

Early Education and Care Cost Research: Phase 2 Findings & Recommendations

Presentation to Board of Early Education and Care
April 11, 2023





Our Team

- **Center for Early Learning Funding Equity (CELFE)**
 - Theresa Hawley, Ph.D.
 - Sessy Nyman, MS
 - Maya Portillo, MPA
- **Our Partner: Children's Funding Project (CFP)**
 - Kate Ritter, MPP
 - Sarah Eicher, MSW

Agenda

- **Executive Summary**
- **Review of Phase 1 (September Presentation)**
- **Cost Estimation Study Process**
 - Data collection and stakeholder engagement
 - Cost Estimation Models and Model Assumptions
 - Target salaries for use in models
- **Findings**
 - Cost of care, by type, region and age
- **CELFE's Recommendations**
 - Regional structure
 - Rate alignment
- **CELFE Timeline and Next Steps**



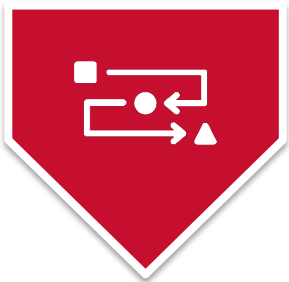
Executive Summary



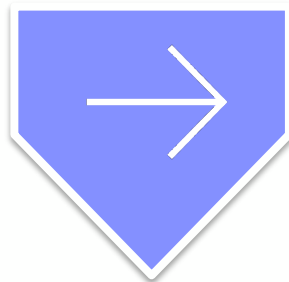
Goal. Support the Massachusetts Board of Early Education and Care (EEC) to gain insights into the financial costs of early childhood education and care. CELFE built cost models for Center-Based Care and Family Child Care (FCC) homes, producing cost estimates by age of child served for each subsidy rate region. The cost model assumptions were developed through extensive research and provider feedback.



Data Sources. Commonwealth Cares for Children (C3), national Provider Cost of Quality Calculator (PCQC) data, various state and federal datasets, and broad stakeholder engagement and feedback.

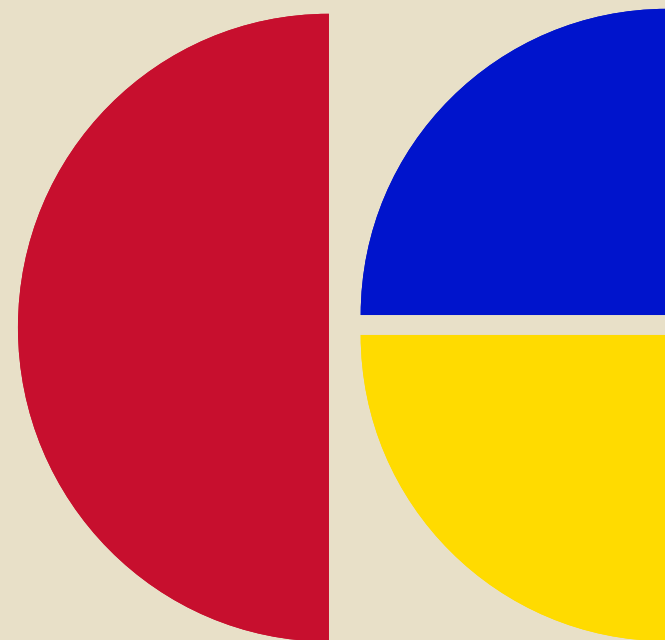


Methodology. Compared to the Preliminary Cost Study completed in September 2022, changes were made in the GSA and FCC full cost study to staffing patterns, salaries, health insurance and benefits, and occupancy. Three cost estimates were generated for GSA to reflect 1) staffing at licensed ratios and current salaries 2) current staffing with increased compensation, and 3) increased compensation and staffing levels. One cost estimate - accounting for the variety of different types of FCC homes - was developed for FCC to reflect the cost of meeting a target income level for FCC providers given the costs of operation.



Next Steps

- Finalize Cost Models based on board/EEC feedback
- Prepare summary for stakeholders on how their input was used in this cost study
- Train EEC staff on cost models
- Submit Final Report





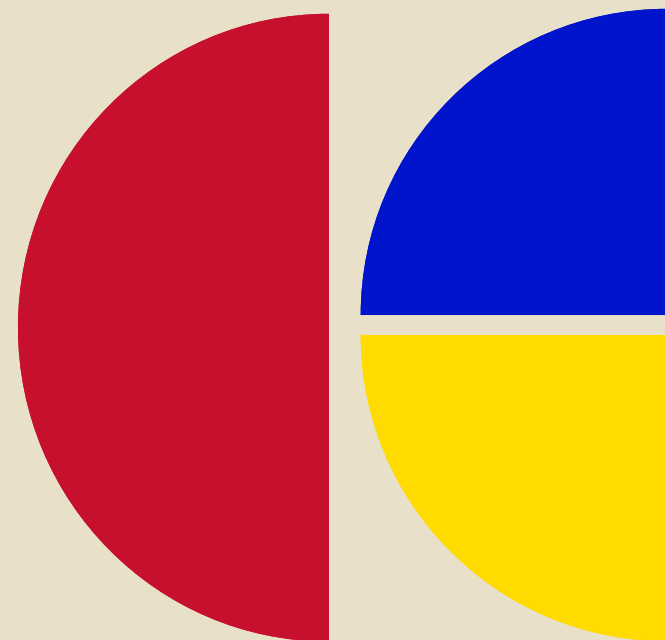
Background and Review of Phase I

In September 2022,
CELFE reported on a
Preliminary Cost Analysis
that simply updated a 2020
cost study, adjusting for
inflation

Phase 2 of the Cost Study
presented today is based
on additional stakeholder
input and data from the C3
grant applications and
other extant sources

Prices and **Costs** are two primary sets of information needed to set subsidy rates and overall funding policy for early education and care

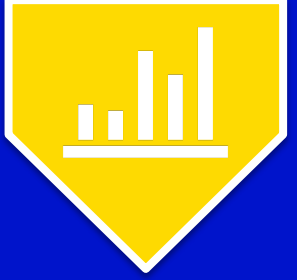
	Prices 	Costs 
Federal Method	Market Rate Survey	Cost Analysis
What it answers	How much are providers charging private-pay families for care?	How much does it cost providers to operate their programs while meeting required health and safety standards? How much does it cost providers to operate their programs with increased staffing and compensation?
Why we use it	To understand the extent to which subsidy rates allow parents to access the full market of available care	To understand the extent to which subsidy rates and market rates allow providers to cover the current cost of care To understand the funding that will be needed to support programs in sustaining increased staffing and compensation



Phase 2 Cost Study | Inputs

Research & Stakeholder Engagement

CELFE Used C3 Application Data to Understand Key Cost Drivers



1

Program Size

Programs reported the **number of classrooms** for each age group, as well as current enrollment by age group

Varying license capacities (6-10) for FCC educators were considered

2

Staffing Patterns

Programs reported the **number of FTE** staff per position

- Director
- Lead Teacher
- Assistant Teacher
- Group Leader
- Assistant Group Leader
- Program Admin
- FCC Assistant

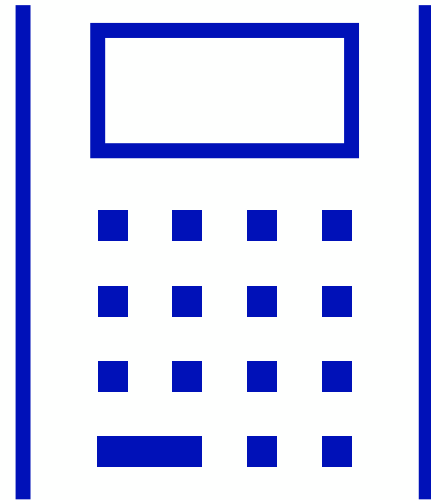
3

Salaries

Programs reported the **highest and lowest salary** for staff

- Director
- Lead Teacher
- Assistant Teacher
- FCC Assistant

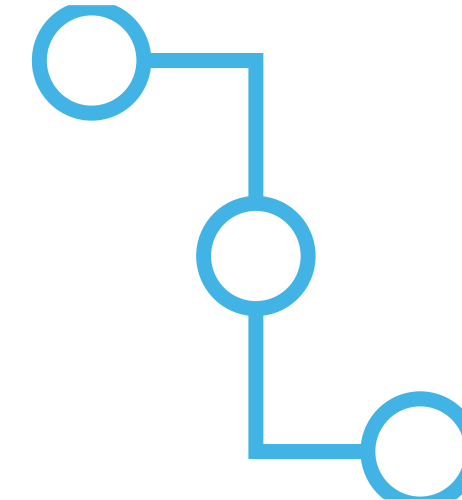
We also reviewed other data sources to inform cost models



**Provider Cost of
Quality Calculator**



**HUD Fair Market
Housing Cost**



**Connector Care
Premiums**



**MA report on
employer-paid
health insurance**

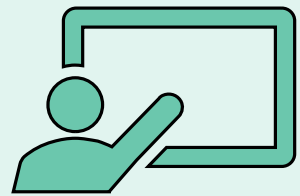
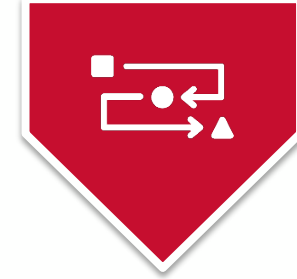


**Analysis of what would
constitute "parity" with
K-12 compensation**

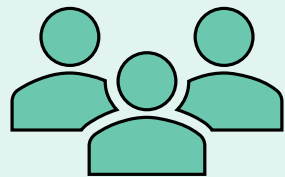


**CAYL Family Child
Care Study**

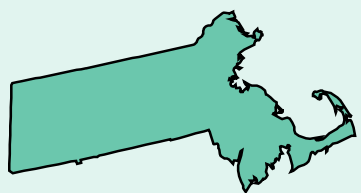
To inform and validate our cost model assumptions, CELFE conducted additional stakeholder engagement



9 Listening Sessions



161+ Participants



Representation Across the Commonwealth

Focused sessions to dig deeper on specific needs in the cost model.

- **Program Types:** Family Child Care, School-Aged, Afterschool & Out-of-School Time Programs, Center-Based Programs
- **Language:** English, Spanish

Things we heard:

"We are facing serious challenges with inflation where we are feeling it in our rent, food costs, and materials costs" – **FCC Educator**

Increasing costs

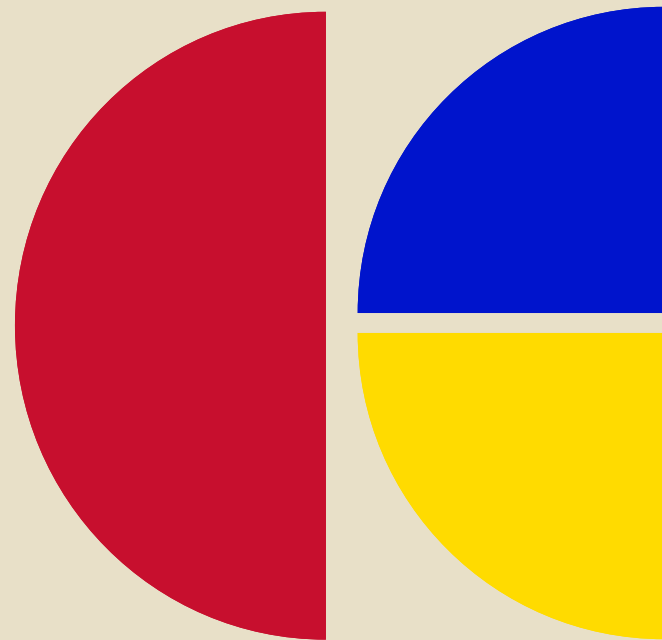
Need for more staff

"We have seen so much improvement at a 2:15 ratio that we don't have an intention to go back to 2:20 unless financially we have no other option" – **Center-based Educator**

"I can't under-enroll. I wouldn't be able to pay my full-time assistant. I couldn't afford not to be full. I value her and she deserves to be paid" – **FCC Educator**

Maintain full enrollment

Conducted in January- February '23



Center-Based Cost Model

Cost Estimation Models

- CELFE created **cost estimation models** to assess the cost of particular program models and understand existing funding gaps based on provider type, age group served, and subsidy region
- CELFE analysis used data primarily from the following sources:
 1. Data from the 2022 Market Rate Survey,
 2. Previous cost estimation work (Preliminary Cost Analysis),
 3. Data gathered from Commonwealth Cares for Children (C3) surveys, and
 4. Input from providers and systems experts during listening sessions.

MASSACHUSETTS UPDATED NARROW COST ANALYSIS - January 2023
Cost Summary Output: GSA
Total, Per Child, Per Classroom, Daily Cost by Quality Tier, Geography, and Age Group

Assumed Enrollment

	Region 1 - Western	Region 2 - Central	Region 3 - Northeast	Region 4 - Metro	Region 5 - Southeast	Region 6 - Metro Boston
Infants	6	6	6	6	6	6
Toddlers	8	8	8	8	8	8
Preschool	34	34	34	34	34	34
School-Age	23	23	23	23	23	23
School-Age (Before & After)	16	16	16	16	16	16
School-Age (Full Day)	8	8	8	8	8	8

Classrooms

	Region 1 - Western	Region 2 - Central	Region 3 - Northeast	Region 4 - Metro	Region 5 - Southeast	Region 6 - Metro Boston
Infants	1	1	1	1	1	1
Toddlers	1	1	1	1	1	1
Preschool	2	2	2	2	2	2
School-Age	1	1	1	1	1	1
School-Age (Before & After)	0.65	0.65	0.65	0.65	0.65	0.65
School-Age (Full Day)	0.35	0.35	0.35	0.35	0.35	0.35

Total Expenses - Center

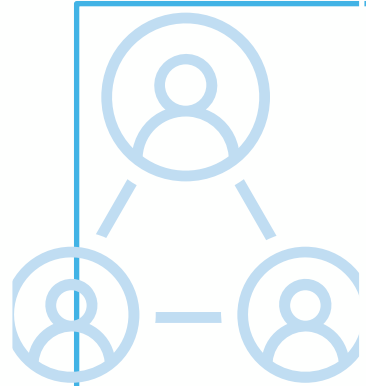
	Region 1 - Western	Region 2 - Central	Region 3 - Northeast	Region 4 - Metro	Region 5 - Southeast	Region 6 - Metro Boston
Infants	\$ 179,080	\$ 234,716	\$ 183,856	\$ 240,081	\$ 195,969	\$ 254,536
Toddlers	\$ 187,213	\$ 245,418	\$ 192,073	\$ 250,952	\$ 204,352	\$ 265,156
Preschool	\$ 429,856	\$ 568,580	\$ 440,220	\$ 581,063	\$ 465,697	\$ 613,209
School-Age	\$ 209,760	\$ 267,148	\$ 216,420	\$ 276,883	\$ 222,264	\$ 283,898
School-Age (Before & After)	\$ 129,364	\$ 163,226	\$ 133,255	\$ 169,036	\$ 137,176	\$ 173,776
School-Age (Full Day)	\$ 80,387	\$ 103,911	\$ 83,164	\$ 107,846	\$ 85,089	\$ 110,122

GSA CENTER COMPONENTS

	Region 1 - Western	Region 2 - Central	Region 3 - Northeast	Region 4 - Metro	Region 5 - Southeast	Region 6 - Metro Boston
Classrooms						
Infant	1	1	1	1	1	1
Toddler	1	1	1	1	1	1
Preschool	2	2	2	2	2	2
School-Age (Before & After)	0.65	0.65	0.65	0.65	0.65	0.65
School-Age (Full Day)	0.35	0.35	0.35	0.35	0.35	0.35
Total Classrooms	5	5	5	5	5	5
Center Capacity						
Infant	7	7	7	7	7	7
Toddler	9	9	9	9	9	9
Preschool	40	40	40	40	40	40
School-Age (Before & After)	16.93	13.03	16.93	13.03	16.93	13.03
School-Age (Full Day)	9.07	6.97	9.07	6.97	9.07	6.97
Total Capacity	82	76	82	76	82	76
Assumed Center Enrollment						
Infant	6	7	6	7	6	7
Toddler	8	8	8	8	8	8
Preschool	34	36	34	36	34	36

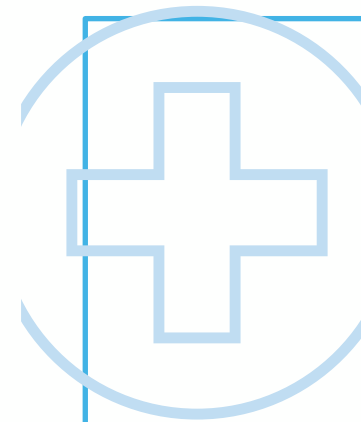
Ex: Group and School Age (GSA) Cost Model

Key Changes in Center-Based Phase 1 Preliminary Cost Analysis vs. Phase 2 Cost Study



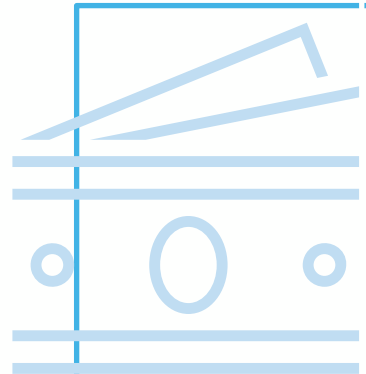
Staffing Patterns

- Changed to include more teachers and fewer assistants, based on C3 data & stakeholder feedback
- Clarified approach to staffing school age in a birth-through-school-age center



Health Insurance and Fringe

- Health insurance costs adjusted to reflect typical uptake rates
- Workers' comp. rate changed based on review of categories; added unemployment insurance



Salaries

- “Current salaries” updated to reflect data in the C3 application data
- “Desired salaries” were reviewed through field input



Occupancy

- Used MIT Living Wage Indicator to understand approximate regional differences

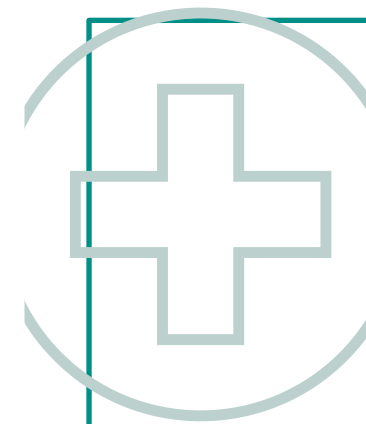
Key Changes in Family Child Care

Phase 1 Preliminary Cost Analysis vs. Phase 2 Cost Study



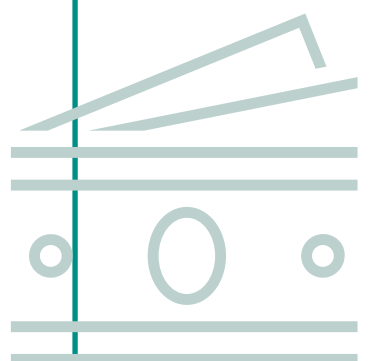
Staffing Patterns

- Created multiple staffing patterns—No asst, half-time asst, full-time asst—to understand implications and variations in cost



Health Insurance and Fringe

- Used cost of accessing Connector Care
- Workers' comp. rate changed based on review of categories; added unemployment insurance



Income

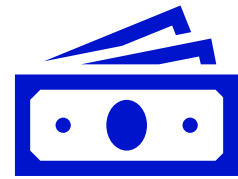
- Previous cost analysis relied on 2020 survey data
- For “target income” for FCC home licensee, we tie to Center Director for center-based programs



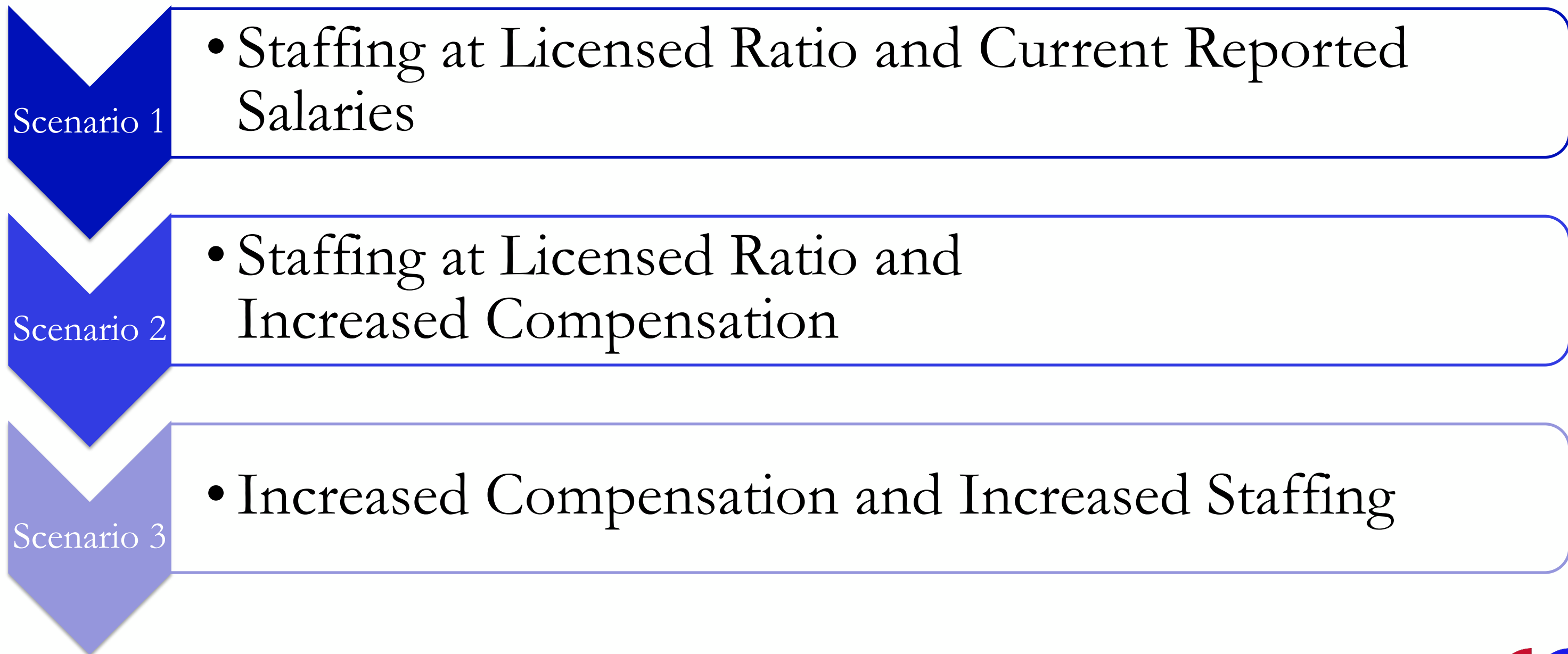
Occupancy

- Used HUD “Fair Market Rent – 3 bedroom” to determine average occupancy cost by region
- Time/ space usage was estimated at 35% based on work hours reported by providers

Center-Based Scenarios

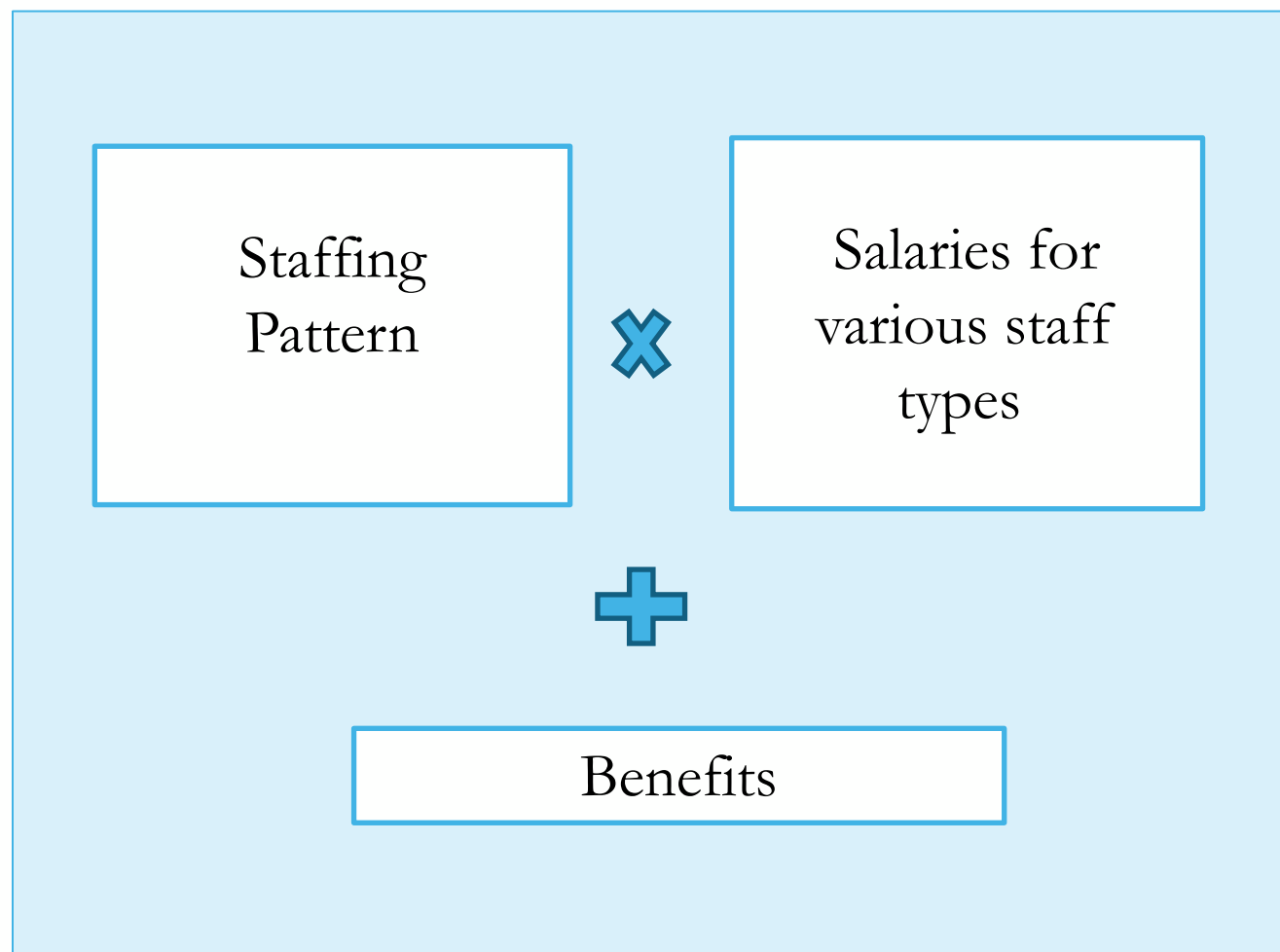


Cost Estimation Models for center-based programs generate cost estimates for three different scenarios (based on differing inputs)



Cost for Center-Based Programs

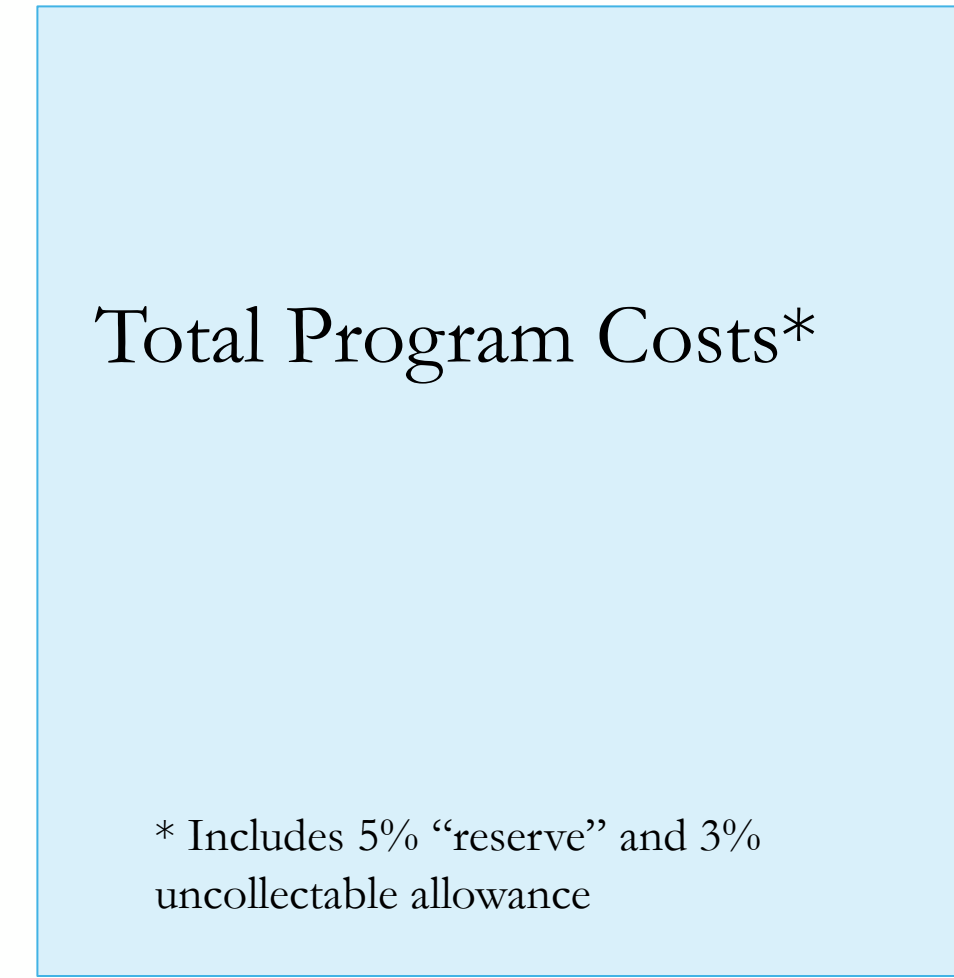
Personnel Costs



Non-Personnel Costs



Total Costs



Cost Inputs Across Scenarios



- **Staffing at Licensed Ratio and Salaries**
 - Staffing the minimum needed to meet required ratios
 - Based on salaries reported in C3 survey
 - Integrated highest and lowest wages reported by role to identify representative salary for each role
- **Staffing at Licensed Ratio and Increased Compensation**
 - Staffing at minimum needed to meet required ratios
 - Salaries anchored between MIT living wage and public school educator salaries
- **Increased Compensation Increased Staffing**
 - Based on best practices as articulated in listening sessions
 - Salaries anchored between MIT living wage and public school educator salaries

Identification of salary targets is an essential component of funding design



1

Developed draft **'salary goals'** for the ECE workforce, along with estimating costs for ECE in Massachusetts.

2

The scale will be used **in cost models** to help understand the program costs of operating with more competitive salaries.

3

The salary recommendations are **designed to provide a draft model** for sufficient increases in compensation to support professional growth in the field.

Key Considerations When Setting Target Salaries

1 *Parity with Positions of Similar Professional Expertise*

- We have completed data analysis to understand the K-12 teacher salary landscape, weighting by enrollment.
- Potential Assumption: ECE teachers should receive **comparable wages to a K-12 teacher** with the same degree attainment

2 *Economic Indicators*

- As a starting point, we are using **living wage** as the economic measure to pin the bottom of the scale (Assistant Teachers) because it 1) maintains healthy distance from min wage, 2) data accounts for geographic variation, and 3) data updates annually and reflects changes in state min. wages

3 *Years of Experience*

- The salary ranges account for years of experience with an assumption that there will be an approximate **20% band of salaries** for people at each level.
- The cost modeling work will attempt to pin at the mid-point

4 *Geographic Boundaries*

- The salary estimates used in the Phase 2 Cost Study uses EEC's subsidy rate regions (i.e., are 6 different scales)

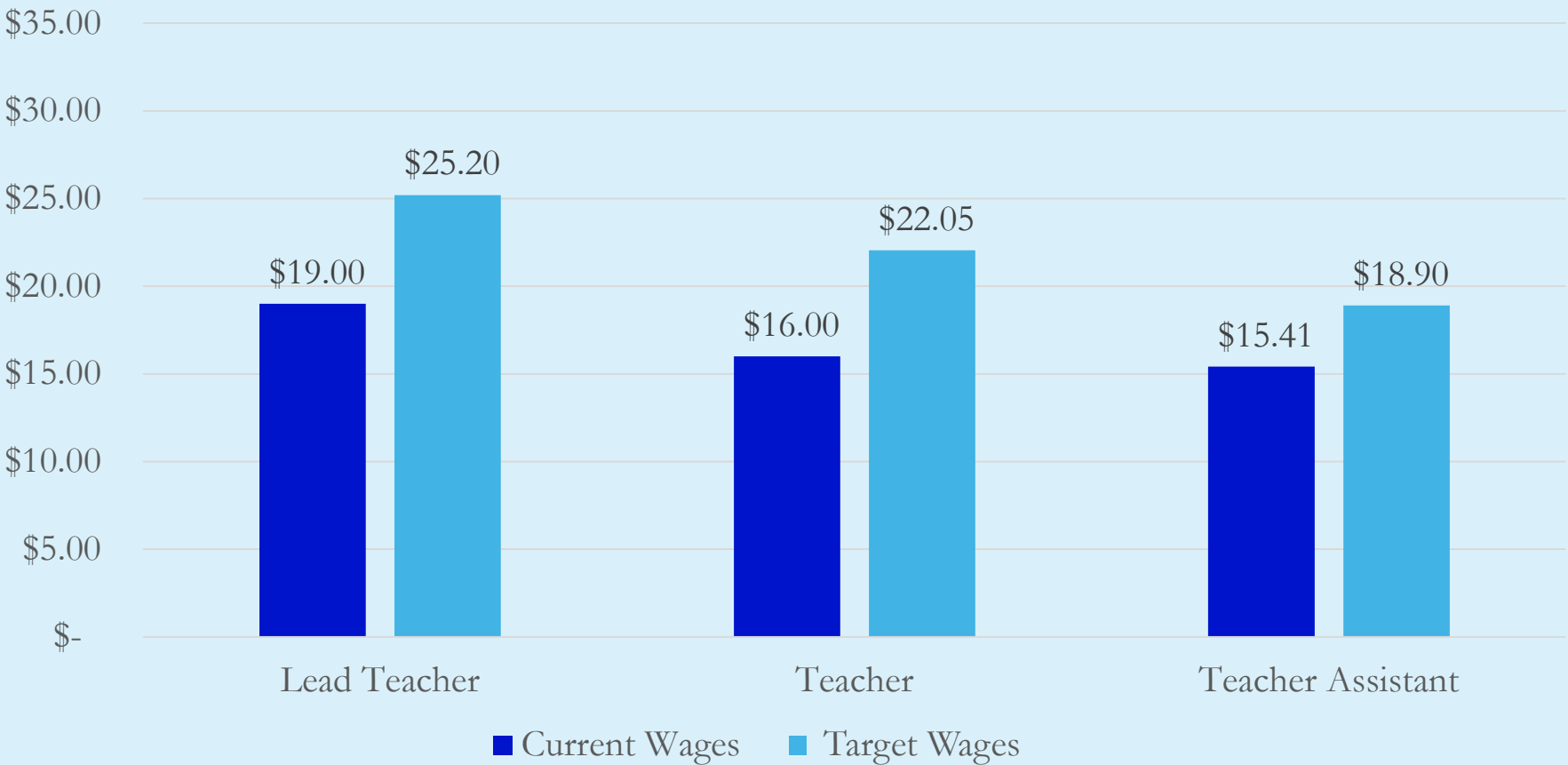
5 *Eligibility/Scope*

- Estimates covers wages for **different positions in Center-Based and Family Child Care settings**

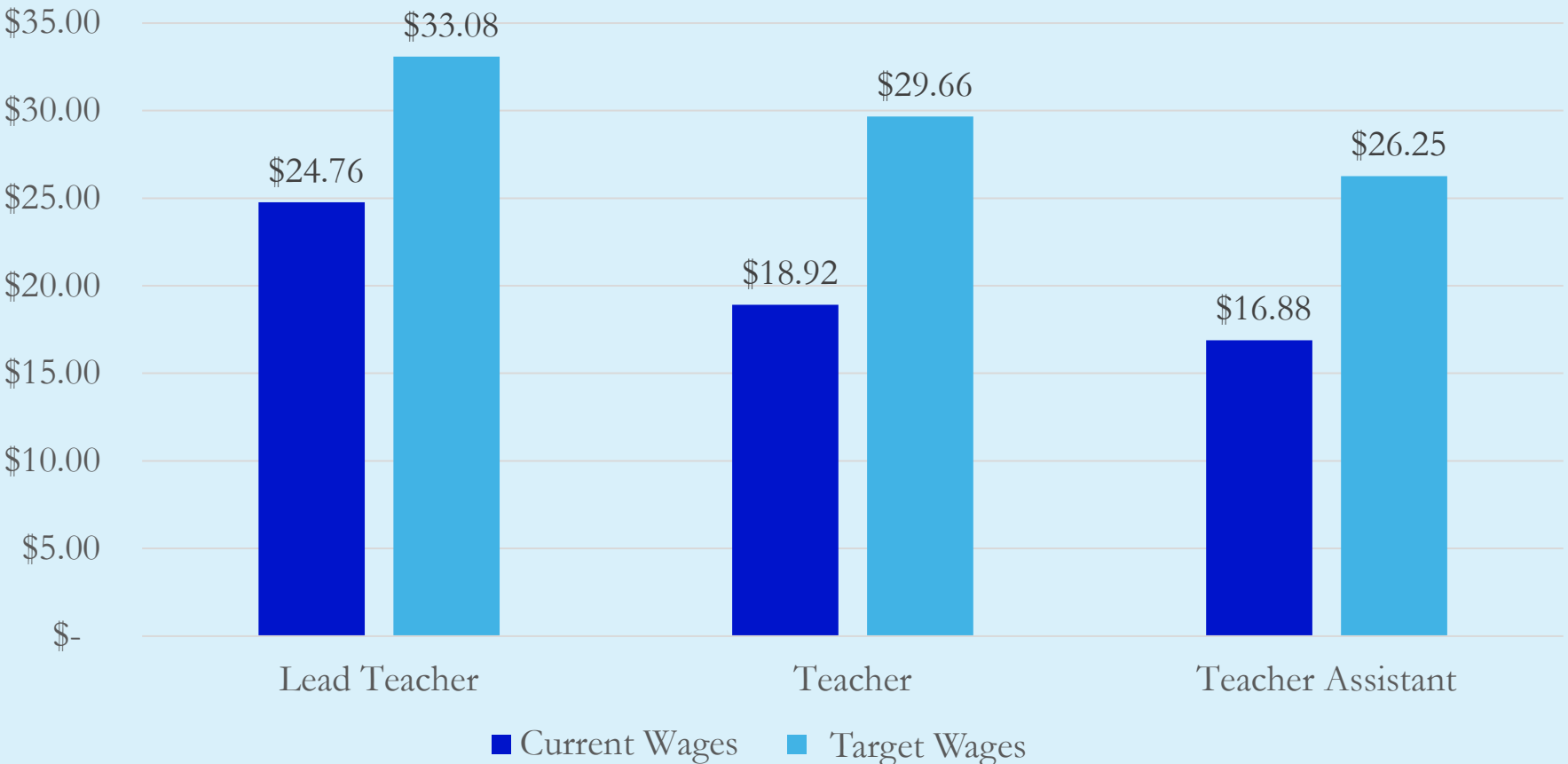
Current Wages vs. Target Wages (Hourly)

Regions 1 (Western) & 6 (Metro-Boston) | Lead Teacher, Teacher, and Teacher Assistant

Region 1 Wage Comparisons



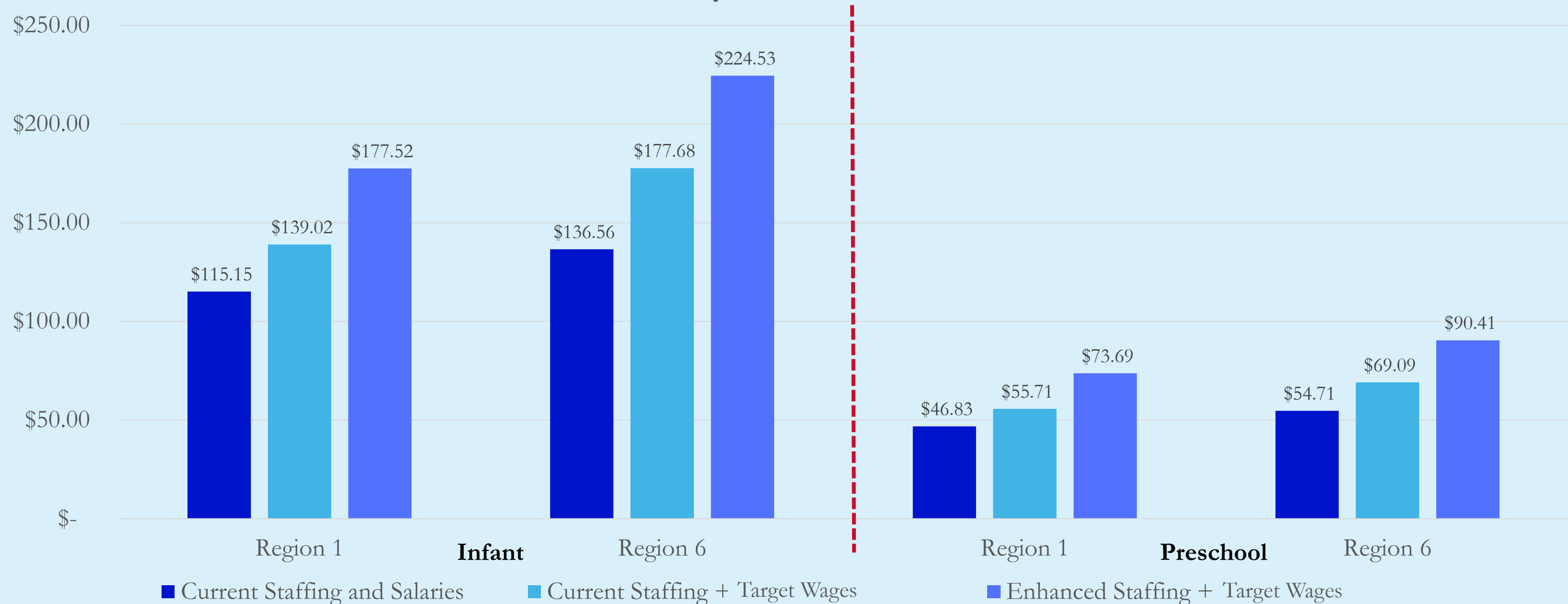
Region 6 Wage Comparisons



Daily Costs for Increased Salaries/Staffing

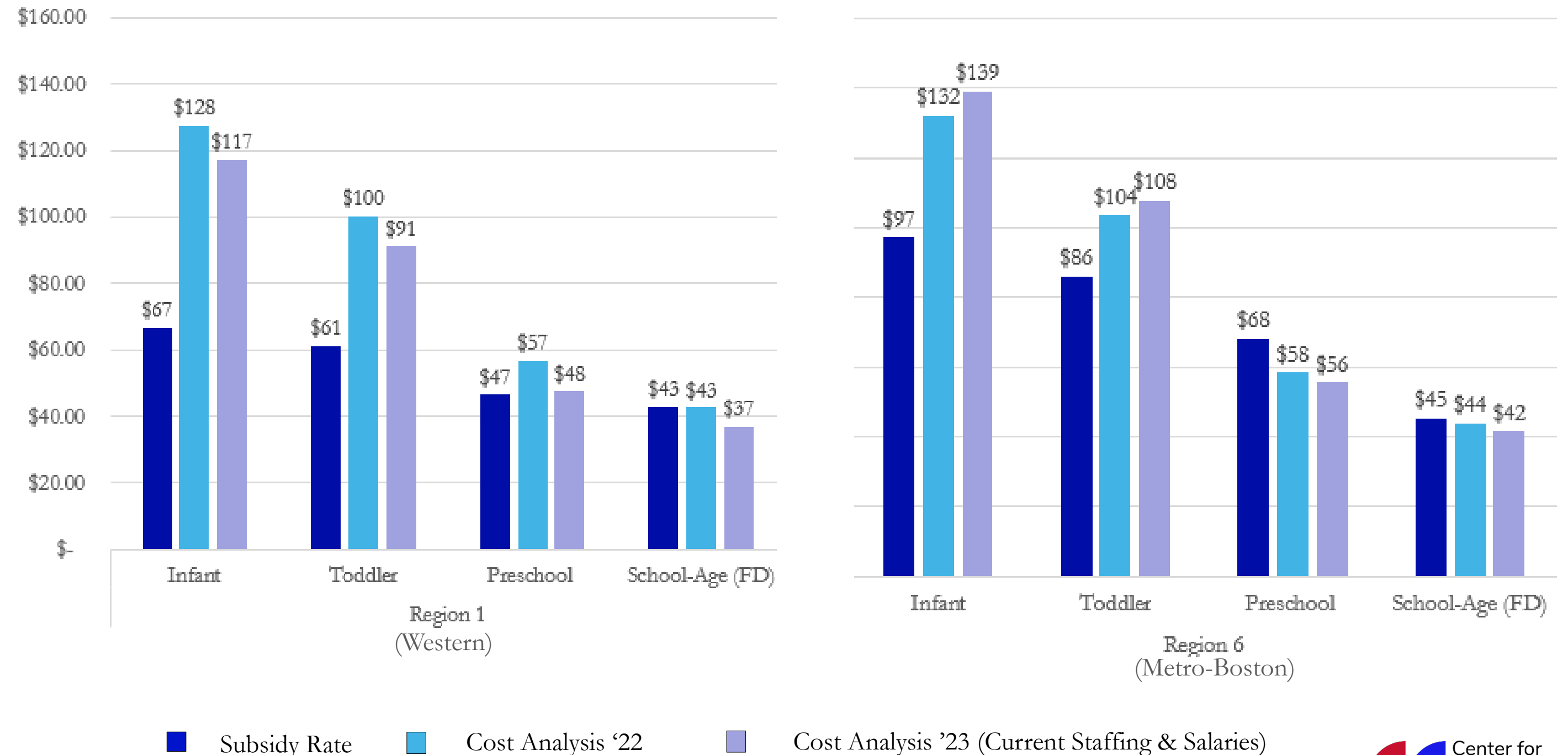
Regions 1 (Western) & 6 (Metro-Boston) | Infant & Preschool

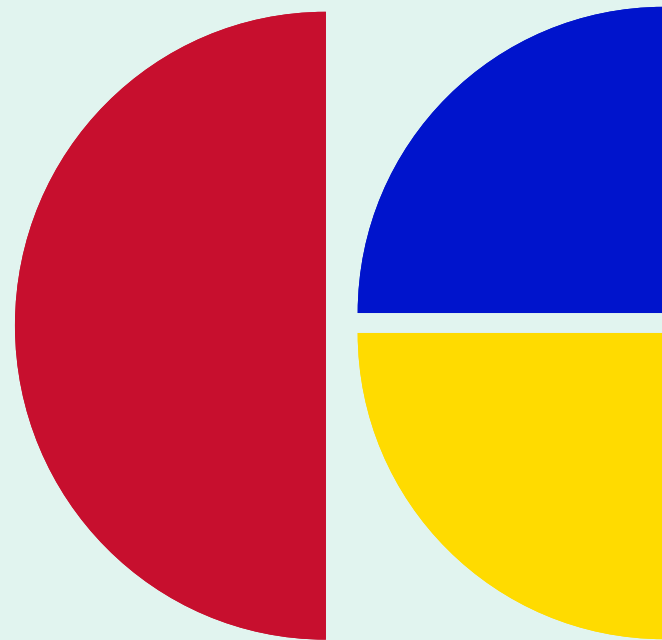
Daily Cost Per Child



Results of Phase 2 Cost Study

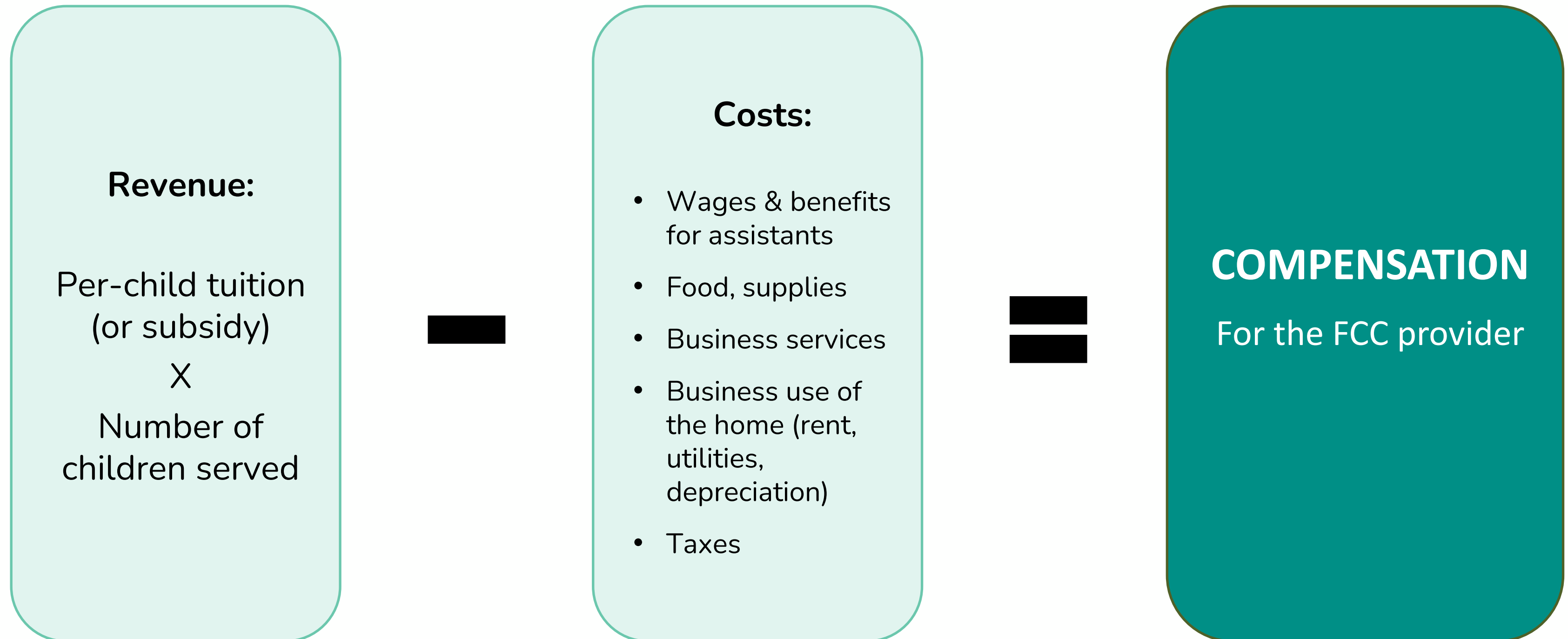
The Phase 2 Cost Study produced current cost estimates for center-based programs **that are similar to** the Preliminary Cost Study completed in 2022





FCC Cost Model

Business Formula Used for Family Child Care Cost Model

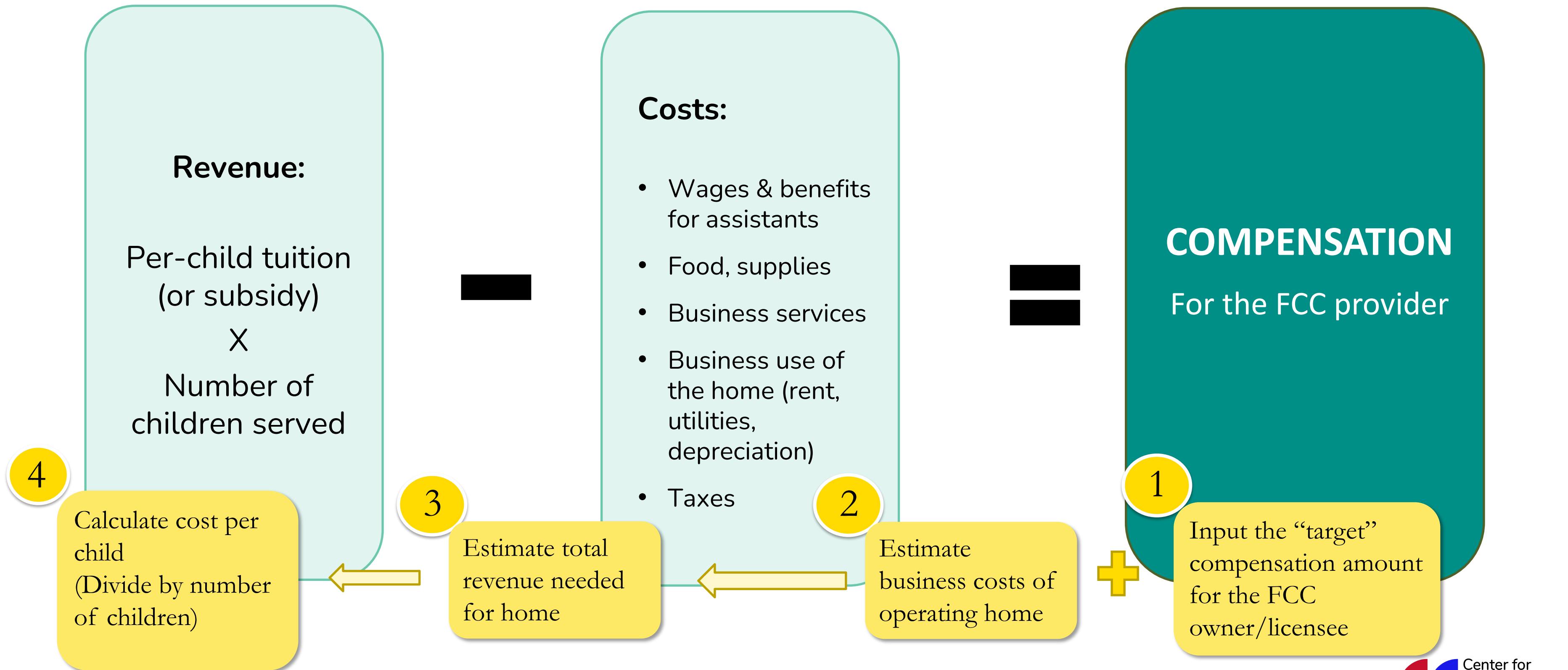


Cost Model for Family Child Care Programs

Designed to Support Salary Goals

- 1 C3 survey data showed widely varying compensation for Family Child Care
- 2 To build a more consistent model, set a goal for Family Child Care educator compensation
- 3 Modeled a target income commensurate with center-based directors

Calculating Cost in Family Child Care



Family Child Care Staffing Variation



To determine cost per child for family child care, it is important to account for the *variety of different types of FCC homes* that exist, and the licensing regulations that determine the number of children of different ages that can be served in each home.

Homes can currently be staffed as:

FCC Educator Only

- Can serve 6 children under six, only 2 of whom can be under two
- Can serve an additional 2 school age children
- Total capacity: 6 or 8

FCC Educator with Assistant

- Can serve **10** children, up to 6 of whom can be under 2 and no more than 3 infants

Cost Modeling with Target Compensation



Benefits/Payroll Taxes for Assistants (FICA, Health Insurance, Worker's Compensation, Retirement, etc)



Non-Personnel (Food, Maintenance, Supplies, Accounting Support, etc)



Occupancy Costs (Rent/Mortgage, Utilities, Homeowner's insurance, Time/ space usage assumptions)



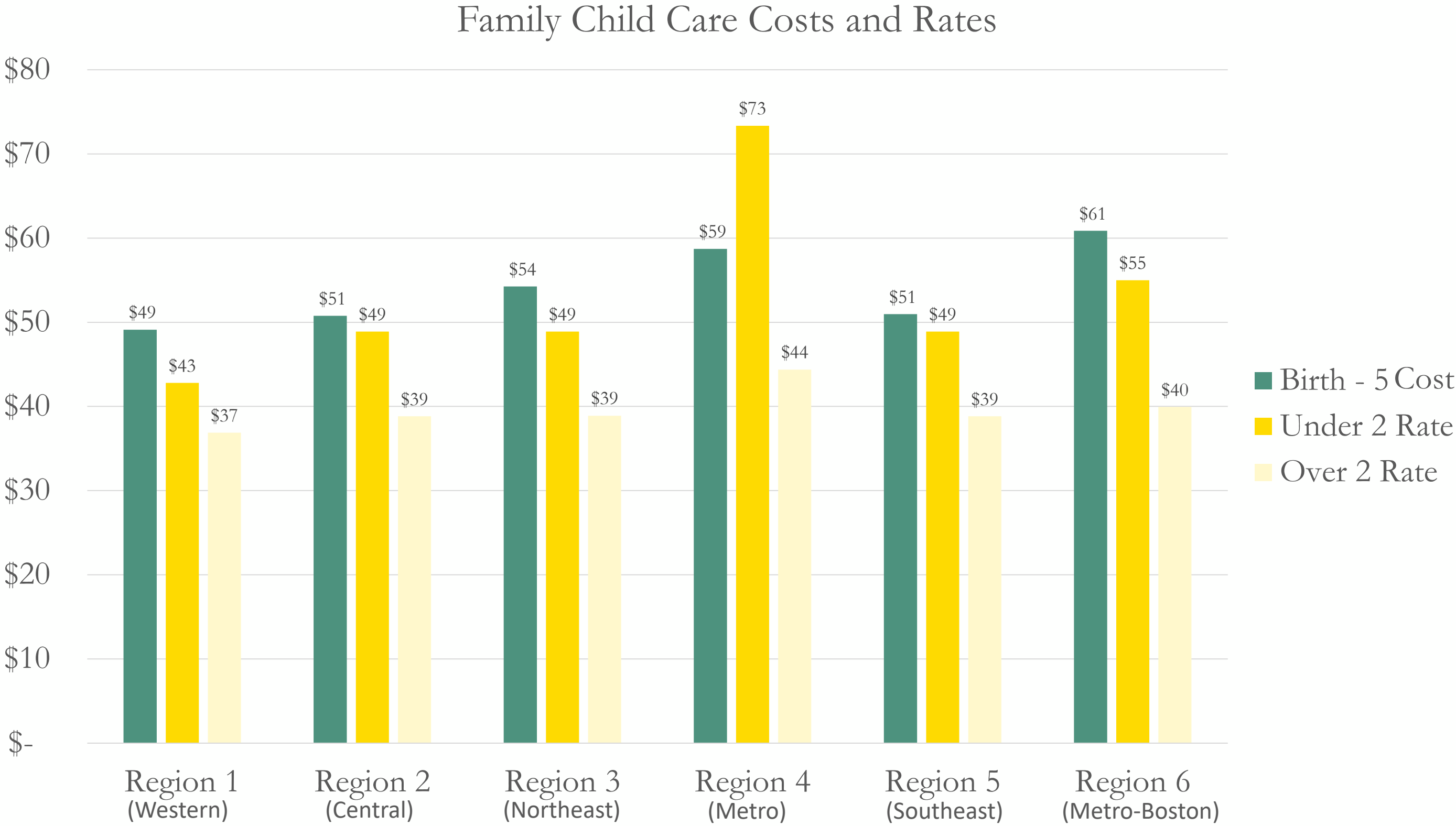
Goal Salaries for FCC Owner/Educator (Includes target income)

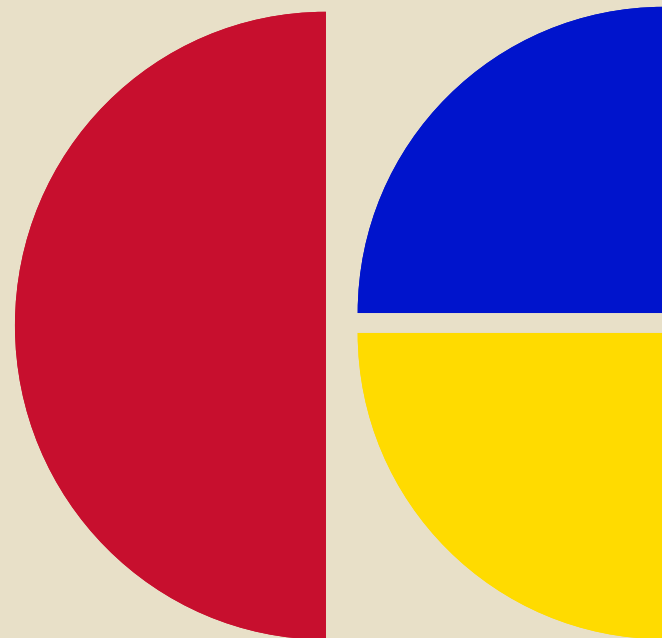
Three Primary Patterns Modeled

- 1 FCC Educator Only with 6 children under six
- 2 FCC Educator Only with 6 children under six + 2 School Age children
- 3 FCC Educator + FT Assistant with 8 children under six + 2 School Age children

(Model is based off Full-Year, Full-Day assumptions)

Per-Child Cost of Family Child Care by Subsidy Rate Region





Recommendations

CELFE's Recommendations for Consideration

Recommendations for a “Cost-Informed” Reimbursement Rate Structure

1

Simplify

Simplify rate structure to better align with economic indicators

2

Consistency

Set rates across ages in a consistent way across regions

3

Analysis

Use both the Market Rate Study and Cost Research to inform rates

4

Approach

Consider how child care financial assistance rates integrate with other funding sources

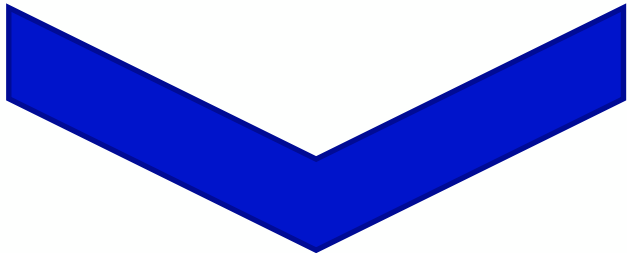
Recommended Goal: Over time, move towards meeting (at the program level) the cost of care with increased staff compensation through a combination of funding sources

Opportunity to Simplify the Reimbursement Rate Structure

Currently, Massachusetts has 6 subsidy rate regions, with a **wide range of subsidy rates**

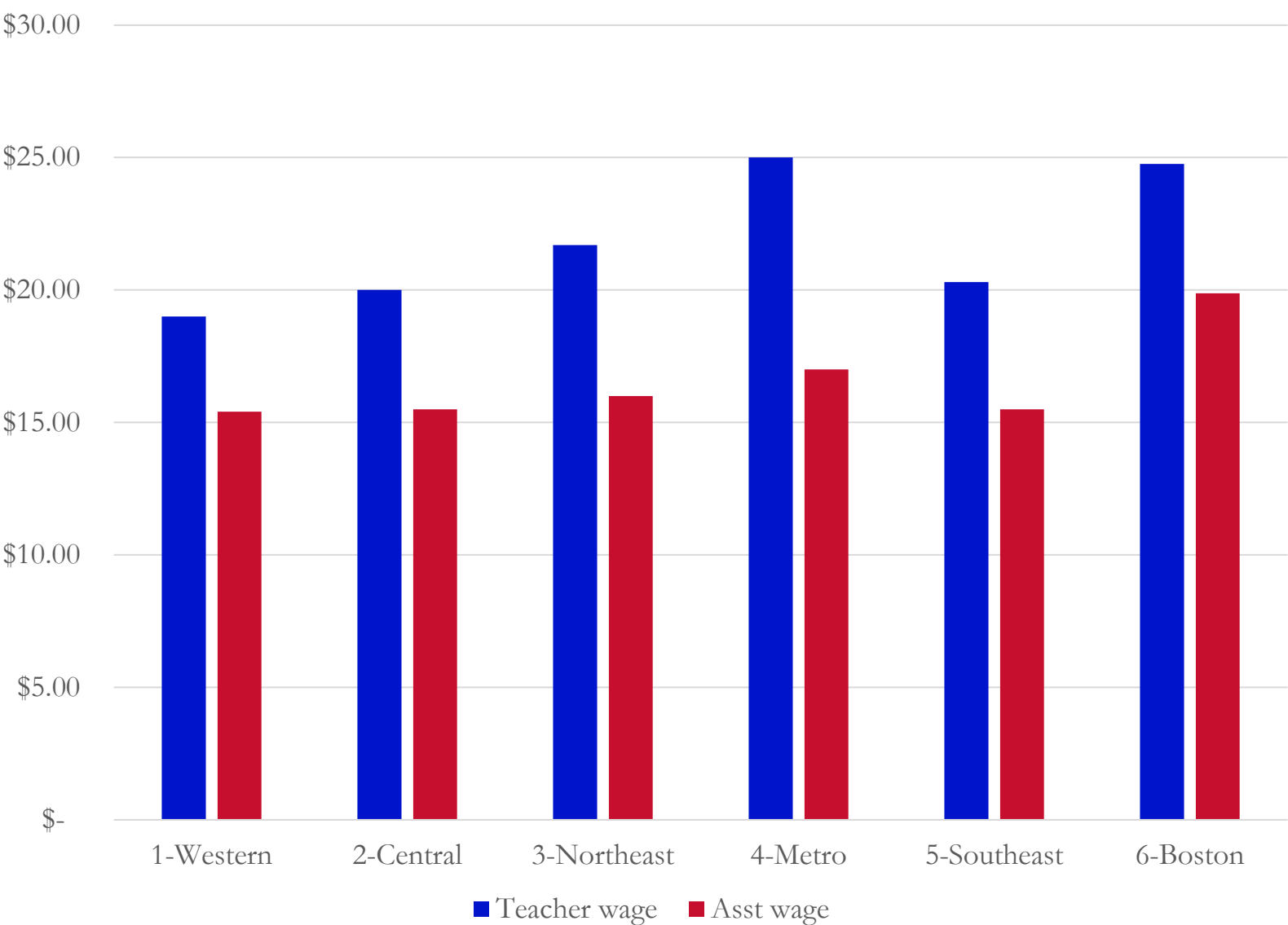
Data on the cost of care is showing a much **narrower range of costs**, despite economic variation across the state

- Statewide minimum wage of \$15/hr appears to have had a significant impact on reducing range of costs



Opportunity to simplify the rate structure, including reducing the number of overall rates.

Wage Data from C3

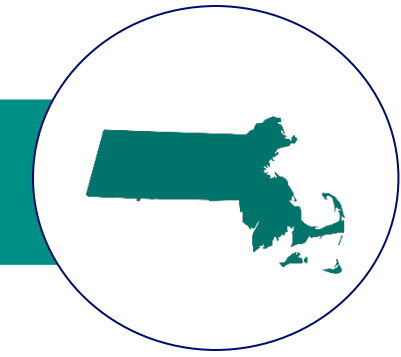




Considerations for Rate Structure

Potential Approaches

Geographic Coherence



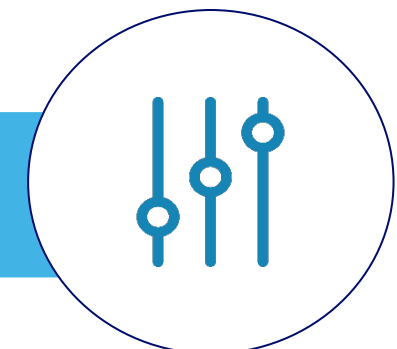
- Align rate regions with licensing regions

Economic Differentiation



- Based on key economic indicators (e.g., HUD data on rent, median household income, Social Vulnerability Index), simplifying to either two or three regions makes sense

Simplicity & Equity



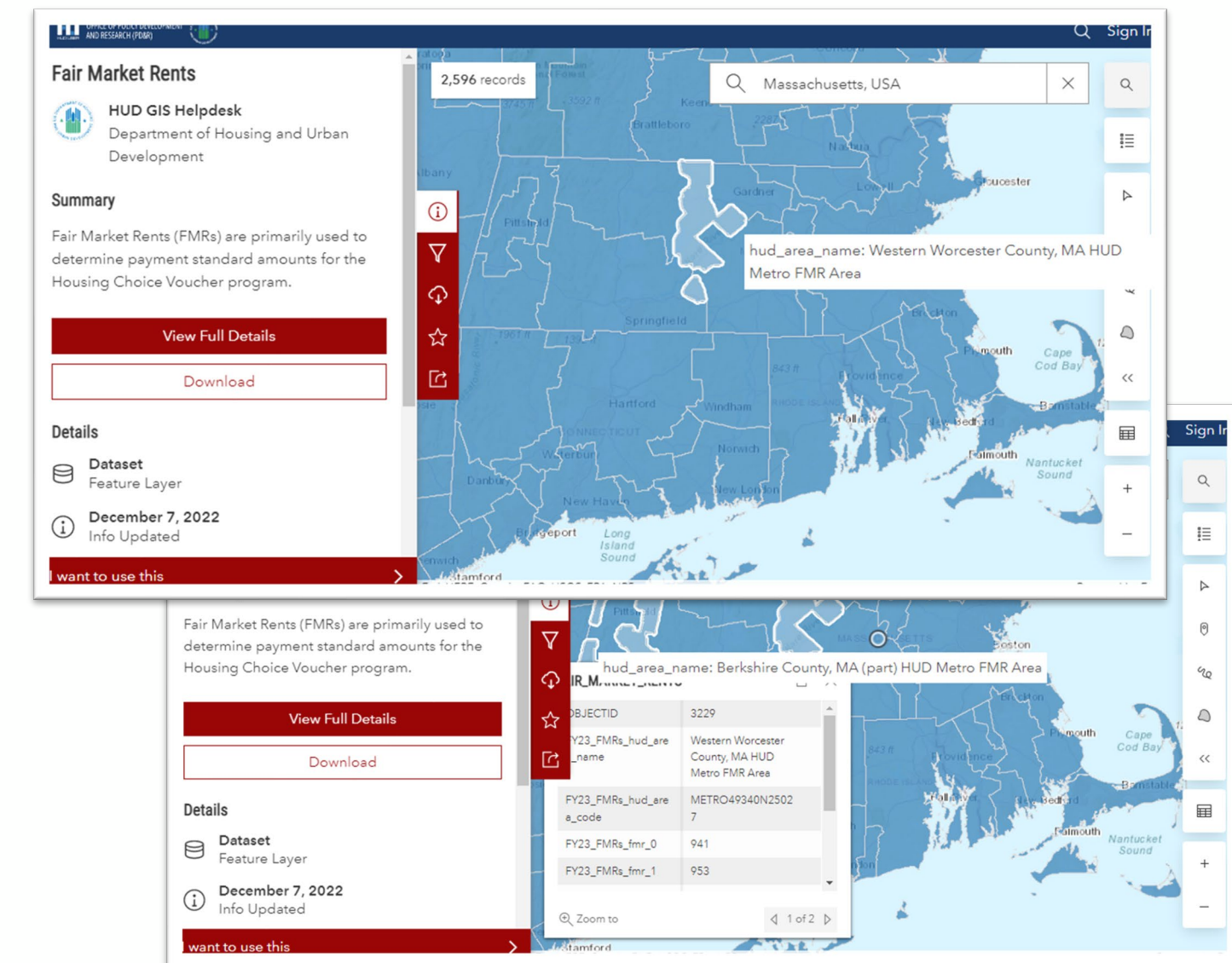
- Use cost research to inform more equitable rates by age, region and type of care, and simplify rate structure

How we analyzed coherence across regions

We found that **HUD-Fair Market Rent (FMR)** – for a 3-bedroom unit was a very robust economic indicator—highly correlated to Average Median Income and Cost of Living—and was available at the local level. Thus, we used FMR as our primary indicator for analyzing region structure.

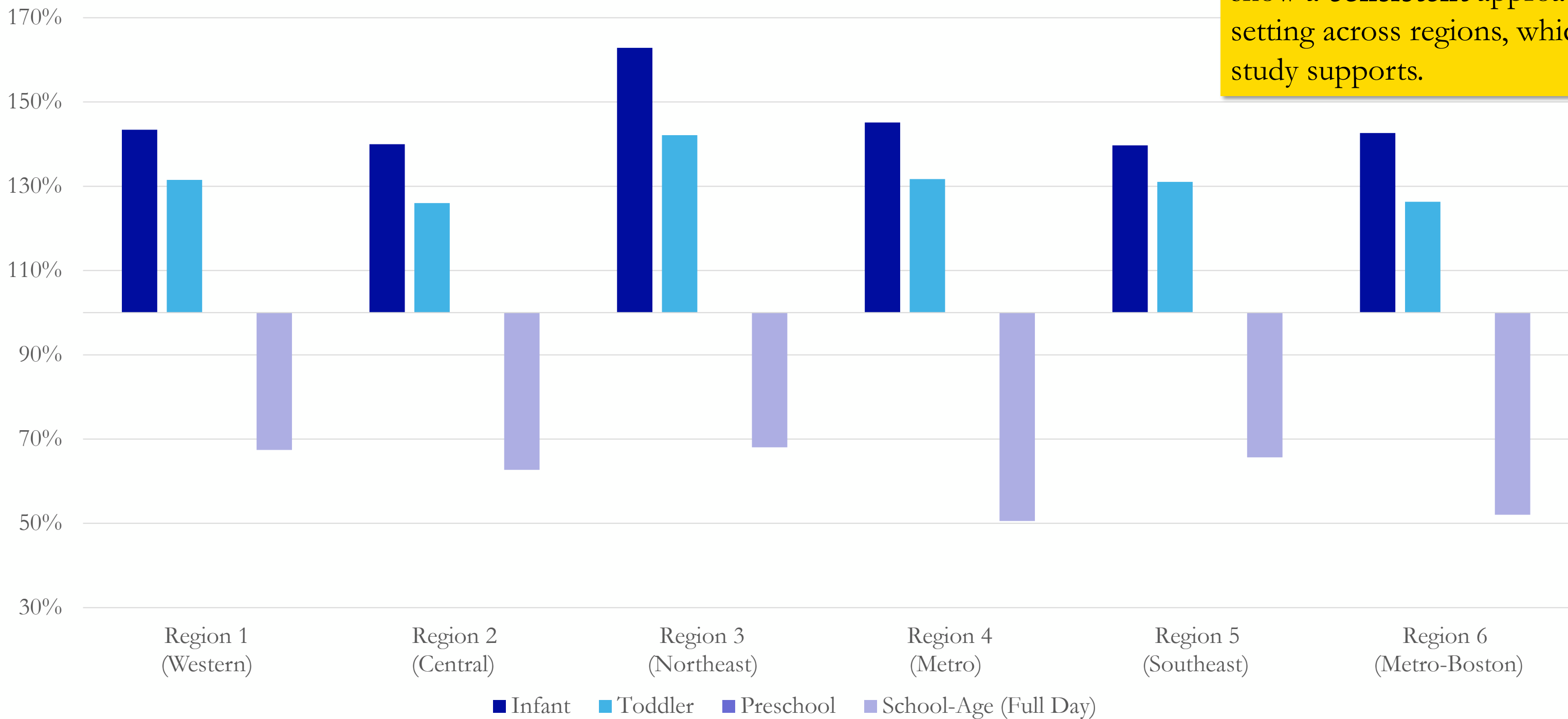
We used FMR to check for any outliers that might emerge if MA simplified to a 2- or 3-level rate structure tied to licensing regions.

An outlier was defined as a town having a FMR 40% higher than the average FMR for the proposed region.



Opportunity for Greater Consistency in Rates Across Regions

Current Child Care Financial Assistance Rates:
Rates for Other Ages as Percent of Preschool Rate

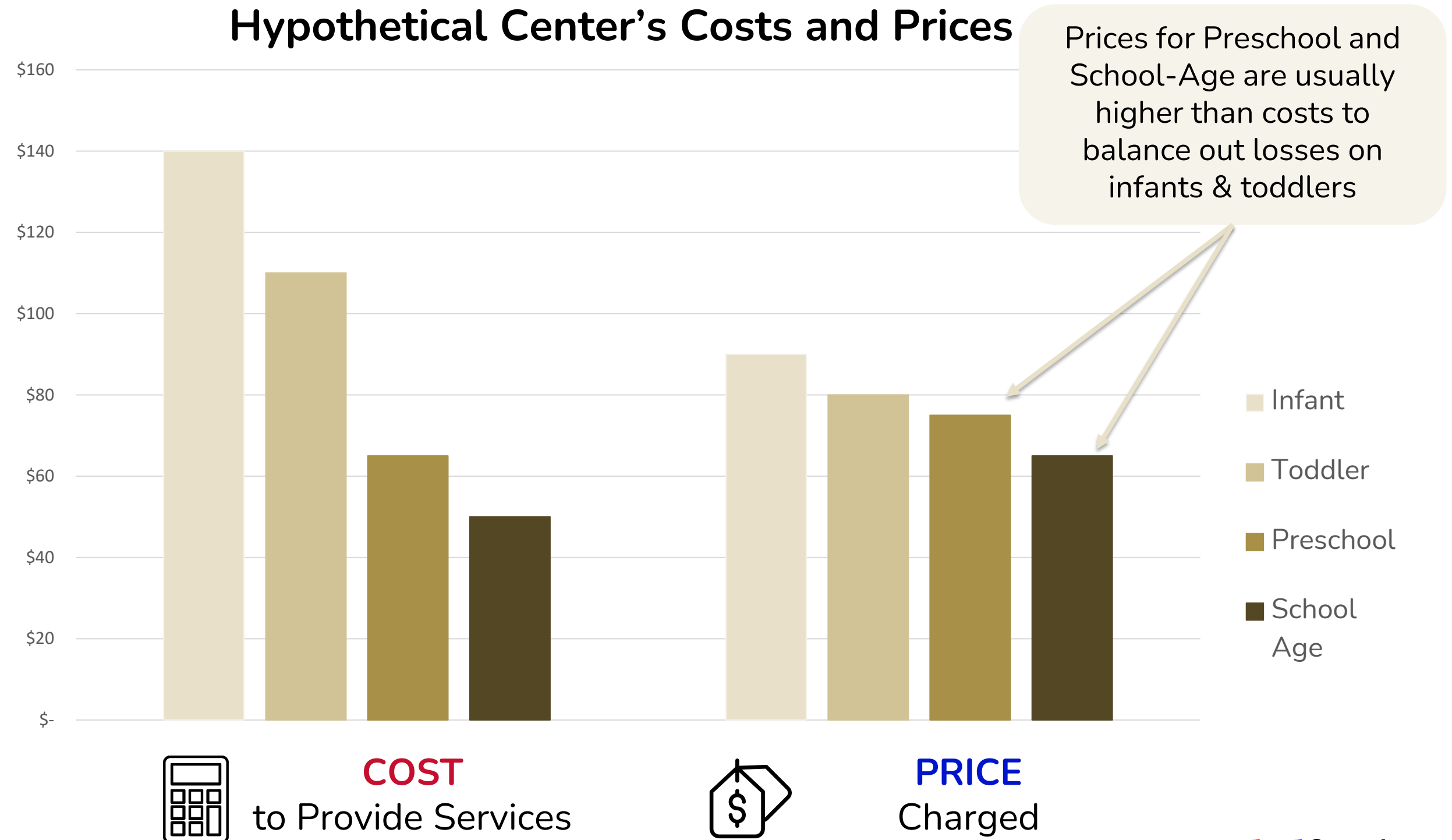


We would want to see each set of bars here look the same—that would show a **consistent** approach to rate setting across regions, which the cost study supports.

Reminder:

The Market “Smooths” Prices Across Age Groups

- Even in a well-functioning market, the relationship between prices and costs will not be the same across all age groups.
- The private market typically “smooths prices” across the age ranges, such that the **price for infant care is typically lower than the cost, while the price for preschool and school-age care is higher than the cost.**
- Across a full program budget, these costs and revenues balance out.



Subsidy rates are only one part of a child care funding strategy

Providers need to have enough stable revenue to **support whole classrooms and programs**, which is difficult with current per-child funding approaches.

Increasing subsidy rates is critical but will not generate the total revenue needed for stable financing.

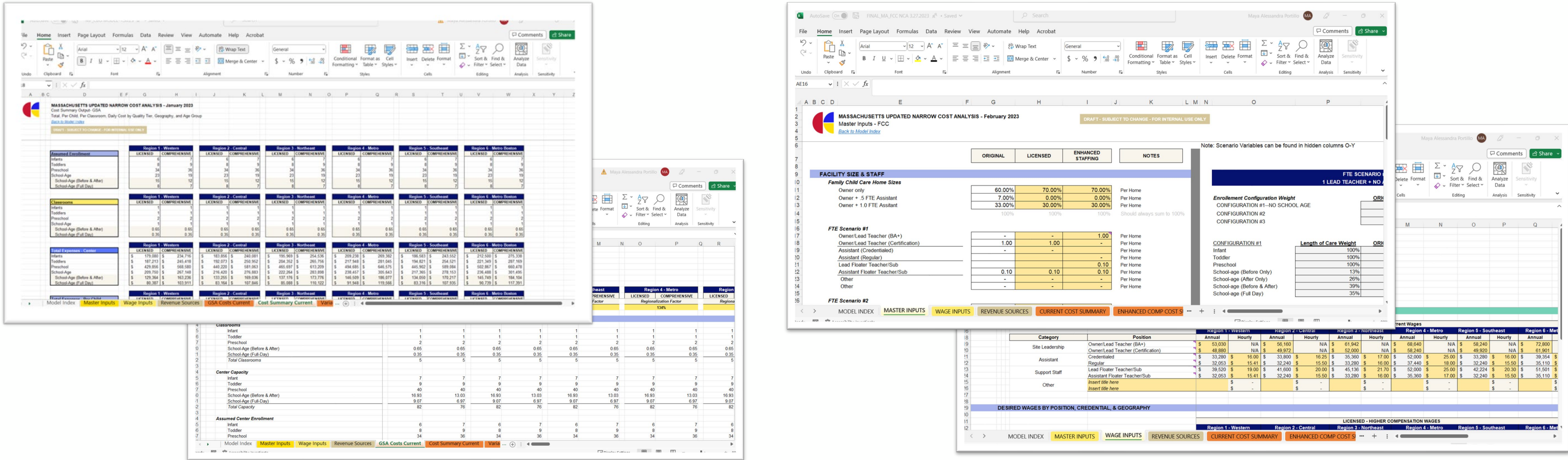
Strategies like the **C3 Grants** will be needed to address the gap between the prices the market will bear and the true costs of operating high quality child care programs.



You can't fix a market failure just by raising subsidy rates

The Cost Estimation Models can be used to analyze how well different revenue sources are working together to meet the cost of early education and care services

CELFE has provided EEC with the tools to conduct this analysis using the cost models:



Center-Based Cost Model

Family Child Care (FCC) Cost Model

Timeline + Next Steps for CELFE (Cost Research)



April

- Finalize Cost Models based on board/EEC feedback
- Complete sensitivity analyses to understand impact of rent, food costs
- Draft Final Report

May

- Provide Feedback to Stakeholder Groups
- Develop brief summaries of process & results for external stakeholders
- Design final report

June

- Cost model training for EEC staff
- Submit final report

Thank you!

celfe.org

