

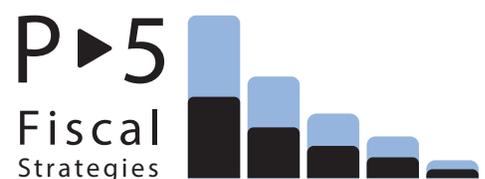
Using cost estimation to inform child care policy

How to develop a cost estimation model that reflects the cost of care and the true needs of the child care system



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Introduction

The Child Care Development Fund (CCDF) is the primary source of public funding to support access to child care for low-income working Americans. Each state or territory sets the payment rates which child care programs receive when serving a child who is eligible for subsidies under this fund. Historically, states have set these rates based on the market price of child care but since the 2014 reauthorization of Child Care and Development Block Grant (CCDBG) states have had the option to set rates based on an [alternative methodology](#), such as a cost study or cost estimation model.

To date, only the [District of Columbia](#) and [New Mexico](#) have taken up the option to set rates based on cost rather than price. Under the [Build Back Better Act](#), passed by the U.S. House of Representatives in November 2021, all states would be required to set rates based on the cost of child care, in line with the previously allowed alternative methodology, in order to participate in the proposed Birth through Five Child Care and Early Learning Entitlement. While the fate of the Build Back Better legislation is uncertain at the time of this publication, by including this provision in the framework, the Biden Administration has signaled its intention to address the [broken child care market](#). Combined with universal preschool for all 3- and 4-year-olds, increased investments at the level proposed by the Biden Administration would have a [significant impact](#) on children, families, and the economy, capping family payments, investing in the early childhood workforce, and stabilizing the struggling child care sector.

The ongoing impacts of the COVID-19 pandemic have exacerbated the broken nature of the child care market. Operating on razor thin margins already, the [increased costs](#) and [decreased revenue](#)

Defining terms

PRICE OF CARE means the tuition prices that programs set, which are usually based on local market conditions and what families can afford, ensuring that programs are competitive within their local market and can operate at as close to full enrollment as possible.

COST OF CARE means the actual expenses providers incur to operate their program, including any in-kind contributions such as reduced rent, and allocating expenses across classrooms and enrolled children based on the cost of providing service and not on what parents can afford.

TRUE COST OF CARE refers to the cost of operating a high-quality program with the staff and materials needed to meet quality standards and provide a developmentally appropriate learning environment for all children. Cost of quality is another term often used to refer to the true cost of care. The true cost includes adequate compensation to recruit and retain a professional and stable workforce.

due to the pandemic have left the child care sector reeling. Policymakers are increasingly recognizing the deficiencies of the market price-based approach to rate setting and the need to better align investments. Several states are considering utilizing the existing flexibility offered under CCDF to set rates based on cost, which can better align rates with the cost of care and address the inequities of market-based tuition.

Given this growing momentum for a better approach to rate setting, Prenatal to Five Fiscal Strategies (P5FS) has developed this guide to using cost estimation modeling to set subsidy rates, informed by experience working with New Mexico and the District of Columbia as well as dozens of other states and communities in recent years.

The broken child care market

Currently, the prevalent method of setting rates for publicly funded child care is through a market rate approach. Through this approach, a study of market prices for child care is done and this information is used by states to set subsidy rates. However, this market rate reflects the prices that providers charge families, which in turn reflects what families can afford. The cost of child care for a family with young children can be an overwhelming burden, particularly for a family earning a low income. Programs have to set tuition at what families in their communities are able to afford, not necessarily reflecting what the service costs. It is this information that informs the market rate for child care in a given region. **This creates an inequitable system where providers in communities where families cannot afford high tuition receive lower reimbursement rates than providers in higher-income neighborhoods.**

This often results in lower educator compensation and higher turnover in these communities. Setting rates based on the current market also perpetuates the low wages that early childhood educators receive. The impact of this [market failure](#) exacerbates lower quality settings and lower wages across child care, disproportionately affecting minority groups and communities of color.

In a functioning market where parents as the consumer can afford the true cost of care, setting rates based on price would allow subsidy-eligible families [equal access](#) to child care as those paying tuition. However, because most families cannot afford the [cost of high-quality child care](#), programs face a disincentive to serve children for whom the gap between what families can afford and what it costs to provide care are greatest. For example, a provid-

er might be able to achieve financial stability when serving preschool-age children, or in a program meeting state licensing standards, but if that same program serves [infants and toddlers](#), or meets [higher standards](#) on the state Quality Rating and Improvement System (QRIS), this can leave them operating at a deficit.

Setting child care subsidy rates based on a cost estimation model can ensure that the subsidy system does not replicate the deficiencies of the private market. The cost model can provide data on what it costs to serve children at different ages, in different provider types and locations, and with different needs. While under current [subsidy-eligibility levels](#), the subsidy system is limited in how much impact this approach can have on the overall market, the significant [expansion of eligibility](#) proposed by the Build Back Better Act would provide a much larger role for public subsidies in driving the child care market. As a result, the approach that states use to set rates could finally realize the vision of equal access to child care for families who rely on public subsidies.



Using cost estimation modeling to inform policy

What is a cost estimation model?

A cost estimation model (CEM) can be used to understand the cost of providing child care in different types of programs and at varying levels of quality. Distinct from a budgeting tool which would account for specific characteristics of a given program, a cost estimation model is intended to provide policymakers with an estimate of the cost of operating a child care program that is informed by provider data and representative of most providers within different categories. This allows policymakers to understand variations in the cost of care based on:

1. Program size and ages of children served
2. Program auspice
3. Geographic location of program
4. Licensing standards
5. Quality requirements
6. Program business practices
7. Increased compensation

Cost estimation models can also integrate revenue modeling to understand if the revenue streams available to providers can cover the cost of care and to identify any gaps between revenue and expense.

Importantly, cost estimation models are [dynamic tools](#) that can show both the current cost of

operating, and the cost of operating a program with higher quality standards. For example, creating a cost model of the current reality will help better identify the costs of serving children at different ages or in different settings, but it will still embed the low compensation levels for the early childhood workforce. Cost models should include the option to estimate the cost with higher salaries, health insurance, and other benefits to ensure that policymakers understand the cost of a fully funded early childhood program that is not operating on a shoestring budget and is able to recruit and retain high-quality professionals.

Developing a cost estimation model

Through work with multiple states and communities over several years, P5FS has identified a four-stage approach to developing a cost estimation model, as shown in Figure 1. Each of these stages is necessary to ensure the cost estimation model is validated and understood by the community, informed by authentic stakeholder engagement, and flexible to the changing needs of policymakers and the child care field. Depending on the size of the state or community, this process takes 6 to 12 months, but once the model is developed, future iterations and updates can be made much more quickly.

Figure 1: Cost estimation study process



Stakeholder Engagement

For a cost estimation model to be an accepted tool for rate setting it is important that it is developed inclusively, engaging all key stakeholders from the beginning. **States must balance the need to include child care programs in the process while also not burdening the overworked sector or expecting child care providers to do the work of policymakers.** P5FS' approach to stakeholder engagement is to provide for multiple levels of contact with stakeholder groups, and to utilize existing convenings wherever possible, to share information about the cost model process and to provide opportunities for program input and deeper engagement.

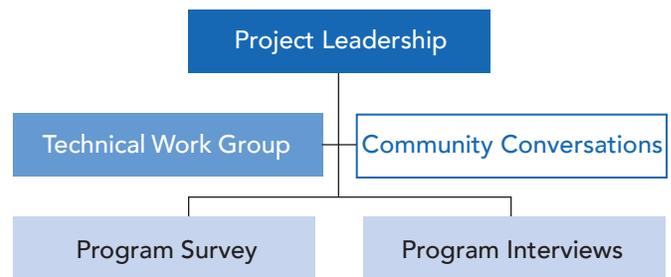
As shown in Figure 2, P5FS' approach consists of three tiers of stakeholder engagement. The first tier is a leadership team, tasked with guiding the overall process. This team is often composed of representatives from the agency or group who have commissioned the cost model, such as the child care administrator, as well as three to five other key individuals who will act as the final decision-makers and will work closely with the model development team.

At the second tier is a technical work group, or steering committee. This group is tasked with providing input into the assumptions that will drive the model, including identifying cost drivers in licensing and quality standards, and facilitating connections to programs across the state. This group consists of 15–20 stakeholders and should include representatives of providers, such as child care associations or unions, as well as individuals who have deep knowledge of state licensing and quality standards. Also in this second tier is community conversations. This allows for information to be provided about the model development

process, to generate interest in data collection, and ensure that all key stakeholders are aware of the process and have an opportunity to ask questions. To minimize burden on programs, in this stage it is recommended that existing community meetings be utilized, rather than adding a new meeting. For example, rather than requesting family child care programs to join information sessions during child naps, instead the study team should join a regular family child care stakeholder call or meeting, often held at evenings or weekends.

Finally, the third tier of engagement is the direct communication with programs, which consists of a cost survey and conducting individual provider interviews. These will be discussed in greater detail in the following section.

Figure 2: Stakeholder Engagement



Within this process, states must ensure that all statutory requirements for stakeholder engagement are met. For example, under current CCDF rules the cost estimation model process must be informed by engagement with the State Advisory Council on Early Childhood Education and Care, local program administrators, resource and referral agencies, and other appropriate entities, such as provider associations, if the model is being used for rate setting through an alternative methodology. In addition, states must adhere to any state-specific requirements for public input and public comment periods if the study falls under such requirements.

Data Collection

A cost estimation model is only as good as the data that go into it. States need to analyze available data to identify what state-specific data can be built into the tool and what data need to be collected directly from programs. If a state has a robust workforce registry that includes data on educator credentials and salaries, this can be analyzed by program type and location to inform the model. Often these data are inadequate or incomplete and states must therefore collect data directly from child care programs.

Balancing the need to collect data from a broad subset of programs across a state, with the desire to limit burden on the provider community, P5FS recommends a two-stage approach to data collection.

1. AN ELECTRONIC SURVEY intended to capture data on the primary cost drivers. This survey focuses on program characteristics, such as size and ages of child served, staffing patterns, including non-classroom personnel, and compensation. By limiting the survey to these key cost drivers, the survey can be shared with all legally operating programs across the state and can be completed in less than 30 minutes in most cases. The electronic survey should be:
 - accessible on mobile platforms to ease use
 - available in multiple languages
 - built to accommodate all types of programs, centers, family child care homes, and family, friend and neighbor settings, if appropriate to the state system.
2. PROGRAM INTERVIEWS, which allow for a one-on-one conversation with a provider to probe deeper into the cost drivers, understand the nuances of costs at different levels of quality, and to learn from the program about the true

How does a cost study differ from a cost estimation model?

Under current CCDF rules, and the Build Back Better proposal, states can opt to use either a cost study process or a cost estimation model to inform subsidy rate setting.

A COST STUDY involves collecting data from providers about their current costs of operating a program that meets licensing standards as well as other quality standards, such as detailed in a QRIS. States may choose to focus data collection on a limited number of cost drivers, such as salary and benefit costs. The cost study provides a point-in-time cost estimate, based on surveyed providers' current operating costs.

A COST ESTIMATION MODEL involves building a tool that is informed by provider data and that can run multiple scenarios to estimate the impact of several variables on cost, such as program characteristics (e.g., size and age mix), child populations served, program quality, and location in the state. The data informing a model may be gathered through a cost study process, and the model can integrate revenue data to better understand the relationship between the expense of delivering early care and education services and the available revenues.

cost of providing high-quality child care, including adequate compensation levels to recruit and retain a professional workforce. These interviews should aim to reach the variety of provider types in a state but do not need to be a representative sample; rather they should focus on providers who are adept at managing their budgets, have experience with multiple funding streams, and can discuss the intricacies of their finances.

Across all data collection efforts, it is important that the cost study work group provides feedback on the best way to connect with programs, that the language used in the survey and interview protocols is inclusive and accessible for the provider community, and that programs understand the goals of the study and why it is worth their time to participate. The study relies on trusted relationships with programs to encourage them to complete the survey and participate in the interviews. In addition, due to the confidential nature of the financial data that programs are asked to share, it is recommended that the data be collected by an external body, not a state agency, and that programs are assured that their data will be shared only in the aggregate or de-identified. In addition, states may consider compensating providers for their time, especially for the interviews.

Model Building

Developing a cost estimation model requires two primary inputs. First, expense and revenue data from providers, as discussed above. Second, a quality frame, which identifies the key cost drivers within the standards programs are required to

meet. Developing this quality frame requires a close reading of state licensing standards and any quality requirements such as are required under a Quality Rating and Improvement System. The requirements that come with a cost must be identified, and then a value assigned, which may vary based on the level of the quality requirement. This work should be done prior to program interviews so that the team can ask probing questions of programs to understand the costs associated with their requirements. For example, if a program is required to conduct two family engagement activities each year, it is important to understand the costs, such as providing child care or food during the activity, paying teachers overtime, or hiring substitutes.

This quality frame, along with state licensing standards, forms the baseline of the cost estimation model. Program data can be used to inform the default assumptions for the primary cost drivers such as salaries and benefits, occupancy costs, and other non-personnel expenses. States can use the federal [Provider Cost of Quality Calculator \(PCQC\)](#) to fill gaps in data on salary and non-personnel expenses. The PCQC uses [Bureau of Labor Statistics](#) data for salary data and national default assump-

Sample of components in a Quality Frame, excerpt of cost driver examples

Quality Cost Drivers	Baseline Quality	Quality	Aspirational
Ratios, Group Size	Infant/toddler 1:4, group size 12 Toddler 1:6, group size 12 Preschool 1:12, group size 24	Infant/toddler 1:3, group size 9 Toddler 1:4, group size 12 Preschool 1:8, group size 24	Infant/toddler 1:3, group size 8 Toddler 1:4, group size 8 Preschool 1:8, group size 17
Professional Development	21 hours PD/year, per staff member	42 hours PD/year, per staff member	84 hours PD/year, per staff member; 4 in-service days program closed for all staff to participate
Non-child contact hours	1 hour/day/lead teacher	1.5 hours/day/lead teacher; .5 hour/day/asst teacher	2 hours/day/lead teacher; 1 hour/day/asst teacher

tions on average costs for non-personnel expenses. Usually, states will develop a single baseline model for centers and one for family child care homes, and then this model can be modified to integrate different assumptions, such as the cost of meeting different quality standards in a QRIS, meeting aspirational quality standards, paying higher staff compensation, and variations based on region.

The assumptions built into the model are the foundation of the cost estimation. As such, it is critical that the cost model work group or steering committee provides guidance in the interpretation of program data and gives input into how licensing standards and quality requirements are reflected in the model. The assumptions in the model also give an opportunity to distinguish between the current reality and the way programs should be operating. The broken child care market has led to a scarcity mindset in child care, with programs forced to make do with the limited funding they have. As a result, a model that reflects only the current operations will embed this approach, replicating programs that operate on shoestring staffing, or that fail to adequately compensate educators, staff, and providers. The work group can be instrumental in guiding the assumptions around what a better child care system looks like, building on the program data collection to estimate the cost of a better system, including higher compensation.

Scenario Development to Inform Policy

The cost estimation model process results in a tool that states and communities can use to understand the impact of program characteristics and policy choices on the cost of care. The model can be used to run multiple scenarios for many different objectives, including determining quality bonus levels, estimating contract or grant amounts, and informing subsidy rate setting. In this context, the concept of a rate is the amount paid for a service by a child care program, rates are usually established as a per child amount, at a daily, weekly, or monthly unit amount. Rates paid to child care providers are revenue, funds the programs takes in which are designed to cover expenses related to the services they offer. The cost-per-child information generated by using the cost estimation model is not the same as the rate paid to providers. Instead, information from the cost model serves as a source to inform rate setting.

A first step in using the model to inform rate setting is running different scenarios to understand the impact of varying characteristics on cost of care by level of quality, age of child, type of care setting, geographic location, and other drivers, informed by stakeholders. Outputs from these scenarios in the cost model represent the actual cost of care, which leaders could then compare to the current subsidy rates, for instance, to understand the difference between the market driven rates and the actual cost of care that programs experience. As noted previously, in all but one state and the District of Columbia, current child care subsidy rates are set by a market-based approach. Using a cost model gives cost-per-child data for the state to use in understanding the actual cost of quality and using that to establish rates under child care subsidies.

Cost estimation modeling and family child care homes

Family child care (FCC) is an important option for families, especially those families that face challenges finding flexible child care options. One reason FCC is an attractive option for families is because these providers are well-positioned to adapt to and meet specific care needs of a variety of populations. FCC providers are [often preferred](#) for infant and toddler care, for school-age children, for sibling groups, for parents with nonstandard work hours or variable work schedules, for care of children with special needs, and for families from diverse cultural and linguistic backgrounds.

By nature, FCC is a very different business model from center- or school-based settings of care. FCC providers are small businesses, typically female-led sole proprietors. It is important that the cost model development process includes these voices and reflects their unique business model. While an FCC provider is held to licensing regulations and quality standards, just as other care settings are, the way they operate their program and

the way expenses are incurred, is different from these settings and requires an accurate cost model to guide decision-making specific to the family child care modality.

One core element of cost modeling for FCC is acknowledging compensation of the provider/owner. In line with most small businesses, FCC providers/owners typically see a salary based on what is left at the end of the day between the available revenue and expenses to run their child care home. The fluctuation can greatly affect income: Providers report annual net income that when factored out for working full time is equivalent to no more than \$4–\$5 per hour. To understand the true cost of delivering care in FCC settings, P5FS recommends building in compensation (salary and associated mandatory and discretionary benefits) for the provider/owner, as well as for assistants or other staff they use to run their business. With this approach, the cost model more accurately captures the cost of operating an FCC, ensuring home-based providers are compensated in a way that allows them to operate as a core part of the early care and education system.



Cost models should be used to inform policies for rate setting, such as when developing [contracts for programs](#) as a more stable way to pay for early care and education services. As part of the contract, states can require that child care providers meet higher quality standards beyond basic licensing requirements and use the cost model to inform the rates they establish for these higher standard services. Contracts guarantee payment for a specific number of children, may guarantee payments over several years, pay on enrollment, and may be paid prospectively, providing stability for a child care provider. Contracts allow for setting payments rates based on the cost of operating the program and can capture how those costs differ by the age of child, type of program, and quality requirements. Using a cost model when building contract rates can ensure that contracting policies meet programs' operating needs.

Cost modeling is valuable to inform policy efforts aimed at increasing access to high-quality early care and education for all children. For instance, in programs that are operating at lower levels of quality it can be hard to achieve higher quality due to the need for capacity building investments. However, those revenues come only with higher levels of quality. Cost modeling can be used to inform the rate policy in these instances, establishing a higher rate to these providers to support their quality improvement, as part of a commitment to take the capacity-building steps toward higher quality. Additionally, cost modeling may be used to target supply for certain populations, such as incentivizing infant and toddler care or addressing supply issues in rural communities. When a state knows the true cost of providing care, these data can be used both to compensate programs for the cost of operations as well as to gain understanding of what level of additional funding might be necessary to adequately incentivize care for underserved populations.

Additional Considerations

The steps outlined in this report show how states can develop a cost estimation model to inform rate setting. The first time a state embarks on this process will require significant stakeholder engagement, both to develop the assumptions driving the cost model and to educate the community on the way the model works and its role in rate setting. However, it is important that states engage fully, acknowledging the shift in how public funding rates have been determined and the impact that can have on the programs, especially for sole proprietors whose business relies on public funding. The model should be updated regularly to reflect changes in cost of living and to account for any changes to licensing regulations, quality standards, or wage ladders. Subsequent updates can build on the initial iteration, requiring less data collection directly from programs. The District of Columbia, which is on its [third update](#), provides a helpful example.

In addition, there are several tools available to help state policymakers, providers, and other stakeholders estimate the cost of quality child care before developing a full cost of estimation model:

- The [Provider Cost of Quality Calculator](#), or PCQC, was developed by the U.S. Office of Child Care, and can be used to produce program-level expense and revenue results, based on multiple scenarios, for both center and FCC programs. The PCQC provides several default data points for each state and allows the user to override this default data as needed.
- [CostofChildCare.org](#) is an online tool, developed by the Center for American Progress, that estimates the monthly cost of child care,

at the per-child level for each state and some territories, in center- and home-based settings. The tool allows users to compare several variables to estimate how they impact the cost of care.

- The Center for American Progress also developed a [Coronavirus Child Care Cost Calculator](#). While originally intended to estimate the cost of COVID-19 emergency child care regulations, this interactive tool can be used to model state licensing standards and users can estimate the impact of different program characteristics and workforce compensation levels.



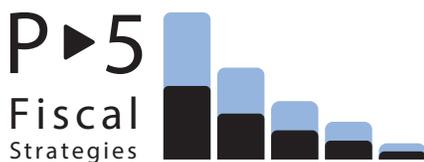
Moving Forward

Child care has long been a failed market, where families cannot afford the current price of care, let alone the cost of quality care, and providers struggle to balance their budgets, leaving educators making poverty-level wages. All states should consider using the current flexibility in CCDF rules to move away from setting subsidy rates based on market prices and instead use a cost estimation model to inform rates, the allowed alternative methodology. When paired with increased eligibility, this approach can better ensure equal access to child care for families who rely on subsidies and address the current financial disincentives for pro-

grams to serve populations where the cost of care outstrips family affordability.

While ultimately increased investment is needed to address the multiple failures of the child care market, states will only start to address these issues when they have data to inform decisions about where to target resources and what resources are needed to create change. Policy decisions informed by a cost estimation model should be the first step for any state that wants to support access to high-quality child care that meets the needs of children and families.





The Prenatal to Five Fiscal Strategies initiative is focused on addressing the broken fiscal and governance structures that exist within the P5 system. Led by Jeanna Capito and Simon Workman, P5FS is grounded in a set of shared principles that center the needs of children, families, providers, and the workforce, and fundamentally re-thinks the current system in order to better tackle issues of equity of funding and access. The initiative provides national leadership and direct support to states and communities on early childhood education and care finance, governance, and systems building. Learn more at www.prenatal5fiscal.org

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