

ECE Cost Modeling Convening

Session I: Overview of the current
landscape

June 15, 2022



What do we mean by cost modeling?

- Tool to understand the cost of providing direct services, the systems level cost, or the cost of a new initiative
- Can identify the gap between the costs and revenue sources, with variation by quality, program type, geography
- Can be used to demonstrate the impact of funding from multiple sources
- Methodology relies on multiple data sources and points, which drive scenarios that can be run by user



What can cost modeling be used for?

- Advocacy
- Subsidy rate setting
- Grant or contract setting
- Costing out initiatives
- Quality improvement incentives
- System change and fiscal planning



Cost study

- A cost study is a point in time analysis of the cost of a service, it is stagnant.
- A cost study can be used as one of the data sources in a cost model.

Cost model

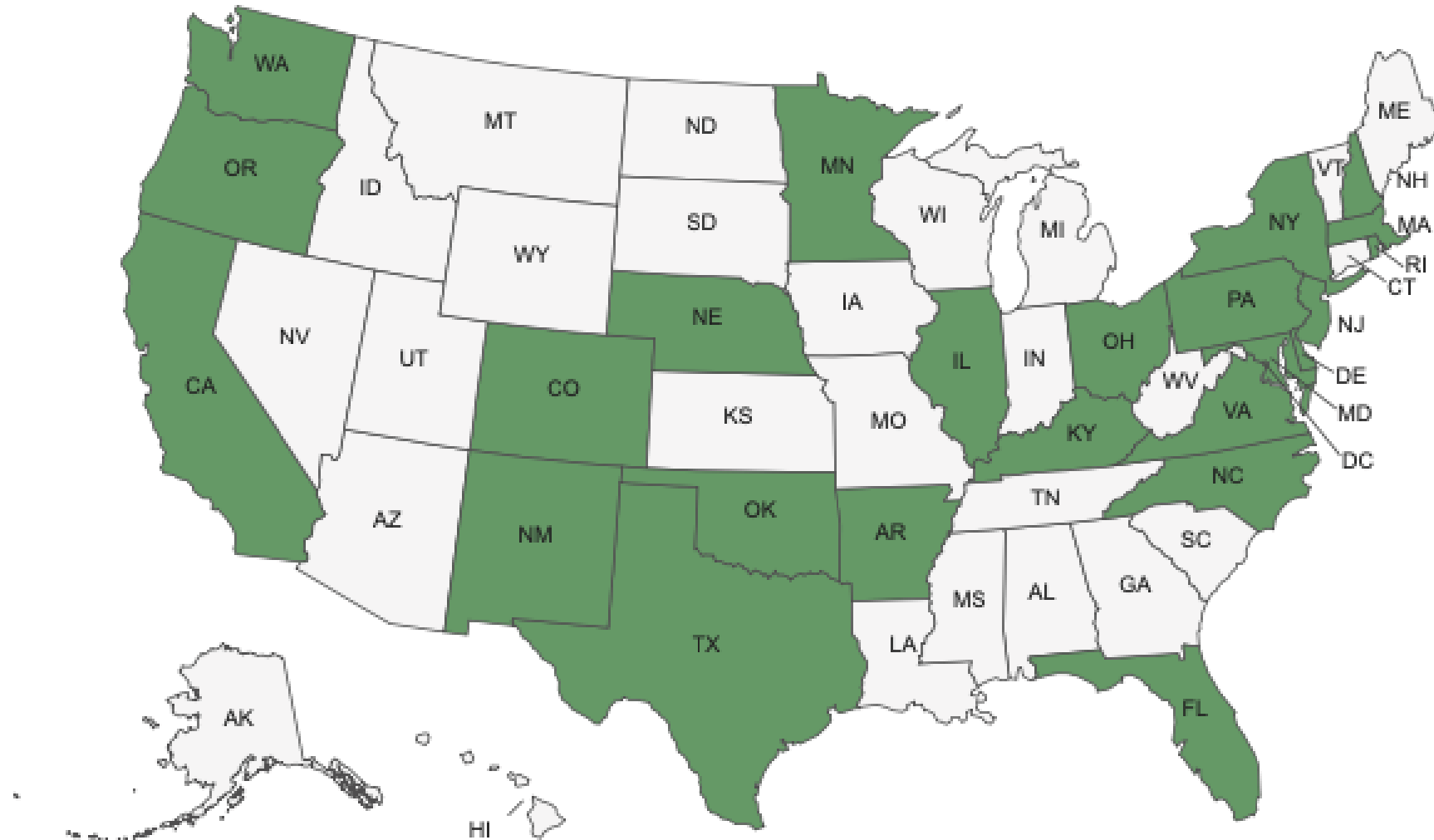
- A cost model is a functioning tool which can be used to answer questions about the cost of a service and draw from multiple data points to answer those questions.

What tools are available to support cost modeling?

- Cost of child care interactive (CAP)
www.costofchildcare.org
- Cost of Child Care During Coronavirus interactive (CAP)
- Provider Cost of Quality Calculator, or PCQC (Office of Child Care)
www.ecequalitycalculator.com
- Cost of Preschool Quality and Revenue, or CPQ&R (NIEER)
- Customized spreadsheet model



Which states have published studies or models?



Subsidy Rate Setting

- District of Columbia and New Mexico have completed full cost modeling for rate setting
 - Louisiana streamlined version
- CA, OR, WA, VA, NC all actively exploring/conducting study
- Many others considering...

Advocacy Campaigns

- Child Care NEXT states looking at modeling the cost of big vision
 - VA completed for 2033 vision
- Child Care for All Oregon actively working on modeling now
- Delaware modeled the cost of better system to inform revenue generation efforts

- All states must complete a narrow cost analysis as part of CCDF plan
- CCDBG reauthorization or significant new funding likely to require states to consider cost rather than market:
 - BBB requirement to transition to rates based on cost
 - Scott-Burr reauthorization of CCDBG proposal includes it
 - Increasing recognition among state leaders of the inadequacies of setting rates based on broken market
- What is needed will look different based on state context
- States can have multiple needs, driven by different goals



Three examples

- 1. Maryland Narrow Cost Analysis**
- 2. Boston UPK**
- 3. Illinois System Model**

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Maryland Narrow Cost Analysis

Narrow Cost Analysis Options

- Use information from existing studies
- Using the Provider Cost of Quality Calculator for modeling
- Conduct a limited cost survey or study
- Examine cost differentials for high-quality care
- Use other existing information
- Use information from market rate survey data

- Used Provider Cost of Quality Calculator
- Integration of state data
- Approach to quality
- Approach to regions



Boston UPK slides omitted

Boston UPK information is embargoed until after July 6th and will send an updated PPT deck once approval from the client has been received

The background of the slide is a close-up photograph of various colorful wooden blocks (red, green, yellow, blue) scattered on a blue surface. The text is overlaid on this image.

Illinois' Early Childhood Education and Care System Cost Model

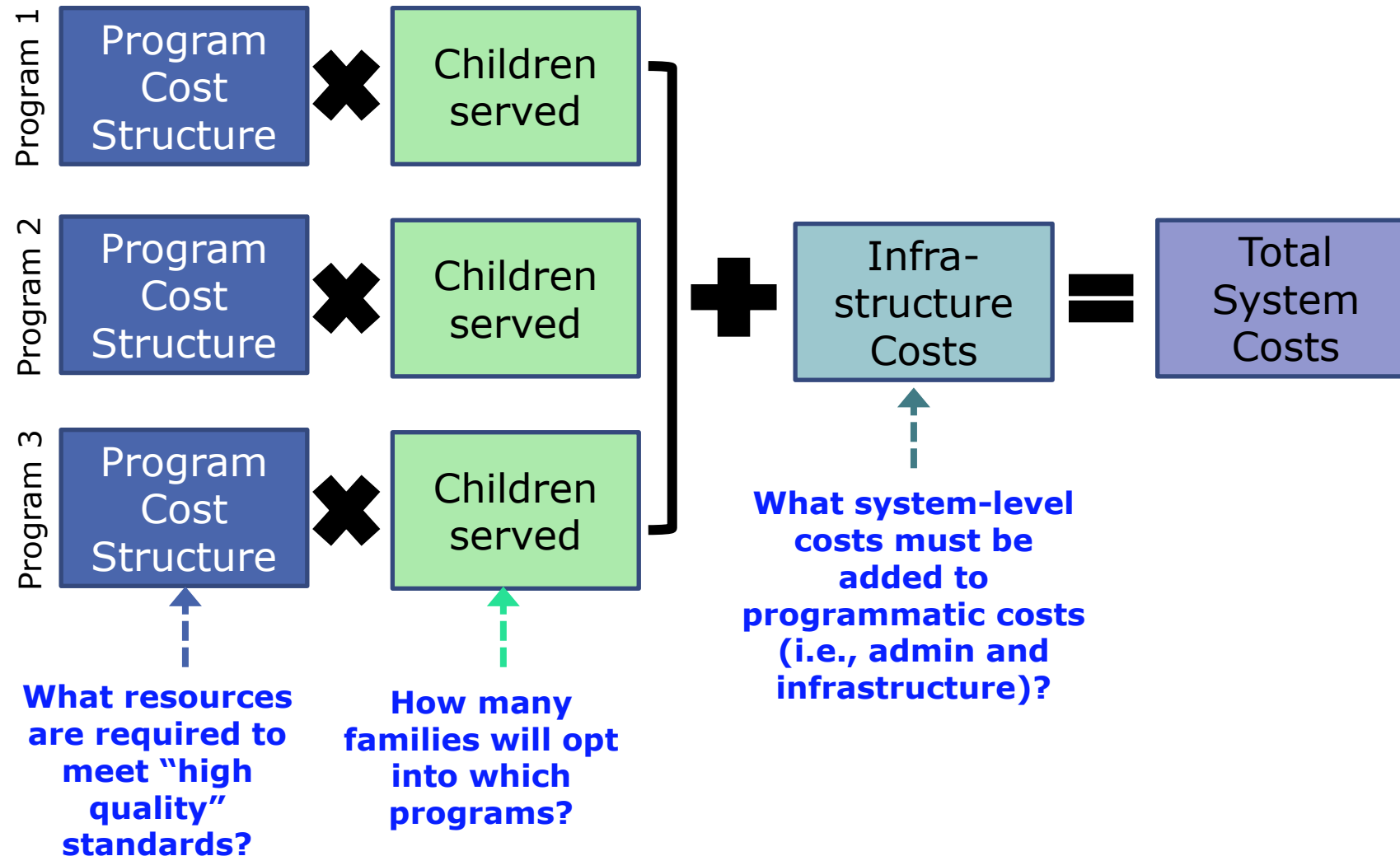
Estimating
“adequacy” in
funding for a
whole system

Theresa Hawley
Kate Ritter
Katie Reed
Mitch Mraz

The Illinois ECEC
System Cost Model
started with the
question: “What does
the system we think
we need cost at full
scale?”

- We were not trying to determine what services currently cost, but rather what a system of services **at scale and desired quality and intensity** would cost
- We set staffing ratios, compensation, and other costs at the levels we determined (through stakeholder input) they would need to be to adequately meet the needs of children and families in a stable, sustainable way
- Major focus on including multiple program options within the overall system, and estimating need for each type of program

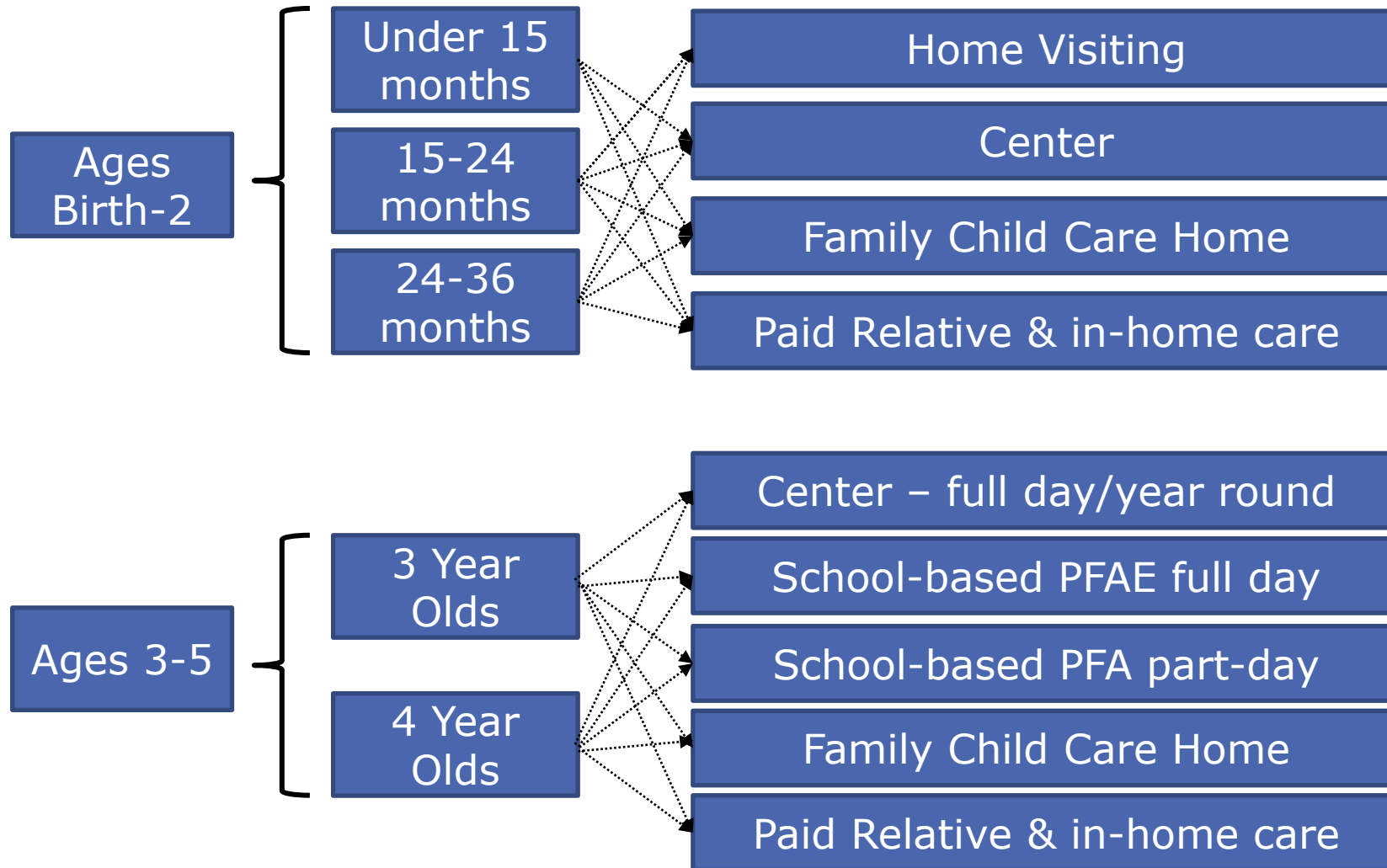
Simplistic Formula for System Cost



We gathered a lot of data and stakeholder input to make decisions on inputs to the model

Process Step	Critical Decisions on Inputs
1 Determine Programs in/out of analysis	<ul style="list-style-type: none">• Which settings? (ex: center, family/friend home, etc.)• Which intensities? (ex: part-day, full-day, working day)• For which ages?
2 Calculate per child cost of high-quality programs	<ul style="list-style-type: none">• What is the model staffing pattern for each program?• What should staffing ratios be? (How may children per position?)• What should the salary schedule for positions be?• How much should be included for special services including Special Education and Bilingual Programs?
3 Estimate child count in each program	<ul style="list-style-type: none">• What is the total child count eligible for program models?• What is the estimated percent of families in each age/%FPL group opting into services and selecting which program
4 Calculate cost of state/local infrastructure	<ul style="list-style-type: none">• What is the cost of administration and monitoring at the state level?• What is the cost of workforce development and professional development/quality support systems?
5 Calculate total cost of services	

The following programs were included:



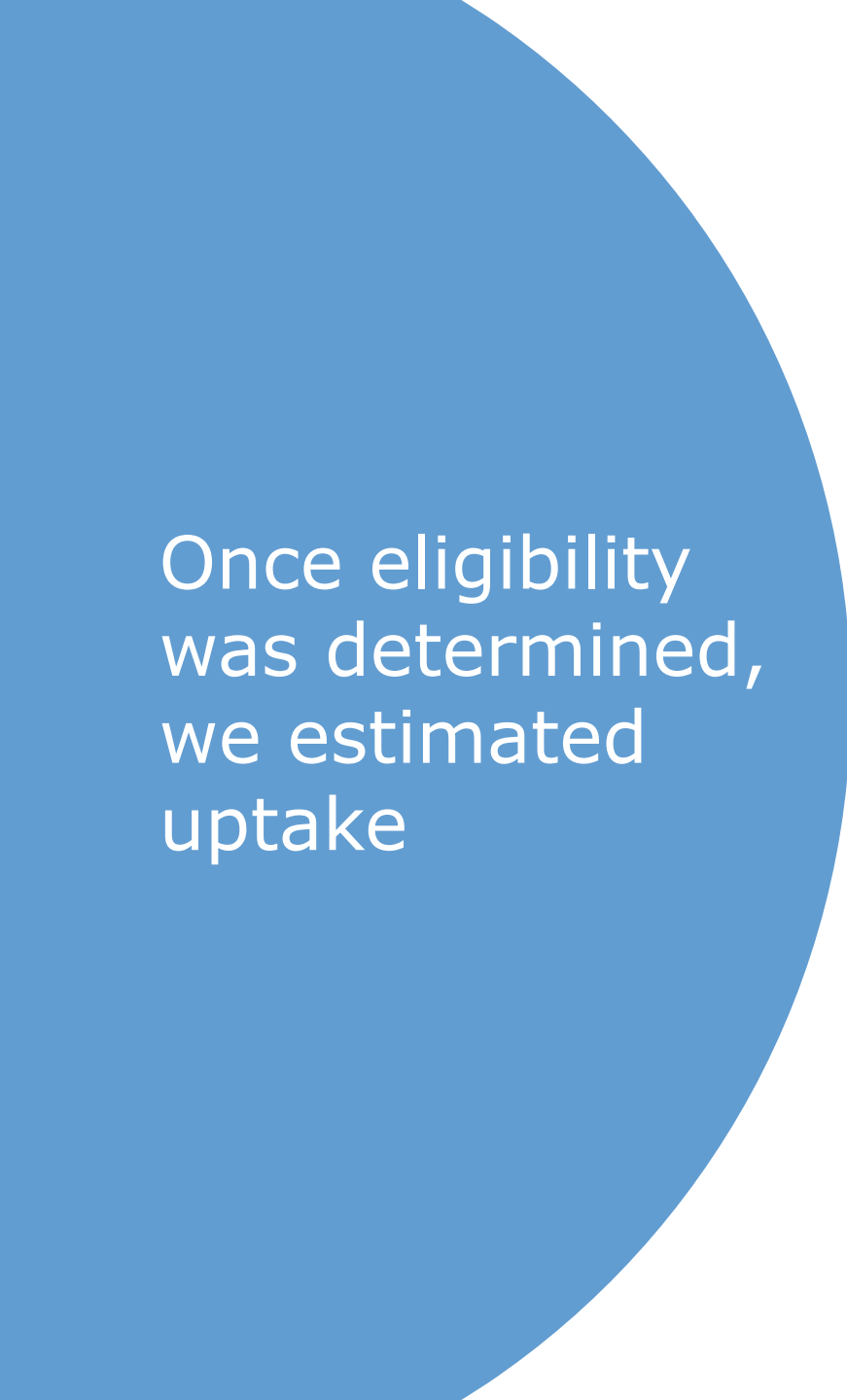
Commission Input:

Deciding what constitutes *equitable access*

1. To whom should the State offer these program models?

-----Program Models -----						
	Part Day School Year	School Day School Year	Full Work-Day Full Year (home or center based)	Intensive Home Visiting	Comprehensive / Wraparound Services	Services to Support Special Needs
Factors	Child Age (0-2,3yr,4yr)	Which ages should be eligible for each model?				
	Family Income Level	Should all or some family income levels be eligible for each model?				
	Geography	Should all or designated geographies be eligible for each model?				
	Family Work Schedule	Should all or some family work schedules be eligible for each model?				
	IEP / IFSP Status	Should all or some IEP/IFSP statuses be eligible for each model?				
	Other	What other factors might need to determine eligibility for each model?				

2. Which of the above factors should apply when determining family payment for each of the program models?



Once eligibility
was determined,
we estimated
uptake

- Used several sources to develop estimates:
 - National Household Education Survey data
 - Uptake rates in “universal preschool” states
 - Previous system cost studies (New York City, NRC report)
- We assigned children to program options based on the data we had about parent preferences and the Commission discussion on what should be provided to children and families with various needs

Where we had
the most
difficulty
building
estimates

Marginal cost of serving
children with special needs in
inclusive settings

Marginal cost of serving
English Language Learners

Cost of necessary
infrastructure to support
system

Where we've taken the model lately

- Generic cost model engine that includes the ability to vary:
 - Salary scale
 - Staffing patterns (to correspond to varying quality standards)
 - Group sizes
 - And much more
- We have used the model to understand:
 - Impact of Covid-related group size restrictions
 - “Delta” in per-classroom cost if staff salaries are raised
 - Impact of rising minimum wage on cost of care
- We have used the model to define system-level “adequacy” and compared that to current spending levels *by geography*

Breakout

What are the key issues and challenges you are seeing in the field with relation to cost modeling and ECEC funding design?