Cost Analysis Methods at the International Rescue Committee

Analyzing the Cost of Humanitarian Programming at the IRC

This living document expands upon the previously available methodological summaries, written by Caitlin Tulloch in 2015, and Derek Lee in 2023. As such this document will be updated periodically as we expand our approach to cost research.

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1 SUMMARY

Humanitarian organizations have historically lacked consistent use of cost data, limiting their ability to make informed decisions about which programs are the most cost-effective investments. The International Rescue Committee (IRC) addresses this gap by conducting routine cost-efficiency and cost-effectiveness analysis to understand how implementation methods and contexts affect costs and outcomes. Cost-efficiency measures cost per output (e.g., children treated), while cost-effectiveness measures cost per outcome change (e.g., improved literacy) alongside impact evaluations able to produce effectiveness measures. Using a standardized methodology enables evidenced-based decisions for planning, budgeting, and program design, aiming to maximize the impact of each dollar spent in humanitarian contexts.

This methods paper acknowledges the challenges of comparing costs across different contexts and intervention types, which complicate direct comparisons and can lead organizations to draw inconsistent or misleading conclusions when they apply divergent assumptions, perspectives, or costing methods. To address these challenges, this paper frames the use of a consistent, standardized costing methodology as essential for meaningful comparison across programs, sectors, and countries. Sector-level learning depends on applying the same methodological decisions uniformly across analyses, even when interventions differ in design, scale, or outputs. When organizations apply cost data consistently, they can support comparative analysis, improve planning and budgeting, and better understand how context and implementation choices drive variation in costs and impacts across humanitarian programs.

This paper lays out the costing methods used by the IRC's Best Use of Resources (BUR) team and describes the perspectives adopted, assumptions made, and limitations of the analyses. It explains why and how the IRC applies cost-efficiency and cost-effectiveness analyses for a range of external stakeholders, including donors and academic partners, who seek transparency into the IRC's costing methods and their application to humanitarian programming.

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2 Introduction

2.1 Motivation

Following with impact evidence revolution of the 2000s, the humanitarian and development sector have increasingly emphasized the role of cost analysis. Since the mid-2010s, methods on standard and transparent cost analyses have evolved to understand what development and humanitarian programs actually cost compared to the effects created. Despite this, cost evidence is still in its nascency, interventions are often described as “cost-effective,” but often without being grounded in actual cost data. Where there is data, there is little consensus on how to evaluate and interpret it.

Cost analysis systematically reviews program spending, through transparent, replicable methods to show how resources are used. These analyses allow users to identify (in)efficiencies in aid interventions and assist in building the empirical foundation for evidence-informed decision making about which activities to prioritize, based on fairness, client needs, effectiveness, cost-efficiency, and quality.

Humanitarian needs continue to grow while funding is shrinking. With limited budgets, the aid community must ask: Which activities make the biggest difference for the most people? Cost analysis provides evidence to guide these choices and shows what programs actually cost. It also makes tradeoffs clearer: high-impact programs may cost more, while cheaper programs may deliver less impact.

Standardized costing methods allow us to compare programs and understand how context affects cost-effectiveness. Without standard methods, we limit our ability to compare results and use them to inform program and policy decisions. Evidence-informed policy depends on transparent, consistent costing to guide future program design and to clearly communicate to donors what it takes to deliver quality programming.

2.2 Objectives

This methods paper explains the standardized cost analysis approach the IRC has used over the past decade. We outline the methods, assumptions, and limitations of these analyses. By clearly articulating our approach, we encourage other organizations to adopt similar methods, or where they differ, to explain their methods transparently. When humanitarian organizations use standardized cost analysis methods, we will be able to produce sector-wide data that is comparable and enhance evidence-informed decision making for program and policy makers alike.

This paper describes the IRC’s default approach to cost analysis. Any instance in which we differ from this methodology will be transparently reported in our publicly facing workbooks and publications.

3 Conceptual and Methodological Framework

3.1 Costing Perspective

Cost analysis at the IRC evaluates the financial expenditures for implementation incurred by IRC and implementation partners rather than the larger economic costs incurred.[1] Meaning, we cost from the 'implementer perspective'[2] which describes how resources are used for an intervention to achieve a given set of outputs or outcomes. Given quantity of cost analyses requested at the IRC, there is limited capacity to undertake an additional evaluation of social costs within our analyses on a routine basis.[3]

This top-down micro-costing approach using available accounting data enables us to evaluate what resources are *actually* required to re-implement an intervention. Coupled with standard methodology, these analyses create an empirical foundation to improve our understanding operational efficiency that is realistic and replicable.

3.2 Ingredients Method

The IRC bases its cost analysis methodology on Levin's (2001) Ingredients Method to assess the cost-efficiency and cost-effectiveness of humanitarian programs. In this approach, we identify all inputs (or "ingredients") needed to run a program and categorize spending according to these inputs. We then break down retrospective expenditures, analyze and report them at the budget-line level.

We can think of this like breaking down and evaluating the cost for each ingredient that goes into baking a cake. Understanding how much each resource, or ingredient, is required can allow others who want to replicate programming to use this as a template, or recipe for future implementation.

Program ingredients are the resources used to deliver program's activities. They usually align with budget line items but can also include items not listed in the budget, such as donated goods.[4] Knowing the total cost, unit cost, and number of units for each ingredient helps us see which resources drive most of the costs and how they contribute to differences in cost-efficiency or cost-effectiveness across programs.

Example: If cash transfer programs in the Middle East cost more per dollar transferred than in Central Africa, this kind of breakdown can help explain why. Is it due to higher staff costs, more complex management needs, or smaller transfer amounts? Understanding the cost components helps answer these kinds of questions.

At the IRC we value transparency and data sharing. For this reason, we make these ingredients publicly available on our costing website and encourage

[1] While we include in-kind donations essential to the delivery of the intervention, we do not routinely evaluate economic social costs or the value of consumer surplus.
[2] McEwan (2011) suggests that we determine the costing perspective of the study by identifying the agent or entity that is incurring the costs. The 'implementor perspective' is also sometimes referred to as the 'program perspective'.

[3] There are a few select cases for which BUR has deviated from this approach and incorporated a social costing element, to respond to the unique needs of a given research study. Example publication is forthcoming (expected to be published in 2026).
[4] Sometimes, we need to split a budget item into multiple ingredients or combine items to match what the analysis needs. The objective is to track all costs clearly and match them to each ingredient, based on the goals of the cost analysis.

others to share the same level of disaggregated data in order to better understand and learn from each other about how to implement efficient programming.

Since the objective of cost analysis at the IRC is to provide an evidence basis for resource allocation, program design, and advocacy and funding decisions, the ingredients method with its disaggregated approach facilitates transparency into the underbelly of cost informing the analysis findings. This can help program designers understand what type of resource allocation was required and how the program was designed to achieve the given outputs and outcomes. While also disclosing to donors what resource commitments are necessary for implementation.

4 INTERPRETATION AND APPLICATION

Output from cost analyses should always be interpreted through the lens of the assumptions made and the context in which the program or intervention takes place. At the IRC, we discourage interpreting cost analyses based solely on the numeric result, but instead encourage evaluation of the program quality, modality, and contextual constraints alongside any cost-efficiency or cost-effectiveness estimate.

Interpretation of cost data is not straightforward and there is no singularly agreed upon method. For this reason, it is imperative to clearly state the costing perspective and methodological framework which allows users to better interpret the data and findings. We rely on a variety of quantitative and qualitative methods, each with advantages and limitations. The following provides a brief overview of our general approach to program design or policy-relevant cost questions:

What are the total and unit costs of an intervention? Which categories or ingredients drive total cost? We use a cost-economy analysis to assess the basic cost structure of the project implemented, based on retrospective cost data using the ingredients-based approach.

What is the cost of delivering one unit of output? What factors drive efficiency (delivery model, staffing, dosage)? How do we achieve operational efficiency gains? A cost-efficiency analysis to calculate the cost-per-output[5] and classify costs as fixed or variable to assess which ingredients may drive program efficiency. This is coupled with qualitative interviews with program teams to understand the project's operational structure and identify where operational efficiency gains can be made.

What is the cost to achieve a change in outcomes? How should we implement to maximize impact with limited resources? These questions are answered using a cost-effectiveness analysis, which requires the presence of an experimental or quasi-experimental impact evaluation. These analyses produce cost per outcome estimates.[6] By comparing cost per effect across programs, against the same outcome, we can learn about which implementation modality maximizes impact given the resources spent.

What is the relative cost-efficiency/cost-effectiveness of different interventions across different contexts and implementers? Which intervention might be most cost-efficient/effective for a given context? Meaningful cross-context cost comparisons require more than lining up cost-effectiveness ratios. Context, client characteristics, and implementation choices shape both costs and impacts. We are experimenting with answering these questions by using pre-existing cost evidence, selecting key variables relevant to future programming and

[5] **Cost per output** is available through most cost analyses at the IRC, given that most all include a cost-efficiency component, whereby costs are compared to the number of outputs (i.e., clients, households, etc.) served. These outputs are encouraged to stay consistent across thematic focus areas, such as nutrition, family planning, education, livelihoods, and climate interventions. These cost-efficiency estimates provide insight into how many dollars it takes to reach clients or households, illuminating the operational efficiency of the intervention and its key cost drivers.

[6] **Cost per effect** observed is possible for analyses accompanied by an experimental or quasi-experimental impact evaluation that produce standardized effect sizes. Again, we encourage thematic focus areas to remain consistent in the outcomes they evaluate in their impact evaluations, given the effect size serves as the denominator in the cost-effectiveness ratio. This means that costs per effect among different outcomes are not comparable.

examining insights across studies within that context, client group, or implementation approach. Here, evidence is clustered and displayed in rank-ordered charts, or scatterplots, using separate visuals for different combinations of context, client, or implementation factors. These visuals reveal what drives variation and support more transparent interpretation. As an emerging area of research, we are experimenting with how to approach this, largely through (a) qualitative analysis, narrative summaries[7] and interviews, (b) descriptive quantitative summaries of key variables, and including visual analysis, and (c) quantitative analyses such as principal components analysis, regression analysis, and other correlation analyses. The approach depends on several factors, mainly: available evidence for a given methodology and the applicability of the methodological technique to the research question.

Are integrated programs more efficient than siloed ones? How would technology, dosage, or delivery changes affect efficiency? How do costs change with scale? Scenario models answer these "What if...?" questions by building on existing cost-efficiency or cost-effectiveness data and estimating how costs change under different delivery modalities or program sizes. We develop interactive Excel workbooks (and are experimenting with more user-friendly platforms, e.g. SCALE tool) that summarize key costs for each delivery option and allow users to toggle design features to see how total costs and cost per client shift under each scenario.

To project how costs change when programs scale, we model how increased reach affects total and unit costs, including when interventions begin to achieve economies of scale. These models rely on prospective assumptions about how costs behave as reach expands, particularly how we classify each ingredient as fixed, step-variable, or variable. Assigning these cost types during cost-efficiency and cost-effectiveness analyses helps us generate cost hypotheses, guide recommendations, and translate the underlying data into scenario models that show how costs respond as programs change in size or scope.

[7] Narrative summaries are essential alongside quantitative clustering. They explain delivery models, identify cost drivers, and highlight operational constraints that affect costs and outcomes. Qualitative interviews at project close-out can deepen these narratives by capturing lessons learned, perceptions of cost drivers, and ideas for efficiency. Pairing visuals and tables with narrative summaries ensures comprehensive cross-context comparisons and clarifies how far findings may generalize to similar contexts or client groups.

5 LIMITATIONS AND RISKS

5.1 LIMITATIONS

Cost analyses are always limited by data available, in terms of transaction data on program implementation, and access to program implementors who understand the day-to-day use of resources, time and effort. Analyses always require a set of assumptions (as discussed throughout this document) which will invariably limit what the cost results can say in response to a particular research question. There is no "true cost", for this reason we must always transparently disclose the cost perspective we are taking (Section 3.1) and approach to gathering this data (Section 3.2).

Cost analyses are also always limited by the type of output or outcome data available (Appendix B2). For example, in the absence of attribution data from an experimental or quasi-experimental impact evaluation, we cannot infer cost-effectiveness. Similarly, macro questions related to cost-benefit or social return on investment require additional data collection, validation, and assumptions, that are often contested. Given the time and resources required for these analyses, the uncertainty of conclusions, and the relatively lower decision-relevance for our work, the IRC does not currently conduct these analyses (Appendix B2, Box 1).

Cost evidence remains highly context-sensitive, creating challenges for generalizability and comparability across programs in various contexts. The most reliable comparisons come from interventions designed and evaluated for comparability within the same context, like A/B tests. In practice, though, we often need to compare cost evidence across regions or settings. Because both costs and effects vary by context, cost-effectiveness ratios are difficult to interpret across different settings. For this reason, comparability across contexts is limited, and should be assessed with caution. We are continuing to assess different methods to conduct cross-contextual comparisons.[8]

5.2 RISKS

Risks to cost analyses are introduced on the cost analysis side, as well as the impact evaluation side. Within the locust of control of cost analyses, the following outlines primary risks and mitigation measures:

Risk	Mitigation
Frequent staff turnover risks obtaining necessary information about program implementation	Timely data collection and follow up during or immediately after implementation
Recall bias	Monthly data collection (reflecting on the previous month of implementation)
Imperfect reflection on time and effort estimations	Analysis is not sensitive to a 5-10% deviation in allocations will not affect final cost per output or cost per effect estimates. This can be tested upon request via a Monte Carlo simulation.

[8] Reach out to Mikaela.Cochran@rescue.org for more information on how IRC is beta-testing cross-contextual cost comparisons.

Variation among analyst perspectives and interpretations	Analysts are required to take clear notes about the meanings and definitions of activities analyzed, and rationale for why allocations were made in a particular way, to ensure that other analysts and users can understand how and why data was collected as such. BUR also tries to ensure that the same analyst assigned to a project over its lifespan, and ensures that there is consistency among the program staff involved in the data collection to avoid introduction of too many different perspectives on a single analysis, which would add unnecessary noise.

In cases where uncertainties are present in the data, results are accompanied by sensitivity analyses,[9] and clear confidence intervals reflecting the range of possible outcomes.

On the impact evaluation side, additional risks are introduced for interpretation and usefulness of the data when impact evaluation specialists do not evaluate outcomes consistently, as it creates limitations to cross-program comparisons. This is an understated but extensive risk to the useability of cost analysis, largely because statements of cost-efficiency and cost-effectiveness are comparative in nature: to state that a program is more cost-effective requires it is compared to another program, with a similar denominator (output or outcome). At the IRC we attempt to mitigate this by requesting that research teams adhere to consistent output and outcome measures across programming within a given technical area (i.e., livelihoods, nutrition, etc.).

ABOUT THIS BRIEF

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For more information, please visit www.rescue.org/cost-analysis or contact us: CostAnalysis@rescue.org

The **Airbel Impact Lab**, the IRC’s research and innovation team, designs, tests, and scales life-changing solutions for people affected by conflict and disaster. Our aim is to find the most impactful and cost-effective products, services, and delivery systems possible. Airbel works to develop breakthrough solutions by combining creativity and rigor, openness and expertise, and a desire to think afresh with the experience of a large-scale implementing organization.

Airbel Impact Lab

[9] Conducting sensitivity analysis, whether one-way, two-way, or more advanced approaches such as Monte Carlo simulations, helps test how results change under plausible variations in inputs, methodological choices, or assumptions. This not only strengthens transparency but also prevents over-interpretation of point estimates, highlighting cases where interventions that appear distinct may in fact be statistically indistinguishable once uncertainty is considered.

APPENDIX

A. GUIDES, TEMPLATES AND TOOLS

Resources for how to complete a cost analysis are available on the IRC costing website, including:

- Our glossary of commonly used terms can be found here.
- A video tutorial on cost analysis in Excel
- Templates for cost analysis in Excel
- A step-by-step excel-based cost analysis guide
- Dioptra an automated costing tool
- A summary of routine calculations used in cost analysis

B. SET-UP OF COST ANALYSIS

Setting up cost analysis at the IRC includes: defining the cost perspective (discussed above), intervention, research question and cost question, identifying the appropriate analysis, activity buckets, and ingredients, and determining with program staff.

B1. Define the intervention, research and cost question:

Before beginning any cost analysis, **the intervention evaluated must be defined**, along with the time-frame of implementation, and details of the geographic location.[10]

During this stage, the technical, research and program teams must **identify the policy-relevant question** they are exploring through the evaluation. Policy questions can focus only on cost, but are often paired with questions explored in an impact evaluation or in implementation research.. The cost question identified should align with the objectives of the evaluation or research question. A thorough and clear articulation of the **cost question** clarifies the learning objective of the analysis, which is imperative to guide the cost analysis focus and scope.

In this stage, we also want to clearly **identify the output or outcome** the analysis will focus on. Given that the type of cost analysis (i.e., cost-efficiency, or cost-effectiveness analysis) depends upon the availability of outcome data, the program and research teams must identify at this point whether outcome data will be produced in the form of a standardized effect size that can be compared against to inform the cost-effectiveness ratio. For cost evidence of new interventions, this is a good time to pause and conduct a literature review to determine what other outcomes or outputs are common in the literature, to ensure alignment and possible benchmarking against other cost evidence. Ensuring that analyses compare to commonly used outputs or

Example: If the objective is to understand what it costs per household to deliver a cash transfer, then a cost-efficiency analysis is appropriate. However, if the objective is to understand the cost associated with the cash transfer inducing a change in income, a cost-effectiveness analysis will be required.

[10] This means identifying the start and end date of set-up and implementation, to ensure that cost analyses cover this time period of spending, and not before or after, to avoid risk of incorrectly estimating costs that contributed to the measured outputs or outcomes.

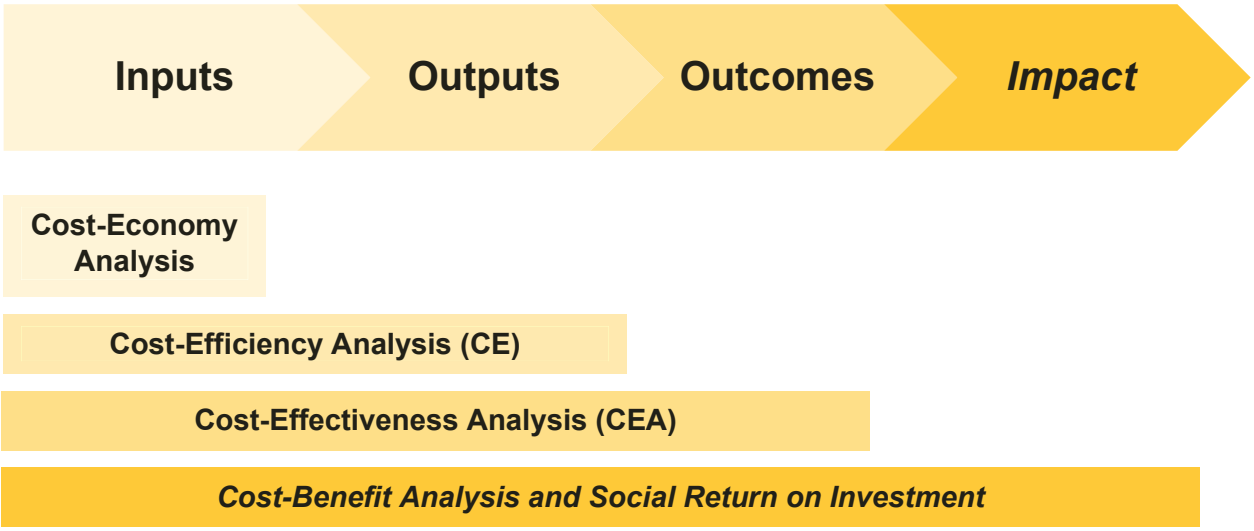
outcomes is imperative for the ability to compare cost analysis output. Without this, cost analyses remain limited in comparability.

If attribution (effect) is not determined through an experimental design or a quasi-experimental design, the cost-per-effect will not be evaluated. The reason BUR sticks to this standard of outcome measurement is for the sake of comparability across interventions, given that effect size is the denominator within the cost per effect ratio.

B2. Identify the appropriate analysis:

Once we've identified the cost question and available output or outcome data, we need to identify which cost analysis type will be feasible. We can think about this in tandem with a log-frame, as depicted in Figure 1 below.

Figure 1. Cost analysis relation to log frame



The following summarizes the types of analyses described above, what inputs are required, and what we can learn from each of these and their limitations. To date, cost analysis at the IRC focuses on **cost-efficiency or cost-effectiveness**, rather than cost-benefit analysis (CBA). Refer to Box 1 on the next page for more information.

Cost-economy evaluates the total cost of inputs to a project. In the case of anticipatory action, this can help us evaluate a question such as "How much did we spend on setting up anticipatory action systems?" This analysis is not able to speak to cost-efficiency or cost-effectiveness, but it does help provide insight into the cost structure of the program where we can begin to hypothesize about potential cost drivers.

Cost-efficiency evaluates total program costs and compares them against the number of outputs served, allowing us to evaluate cost per client or cost per household. Building on our example, a question for anticipatory action programs might be, "How much does it cost per household to deliver anticipatory cash?". While this analysis is not able to speak to cost-effectiveness, it does provide insight into it. This analysis helps us evaluate how costs types

(fixed or variable) spread across the client base, to understand how the program is operationally efficient and identify areas where efficiency gains could be made.

Cost-effectiveness builds upon the former two, evaluating total cost per client against the effect observed through impact evaluation. In the case of anticipatory action, we can ask “How much does it cost per change in coping strategies as a result of the intervention?” This analysis allows us to learn about what it costs to induce change (outcome) through the intervention. We can evaluate if one program is more cost-effective than another only when they are evaluated against the same outcome. A single cost-effectiveness analysis is insufficient to conclude cost-effectiveness, as we learn more when comparing against other interventions. Cost-effectiveness also compares costs to only one outcome at a time, rather than a grouping of outcomes as does cost-benefit analysis. Refer to Box 1, below.

At the IRC we prioritize running cost-effectiveness analyses anytime an RCT or quasi-experimental design is deployed, to capitalize on the opportunity to combine cost with effectiveness insights and fill in key data gaps in the sector. However, when this is not possible, we will prioritize cost-efficiency as a default, to help the organization learn about operational efficiency.

Box 1. Why does IRC does not prioritize cost-benefit analysis?

Cost-benefit analysis (CBA) is a comprehensive tool that estimates the total costs and expected benefits of an intervention in monetary terms, enabling a direct comparison to assess whether the intervention delivers net positive value for money. Unlike cost-efficiency or cost-effectiveness analysis, CBA does not require a comparison to other programs to determine whether an intervention is worthwhile. Because benefits are monetized, CBA can also accommodate multiple outcomes at once, making it uniquely suited for multi-sector or cross-cutting interventions.

However, the limitations of CBA are also important to consider. Some approaches to cost analysis monetize client time using low prevailing wage rates in informal or emergency labor markets. Applying these rates can substantially understate the real burden borne by clients and caregivers, creating a misleading impression that participation costs are negligible when, in practice, they may represent a significant share of household time and effort. **Monetizing outcomes can be methodologically complex and ethically sensitive**, particularly when valuing life, health, dignity, or social cohesion. The analysis approach requires **additional data collection and typically relies heavily on assumptions** (especially relevant in humanitarian environments) or benefits transfer from other contexts. However, given the dynamic and changing humanitarian environments that the IRC works in, time and effort spent on this additional data collection is seldom justified given the risk that changes in context (outside of IRC’s control) will influence the manifestation of benefits to clients.

While there may be cost questions at IRC in which CBA would be suited to answer, we believe that cost-efficiency and cost-effectiveness analyses offer a more consistent approach organizationally that allows for transparency into costs of program while avoiding the risk of undervaluing informal labor. They allow for greater comparability across programs and the existing cost evidence IRC has already generated, clearer communication of results to diverse

stakeholders, and stronger alignment with IRC's emphasis on practical, actionable cost evidence in dynamic humanitarian settings.

B3. Identify the activity buckets:

Next, the activity buckets need to be identified and defined. Activity buckets are discrete program activities for which time, effort and resources can be assigned. These activities should align with the cost question and learning objective of the cost analysis.

Defining these activities should be done in collaboration with technical, program and research teams, to ensure accuracy, and to ensure there is a clear and shared understanding of what each activity is and how it contributes to the output or outcome.[11]

Example: Activities and Ingredients

Activity Buckets

Ingredients	BUDGET	Set-up	Cash distribution	Other livelihoods activities
	Program manager			
	Cash advisor			
	Travel costs			
	Cash for disbursement			

Apart from the key program activities analyzed in response to the cost question, there are a few additional activities that require special attention:

Shared costs and overhead: As costs which support the entire grant, we allocate only the portion tied to the activities analyzed, often between 20% and 90% depending on how many other activities the grant funds.

Set-up costs: These are typically one-time activities that serve all activities analyzed, which are distributed proportional to the number of clients served per activity.

Research costs: Research costs are put in a separate activity bucket as a placeholder but are not included in the overall cost total. This is because research is not required to re-implement the intervention.

Monitoring and Evaluation (M&E) costs: Compared to research, routine M&E is required for reimplementation, however it typically supports research data collection as and monitors all activities in the intervention. Because of this, as of 2026, BUR adopted the approach whereby

[11] In our Excel-based Cost Analysis Protocol, we require all analysts to articulate the implementation activities that comprise each of these buckets to retain common understanding across all respondents and ensure clear interpretation at the end of the program.

we estimate an average or standardized M&E cost across interventions and apply this figure uniformly.[12]

Refer to our Glossary of Terms for further description on the above.

B4. Identify ingredients:

Ingredients are derived from the program budget lines, including both **direct program cost and shared program cost** lines.[13] All budget ingredients fall into unique cost categories that are consistent across all programs. The ingredients we track in the data collection period must be associated with one of the above-mentioned activity buckets, serving as an *ingredient* to make that given activity work.

Cost analysis at the IRC typically relies on country program budgets to identify these ingredients, given that we assume they provide a comprehensive list of all resources required to be funded to implement the intervention. When donated goods are used as an input to a program, but not listed on the program budget, these will be added into the analysis separately. The IRC cost analysts must therefore ask technical, research and programming teams if these are used, to know whether and how to incorporate them into the analysis.

Analysts overseeing the cost analysis work with country program staff to identify which budget lines serve as ingredients for the intervention evaluated and any outstanding donated ingredients. As of 2026, ingredients will also be classified as fixed, step-variable, and variable, to better inform cost hypotheses from cost analyses (Appendix F). Where possible, it is also important to gather at this stage the unit costs, and number of units expected to serve each ingredient, as well as the year in which the good was purchased. This combination of information helps to inform cost hypotheses resulting from the analysis and set analyses up for translation into scenario/scale models.

Non-IRC Expenditures: When estimating costs from a program perspective, analysts should include in-kind donations when they represent material inputs that the program would otherwise need to purchase. These inputs include donated commodities—such as vaccines, medicines, or food rations—and donated services—such as transport or warehouse space—when their market value can be reasonably estimated. Excluding these inputs understates the true cost of delivery and biases comparisons against programs that procure these items directly.

The purpose of cost analysis is to capture the resources required to re-implement a program. This requires accounting for costs borne by governments, partners, and other external actors, in addition to those incurred by the IRC. Humanitarian programs often rely on public infrastructure,

[12] This acknowledges that M&E represents a necessary overhead cost of implementation (allowing for comparability with other external programs that include M&E costs), without overstating or distorting the costs of interventions. It also has the benefit of reducing the time and effort required to disaggregate and allocate M&E expenditures for each intervention, while still ensuring that the costs of maintaining an adequate monitoring system are captured. The rationale for this approach is as follows: routine M&E is not part of the intervention's theory of change because it does not directly contribute to achieving outputs or outcomes. However, it is essential for monitoring implementation, identifying risks, and ensuring accountability. Because M&E costs vary for reasons often unrelated to program efficiency (for example, the seniority of staff leading M&E teams), allocating actual M&E costs to each intervention risks biasing comparisons and misestimating cost-efficiency. For transparency, the M&E costs are assigned to their own activity bucket, so users can observe the unique costs associated with those activities. From here, M&E costs can be distributed across other activities proportional to spend, as we do with support costs.

[13] **Shared (support) costs**, which are resources that support multiple programs, are also an ingredient but are dealt with during the analysis phase.

government staff, or in-kind support from international agencies. When these resources substitute for implementer expenditures, excluding them misrepresents total program costs and weakens cross-context comparability.

Example: For example, in the Dadaab refugee complex in Kenya, the IRC directly runs and staffs medical facilities, covering salaries, supplies, and infrastructure. In many other contexts, similar health programs rely on donated medical supplies or government-run facilities. A cost analysis that includes only IRC expenditures would therefore suggest that programs in Dadaab are less cost-efficient, not because they use resources inefficiently, but because costs borne by governments or partners are made visible in one context and invisible in another. Including external costs corrects this distortion and enables fairer comparisons.

Analysts should value donated inputs at market prices whenever possible and document both the quantity used and any associated logistics costs, such as shipping or import fees. When expenditure data from the providing organization (e.g., a ministry of health or UNICEF) are available, these data should be used as the most accurate representation of costs incurred. When such data are unavailable, analysts may model costs using unit prices and client-level data, noting that this approach is less precise and may not capture wastage or unused inputs.

If governments or partners bear substantial personnel costs, analysts should include these costs when external staff contribute meaningfully to implementation. This requires estimating time spent on program activities and allocating salary costs proportionally. Where staff dedicate fixed days to an activity, analysts can calculate allocations as a share of the workweek; where activities are embedded in routine duties, more detailed time-use estimates are necessary.

Excluding government and partner costs can make agencies appear more cost-efficient by shifting financial or time burdens onto other actors. This practice can lead to under-resourced programs, misinformed policy decisions, and incentives that externalize costs to governments, partners, or clients. For this reason, analysts should define the scope of external cost inclusion based on the learning objective and transparently document any excluded costs.

Although collecting external cost data can be resource-intensive and may not be necessary for every analysis, analysts must weigh this burden against the risk of biased or misleading conclusions. When analysts omit external costs, they should justify the decision explicitly and caution users against interpreting results as reflecting the full social cost of program delivery.

In such cases, analysts should calculate external costs separately from IRC costs so they can be added to or excluded from cost-efficiency or cost-effectiveness analyses, depending on the research question or dataset comparability. This approach preserves transparency about what the IRC spent directly and what additional resources are required for full replication.

The same approach applies to “add-on” programs that build on existing interventions. Analysts should cost both the foundational program and the add-on to communicate the total resources

required for replication, while clearly distinguishing costs attributable to the add-on versus the original program.[14]

Client Costs: By contrast, we do not include contributions of time or effort from clients unless the research specifically requires it. Humanitarian programs often impose real but unbudgeted costs on clients, including the opportunity cost of time, foregone income, and out-of-pocket expenses incurred to access services. These costs represent a genuine resource burden on beneficiaries and can materially affect comparisons across delivery models and contexts.

We define client costs as the sum of time spent participating in program activities, income lost due to participation, and direct expenses such as transport or fees. While IRC cost analyses do not routinely include these costs, we may incorporate them when needed to answer specific cost questions—particularly when comparing delivery modalities that shift costs onto clients.

Estimating client costs requires additional data collection and interpretation and can be resource intensive. In past analyses, IRC has worked with external partners to collect detailed time-use data, including caregiver activity calendars, to estimate opportunity costs. Surveys have also been used to collect employment and wage information to estimate foregone income. In many humanitarian settings, especially among displaced or informally employed populations, assigning a monetary value to client time remains difficult and highly uncertain.

Valuing client time also raises ethical concerns, particularly in informal labor markets where prevailing wage rates may be extremely low. Using these rates can make client costs appear negligible relative to implementation costs, despite representing a substantial household burden. For example, a client cost of USD 6 to access malnutrition services may seem small compared to an implementation cost of USD 160 per child treated, yet for caregivers it may represent the equivalent of roughly 20 hours of daily wage labor.

Despite their importance, we treat client costs as outside the program perspective because the intervention does not directly bear them, and valuing them would introduce inconsistency and unnecessary complexity. Instead, we document time, effort, and other non-material costs qualitatively in the narrative. While we do not assign monetary values, we can characterize these costs where possible (e.g., “Clients reported spending up to 10 hours traveling to project sites,” or “Government stakeholders spent significant time over X months collaborating with IRC staff to design the education curriculum”).

When estimated, we present client costs separately from implementer costs rather than adding them to total program costs. This approach preserves transparency, avoids misinterpretation of relative burden across stakeholders, and allows decision-makers to assess trade-offs across delivery models, including whether program designs inadvertently shift costs onto already vulnerable populations.

[14] Costing add-on programs, also mean accounting for the additional time and effort spent by staff associated with the new activity. In some cases, there may not be additional expenditure for staff who were underutilized in the foundational program, but they *are* spending new, additional time on the add-on component. However, this is not always the case, and should be assessed per case.

C. Data collection

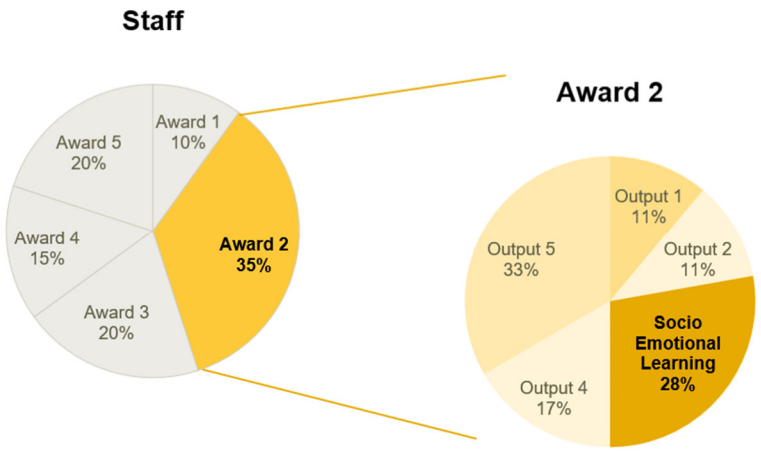
C1. Data collection during implementation period

Analysts conduct monthly data collection calls with the program team to collect allocations about how time, effort and resources were used over the previous month. These calls take place during each month of implementation of programming. Program representatives on these calls should include 1-2 individuals who oversee intervention activities and charging program costs to the financial system. Analysts engage with the program team toward the beginning of every month to reduce risks associated with recall bias.[15] An overview of the types of questions analysts ask during allocation data collection calls can be found in the next section.

When collecting cost data, it is important to include all costs incurred to deliver the intervention to the targeted population, even if actual take-up or compliance was limited. Resources devoted to outreach, staffing, training, or materials are real expenditures regardless of how many individuals ultimately participated. Excluding costs for those who did not engage would risk overstating cost-effectiveness and misrepresenting the true budgetary requirements of implementing the program.

During the monthly allocation calls, the analyst inquiries about how each budget line was used in the past month toward the set of activities identified above. For staff budget lines, this means identifying how their total time was spent over the past month as charged to this grant. While staff are often working on 4-5 projects at a time, the objective of this question is to work backward from the total amount of time spent on the specific grant evaluated and learn about how *that* time was divided up among these activities. This will account for the total pie (100%) of time charged to the given grant over the past month. Refer to Figure 2.

Figure 2. Staff Allocations



[15] Monthly data collection, however, is not always feasible. In cases where there is relatively stable distribution of staff time over a set of activities (meaning, it does not change from month to month), these meetings can be pushed out to every other month or every quarter. In some rare cases, BUR has completed one-time analyses at the very end of the implementation period to capture distribution of time and resources across the entire grant period. We do not advise this for programs that are longer than a year.

The following summarizes the semi-structured interview analysts take during allocation calls, which helps guide program staff in assessing how much time and resources were used in the time period analyzed (typically the past month). Analysts take notes per each of these questions and use the input from program staff to guide the allocations inputted per ingredient (budget line) as associated with each activity. These notes help provide additional context and serve as a rationale for why allocations were distributed as they were during the implementation period. This allows for transparency into the process and can be used when auditing the data to check for rationale and consistency in our workbooks.

Routine Allocation Questions

For staff lines:

1. Was this staff involved in the activities analyzed or support these activities over the past [time period referenced]? If so, how?
2. What types of activities did this staff do to support the activities over the [time period referenced]?
3. During the [time period referenced] how much time and effort was associated with each of the activities analyzed, out of the total time charged to the grant?

For non-staff lines:

1. Did this resource directly support the implementation of the activities analyzed over the [time period referenced]?
2. Is this resource incurred only one time or will it be incurred again in future months of implementation?
3. How did the resource support the analyzed activities? Or did it support all of the program activities holistically?
4. [For supplies and materials listed as lump sum costs] What is the unit cost of each of these items?

For IRC analysts only, we also always inquire:

1. Was this budget line charged in the past month
2. Has there been or will there be any budget realignment
3. Is implementation on track and planned to end in ___? [month]

C2. Data collection at the end of implementation

At the end of the project, the analyst discusses with project managers and implementation staff their perspectives on key cost drivers, learn from program perspective about what drove or limited efficiency, and what could change in future. Documenting this information systematically in excel workbooks helps ensure that this insight can inform the design and implementation of future interventions.

Intervention End Prompt Questions

1. What costs do you think other stakeholders incurred to help support implementation of this intervention?

    a. *Probe for types of costs by stakeholder (e.g. partner government, clients). They do not need to estimate the costs, just describe what kinds of costs might have occurred and see if they can quantify (not monetize) the inputs (e.g. X hours to participate in trainings, meeting space for an hour on a weekly basis, room in vehicles for travel to project sites).*
2. What were the major cost drivers for this intervention from your perspective? Why?
    a. Explore both external factors beyond IRC's control (for example, terrain, seasonal conditions) and internal factors linked to implementation choices.
3. Were there any unexpected costs or savings that arose during implementation?
4. Beyond what you've just discussed, do you have any specific cost-saving measures that you would recommend for future programs, or areas where value for money could have been improved?
    a. *Probe for new ideas of things they would do differently if they could do it again, or given another opportunity in the future.*

5. What other interventions similar to *[intervention]* that were operational in the same areas as *[intervention]* that may have helped contribute to *[intervention]* achievements?
    a. *Probe for who was implementing these interventions, the nature of the activities (e.g. WASH, ag, etc), and to try to understand what the overlap was with these other interventions and [intervention*

D. Data analysis

The Excel-based Cost Analysis Protocol can be referred to for further details on the step-by-step process taken in the excel-based analyses.

D1. Data Inputs

The primary data inputs into cost analyses include: allocations (see previous section), actual transaction data, direct and shared costs, and output and/or outcome data.

We use retrospective transaction data derived from the finance systems,[16] which allows us to evaluate the actual costs of programs, rather than estimating costs as observed pre-implementation budgets. This approach helps us learn about actual costs incurred given that

[16] Cost analyses rely heavily on financial data generated through accounting systems, and the quality of results depends on the accuracy and consistency of those systems. While accounting databases provide precise expenditure data, they also introduce several risks that analysts must actively manage. First, accounting systems are vulnerable to miscoding. Errors in assigning general ledger categories, sector codes, sub-office identifiers, or award codes can distort cost estimates and compromise analysis quality. These risks increase when multiple staff enter transactions or when coding standards are inconsistently applied across teams or country offices. Second, the usefulness of accounting data depends on the strength of underlying finance processes. Well-developed accounting systems with clear controls and standardized procedures improve confidence in expenditure data, while weaker systems increase uncertainty and require additional validation by analysts. Cost analyses therefore implicitly reflect the quality of the financial processes that produced the data. Third, there are practical limits of transaction-level data. Programs often generate tens of thousands of individual transactions, making it infeasible for analysts to review each line item manually. While transaction-level data offer granularity, their volume limits direct usability for cost analysis without aggregation. To mitigate these challenges, the IRC uses budget code mapping as a core strategy. Finance staff track each expenditure against specific budget line items using unique codes, and analysts map these codes to program ingredients and activities. This approach allows analysts to aggregate spending accurately by ingredient while maintaining a clear link to underlying transactions. By systematically mapping expenses from accounting systems to budget structures, the IRC reduces the risk of miscoding, improves transparency, and ensures that cost analyses reflect actual spending aligned with program design.

variables always arise in the field that incur higher or lower costs than expected. We believe that this is important to capture, learn from and socialize among policy makers and donors.

Shared costs[17] are always included in analyses so users can clearly distinguish direct program costs from shared costs. Shared costs refer to country-level operational expenses—such as human resources staff, award managers, country office rent, and senior management—that support all humanitarian programs, regardless of sector. Staff in these roles typically split their time across many projects, and budgets charge their time accordingly.

The IRC allocates shared costs in proportion to the direct program costs analyzed within a grant. Analysts apply a single allocation rate, calculated as the share of direct program costs included in the analysis relative to total direct program costs charged to the award during the same period. For example, if an analysis covers 20% of direct program costs, it also includes 20% of the grant's shared costs.

$$Portion\ of\ Shared\ Costs = \frac{Analyzed\ direct\ program\ costs}{All\ direct\ program\ costs\ in\ grant}$$

This approach uses direct costs as a practical proxy to distribute shared project costs across activities. It avoids assigning indirect costs to a single program while still capturing their essential contribution to program delivery. For instance, although Country Directors do not implement activities directly, their time enables programs to function, and this method ensures the analysis reflects an appropriate share of that support.

Output data is used for both cost-efficiency and cost-effectiveness data, such as the number of clients or households reached, derived through routine M&E evaluations, while cost-effectiveness analyses use outcome data in the form of standardized effect sizes in terms of treatment on the treated, rather than intention to treat.

D2. Adjustments to Costs for Time:

Inflation and Exchange Rates: The IRC accounting software records actual expenses in both the local currency and the U.S. Dollar (USD) using the exact exchange in the period that the transaction was recorded (in nominal terms). For programs less than a year long, no additional adjustments for inflation need to be made. For programs that are longer than one year, annual costs are converted to real (inflation-removed) figures by deflating costs in the years after the first year. Costs should be deflated to the first year of the analysis, what we call the **base year**. Measures of inflation should use average GDP deflators (found at the World Bank World Development Indicators here) rather than consumer price indices, since they cover a wider range of goods and services that are more representative of those in anti-poverty programs (Dhaliwal et al. 2013).

If analyses are conducted in a currency other than USD, convert to USD using the official exchange rate in the base year of the analysis (indicator available here in the World Development Indicators).

[17] Also referred to as support costs.

In circumstances with very high month-on-month inflation (above 2% per month or roughly 25% annualized), it is worthwhile to consider adjusting for inflation on a monthly basis rather than annual, even for projects that are implemented in less than a year. In this case, you will need to use consumer prices (not the GDP deflator which is not available on a monthly basis), often available from national statistics offices (most up to date) or the IMF International Financial Statistics (IFS). Currency base year should always be noted at the top of any analysis to indicate which currency base year the final results reflect.

Discounting: Discount rates are used to adjust costs into present value terms, accounting for the time value of money and recognize that there is an opportunity cost to time.[18] Development organizations typically set one discount rate, used organization-wide, and only apply this to projects that last longer than a year. **In principle, both costs and benefits should be discounted to reflect the time value of resources.** This creates a challenge for cost analyses which measure an outcome at a single point in time, rather than as a longitudinal stream of benefits, resulting in distortion where two interventions can appear different if measured at 6 months vs. at 12 months.

Since we do not know the true effect of interventions at different period of time, we need to make an assumption about an appropriate discount rate. Additionally, because standardizing the timing of outcome measurement across all cost analyses is practically not feasible, we do not recommend discounting outcomes or outputs (effectively applying a 0 percent discount rate to them). This approach is consistent with the broader literature, where cost analyses that discount effects are rare (Levin and McEwan 2001), and aligns with the practice of other development and humanitarian organizations. It also improves clarity for technical staff and implementers, for whom undiscounted outputs and outcomes are more intuitive and less abstract than trying to interpret “discounted” clients or impact measures

However, because the value in cost-efficiency and cost-effectiveness estimates lays in their comparability, which is sensitive to the discount rate, as of 2026 we will begin to run additional analyses showing how costs and effects change under different discount rate scenarios (0%, 5%, 10%, and 15%), so that IRC data points can be made comparable to other organizations with such discount rates. This, however will be done to both costs and outcomes.

D3. Adjustments to Outputs or Outcomes:

Analyses will always include data on the *actual outcomes or outputs* of a program, meaning the actual number of households reached, cash transferred (and mode of transfer – mobile or physical cash), population served, timeframe of intervention, etc. To ensure comparability and avoid overstating impacts, effects should be reported clearly without adding spillovers or multipliers, since these are context-specific and often cannot be generalized across settings.[19]

[18] The formula to discount costs to the base year is as follows. This is used for multi-year programs to discount costs after converting to real costs in the base year, but before aggregating to the base year.

$$PV\ (base\ year) = \frac{cost_{year\ t}}{(1+10\%)^{(year\ t - base\ year)}}$$

[19] Dhaliwal et al. (2013): “In deciding whether to include the effect of spillovers in a cost-effectiveness analysis, one must assess whether spillovers would take place even when a program is scaled up. In the case of deworming, it is reasonable to think that not all children would be at school on the day of a large-scale deworming campaign or some others may not agree to take the pill, yet

While the IRC does not presently model the costs associated with extrapolated spillovers or other externalities, it may consider evaluating these in future, and will experiment with approaches to do so. This however, requires engagement and commitment from academic researchers who are specialists in understanding how impact externalities can be captured and modelled. Apart from this, routine analyses at the IRC focus on the measured, proximal outputs or outcomes captured through evaluations or program data.

In cost-effectiveness analysis, it is essential that costs measured are bound by the same time period in which the outputs and outcomes were achieved. For this reason, costs collected should mirror the implementation period.[20] Extending costs beyond the period of measured outcomes risks distorting the cost-effectiveness ratio by comparing resources and results from different time horizons.

Additionally, as discussed above, the time horizon of costs captured should always match the time horizon of outputs or outcomes produced. An exception to this is when outputs or outcomes reflect a service or benefit that persists beyond the analysis period, in which costs should be amortized across the expected lifespan of the asset, or the outcome measure should be adjusted to reflect its ongoing value. This however, is only possible when there is validated evidence about the value-life span of the output or outcome, and again requires commitment and support of academic researchers involved in the given evaluation. Failure to make these adjustments can create misleading results that infer costs are disproportionately expensive. To date, the IRC has not amortized costs for these situations, but will begin doing so in 2026.

E. Cost categories

The following summarizes the primary cost categories evaluated in IRC cost analyses.

Name	Support or Direct Program	Description
International Staff	Mostly support	All cost items associated with international staff members, e.g. salary, benefits, housing, home leave, professional development.
National Staff	Both	All cost items associated with national staff members, e.g. salary, benefits, insurance, severance, vacation, professional development, hazard pay.
Non-Staff Personnel	Both	All cost items associated with important personnel who may not be official staff members with benefits but play a major role in the intervention, e.g. community health workers, teachers, case workers, protection monitors, latrine builders, training facilitators.

both groups would benefit from the within-school spillovers that would still occur due to the lower overall infection rate. Therefore, if a scale-up is likely to have imperfect coverage within the target population, then it is reasonable to include spillover effects that accrued to untreated targeted children in the original evaluation. However, a scale-up would probably attempt to reach all schools in an area, so spillovers to control schools would not be included in the calculation of benefits. In short, spillover effects should be included only when they are carefully measured and would also occur when the program is scaled up."

[20] For if a CEA is conducted in June but relies on endline outcome data collected in March, only costs incurred up to March should be included in the analysis.

Travel & Transport	Both	All cost items associated with work-related travel, e.g. flights, taxi, accommodation, per diem, visa. This includes vehicle pool expenses such as car rental, motorcycles, fuel, and maintenance.
Materials & Activities	Both	All non-personnel cost items specifically used or procured specifically for the implementation of program activities, e.g. NFI kits, food transportation, cold chain services, warehousing, logistics, cash transfers, training materials, behavior change incentives, surveys.
Assets & Equipment	Mostly support	All capital assets and equipment costs.
Office Expenses	Mostly support	All non-personnel items associated with having offices, e.g. rent, utilities, stationery, office supplies, generators, legal fees, software licenses.
Sub-Grants	Direct	All cost items for goods, services, or activities that are outsourced to and delivered by a partner, civil society organization, government agency, or contracting agency to provide services to clients on behalf of the lead organization.
ICR	Support	Indirect costs that support headquarters (HQ) operations and overall management.

F. Classifying Fixed vs. Variable Costs

The following summarizes BUR's approach to classifying costs as fixed, step-variable, or variable in cost-efficiency and cost-effectiveness analyses, to inform cost hypotheses, support scalability assessments, and guide scenario modeling. We assign cost classifications according to the following:

> **Fixed costs** remain stable over a range of units or clients served within in relevant range (relevant to other contexts or plausible project designs) but may shift with very large scale changes. Examples include IRC rent, senior staff salaries, etc.
>
> **Step-variable costs** stayed fixed over a range of output/clients but then increase in discrete jumps once a threshold is crossed (e.g. one supervisor can oversee five caseworkers, one truck can deliver to three distribution sites but a forth site requires another truck, costs that are relatively fixed per village but adding new villages will increase those costs). These are also sometimes referred to as "step-fixed".
>
> **Variable costs** fluctuate directly with client or activity volume (e.g. cash transfers, vaccines, per diem payments, materials provided to clients)

Distinguishing among these types of costs helps practitioners understand how cost-effectiveness may change with scale. When an intervention is dominated by fixed costs, scaling up allows those costs to be spread over a larger number of participants, often improving cost-effectiveness. By contrast, when most costs are variable, expanding the program will not reduce average costs per participant and in some cases may even make delivery less efficient.

First, **shared operational costs (OPSC)**, also referred to as “support costs” or “shared costs”, are considered step-variable as they increase in proportion to direct program spending. Since these costs are shared and allocated based on overall direct program activity, they tend to increase in “steps” rather than in direct proportion to clients or sites.

Examples include: Management staff (e.g., country director, deputy directors), Support services (e.g., HR, supply chain), Office rent and utilities, and Assets and equipment

Direct program costs are classified based on how they scale with program size. In our cost analyses, we assign a scaling tag by their functional cost category. Scaling tags translate to the cost classification:

Functional Cost Category	Scaling Tag	Nature of Cost
Management Staff	Per Project	Generally fixed unless scale changes drastically)
Implementation Staff	Per Site	Step-variable (varies with large expansion in sites or client volume)
Non-staff Personnel	Per Client	Variable (scales with client volume)
Travel & Transportation	Per Site	Step-variable (dependent on number of locations)
Capital Assets	Per Project	Generally fixed unless scale changes drastically)
Office Expenses	Per Project	Generally fixed unless scale changes drastically)
Program Supplies/Materials	Per Site / Per Client	Variable (based on consumption by site or client)