



Mohammed Choudhury
State Superintendent of Schools

TO: Members of the State Board of Education
FROM: Mohammed Choudhury, State Superintendent of Schools
DATE: July 25, 2023
SUBJECT: Blueprint Deep Dive: Prekindergarten Sliding Scale Cost Modeling

Purpose

The Blueprint for Maryland’s Future requires MSDE to implement a Prekindergarten sliding scale for Tier II families (i.e., families earning more than 300%, but not more than 600% of the Federal Poverty Level) by the start of the 2024-2025 school year. In the November 2021 Prekindergarten Implementation Planning report, four sliding scale options were presented¹. MSDE modeled the cost of care to families for each of the four options; this presentation shares these results and recommends the sliding scale option that minimizes the cost of care for Tier II families, particularly for lower-income households.

Legislative Background

The Blueprint for Maryland’s Future requires MSDE to develop a sliding scale structure for prekindergarten per pupil cost of care for families. The legislation stipulates high-quality full-day prekindergarten is available at no cost for families up to 300% of the Federal Poverty Level (FPL), and that the cost of Pre-K incrementally increases for families with incomes up to 600% of the FPL. Households earning more than 600% of the FPL may be required to pay the total per pupil funding rate to access full-day Pre-K services.

Modeling Results

MSDE modeled the financial impact that implementing each of the four proposed sliding scales would have for Tier II families, with the aim to identify the sliding scale option that is least expensive for families. In the November 2021 report, four sliding scale options were proposed. Under Options 1, 2, and 3, families would pay a percent of the cost of care with three five, and 15 levels split across the FPL window, respectively, based on the family’s income level. Under Option 4, families may pay a share of their annual income across five levels, ranging from a 1% share for 301%–360% of the FPL, up to 7% for 541%–600% FPL.

For all Tier II children with FPL data reported, the total family contribution was significantly less expensive under Option 4 (\$7,341,226); Options 2 and 3 were nearly identical (\$9,042,355 and \$9,034,788, respectively) while Option 1 was the most expensive for families (\$9,625,860). A more granular examination of cost to families across

¹ <https://marylandpublicschools.org/Blueprint/Documents/Reports122021/PrekindergartenImplementationPlanning.pdf>

FPL intervals was conducted, and Option was consistently the least expensive option, particularly for lower-income households.

Stakeholder Engagement

Following the results of the study, MSDE will continue to work with LEA CFOs, Pre-K providers, the Governor's office, the Maryland Department of Budget and Management, the General Assembly's Department of Legislative Services, families, and other relevant stakeholders to ensure that all involved can seamlessly implement the sliding scale. Stakeholder engagement will take place July – August 2023 before publishing a final report on Pre-K sliding scale implementation in September 2023.

Executive Summary

The presentation will include:

1. A description of the sliding scale options considered
2. An analysis of the SY 2022-2023 Prekindergarten Federal Poverty Level (FPL) distribution, aggregated in alignment with the four sliding scale options
3. Modeled cost comparison between options, with a department recommendation
4. A timeline for stakeholder engagement and sliding scale implementation

Action

No action is required; this information is for discussion only.

Attachments

Pre-K Cost Modeling July2023.pptx

Pre-K Cost Modeling July2023.pdf



Prekindergarten Sliding Scale Cost Modeling


MARYLAND STATE BOARD OF EDUCATION | July 25, 2023

Matthew Duque, Director, Office of Research, Planning, and Program Evaluation
Kyle Ashley, Senior Research and Data Specialist, Office of Research, Planning, and Program Evaluation
Presented By | Justin Dayhoff, Assistant State Superintendent, Financial Planning, Operations, and Strategy
Dr. Shayna Cook, Assistant State Superintendent, Division of Early Childhood



PRESENTATION OUTLINE

1. Sliding Scale Background
2. Blueprint Report Options
3. Data Dive
4. Recommendation and Timeline

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Sliding Scale Background

Background on the sliding scale in the Blueprint and MSDE's Report on Prekindergarten Implementation Planning.

Legislative Background

Under the **Blueprint for Maryland’s Future**, MSDE is charged with:

- Expanding voluntary Pre-K to all three- and four-year-old children from families earning **incomes at or below 300% the Federal Poverty Level (FPL) at no charge** to the family.
- Implementing a **subsidized sliding scale for Tier II families** earning 301–600% FPL.
- Tier III families with income >600% FPL may be required to pay the total per pupil funding rate to access full-day Pre-K services.

	Tier I	Tier II	Tier III
FPL Range:	≤ 300%	301 – 600%	> 600%

Sliding Scale Overview

In November 2021, MSDE's [Prekindergarten Implementation Planning Report](#) presented **four cost options** for expanding Pre-K for Tier II families.

The four sliding scale **options for calculating the family share** for Tier II children are:

- Option 1: Family pays **percent of total cost of care (Three Levels)**
- Option 2: Family pays **percent of total cost of care (Five Levels)**
- Option 3: Family pays **percent of total cost of care (Fifteen Levels)**
- Option 4: Family pays a **percent of income (Five Levels)**

Cost estimates provided in this presentation use the FY 2022 **FPL of \$27,750** (for a family of four) and the FY 2025 **Pre-K program per pupil** amount of **\$13,003**.

Note: FY 2022 is used because it best aligns with Pre-K enrollment in September 2022. FY 2025 cost of care was used because it aligns with program implementation.


Implementation Steps

As outlined in the implementation report, MSDE will:

1. **Gather input** from local education agencies (LEAs), community providers, and families on the sliding scale options proposed.
2. **Model impact by continuing to evaluate the distribution of eligible families within each sliding scale option.**
3. **Select and disseminate a sliding scale** based on input from stakeholders and evaluation of the projected impact.

The modeling presented here aims to answer the question:

Which sliding scale option is the least expensive for families?

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1. Sliding Scale Background
 2. **Blueprint Report Options**
 3. Data Dive
 4. Recommendation and Timeline

Blueprint Report Options

Outlining scale options and steps as framed in the Blueprint Report on Prekindergarten Implementation Planning.

Sliding Scale Structures: Options 1 & 2

Option 1

Federal Poverty Level	Annual Income Range	Family Share	Annual Amount
Level 1: 301% - 400%	\$83,528 - \$111,000	25%	\$3,251
Level 2: 401% - 500%	\$111,278 - \$138,750	50%	\$6,502
Level 3: 501% - 600%	\$139,028 - \$166,500	75%	\$9,752

Option 2

Federal Poverty Level	Annual Income Range	Family Share	Annual Amount
Level 1: 301% - 360%	\$83,528 - \$99,900	10%	\$1,300
Level 2: 361% - 420%	\$100,178 - \$116,550	30%	\$3,901
Level 3: 421% - 480%	\$116,828 - \$133,200	50%	\$6,502
Level 4: 481% - 540%	\$133,478 - \$149,850	70%	\$9,102
Level 5: 541% - 600%	\$150,128 - \$166,500	90%	\$11,703

Sliding Scale Structures: Option 3

Option 3

Federal Poverty Level	Annual Income Range	Family Share	Annual Amount
Level 1: 301% - 320%	\$83,528 - \$88,800	6%	\$780
Level 2: 321% - 340%	\$89,078 - \$94,350	12%	\$1,560
Level 3: 341% - 360%	\$94,628 - \$99,900	19%	\$2,471
Level 4: 361% - 380%	\$100,178 - \$105,450	25%	\$3,251
Level 5: 381% - 400%	\$105,728 - \$111,000	31%	\$4,031
Level 6: 401% - 420%	\$111,278 - \$116,550	37%	\$4,811
Level 7: 421% - 440%	\$116,828 - \$122,100	44%	\$5,721
Level 8: 441% - 460%	\$122,378 - \$127,650	50%	\$6,502
Level 9: 461% - 480%	\$127,928 - \$133,200	56%	\$7,282
Level 10: 481% - 500%	\$133,478 - \$138,750	62%	\$8,062
Level 11: 501% - 520%	\$139,028 - \$144,300	69%	\$8,972
Level 12: 521% - 540%	\$144,578 - \$149,850	75%	\$9,752
Level 13: 541% - 560%	\$150,128 - \$155,400	81%	\$10,532
Level 14: 561% - 580%	\$155,678 - \$160,950	87%	\$11,313
Level 15: 581% - 600%	\$161,228 - \$166,500	94%	\$12,223

Sliding Scale Structures: Option 4

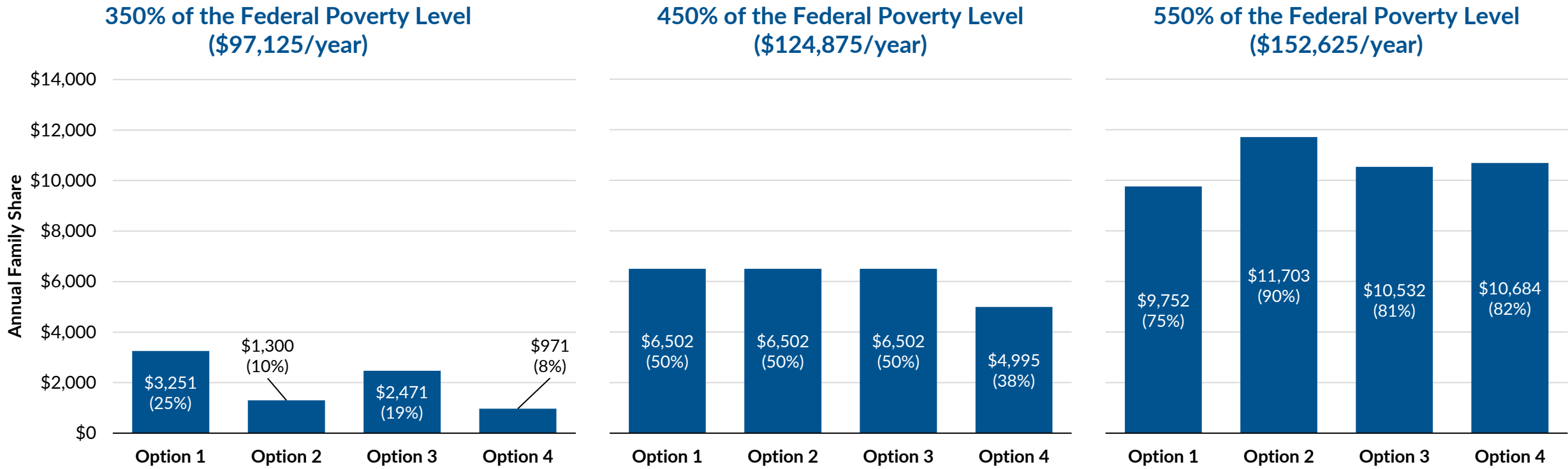
Total family contribution is per pupil but shall not be more than 7% of annual income.

Option 4

Federal Poverty Level	Annual Income Range	Family Share	Annual Amount
Level 1: 301% - 360%	\$83,528 - \$99,900	1%	\$835-\$999
Level 2: 361% - 420%	\$100,178 - \$116,550	2%	\$2,004-\$2,331
Level 3: 421% - 480%	\$116,828 - \$133,200	4%	\$4,673-\$5,328
Level 4: 481% - 540%	\$133,478 - \$149,850	6%	\$8,009-\$8,991
Level 5: 541% - 600%	\$150,128 - \$166,500	7%	\$10,509-\$11,655

Sliding Scale Structure Comparison Examples

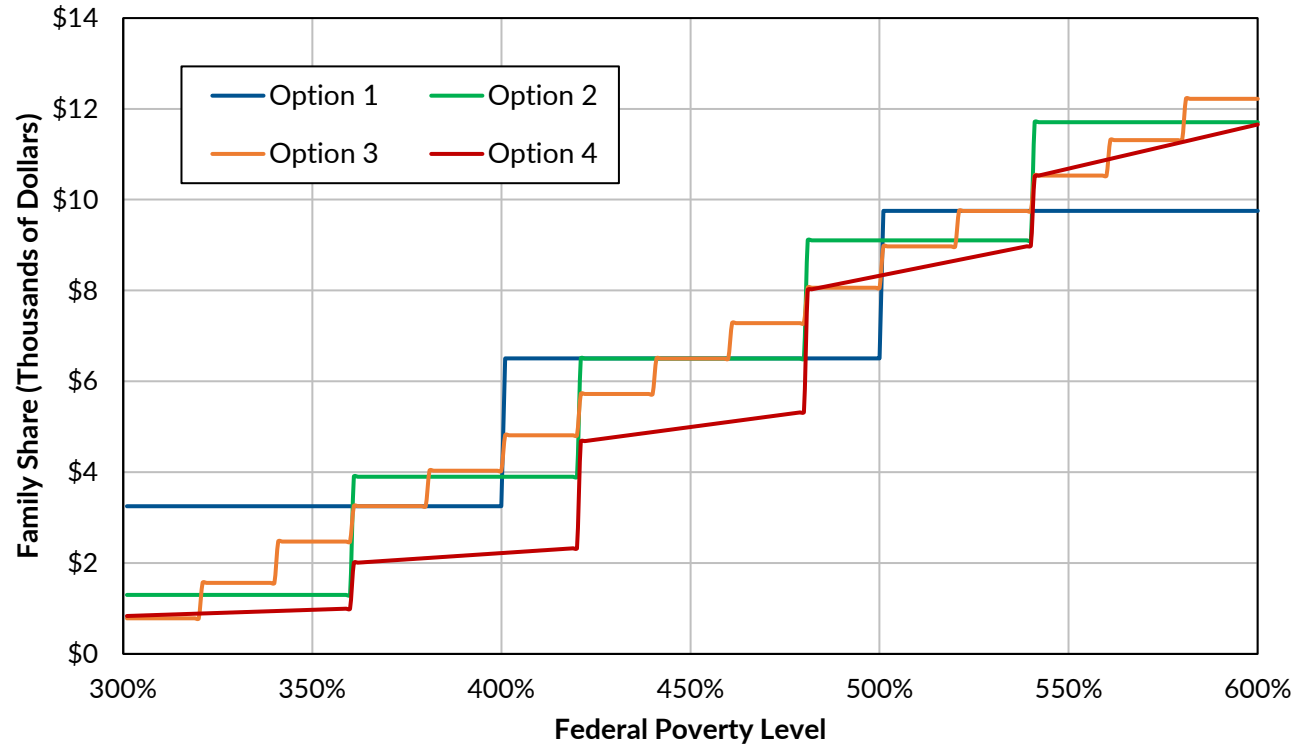
Option 4 is the least expensive option for most of the Tier II range, particularly for lower household incomes. Option 1 is cheapest for families near the Tier III cut (near 600% FPL).




Note: Calculations use the 2022 Federal Poverty Level for a family of four of \$27,750. Percent of cost of care is shown in parentheses.

Sliding Scale Structure Comparison Examples

Option 4 is almost always the least expensive option for household earning **at or below 480%** the Federal Poverty Level.



¹Using the 2022 Federal Poverty Level for a family of four of \$27,750. Note: percent of cost of care is shown in parentheses.

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 2. Blueprint Report Options
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Data Dive

Data summaries and modeling the family share of Pre-K full-time cost of care based on Sliding Scale Options outlined in the Blueprint.

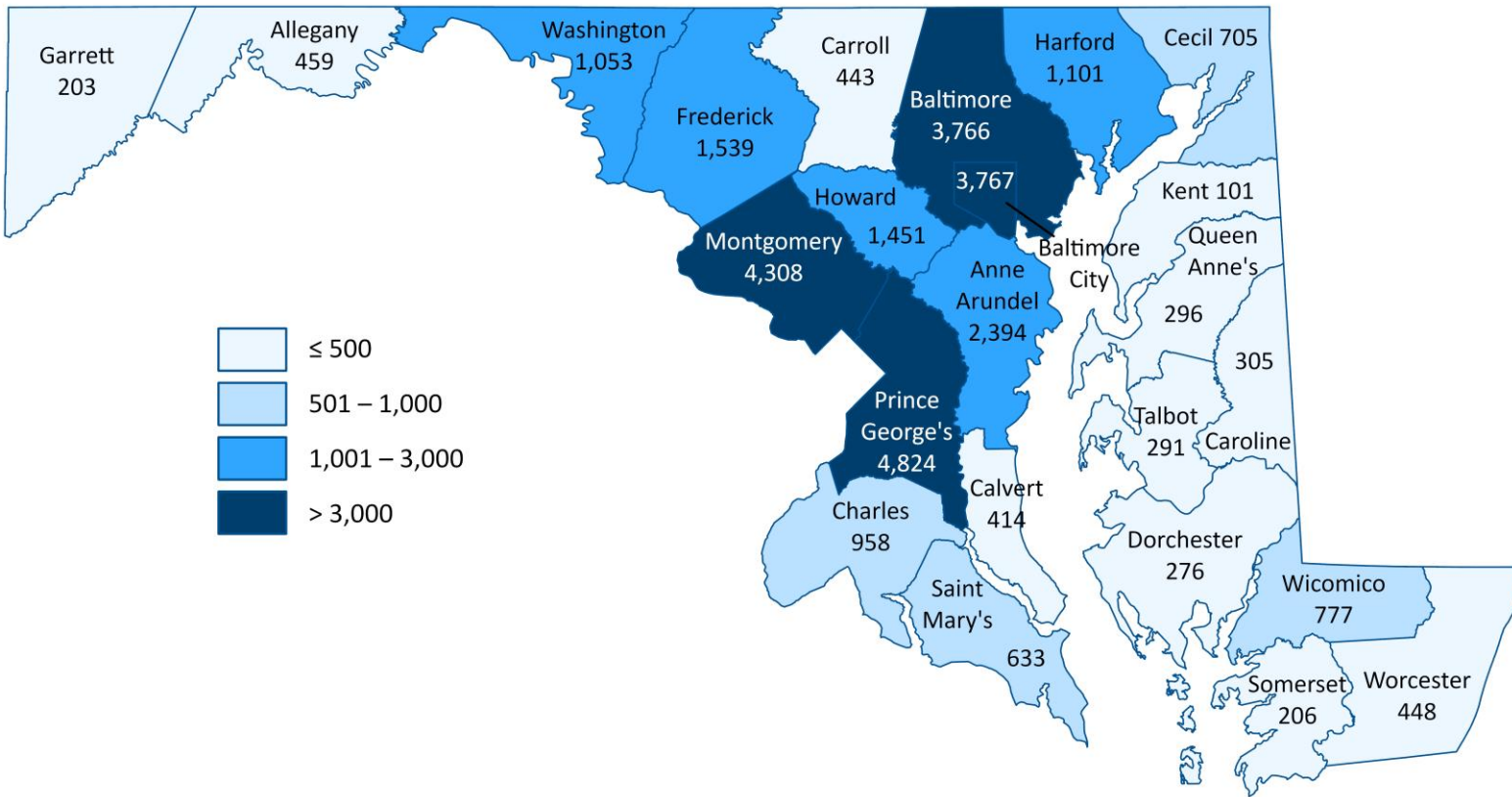
Data Sources

Data used in this study are sourced from:

- **MSDE Enrollment (30 September 2022):**
 - Student-level enrollment count
 - Federal Poverty Level Tier
 - Federal Poverty Level percent
 - Student date of birth
- **Federal Poverty Levels issued by the U.S. Department of Health and Human Services:**
Federal Poverty Levels for each year, based on family size. (This study assumes a family of four for Option 4.)

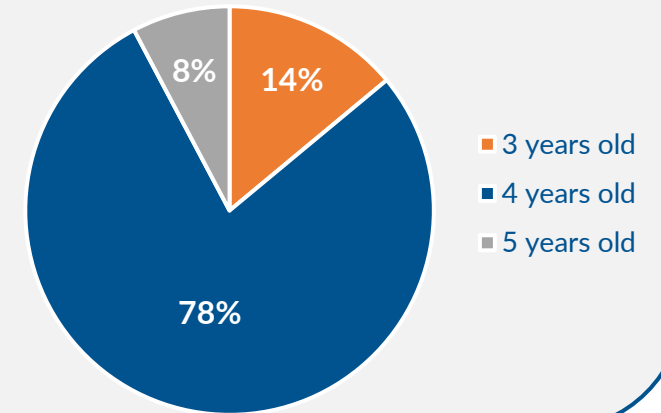
Prekindergarten Enrollment Across LEAs

The total number of students enrolled in public Pre-K for SY2023 varies across LEAs from ~100 to ~4,800 children, with highest enrollment numbers in central Maryland.



**Total Maryland 2023
Pre-K Enrollment:
30,718**

2023 Pre-K Participant Age Distribution¹



¹Children age as of 30 September 2022.

Pre-K Tier Distributions

In September 2022, there were **30,718 children enrolled** in Maryland public Prekindergarten programs; 19,162 (62.4%) of these students have income tier and federal poverty level data reported.

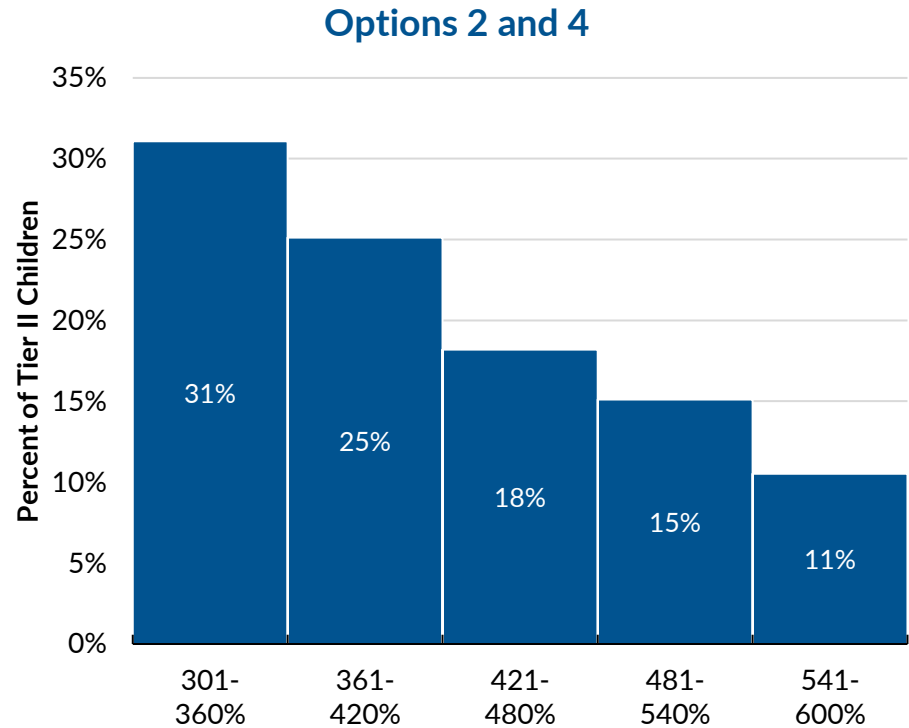
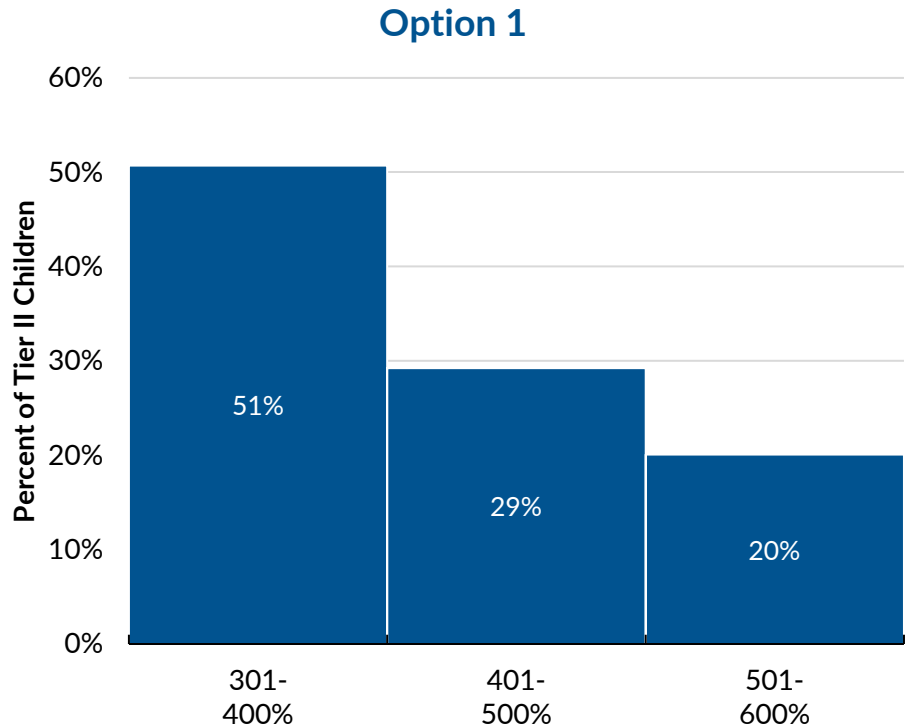
Of that subset, **16,762 students (87.5%) are identified as Tier I**, with family incomes at or below 300% of the FPL. These children would qualify for **access to full-day Pre-K at no cost**, with contributions by State and local governments.

Number of students for each income Tier based on 2023 enrollment

Option	Tier I	Tier II	Tier III	Missing Data
Number of students	16,762	1,748	652	11,556
Percent of students	54.6%	5.7%	2.1%	37.6%

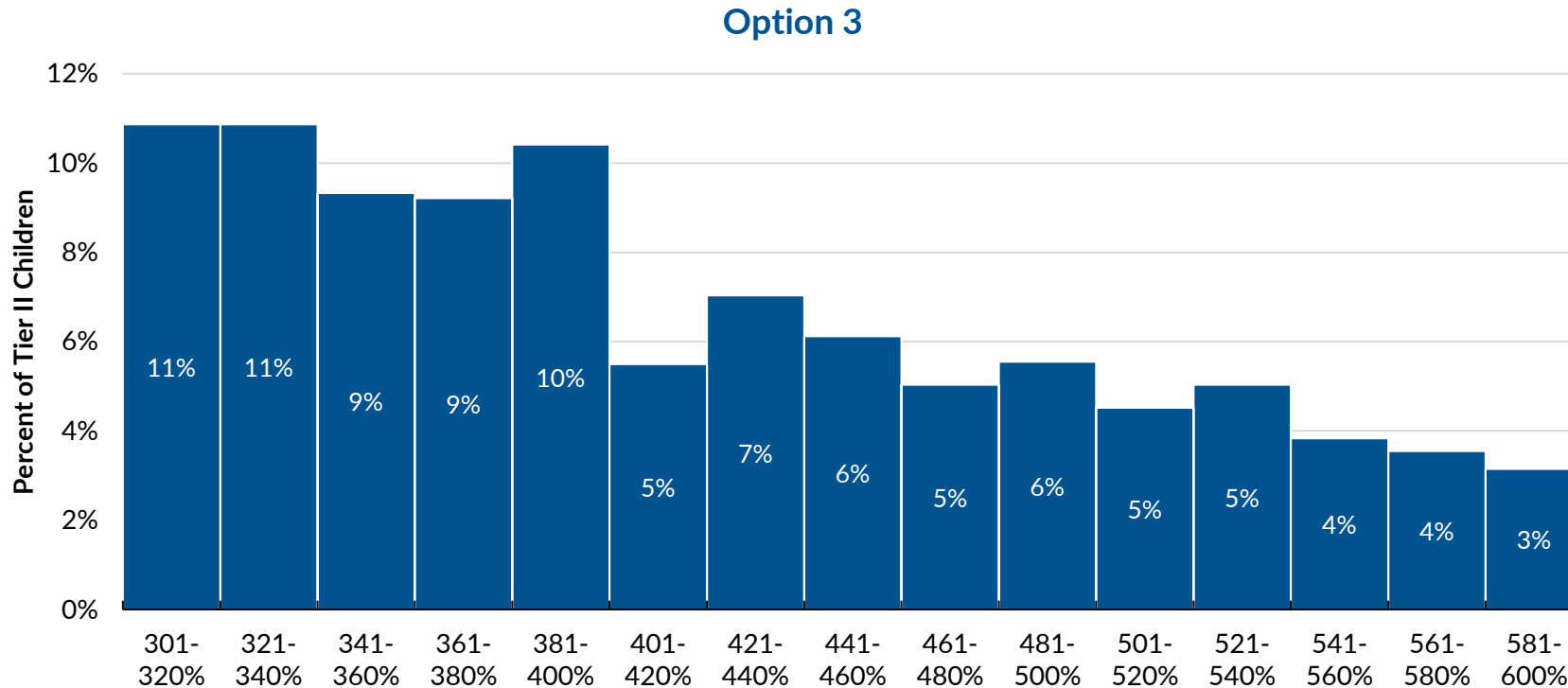
Tier II Distributions: Options 1, 2, & 4

Most Tier II students are in the lower income side of the Tier. Regardless of option, the percentage of students in the 301% - 400% FPL range is **nearly double** that of students in the 500% - 600% FPL range.



Tier II Distributions: Option 3

Most Tier II students are in the lower income side of the Tier. Regardless of option, the percentage of students in the 301% - 400% FPL range is **nearly double** that of students in the 500% - 600% FPL range.



Modeled Cost Option Comparison

Of the four proposed options, **Option 1 predicts the highest cost** to Tier II families, whereas **Option 4 predicts a substantially lower cost** to families.

Total contribution from all eligible Tier II families was calculated to estimate the cost differences under each program option. The total State and local contribution for all options **are within ~\$2 million of each other**.

Prekindergarten family cost option comparison for Tier II families¹

Option	Total Tier II Family Contribution (FPL 301 - 600%)	Total State & Local Contribution	Family to State & Local Contribution % ²
Option 1	\$9,625,860	\$13,103,384	42.4%
Option 2	\$9,042,355	\$13,686,889	39.8%
Option 3	\$9,034,788	\$13,694,456	39.7%
Option 4	\$7,341,226	\$15,388,018	32.3%

¹Contribution amounts are based on school year 2022-2023 school enrollment data.

²Percent of the family contribution relative to the state and local contribution.

Modeled Cost Option Comparison

Option 1 is the most expensive option for lower-income families.

When Option 3 is aggregated to the share structure of Option 1, **Option 1 disadvantages lower-income households**, with about **\$776 thousand more (+36.9%)** contributed by families within 301 – 400% FPL.

Prekindergarten family cost option comparison between Options 1 and 3

Option	301 – 400%	401 – 500%	501 – 600%
Option 1	\$2,880,386	\$3,322,522	\$3,422,952
Option 3 (Aggregated)	\$2,104,426	\$3,284,083	\$3,646,279
Relative Percent Change ¹	36.9%	1.2%	-6.1%

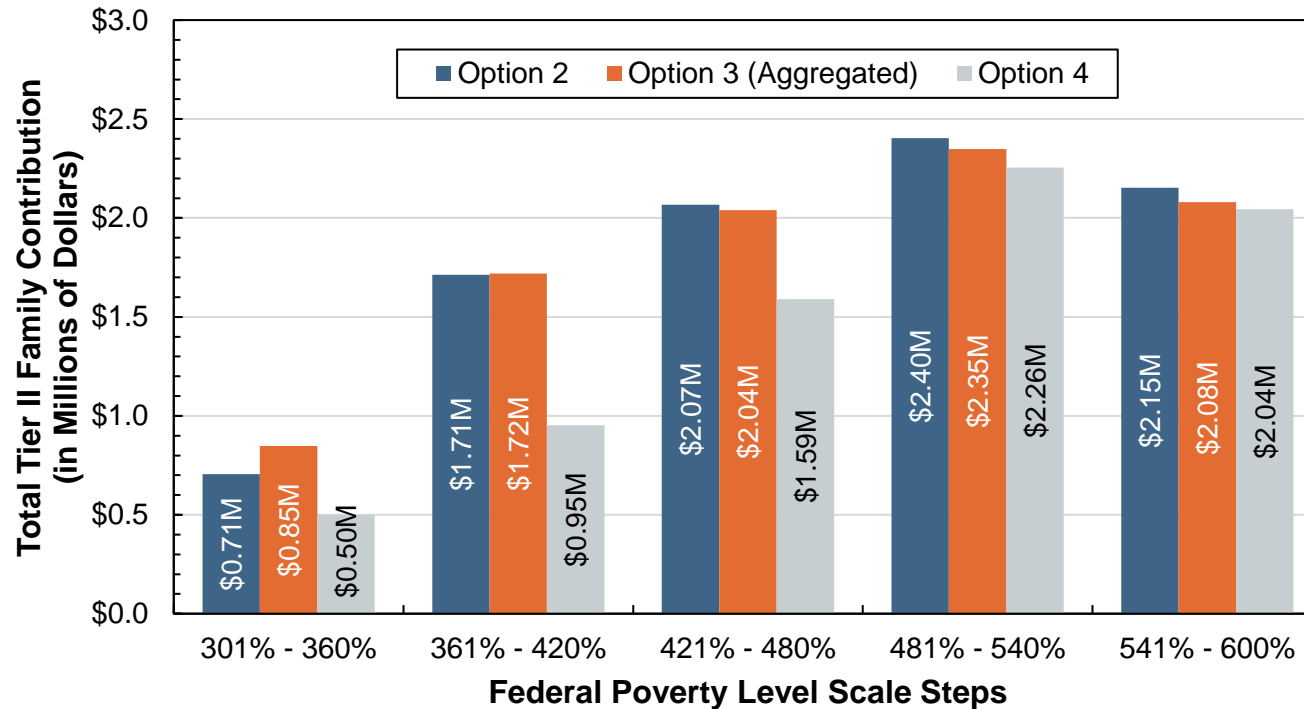
¹Percent change relative to Option 3 (aggregated) = (Option 1 – Option 3)÷|Option 3|

Note: Red fields identify options that cost >\$200 thousand more for a share step over the compared option.

Modeled Cost Option Comparison

Option 4 provides the best overall cost advantage for Tier II families, particularly for lower-income households.

When family share-structure contributions are compared, **Option 3 results in higher contributions from lower-income households** when compared to Option 2.

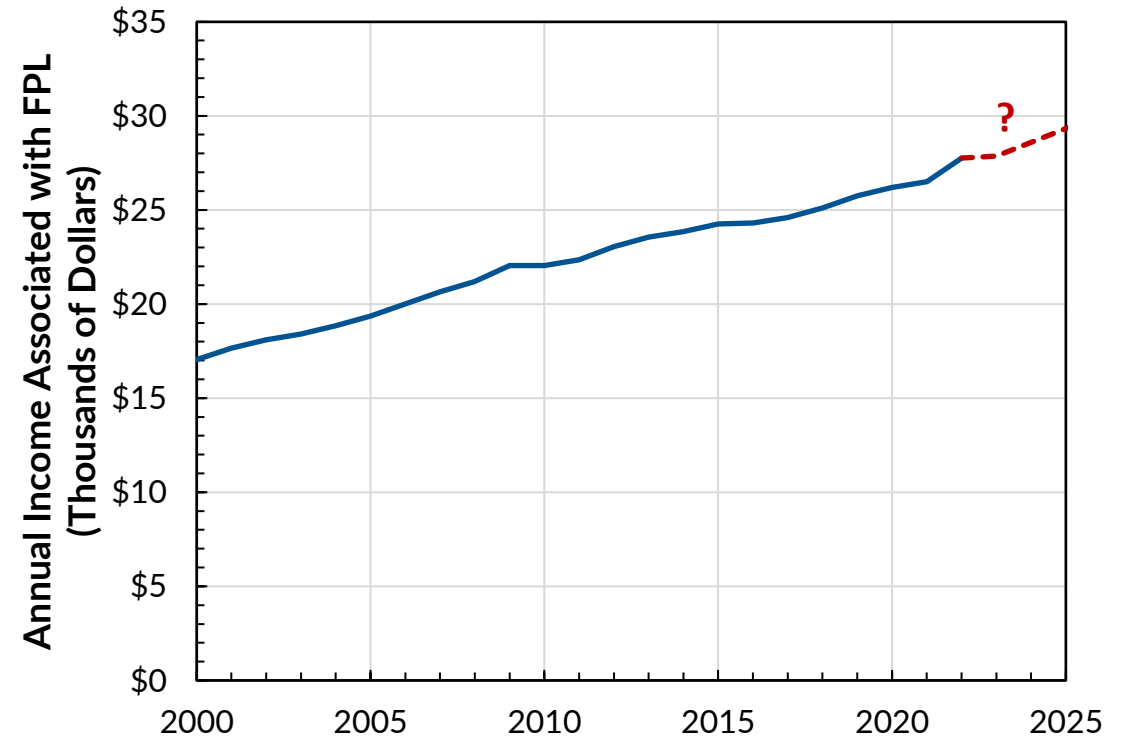


Assumptions and Caveats


Modeling assumptions and caveats include:

- Cost of care reported for Option 4 is estimated assuming a family of four (FPL is dependent upon family size, and this information isn't available in the enrollment file) and **changes in family cost share is sensitive to annual changes in FPL.**
- Costs reported **only includes students with FPL data available** and is likely an **underrepresentation** of the true total cost of care.

Federal Poverty Guidelines for a Family of Four in the Contiguous United States (2000–2022)



Source: Historical Federal Poverty Guidelines from the Department of Health and Human Services.

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Recommendation and Timeline

Based on the results of these analyses, MSDE recommends a sliding scale option that would minimize financial burden on Tier II families.

Recommendation

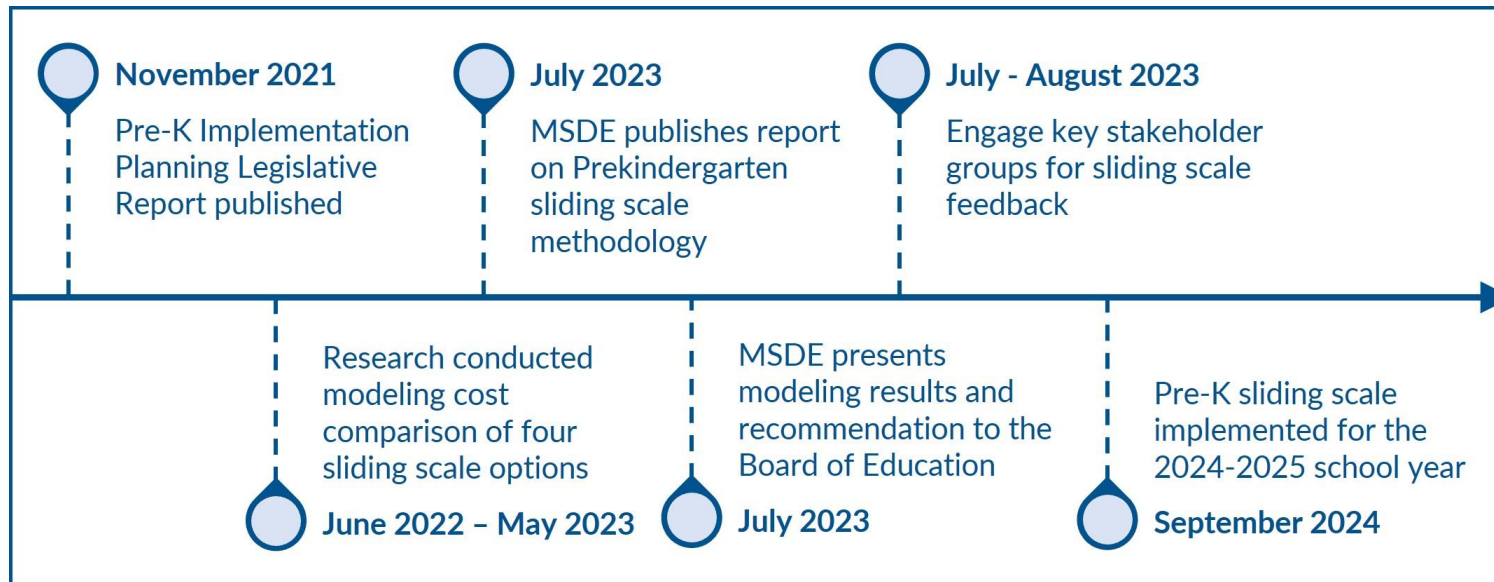
Guiding Question: Which sliding scale option is the least expensive for families?

- **Option 4 provides the best cost option for Tier II families** relative to the other three options available. In comparison with other sliding scales,
 - Of the three sliding scales where families pay a percent of the program cost, **Option 2 provides the best cost option** for families, particularly for those with lower incomes.
 - **Option 1 is the most expensive** for families overall, and both Options 1 and 3 disproportionately disadvantage lower-income households relative to the other available options.

- **MSDE recommends implementing sliding scale Option 4** for subsidizing cost of care for Maryland Pre-K.

Implementation Timeline and Next Steps

MSDE will engage with key stakeholders in July and August 2023 before publishing a final report on Pre-K sliding scale implementation in September 2023. The selected sliding scale will go into effect in the 2024-2025 school year.

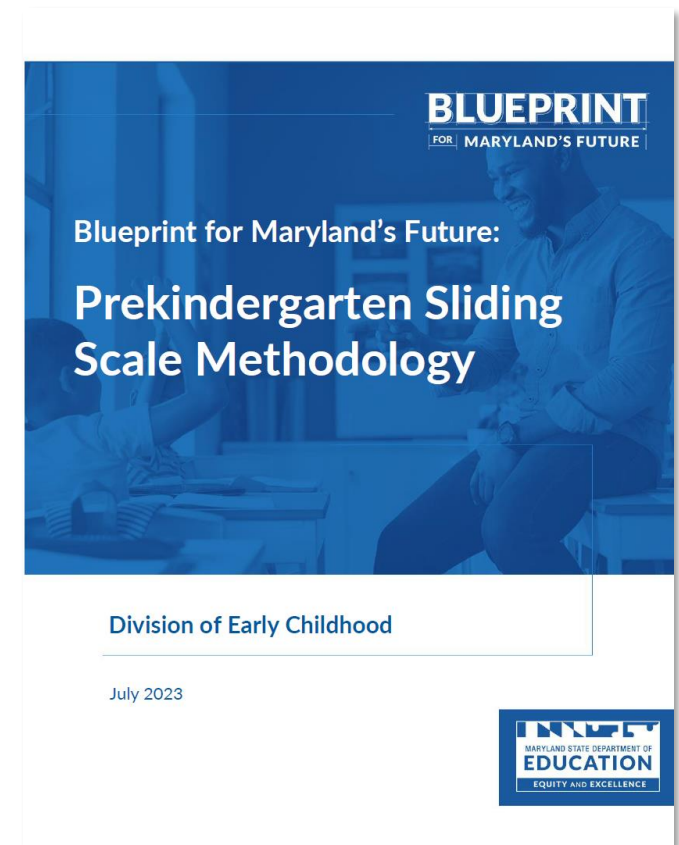


Stakeholder Engagement

Leading up to, and after the final methodology for the sliding scale has been published, MSDE will continue to **work with stakeholders for seamless implementation** of the sliding scale, including:

- Families
- LEA CFOs
- Pre-K providers
- The Governor's Office
- Maryland Department of Budget and Management
- The General Assembly's Department of Legislative Services
- Other relevant stakeholders

<https://blueprint.marylandpublicschools.org/wp-content/uploads/sites/20/2023/07/Pre-K-Sliding-Scale-Report-July2023.pdf>



Federal Update on Child Care Cost

On July 11, 2023, the Biden Administration released a Notice of Proposed Rulemaking (NPRM) regarding child care that would:

- Encourage states to **waive copayments for families at or below 150%** of the federal poverty level (the **Blueprint for Maryland's Future extends this waiver to families earning up to 300%** of the federal poverty level).
- Recommend a sliding scale that would **cap child care copayments** for working families at **no more than 7% of a family's income**, which is aligned to the option recommended in this presentation.
- Have **states provide advance payments to child care providers** for Child Care Scholarship. Only 8 states are currently doing this, with Maryland one of the first.
- Have **states use presumptive eligibility** for Child Care Scholarship. Maryland has implemented presumptive eligibility statewide after a successful pilot program.

<https://www.whitehouse.gov/briefing-room/statements-releases/2023/07/11/fact-sheet-vice-president-harris-announces-actions-to-lower-child-care-costs-and-support-child-care-providers/>

Questions