



# A Step-by-Step Guide to Conducting a Cost Estimation Modeling Process in Pennsylvania to Set Subsidized Child Care Rates

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Conducting a cost based approach to rate setting in Pennsylvania will help us understand the actual cost of the delivery of child care services to young children and will give Pennsylvania the data and information necessary to set subsidized child care rates that cover the true cost of high-quality care. The process of conducting a cost estimation modeling study will consider the factors that impact the cost of operating a child care program, such as the child's age, classroom ratios, appropriate compensation of teachers and staff, certification regulations and quality performance standards. The cost estimation model focuses on the true cost for child care providers to deliver services, rather than the price of child care and what families can afford to pay. Child care providers are an active and critical part of the cost based approach to rate setting. A good cost estimation model cannot be developed without the trusted relationship with child care programs.

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# PREREQUISITE:

## OPT TO SET PROVIDER PAYMENT RATES BASED ON AN ALTERNATIVE METHODOLOGY USING A COST ESTIMATION MODEL

**TIMEFRAME:  
AT LEAST**



This depends on current rate setting activities and administrative activities that must occur first.

The Office of Child Development and Early Learning (OCDEL) must submit a request to set provider payment rates based on an alternative methodology using a cost estimation model for approval to the U.S. Department of Health and Human Services, Administration for Children and Families (ACF) via a letter to the Office of Child Care Regional Office well in advance of the deadline to submitting the Child Care and Development Fund (CCDF) Plan.<sup>1</sup> The current 2022-2024 CCDF Plan ends in December 2024 and Pennsylvania will be submitting a 2025-2027 CCDF Plan by July 1, 2024. As part of the launching of the process, a description of its proposed approach to an alternative methodology must be submitted to ACF.

### In the ACF pre-approval request<sup>2</sup>, OCDEL must:

Provide an overview of OCDEL's proposed approach to a cost estimation model, including a description of data sources.

Describe what information OCDEL will obtain from an alternative methodology that could not be obtained from the required narrow cost analysis.

Describe how OCDEL will consult with the State Advisory Council (SAC) on Early Childhood Education and Care, local child care program directors, Early Learning Resource Centers, organizations representing child care staff, teachers and directors, and other appropriate entities prior to conducting the identified alternative methodology.

Describe how the alternative methodology will use methods that are statistically valid and reliable and will yield accurate results. For example, if using a survey, describe how OCDEL will ensure a representative sample and promote an adequate response rate. If using a cost estimation model, describe how OCDEL will validate the assumptions in the model.

If the proposed alternative methodology includes an analysis of the cost estimation model, describe how the alternative methodology will account for key factors that impact the cost of providing care, such as: staff salaries and benefits, training and professional development, curricula and supplies, group size and ratios, enrollment levels, licensing requirements, quality level, facility size, and other factors.

Describe how the alternative methodology will provide complete information that captures the universe of providers in the child care market.

Describe how the alternative methodology will reflect variations by provider type, age of children, geographic location, and quality.

Describe how the alternative methodology will use current data.

Describe what metrics OCDEL will use to set rates based on the alternative methodology.

Describe the estimated reporting burden and cost to conduct the approach.<sup>2</sup>

OCDEL will need to ensure there is sufficient time to complete the cost based approach to rate setting, create the cost estimation model, issue the report and set payment rates prior to submitting the CCDF Plan.

## STEPS TO DEVELOP A COST ESTIMATION MODEL

There are four major steps in the process to develop a cost estimation model – stakeholder engagement, data collection, model development and scenario development. Each step is fundamental to actualizing a cost estimation model that is validated and understood by the provider community, informed by meaningful, authentic stakeholder engagement and flexible to the changing needs of policymakers and the child care sector.<sup>3</sup> The process takes between 6 to 12 months to initially develop a model and once a model is developed, future versions and updates to the model can be completed more quickly. The estimated total cost for this process is \$200,000 - \$215,000. The cost varies based on whether a market rate survey is being conducted, if other modeling has been done in the state and other contextual factors related to the provider population in the state and the child care system. The majority of this cost is to cover the vendor fee, but there are also costs associated with provider incentives for their participation in the process. Activities that are covered by the cost includes: Engaging constituents in alternative methodology process and supports for alternative methodology approval; collecting data to inform cost estimation model; developing the cost estimation model; running scenarios in cost model and producing a cost estimation model report; and supporting rate setting informed by cost estimation model.<sup>4</sup>

### COST OF CARE PROCESS

Steps to be completed	Identify and hire a consultant	→ Submit a request for pre-approval to ACF, identify funds to cover costs to complete the process	→ ACF review and approval	→ Stakeholder engagement, readiness assessment and project planning <sup>6</sup>	→ Data collection from providers through surveys and focus groups <sup>7</sup>	→ Develop cost estimation models, verify and revise assumptions <sup>8</sup>	→ Run scenarios, share results and inform rate setting <sup>9</sup>	→ Prepare and post a detailed report on the results of the alternative methodology <sup>10</sup>	→ Submit CCDF Plan amendment expeditiously to implement new methodology and payment rates as quickly as possible.
Deadlines*	Prior to July 1, 2024		At least 60 days	Months 1 – 3	Months 4 – 6	Months 7 – 9	Months 10 – 12	Within 30 days of completion, By July 1, 2025	As quickly as possible
Total time commitment <sup>11</sup>	At least 60 days			12 months			30 days	Federal review typically takes 3 months	

\*The next CCDF plan for 2028-2030 is due to ACF by July 1, 2027. The administration should utilize the [CCDF Plan amendment](#) process to implement the new methodology and payment rates in a quicker timeframe.



## STAKEHOLDER ENGAGEMENT

### TIMEFRAME



OCDEL must ensure significant stakeholder engagement in the cost based approach to the rate setting process. This is necessary for the cost estimation model to be an approved tool for rate setting by ACF. The process should be inclusive and engage all key stakeholders from the beginning. This should consist of multiple levels of contact with stakeholder groups, including targeted stakeholder interviews and stakeholder surveys to ensure representative data is captured for an effective cost estimation model.<sup>12</sup>

### OCDEL should:

Utilize existing committees and meetings wherever possible to consistently have contact with stakeholders to share information about the cost based approach to the rate setting process, receive information from programs and allow for deep engagement.

Have multiple levels of contact with stakeholders to allow for input and deep engagement.

Engage all key stakeholders from the beginning to ensure that the cost estimation model will be a tool that is approved by ACF. All statutory requirements as required under the federal guidance for stakeholder engagement must be met. This means the process must be informed by engagement of the State Advisory Council on Early Childhood Education and Care and child care program directors. In addition, it is recommended that the Early Learning Resource Centers (ELRCs), advocacy organizations and other interested parties be engaged in this work.

Not burden the overworked sector or expect child care providers to do the work of OCDEL/policymakers.

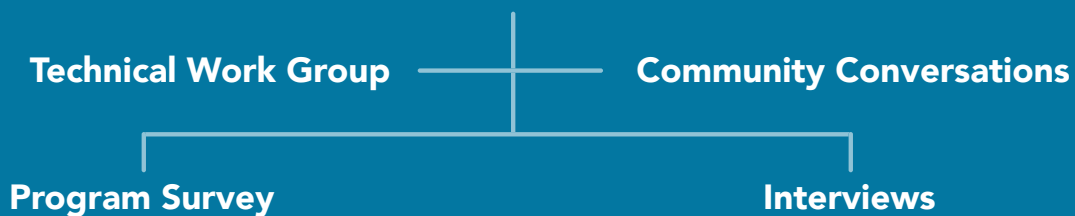
Have three tiers of engagement, consisting of the leadership team, the technical work group, the community engagement conversations and direct communications with programs.<sup>13</sup>





## STAKEHOLDER ENGAGEMENT TIERS

### Project Leadership



In order to ensure the cost model is equitable, the providers, advocacy groups and provider organizations must be a broad group and diverse in race, ethnicity, provider type and geography/ELRC region.<sup>14</sup> The cost estimation study leadership team must take steps to ensure the cost model process focuses on equity, promoting equitable practices in early childhood systems to avoid exacerbating existing inequities.<sup>15</sup> The broad group of stakeholders will allow for trust in and support of the cost estimation study model, its findings, its sustainability and lastly, ensure that statutory requirements for stakeholder engagement are met.

## THE COST ESTIMATION LEADERSHIP TEAM

The cost estimation model leadership team should guide the overall process and include those from OCDEL who have directed that a cost estimation model be developed. In addition to OCDEL, three to five other key decision-makers that are tasked with guiding the cost based approach to rate setting should make up the leadership team that will develop the cost estimation model.

OCDEL would be in charge of the cost based approach to rate setting and responsible for all persons who will ensure deadlines are met, data is collected and consensus is achieved among all the stakeholder groups on assumptions made in conducting the cost estimation study. All states that have completed an alternative methodology process have used external experts to lead this work. In states and communities that have conducted a cost estimation model study, their leadership teams have been broad enough to include system administrators, legislators, state and local agency staff and non-profit groups.<sup>16</sup>



### External national experts that have led this work are:

[Prenatal to Five Fiscal Strategies](#) has worked with the [District of Columbia](#), [New Mexico](#) and [Virginia](#) who received approval and implemented an alternative methodology. They led the work with the District of Columbia. Prenatal to Five Fiscal Strategies worked with these governments through more than one process. They are also working with two states who are doing a hybrid approach, where an official submission is not required.

[Western Washington University, Center for Economic and Business Research](#) has worked with [Washington](#) on alternative methodology with support from [Prenatal to Five Fiscal Strategies](#).

[Brodsky Research and Consulting](#) is working with Colorado on alternative methodology.

[The University of Utah, Department of Economics](#) is working with [Utah](#) on alternative methodology.

[Northern Illinois University, Center for Early Learning Funding Equity](#) has worked with [Illinois](#) on their cost modeling.

Approved cost estimation model reports completed by states are made public by states and ACF.



## **THE COST ESTIMATION TECHNICAL WORK GROUP**

The cost estimation technical work group will be responsible for providing input into the assumptions that will drive the cost estimation model.<sup>17</sup> This includes identifying the cost drivers, such as appropriate teacher compensation and requirements in the child care certification regulations and Keystone STARS Performance Standards, as well as facilitation of connections to child care programs statewide. The technical work group should be approximately 15-20 stakeholders, including those that represent child care providers, such as statewide child care and professional associations and those with a wealth of knowledge about Pennsylvania child care certification and Keystone STARS Performance Standards. This is necessary because CCDF rules require that the cost estimation study model must be informed by the engagement of a broad group of stakeholders.



## **THE COST ESTIMATION COMMUNITY CONVERSATIONS**

Community conversations, including child care providers, allow for information to be shared about the model development process, generate interest from providers in data collection, ensure stakeholders are aware of the process and allow stakeholders to ask any and all questions. In an effort to not burden the child care sector, existing community meetings should be utilized for this purpose where feasible.

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## THE COST ESTIMATION DIRECT COMMUNICATION WITH CHILD CARE PROGRAMS

Direct communication with child care programs includes a cost survey and individual interviews.

### *Family Child Care Homes*

It is important that the cost estimation model process includes the family child care provider voice and reflects their unique business model. As small businesses, typically female-led sole proprietors, their voices are important in ensuring equity is built within the system. While family child care is held to certification regulations and quality standards, as other care settings are, the way they operate their program and the way expenses are incurred is different and requires an accurate cost estimation model to guide decision-making specific for family child care.<sup>18</sup>

It is important that the cost estimation model for family child care support compensation of the provider/owner. As with most small businesses, family child care providers'/owners' compensation is based on what is left at the end of the day between the available revenue and expenses to run their program. Any cost estimation model process for family child care should build in wages and benefits for the provider/owner, as well as any staff to understand the true cost of care. This will ensure the cost estimation model more accurately captures the cost of operating a family child care home and that family child care providers/owners are adequately compensated so they can operate as a core part of the early care and education system.



## DATA COLLECTION

### TIMEFRAME



The cost estimation model is only as great as the data that is used to develop it. OCDEL must analyze the data that is available to identify what state data can be incorporated into the tool and what additional data needs to be collected from child care programs. Pennsylvania's Professional Development Registry can be utilized to analyze data by program type and geography to inform the model as it includes data on educator credentials and salaries. Balancing the need to collect data and the need to limit the burden on child care providers, a two-prong approach of holding targeted interviews and surveys is necessary for data collection.

An electronic survey may be utilized to capture data on the primary cost drivers in the program. The survey should focus on program characteristics, including size and ages of children served, staffing patterns, including non-classroom personnel, and compensation.<sup>19</sup> Limiting the survey to these primary cost drivers allows it to be administered to all certified child care programs and for it to be completed in less than 30 minutes. The electronic survey should be accessible, such as available on various platforms and available in multiple languages, and should easily accommodate all program types.

Program interviews provide an opportunity for a one-on-one conversation with providers of all program types to dig deeper into the primary cost drivers, understand the costs at different levels of quality and the true cost of care, which includes adequate compensation levels to recruit and retain the child care workforce. Providers selected for program interviews should be adept at managing their budgets, maintain multiple funding streams and be willing to share the intricacies of their finances.

In general, data collection efforts should be informed by the technical work group on the best way to connect with programs, use language that is inclusive and accessible for the provider community in surveys and interviews, and ensure that programs understand the goals of the cost estimation model study and why they should prioritize participation.<sup>20</sup> A trusted relationship with child care programs is necessary to encourage completion of the survey and participation in the interviews. It is recommended that an external entity collect the data due to the financial data that programs are asked to share during the cost estimation model process.<sup>21</sup> Programs will want assurances that their financial data is only shared in the aggregate or de-identified. Lastly, OCDEL should appropriately compensate child care programs for their time, participation and expertise in all levels of the cost based approach to rate setting.



## DEVELOP MODEL

### TIMEFRAME



There are two primary inputs to developing a cost estimation model, expense and revenue data from child care providers and quality cost drivers.

Developing the quality frame, which identifies the key cost drivers, requires an understanding of the certification regulations and the Keystone STARS Program Standards. Requirements under the certification regulations and Keystone STARS Program Standards must be identified and assigned a value, based on the quality or STAR level. All this work would be done prior to conducting program interviews, so that probing questions can be asked to understand the costs associated with the requirements. The certification regulations and the quality cost drivers are the baseline for the cost estimation model.



Child care program data should be used to inform default assumptions for primary cost drivers, such as wages and benefits, occupancy costs and other non-personnel expenses, cost of quality survey and provider interviews and focus groups. Secondary data sources, such as Bureau of Labor Statistics data, workforce survey data, living wage calculators and other local provider costs data collection, should also be used to inform assumptions. The federal [Provider Cost of Quality Calculator \(PCQC\)](#), which uses [Bureau of Labor Statistics](#) data, can be used by OCDEL to fill gaps in the data related to wages and non-personnel expenses. OCDEL can ensure the leadership team develops a single baseline cost estimation model for child care centers and a single baseline cost estimation model for family child care homes. The single baseline cost estimation model can be modified to integrate different assumptions, such as different program standards in Keystone STARS, paying adequate wages and benefits and variations based on ELRC region.

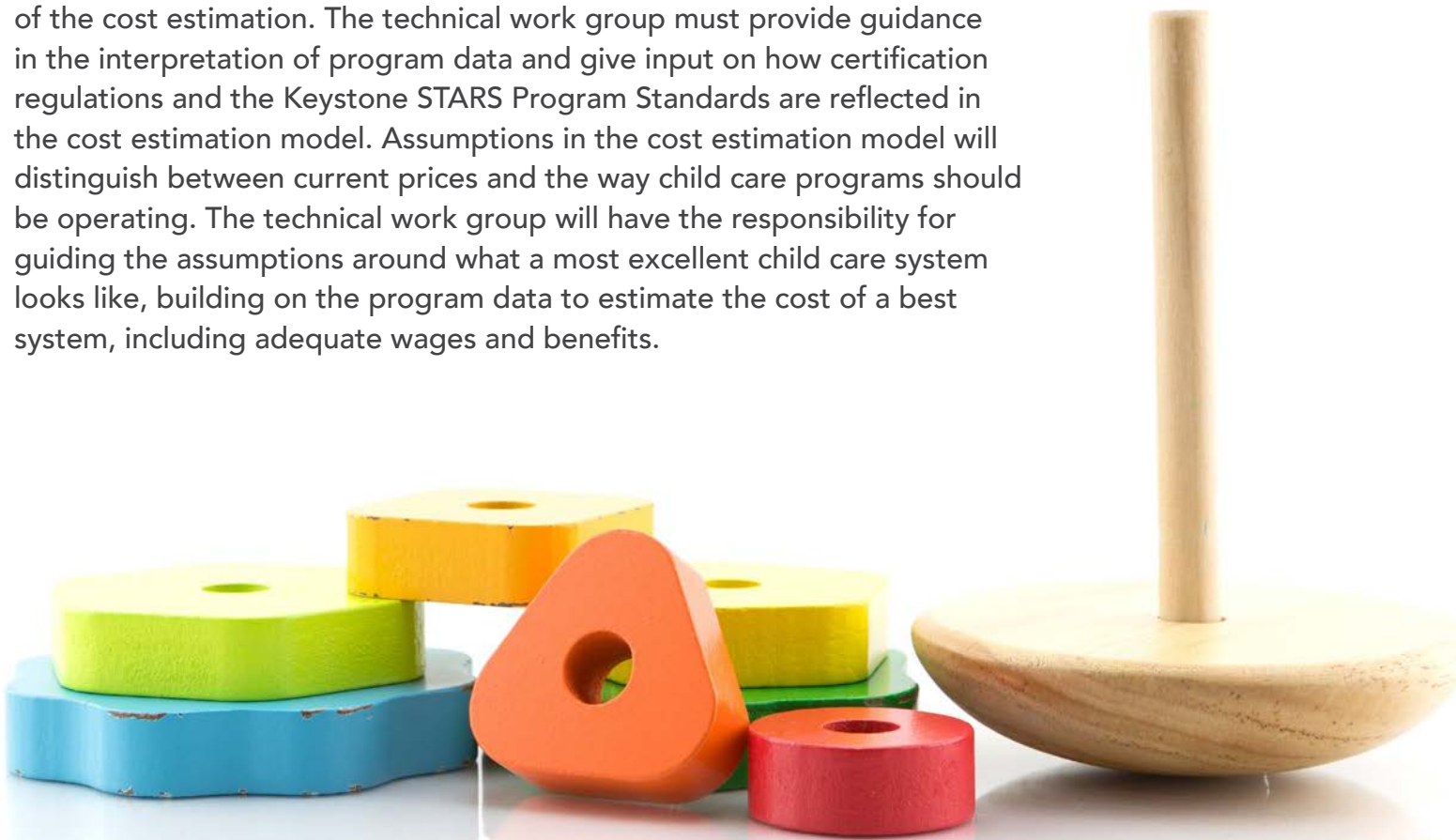
## Quality Cost Drivers

All major factors that drive program costs must be considered in the cost estimation model, such as program type, quality level, geographic region, age of child, part/full-time child care, cost to compensate teachers adequately, etc.

Conducting a cost estimation study and developing a revenue and expense model can identify the true costs to meet certification regulations, age, region, and program level variations, and the additional costs related to increasing quality and workforce compensation. The results of the cost estimation model can be used to inform subsidy reimbursement rates.

Creating principles that inform cost models and establish a shared language. By standardizing cost modeling, it will ensure coherence and consistency.<sup>22</sup>

The assumptions built into the cost estimation model are the foundation of the cost estimation. The technical work group must provide guidance in the interpretation of program data and give input on how certification regulations and the Keystone STARS Program Standards are reflected in the cost estimation model. Assumptions in the cost estimation model will distinguish between current prices and the way child care programs should be operating. The technical work group will have the responsibility for guiding the assumptions around what a most excellent child care system looks like, building on the program data to estimate the cost of a best system, including adequate wages and benefits.





### TIMEFRAME



The cost estimation model process will result in a tool that Pennsylvania can use to understand the impact of child care program characteristics and policies on the cost of care. The cost estimation model can be used to run multiple scenarios, including determining quality add-ons, estimating grant amounts and informing child care subsidy rate setting. In this context, the rate is the amount paid for a service provided by a child care program, at a daily, weekly or monthly unit amount. Rates paid to a child care provider are revenue or the funds received to cover the expenses related to the services offered. The cost per child information produced using the cost estimation model is not the same as the rate paid to providers. The cost per child information produced using the cost estimation model serves as a source to inform child care subsidy rate setting.

**USE THE INFORMATION FROM COST ESTIMATION MODEL TO SET RATES** - Once a cost estimation model is developed, a first step is to inform rate setting in Pennsylvania to understand the impact of multiple scenarios on the cost of care by Keystone STAR level, age of the child, program type, geographic region and other drivers that are informed by child care stakeholders. The outputs of these multiple scenarios in the cost estimation model, represent the actual cost of care which can be compared to the current child care subsidy rate to understand the difference between the market driven rates and the actual cost of care. The use of a cost estimation model gives cost per child data for Pennsylvania to use in understanding the actual cost of quality and to establish child care subsidy rates.

**DEVELOP COST ESTIMATES** - Cost estimation models should be used to inform policies for child care subsidy rate setting, including grants for programs. [Grants](#) allow for setting payment rates based on the cost of care and can capture how those costs differ by the age of child, program type and quality level. As a payment mechanism, grants can provide stability for the workforce and more sustainability for child care program budgets with the potential to advance workforce goals, address inequities and better serve families. Using a cost estimation model in establishing grant payment rates can ensure that grant policies meet child care program operating needs.

Cost estimation modeling is invaluable to informing policy efforts aimed at increasing access to high-quality early care and education for each and every child. Cost estimation modeling may be used to help address the child care supply for certain populations, such as [infants and toddlers](#) and [rural communities](#). When a state knows the true cost of care, these data can be used both to reimburse 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.

## EVALUATE THE GAP BETWEEN COSTS AND PAYMENT RATES

Upon completion of the cost estimation model, develop a new Pennsylvania payment methodology based on the information collected, along with a plan to fund the gap between current subsidy rates and the cost of providing high-quality child care.

Financing high-quality child care will have to change and expand in order to fund the gap between current subsidy rates and the true cost of providing high-quality child care.

Pennsylvania will need to embrace significant increases in investment, recognizing the child, family, societal and economic benefits that accrue when families have equitable access to high-quality child care with supported, skilled, knowledgeable, well-compensated teachers. Adequate funding is necessary for human capital development.

The outcomes of the cost estimation model will be based on the political climate and feasibility. The reactions regarding the gap between existing funding and the true cost of those services are valid. Acknowledgement that funding will need to be contributed from all levels of government will push against the scarcity mindset in early childhood.

## ADDITIONAL CONSIDERATIONS

When Pennsylvania embarks on the cost estimation model process for the first time, it will require significant stakeholder engagement to develop the assumptions driving the cost estimation model and to educate the provider community on the way the model works and its role in child care subsidy rate setting. According to a September 2023 Start Strong PA statewide survey for child care owners and directors, reimbursing programs at the cost of care was the third most popular effort to prioritize new state or federal funding. The cost estimation model study must be transparent, published and distributed to policymakers and the field.

**CONDUCT AN ALTERNATIVE METHODOLOGY EVERY THREE YEARS AS REQUIRED** – The cost estimation model should be updated regularly to reflect changes in cost of living and changes to certification regulations and Keystone STARS Program Standards. Subsequent updates should build on the initial cost estimation model, requiring less data collection directly from child care programs.

Conduct cost estimation studies moving forward using an approved cost estimation modeling tool, which also reviews the sufficiency of current revenues. Including revenues in the cost estimation study allows Pennsylvania to also estimate the sufficiency of current public and private revenue streams and the impact of different subsidy rates on provider financial stability. Excluding revenues and only estimating expenses by providers, highlights the cost of operating a program but not the amount of revenue needed for per-child cost.

[PennAEYC](#) is an affiliate of the National Association for the Education of Young Children (NAEYC) and is a nonprofit, membership organization of early childhood care and education professionals. Our mission is to be an effective voice for high quality early childhood care and education. We do this through policy development, advocacy and professional development and supports for early childhood professionals.

[Start Strong PA](#) is a statewide, nonpartisan issue advocacy campaign focused on increasing access to and the affordability of high-quality child care programs, of which PennAEYC is a principal partner organization.

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### NATIONAL COST ESTIMATION AND ALTERNATIVE PAYMENT METHODOLOGY EXPERT

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*The views expressed in this report are those of the authors and do not necessarily reflect the views of these foundations.*

## ENDNOTES

<sup>1</sup> Guidance on alternative methodologies and cost analyses for purposes of establishing subsidy payment rates, Administration for Children and Families, U.S. Department of Health and Human Services. <https://www.acf.hhs.gov/occ/policy-guidance/ccdf-acf-pi-2018-01>

<sup>2</sup> <https://www.acf.hhs.gov/occ/policy-guidance/ffy2022-2024-ccdf-plan-preprint-states-and-territories>

<sup>3</sup> Jeanna Capito and Simon Workman, "Using cost estimation to inform child care policy," (Illinois: Prenatal to Five Fiscal Strategies, 2021)

<sup>4</sup> Jeanna Capito and Simon Workman, "Using cost estimation to inform child care policy," (Illinois: Prenatal to Five Fiscal Strategies, 2021)

<sup>6, 7, 8, 9, 10</sup> Jeanna Capito and Simon Workman, "Using cost estimation to inform child care policy," (Illinois: Prenatal to Five Fiscal Strategies, 2021)

<sup>11</sup> <https://www.acf.hhs.gov/occ/policy-guidance/ccdf-acf-pi-2016-08>

<sup>12, 13</sup> Jeanna Capito and Simon Workman, "Using cost estimation to inform child care policy," (Illinois: Prenatal to Five Fiscal Strategies, 2021)

<sup>14</sup> Jeanna Capito and Simon Workman, personal communication, October 13, 2021

<sup>15</sup> <https://www.childrensfundingproject.org/cfp-blog/2022/7/27/five-tips-for-improving-cost-modeling-for-early-childhood-education>

<sup>16, 17</sup> Jeanna Capito and Simon Workman, "Using cost estimation to inform child care policy," (Illinois: Prenatal to Five Fiscal Strategies, 2021)

<sup>18</sup> Jeanna Capito and Simon Workman, "Using cost estimation to inform child care policy," (Illinois: Prenatal to Five Fiscal Strategies, 2021)

<sup>19, 20</sup> Jeanna Capito and Simon Workman, personal communication, October 13, 2021

<sup>21</sup> Jeanna Capito and Simon Workman, "Using cost estimation to inform child care policy," (Illinois: Prenatal to Five Fiscal Strategies, 2021)

<sup>22</sup> [https://www.prenatal5fiscal.org/files/ugd/8fd549\\_011b1b6f7585428a8fe16759381d635e.pdf](https://www.prenatal5fiscal.org/files/ugd/8fd549_011b1b6f7585428a8fe16759381d635e.pdf)

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