

A CHILDHOOD COST CALCULATOR COSTING LAB CASE STUDY

AEIOTU EARLY CHILDHOOD EDUCATION PROGRAM IN COLOMBIA

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Introduction

In 2023, the Center for Universal Education (CUE) at the Brookings Institution launched the Childhood Cost Calculator (C3), a publicly available tool for making costing and cost analysis of programs focused on children and youth more accessible to policymakers, implementers, and researchers across the globe. Following the pilot application of the tool in three countries and launch of the tool, a database called the Cost Data Explorer was created to house the cost data collected and analyzed using the calculator. These resources were developed as part of the Brookings Childhood Cost Data initiative which strives to generate quality, comparable cost data on programs seeking to improve cognitive, psychosocial, nutritional, and health outcomes of all children and young people.

With this goal in mind, CUE is working collaboratively with local entities to support the effective collection and analysis of cost data using C3 through “costing labs” so that implementing partners and governments are better able to make data-driven decisions. In addition to bolstering local capacity and increasing the amount

of quality cost data in each lab context, the costing labs illuminate potential challenges and areas for improvement of the C3 tool and allow CUE to conduct action research to uncover the on-the-ground demand-side constraints to more and better costing. Further, by expanding the use of C3, the labs contribute to the global database of consistent high-quality cost data for young children and youth to increase the volume and effectiveness of financing of ECD and education.

Throughout 2024, CUE co-led a costing lab with the Colombian social enterprise aeioTU. This lab consisted of a number of workshops led by CUE in which the team at aeioTU strengthened their knowledge and understanding of costing and cost analysis. Specifically, the team selected a program about which to conduct a costing exercise, conducted a mapping exercise to identify key stakeholders relevant to the project and relevant to costing, identified and refined their key costing goals and questions, participated in a training on the use of C3, and conducted cost entry and analysis. This report shares the experience of the costing lab and the data that resulted from the cost calculations.

The aeioTU organization and Barú 2030 program

Founded in 2008, aeioTU is a Colombian social enterprise that aims to improve quality of life for children in disadvantaged communities through the provision of holistic early childhood education across rural and urban areas of Colombia. It has developed a comprehensive model that integrates early learning centers, digital and hybrid capacity building, and systemic change strategies.

Its educational approach is rooted in play, art, inquiry, and exploration—drawing inspiration from the Reggio Emilia philosophy and adapted to the Latin American context. They partner with national and local governments to strengthen early childhood education systems by building institutional capacity and delivering high-quality services. These initiatives are funded through a mix of public investment and support from private, national, and international development organizations. Since its inception, aeioTU has reached nearly 2 million children between the ages of 0 and 5 and has improved the skills of over 80,000 early childhood educators.

AeioTU's work is anchored in two main pillars:

- **Early Childhood Centers:** AeioTU operates both public and private centers. The private model serves both premium and underserved communities, while public centers are managed in collaboration with national and local governments—including Colombia's Family Welfare Institute (ICBF) and the Buen Comienzo program in Medellín.
- **Integrated Solutions for Educational Quality (SIC):** AeioTU offers a range of tools and strategies to strengthen early childhood systems. This includes:
 - ▶ **Red aeioTU**, a digital learning platform that reaches tens of thousands of educators across Colombia with open resources, training, and communities of practice.

- ▶ A systemic change model, currently implemented in cities like Cartagena, aligns local actors, data use, and service delivery to improve outcomes at scale.

In recent years, aeioTU has been scaling its interventions and impact through the implementation of consulting services and projects in different geographical contexts and programmatic areas across Colombia as well as in Mexico and Panama. Through capacity development programs, innovative solutions, and models to generate cost-efficient and cost-effective solutions for its partners and funders, the organization has targeted a number of focus areas to deploy their interventions. This has included improving social and community inclusion of migrant populations as well as rural and remote populations, work in peacebuilding contexts, training for informal childcare services, and recognition and strengthening within the care economy framework. With the idea of evolving these interventions into scalable programs, aeioTU has sought to improve its cost and pricing with the aim to provide impactful, long-lasting, and cost-effective interventions that can also leverage additional funding and partners in different contexts.

For the costing lab, aeioTU selected a new program in the portfolio, the Alliance for the Systemic Transformation of Barú 2030 (Barú 2030). The project, being implemented by aeioTU and Fundación Santo Domingo from 2025 through 2027, consists of three tiers and brings together several organizations aiming to improve the economic and social development of the community of Barú Island¹ through improvements in early childhood education.

In the first tier of the project, aeioTU intervenes directly in towns by conducting educational practice transformation, improving teaching methodologies, developing a care economy where the organization professionalizes informal childcare, leading professional development

¹ Barú Island, located near Cartagena, Colombia, is home to several Afro-descendant communities, including Santa Ana, Ararca, and Barú. Despite its proximity to one of Colombia's most prominent tourist destinations, Barú faces significant socioeconomic challenges.

centers supporting research labs for early childhood educators, and training families to support parenting practices that enhance children's development. In the second tier, aeioTU focuses on community engagement including driving multisectoral collaboration, community leadership empowerment and training to better equip various stakeholders in the use of evidence in policy-making. In the third tier, which focuses on policy and advocacy, the organization conducts advocacy and communication, establishes communities of practice, and mobilizes investment and space in terms of environmental education and the circular economy. By influencing the participation and mobilization of actors at different levels of the early childhood ecosystem, aeioTU seeks to develop sustainable strategies in favor of the quality of life and development of children in this island community. Understanding the costs of this comprehensive program are critical as aeioTU expands its reach across the country and beyond.

The context: Early childhood education in Colombia

Increasing the amount of available cost data on ECD projects in Colombia is integral not only for aeioTU but also for implementing organizations, national and local governments, and other funders across the country to ensure effective and sustainable investment for ECD. The backdrop to aeioTU's efforts, which are primarily focused on disadvantaged young children in Colombia, is a country in which more than 50%² of children aged 0-5 live in poverty and where the percentage of three-year-olds in early childhood education is one of the lowest among OECD and partner countries.³ While the

2 World Bank, Colombia: Early Childhood Development SABRE Country Report (Washington, DC: World Bank, 2013, 2, <https://openknowledge.worldbank.org/server/api/core/bitstreams/c0f9de25-8b3b-566a-a9d2-c16ac653dae2/content>).

3 OECD, "Colombia – Education GPS: Participation in Education," Education GPS, <https://gpseducation.oecd.org/CountryProfile?primaryCountry=COL&treshold=10&topic=EO>.

Colombian government has demonstrated strong political commitment for ECD through legal frameworks and relatively robust intersectoral coordination, adequate financial investment is still lacking, according to the World Bank.⁴

For example, country-wide advocacy for investment in ECD will require knowing the required budget for programs and how cost relates to the benefits of investment. Further, detailed cost data are needed to tailor programming based on heterogeneity in the population and varied contexts. They are also required for cost-effectiveness analysis which can facilitate priority setting—the selection of one program over another, or one mode of delivery versus another, for example. A costing lab with aeioTU is one piece of the puzzle in increasing the availability of such data and sets an example for the government and other implementing organizations in the country to prioritize the collection and publication of quality cost data.

The costing lab experience

To begin the costing lab process, CUE and aeioTU met initially to discuss costing needs for aeioTU's programs. Subsequently, costing lab and aeioTU program documents were reviewed to better understand each other's practices. After an engagement agreement between aeioTU and CUE, a survey was conducted to understand the pre-costing knowledge, attitudes, and practices surrounding costing. Following this preliminary consultation, a costing lab introduction workshop was held, in which stakeholder mapping training ensued, where aeioTU mapped out its key stakeholders to engage in the costing lab.

After the pre-costing stage, the costing stage began with a costing kickoff workshop between CUE and aeioTU, in which the different types of cost analysis were explored. This was followed by a workshop module with Brookings in which aeioTU refined their costing priorities.

4 World Bank, Colombia, 11.

FIGURE 1

The costing lab experience



The three key goals identified by the organization were capturing and analyzing cost data for the purpose of budgeting and planning, managing program activities, and setting priorities. In addition, the team identified a desire to use the cost data to advocate for further investment in early childhood education across Colombia and as the organization continues to expand operations in Mexico and Panama.

More specifically, the team was interested in answering the following costing questions:

- What is the total cost and cost per beneficiary of the program?
- How are costs distributed across cost categories and resource types?
- How are costs distributed across investment and recurring costs?

These key costing questions and goals were integral in guiding the costing lab, allowing both CUE and aeioTU to ensure that the costing process was addressing the needs of aeioTU and its stakeholders. Having these priorities clear was essential for the lab's relevance to aeioTU, keeping their specific needs for costing at the core of the lab.

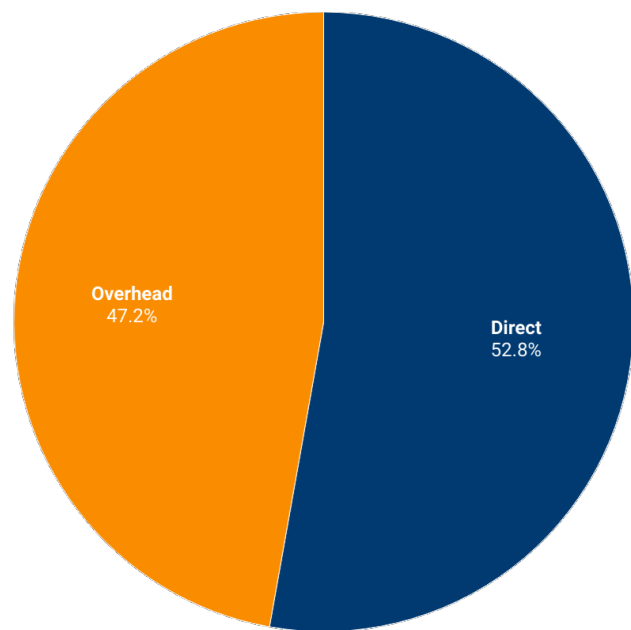
CUE then conducted a training workshop on C3, where core costing team members within aeioTU were introduced to the tool. Following the workshop, aeioTU located the needed data and began to input their costs into C3 and attended bi-weekly check-ins to ensure the tool was meeting aeioTU's needs and to address any difficulties. After the aeioTU team reviewed the cost data findings, including total and unit costs as well as cost category and resource type breakdowns, CUE conducted a review of the cost data. With cost data analyzed, with aeioTU's permission, the aggregate cost

data were added to the Brookings Cost Data Explorer, a public database of cost data from across the globe.

Cost summary and analysis

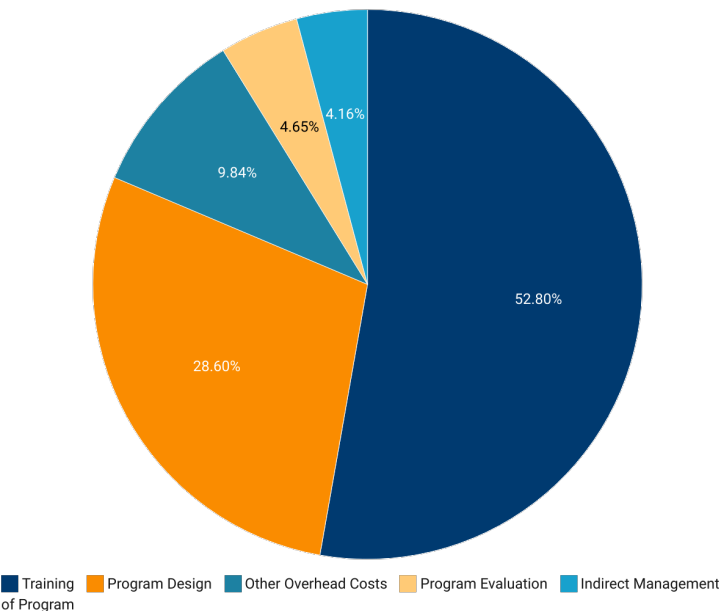
The analysis of the Barú program revealed a unit cost (per child) of 6 million COP, or approximately \$1,500 USD. The total cost for the Barú 2030 project was 3.66 B COP, approximately \$884,604 USD, of which over half (52.8%) represented direct costs and 47.2% represented overhead costs. The organization noted that the calculation revealed higher than expected overhead costs, which led to a closer exploration of these costs and ways to reduce them.

FIGURE 2
Distribution of costs by cost classification



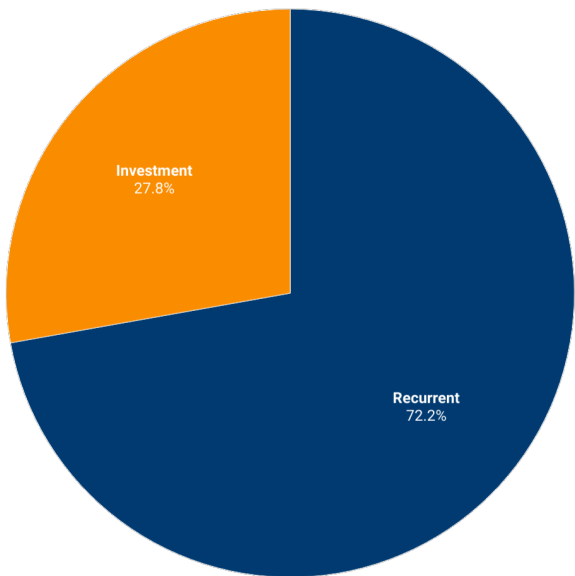
In Figure 3, an examination of cost drivers by cost categories revealed that over half of the costs came from training (52.8%) and nearly a third represented program design (28.6%). Other cost categories included other overhead costs (9.84%), program evaluation (4.65%), and indirect management (4.16%).

FIGURE 3
Distribution of costs by cost category



Nearly three-quarters of the costs were recurrent costs (72.2%), while over a quarter was made up of investment costs (27.8%). As seen above, many of these costs are training costs which occur throughout the life of the project. It is important to note that the impact of these trainings extend beyond the cohort of children directly impacted during the two-year implementation of this project. Educators gain tools and skills that will benefit children with whom they interact in the future.

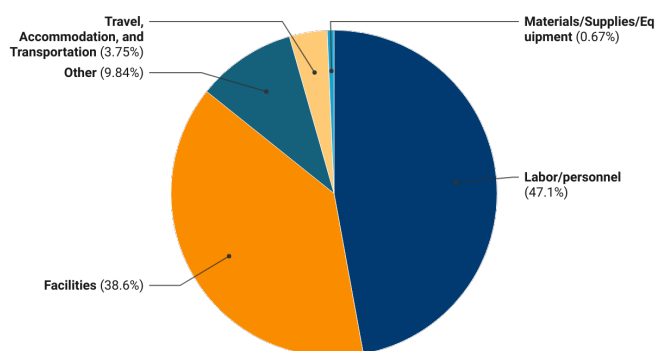
FIGURE 4
Distribution of costs by recurrent/investment



An examination of the costs by resource type, seen in Figure 5, showed that nearly half (47.1%) went towards labor and personnel, a further 38.6% went towards facilities, 3.75% towards travel, accommodation, and transportation, and less than 1% to materials/supplies/equipment, and 9.84% towards unspecified other costs.

FIGURE 5

Distribution of costs by resource type



Conclusions and lessons learned

Through a jointly developed costing lab, Brookings and aeioTU utilized C3 to conduct cost analysis of an aeioTU intervention focusing on improving the lives of young children in the community of Barú island, Colombia. The costing lab was successful in highlighting opportunities for transparency in cost data, as well as envisioning capacity-strengthening of local organizations. An early mapping out of stakeholders, as part of the lab, allowed for various perspectives to be accounted for and represented an important shift in mindset regarding the importance of costing in the broader ecosystem.

Throughout the lab, aeioTU and CUE had various obstacles to navigate. Firstly, there were logical constraints in terms of coordination and incorporating all stakeholder perspectives, especially during the costing stage. Nonetheless, a collaborative approach allowed for strengthening capacity on cost data capture and

analysis, not only during the lab, but even after, ensuring sustainability of the learning.

AeioTU noted that engaging in the lab strengthened their commercial processes and donor trust and allowed the organization to identify and compare costs internally and align them with how other organizations understand and report expenses. Internally, it also enabled comparisons between interventions, standardization of costs, and strategic resource allocation. Specifically, the costing lab led the organization to reassess the labeling of direct and indirect costs, as it was challenging to classify some budget lines according to the tool's structure. This insight is pushing aeioTU to adjust its model to a more flexible and efficient structure. For example, some roles needed during the design phase are not required during implementation. As a result, strategy decisions and future operations of aeioTU will be informed by the results obtained through the cost analysis, while the costing process itself will highlight areas for continued refinement and updates to C3. This lab also informs future labs, including by addressing challenges of data and logistical realities of implementing organizations.

It is imperative that consistent and high-quality cost data are in the hands of decisionmakers—including implementers, funders, and policymakers—to ensure funding is directed to interventions which support young children thriving to their fullest potential. This exercise, and the inclusion of the aggregated data from the cost analysis in the Brookings Cost Data Explorer, will further the goal of increasing the quality and quantity of published cost data in the early childhood and education sector in Colombia and globally. Implementing organizations or governments considering improving cost-efficiency and cost-effectiveness of their programming could benefit from the use of a simple tool like C3 and, potentially, an accompanying costing lab aimed at institutionalizing costing capacity.

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- World Bank.** Colombia: Early Childhood Development SABRE Country Report. Washington, DC: World Bank, 2013. <https://openknowledge.worldbank.org/server/api/core/bitstreams/c0f9de25-8b3b-566a-a9d2-c16ac653dae2/content>.

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