designated period.

**Prospective:** Cost analysis that involves the collection of data as programs are in progress and costs are incurred.

**Retrospective:** Cost analysis that involves the use of data describing programs delivered and costs incurred prior to the data collection period.

**Return on investment (ROI) analysis:** Compares program net costs and outcomes in dollars; expressed as percentage gained or lost.

**Sensitivity analyses:** The process of estimating the uncertainty around cost estimates to test robustness and develop confidence intervals.

**Tornado diagram:** A graphical representation of uncertainty around cost estimates from individual analytic assumptions.



# **Appendix D:**

# **References and**

# **Resources**

## References

- Blase, K., van Dyke, M., & Fixsen, D. (2013). *Stages of implementation analysis: Where are we?* Chapel Hill, NC: National Implementation Research Network, University of North Carolina. Available at <http://implementation.fpg.unc.edu/resources/stages-implementation-analysis-where-are-we?>
- Boulatoff, C., & Jump, V.K. (2007). Blueprint of a cost analysis approach for early intervention: Application to a home visiting program to prevent child abuse and neglect. *Journal of Early Intervention*, 30(1), 73–84.
- Children’s Bureau. Calculating the Costs of Child Welfare Services Workgroup. (2013). *Cost analysis in program evaluation: A guide for child welfare researchers and service providers*. Washington, DC: Administration for Children and Families, U.S. Department of Health and Human Services. Available at [http://www.acf.hhs.gov/sites/default/files/cb/cost\\_analysis\\_guide.pdf](http://www.acf.hhs.gov/sites/default/files/cb/cost_analysis_guide.pdf)
- Levin, H.M., & McEwan, P.J. (2001). *Cost-effectiveness analysis: Methods and applications*. Second Edition. Thousand Oaks, CA: Sage Publications.
- National Academies of Sciences, Engineering, and Medicine. (2016). *Advancing the power of economic evidence to inform investments in children, youth, and families*. Washington, DC: The National Academies Press. Available at <http://www.nationalacademies.org/hmd/Reports/2016/Advancing-the-Power-of-Economic-Evidence-to-Inform-Investments-in-Children-Youth-and-Families.aspx>
- Plotnick, R. D., & Deppman, L. (1999). Using benefit-cost analysis to assess child abuse prevention and intervention programs. *Child Welfare*, 78(3), 381–407.

## Resources

### Administration for Children and Families

Companion Guide: Cost/Benefit Analysis Illustrated

[http://www.acf.hhs.gov/sites/default/files/ocse/companion\\_guide\\_cba\\_illustrated\\_guide.pdf](http://www.acf.hhs.gov/sites/default/files/ocse/companion_guide_cba_illustrated_guide.pdf)

Companion Guide 2: Cost/Benefit Analysis Illustrated for Child Welfare Systems

Chapter 1: Introduction and Purpose

<http://archive.acf.hhs.gov/programs/cb/systems/sacwis/cbaguide/chapter1.pdf>

Chapter 2: APD Documentation

<http://archive.acf.hhs.gov/programs/cb/systems/sacwis/cbaguide/Chapter2.pdf>

Chapter 3: Cost/Benefit Measurement

<http://archive.acf.hhs.gov/programs/cb/systems/sacwis/cbaguide/chapter3.pdf>

Cost Analysis in Program Evaluation: A Guide for Child Welfare Researchers and Service Providers. Children's Bureau.

[http://www.acf.hhs.gov/sites/default/files/cb/cost\\_analysis\\_guide.pdf](http://www.acf.hhs.gov/sites/default/files/cb/cost_analysis_guide.pdf)

Cost Analysis in Program Evaluation Videos. Children's Bureau.

<http://www.acf.hhs.gov/programs/cb/capacity/program-evaluation/virtual-summit/cost-analysis-videos>

Feasibility, Alternatives, and Cost/Benefit Analysis Guide

<http://archive.acf.hhs.gov/programs/cb/systems/sacwis/cbaguide/index.htm>

Title IV-E Child Welfare Waiver Demonstrations: Suggested Evaluation Plan Outline. Children's Bureau.

<http://www.acf.hhs.gov/programs/cb/resource/evaluation-plan-outline>

### Centers for Disease Control and Prevention

Developing an Effective Evaluation Plan

<http://www.cdc.gov/obesity/downloads/cdc-evaluation-workbook-508.pdf>

### National Academies of Sciences, Engineering, and Medicine

Advancing the Power of Economic Evidence to Inform Investments in Children, Youth, and Families

<http://www.nationalacademies.org/hmd/Reports/2016/Advancing-the-Power-of-Economic-Evidence-to-Inform-Investments-in-Children-Youth-and-Families.aspx>

### National Implementation Research Network

Stages of Implementation Analysis: Where Are We? <http://implementation.fpg.unc.edu/resources/stages-implementation-analysis-where-are-we?>