

---

# IBO Simulations of Five Highest-Ranking Fair Student Funding Task Force Recommendations

**November 7, 2022**



New York City  
Independent Budget Office  
George Sweeting, Acting Director

110 William Street  
14<sup>th</sup> floor  
New York, New York 10038

Tel. (212) 442-0632  
[iboenews@ibo.nyc.ny.us](mailto:iboenews@ibo.nyc.ny.us)  
[www.ibo.nyc.ny.us](http://www.ibo.nyc.ny.us)



# Background

This summer, the Department of Education (DOE) convened a task force to examine the city's primary school funding mechanism—the Fair Student Funding Formula—which distributes funds to schools based on individual student characteristics. In response to concerns about the need to revise the formula, the task force was charged with its review and recommending changes.

IBO was asked to participate as a non-voting observer to provide the task force with independent information and analysis. As part of that process, IBO has simulated the impact of the task force's top draft recommendations. This presentation provides the results of those simulations.

Unlike the DOE's own models, IBO's simulations do not assume the changes are net-zero, meaning that the increases to schools under an option would be offset by reductions in another area. IBO estimates that the additional funds necessary to implement all five of the task force's recommendations range from a minimum of \$433 million to a maximum of \$1.3 billion. The recommendations analyzed in this presentation include:

- Increase the base foundation amount that every school receives;
- Add a weight for students in temporary housing;
- Add a poverty weight for all students in poverty in a school;
- Add a concentration weight that factors in students with high needs in each school; and
- Eliminate the portfolio weight for specialized academic schools.

As always, IBO does not take a stance on whether these recommendations should or should not be implemented but rather presents information and analysis to help inform policymakers and the public.

# What is Fair Student Funding (FSF)?

- The Department of Education (DOE) distributes the largest pot of discretionary funds to schools based on the characteristics of students who attend a given school.
- Currently the formula factors in:
  - The grade level of the student—every student in the school is counted in this category.
  - All other weights are additive to the respective grade weight base.
- Each characteristic or need, carries a weight that is relative to the base need—an elementary school student in grades K-5—and an associated per pupil amount.
  - For the 2022-2023 school year, the base per pupil amount is \$4,197.19 and the weight for elementary school students is always 1.0.
  - High school students have a weight of 1.03, translating to \$4,322.70 per pupil.
  - Middle school students have the largest base weight of 1.08, with \$4,533.31 per pupil.

## Additive Need Weights Currently in FSF

- Academic Intervention weights account for the performance of students at the school prior to when they enter based on standardized test scores and vary by the current grade level of the student and whether they scored below standards or well below standards.
  - For elementary school students who do not have prior test scores, poverty is used as a proxy.
- English Language Learner (ELL) weights account for additional programming received by those students (English as a New Language or Bilingual programs), including funding for former ELLs who have been tested and found to be proficient in English, and students with interrupted formal education.
- Special Education weights account for the periods per week students receive special education programs and the type of setting they are in (less inclusive or more inclusive settings) with additional distinctions by grade level.
- Portfolio weights account for specializations for particular high schools and the cost of programming at those schools. These include:
  - Schools with career and technical education programs, split into four tiers
  - Thirteen specialized academic schools
  - Three specialized audition-based admissions schools
  - Transfer high schools that serve under-credited and overage students who require additional supports to graduate

# FSF Weights and Per Pupil Funding for 2022-2023

FSF Category Type of Pupil Need and Grade Span	Weights	FY 2023 Per Capita
Grade Weight - All Pupils: K-5	1	\$4,197.19
Grade Weight - All Pupils: 6-8	1.08	\$4,533.31
Grade Weight - All Pupils: 9-12	1.03	\$4,322.70
Academic Intervention - Poverty*	0.12	\$503.66
Academic Intervention - 4-5 Below	0.25	\$1,048.77
Academic Intervention - 6-8 Below	0.35	\$1,468.91
Academic Intervention - 9-12 Below	0.25	\$1,048.77
Academic Intervention - 4-5 Well Below	0.40	\$1,678.45
Academic Intervention - 6-8 Well Below	0.50	\$2,099.66
Academic Intervention - 9-12 Well Below	0.40	\$1,678.45
Academic Intervention - 9-12 Heavy Graduation Challenge OTC	0.40	\$1,678.45
English Language Learner - K-5 Freestanding English as a New Language (ENL)	0.40	\$1,678.45
English Language Learner - 6-12 Freestanding English as a New Language (ENL)	0.50	\$2,099.66
English Language Learner - K-5 Bilingual	0.44	\$1,846.76
English Language Learner - 6-12 Bilingual	0.55	\$2,308.45
English Language Learner - K-5 Former ELL (Commanding)	0.13	\$545.63
English Language Learner - 6-12 Former ELL (Commanding)	0.12	\$503.66
English Language Learner - K-12 Student with Interrupted Formal Education (SIFE)	0.12	\$503.66
Special Education Programs – Low Intensity <=20% (SING)	0.56	\$2,350.68
Special Education Programs – Moderate Intensity 21% to 59% (MLT)	1.25	\$5,248.93
Special Education Programs - K-8 Less Inclusive >=60% (SC)	1.18	\$4,956.12
Special Education Programs - 9-12 Less Inclusive >=60% (SC)	0.58	\$2,451.51
Special Education Programs - K More Inclusive >=60% (ICT)	2.09	\$8,764.65
Special Education Programs - 1-12 More Inclusive >=60%	1.74	\$7,303.71
Special Education Programs - K-12 Post IEP Support	0.12	\$503.66
Portfolio High Schools - CTE Tier 1	0.26	\$1,091.31
Portfolio High Schools - CTE Tier 2	0.17	\$713.71
Portfolio High Schools - CTE Tier 3	0.12	\$503.11
Portfolio High Schools - CTE Tier 4	0.05	\$209.54
Portfolio High Schools - Specialized Academic	0.25	\$1,048.77
Portfolio High Schools - Specialized Audition	0.35	\$1,468.91
Portfolio High Schools - Transfer - Heavy Graduation Challenge	0.40	\$1,678.45
Portfolio High Schools - Transfer - Regular Graduation Challenge	0.21	\$874.73

\* Poverty funds eligible pupils in all grades for schools beginning before 4th grade, i.e. K-5, K-6, K-8, K-12; where test scores are not available for students in incoming grades.

## Lump Sum Amounts for Every School

- In addition to the weights for student characteristics and need, every school also receives two lump sum amounts.
- The foundation amount is \$225,000 for every school, and is intended to cover the cost of a principal and secretary—this amount has remained the same since the formula was introduced in 2007-2008. Adjusted for inflation and current salaries this equals \$241,000 today.
- A collective bargaining adjustment is provided for each school based on the actual salaries of its teachers.
  - Because the formula funds schools based on the citywide average teacher salary, schools with teachers whose salaries exceed that amount are provided a lump sum amount to cover those costs.

# What are the Top Five Ranked Recommendations as Initially Voted by the Task Force?

- Increase the base foundation amount that every school receives
- Add a weight for students in temporary housing
- Add a poverty weight for all students in poverty in a school
- Add a school concentration weight, factoring in students with high-needs (poverty, English Language Learners, students with disabilities, and students in temporary housing)
- Eliminate portfolio weight for specialized academic schools and add those funds to the FSF pool (13 schools received \$19.5 million this school year)



## Key Differences Between DOE and IBO Modeling

- Details on DOE's modeling is available [here](#).
- DOE has modeled each of these changes with a net-zero cost, which means reductions must occur elsewhere in the formula; IBO has not imposed that restriction.
  - IBO's modeling would require that additional funds be used to disburse funding through FSF.
- DOE has simulated adjustments to the collective bargaining lump sum amounts.
  - IBO's modeling does not make this adjustments as we do not have data on what is used in those calculations for each school.
- For two of the proposed recommendations, IBO has used different assumptions than what DOE has presented: increasing the base foundation amount to each school and estimating the weight for students in temporary housing.



# Proposed Recommendation #1:

## Increase the Base Foundation Amount

- The base is intended to cover the average salary for a principal and secretary and has remained at \$225,000 since 2007-2008. IBO's current estimate for the combined average salaries of these positions is \$241,000.
- The task force is considering adding more positions to the base. IBO modeled adding several combinations of the following positions with their average salaries:
  - Assistant Principal, \$142,000
  - Staff Nurse, \$74,500
  - School Social Worker, \$106,000
  - Guidance Counselor, \$113,000
  - School Psychologist, \$105,000
- NOTE: IBO's modeling does not factor in additional collective bargaining costs

## Proposed Recommendation #2: Add a Weight for Students in Temporary Housing (STH)

- IBO estimates the per pupil funding for STH to be about \$1,400, meaning a weight of 0.33 relative to the base FSF weight.
  - Our estimate includes the targeted Title I STH citywide per capita: \$1,022.62
  - Estimating a per pupil from other targeted funding for STH includes city tax levy that funds Bridging the Gap social workers, state funds for Attendance Improvement Dropout Prevention, and federal funds—Title IV and McKinney Vento Homeless Assistance Grants: \$376.60.
- This includes programs currently allocated outside of FSF through other School Allocation Memoranda.

## Proposed Recommendation #3: Add a Poverty Weight

- IBO's modeling uses the same assumptions as DOE's: This adds one weight of 0.12 for all students in poverty in grades K-12 at the school.
- NOTE: Schools that receive the academic intervention weight for students who do not have prior test scores would still receive the poverty proxy weight.

## Proposed Recommendation #4: Add a School Concentration Weight

- Shares of students with any of the following needs will be captured by a concentration weight for the school:
  - Students in poverty
  - English Language Learners
  - Students in temporary housing
  - Students with disabilities
- DOE also included students in foster care and while IBO has requested that data, we have not yet received it.
- DOE and IBO allocated \$60 million across all schools, dividing the funds using two methodologies.
  - For context, aside from the poverty proxy for academic intervention needs, the largest amount of funds distributed through a weight category in the 2022-2023 FSF is \$57 million.
- NOTE: Unlike DOE's models, IBO's models provide additional funds to every school that serves any students in the above categories while DOE models additional funds for the third of schools with the highest concentration.

## Proposed Recommendation #4: Add a School Concentration Weight

- The concentration weight is modeled using two methodologies.
- A continuous model, where each school essentially receives its own weight based on their relative share of high-needs students.
- A three-tier model, where schools are split into three equal groups. Based on total funding of \$60 million, IBO estimates that the lowest tier receives \$43.77 per pupil, the second tier receives double that (\$87.54 per pupil), and the third tier receives three times that (\$131.31 per pupil).
  - NOTE: The per pupil amounts are calculated based on all students in each school.
  - While unlikely, it is possible that adding this weight might incentivize greater concentrations of high-needs students, particularly for schools near the top of a tier. The continuous model makes this incentive less likely as there are not explicit cutoffs as in a tiered model.

## Proposed Recommendation #4:

# Calculating the School Concentration Weight Using the Continuous Model

- IBO follows DOE's [methodology](#) to calculate the relative concentration for each school.
- The share of each group of high-needs students is calculated at each school.
- Each student with that high-need characteristic is given a weight of  $1 +$  the share of that group of high-needs students in the school.
- Then, we add up all the high-need student calculations and divide by total enrollment to calculate a concentration index for each school.

Finally, we divide each school's concentration index by the maximum index value of the school with the highest concentration to calculate

- each school's *relative* concentration—this yields a value between 0 and 1, which can be thought of as each school's share of the concentration of high-needs students relative to the highest need school.
- \$60 million is then allocated proportionally based on the sum of the relative concentrations.

# Example of Continuous Method Distribution

## Based on Schools' Relative Concentration Index

- The \$60 million pool for the concentration weight is divided by the sum of relative school concentrations to calculate a per index-point distribution amount, which is then used to determine each school's allocation based on their relative school concentration index.

Chart continues on next page

	Relative Concentration Index	School Concentration Continuous Weight Allocation
School 1	0	-
School 2	0.05	\$285,714.29
School 3	0.1	571,428.57
School 4	0.15	857,142.86
School 5	0.2	1,142,857.14
School 6	0.25	1,428,571.43
School 7	0.3	1,714,285.71
School 8	0.35	2,000,000.00
School 9	0.4	2,285,714.29
School 10	0.45	2,571,428.57
School 11	0.5	2,857,142.86
School 12	0.55	3,142,857.14
School 13	0.6	3,428,571.43
School 14	0.65	3,714,285.71
School 15	0.7	4,000,000.00
School 16	0.75	4,285,714.29



# Example of Continuous Method Distribution Based on Schools' Relative Concentration Index

	Relative Concentration Index	School Concentration Continuous Weight Allocation
School 17	0.8	4,571,428.57
School 18	0.85	4,857,142.86
School 19	0.9	5,142,857.14
School 20	0.95	5,428,571.43
School 21	1	5,714,285.71
<b>Sum of Relative Concentrations:</b>	<b>10.5</b>	<b>\$60,000,000.00</b>
Per Index-point Distribution of Funds		\$5,714,285.71

## Proposed Recommendation #4:

### Calculating the School Concentration Weight using the Tiered Model

- Using the relative concentration index, we divided schools into three equal groups: tier 1, tier 2, and tier 3.
- Total enrollment for each school was then multiplied by the tier in which they belong, essentially doubling and tripling the count of a school's enrollment if they belonged to tier 2 or 3, respectively.
- A tiered per capita was calculated by dividing \$60 million by the sum of the weighted enrollments.
- Each school's allocation was calculated by multiplying the weighted enrollment by the tiered per capita amount.

# Example of Continuous Method Distribution

## Based on Schools' Relative Concentration Index

- The tiered per capita for Tier 1 was calculated by dividing \$60 million by the total weighted enrollment of 1,370,805 students.

Relative Concentration Group	Number of Schools	Total Enrollment	Weighted Enrollment (Total Enrollment*Relative Concentration Group)	Weighted Enrollment* Tiered Per Capita	Actual Per Capita within Group	Actual Per Capita Factor
1	508	330,560	330,560	\$14,468,578.68	\$43.77	1.00
2	509	246,881	493,762	21,611,914.17	87.54	2.00
3	508	182,161	546,483	23,919,507.15	131.31	3.00
<b>Total</b>	<b>1,525</b>	<b>759,602</b>	<b>1,370,805</b>	<b>\$60,000,000.00</b>		

Total for Concentration Weight	\$60,000,000.00					
--------------------------------	-----------------	--	--	--	--	--

Tiered Per Capita (For Tier 1) \$43.77

## Proposed Recommendation #5: Eliminate the Specialized Academic Weight

- IBO models this by setting the weight to 0.
- IBO does not model the collective bargaining effect of eliminating these funds, since the decrease in funding would likely lead to staffing changes. Without knowing which positions would be affected, we do not project those changes.

## Budgetary Impacts for Making Recommendations Separately

- Adding a new poverty weight of 0.12 as recommended while keeping all other aspects of the FSF formula the same would require adding \$278 million to the total FSF budget for 2022-2023, a 4 percent increase.
- Adding a new STH weight of 0.33 as IBO estimated while keeping all other aspects of the FSF formula the same would require adding \$91 million to the total FSF budget for 2022-2023, a 1 percent increase.
- Adjusting the base foundation amount based on current average salaries while keeping all other aspects of the FSF formula the same would require adding \$24 million to the total FSF budget for 2022-2023, a less than 1 percent increase.
- Adding a concentration weight would add a fixed amount, \$60 million as DOE modeled.
- Eliminating the specialized academic weight would remove \$20 million from the FSF budgets of 13 schools.

## Results of IBO Simulations: Total FSF Budget

- First we report on the aggregate impact of the five proposals collectively on the total FSF budget across all schools.
- Recall, the aggregate impact of adding the concentration weight is \$60 million regardless of how those funds are distributed to schools.
- Adjusting the base foundation amount to reflect current average principal and secretary salaries, and incorporating the other four proposals, would require adding a net \$433 million to the total FSF budget.
- The simulations IBO presents range from adding a minimum of \$433 million to a maximum of \$1.3 billion to the total FSF budget for 2022-2023—currently at \$6.5 billion.
- This translates to an increase in total FSF funds of between 7 percent and 19 percent.

# Results of IBO Simulations on Total FSF Budget

Eliminate Specialized Academic Weight, Add Poverty Weights, Add STH Weights, Add Concentration Weight, and Potential Changes to Staff Included in Base Foundation as Below:	Additional FSF Funding Needed	Proposed Total FSF Budget	Proposed Increase Over FY23 FSF Budget
Principal + Secretary	\$433 million	\$7.0 billion	7%
Principal + Secretary + Assistant Principal	\$650 million	\$7.2 billion	10%
Principal + Secretary + Assistant Principal + Social Worker	\$811 million	\$7.3 billion	12%
Principal + Secretary + Assistant Principal + Guidance Counselor	\$822 million	\$7.3 billion	13%
Principal + Secretary + Assistant Principal + Social Worker + Guidance Counselor	\$984 million	\$7.5 billion	15%
Principal + Secretary + Assistant Principal + Social Worker + Guidance Counselor + Nurse + School Psychologist	\$1.3 billion	\$7.8 billion	19%
Principal + Secretary + Social Worker + Guidance Counselor	\$767 million	\$7.3 billion	12%
Principal + Secretary + Social Worker + Nurse	\$708 million	\$7.2 billion	11%
Principal + Secretary + Social Worker + Guidance Counselor + Nurse	\$881 million	\$7.4 billion	14%
Principal + Secretary	\$433 million	\$7.0 billion	7%



## Results of IBO Simulations: School-Level FSF Budgets

- The median change in a school's FSF 2022-2023 budget simulating the five proposals ranges from an increase of \$311,000 up to \$852,000.
- Because of the proposal to eliminate the specialized academic weight, one of those schools could lose between \$1.8 million to \$2.6 million depending on changes made to the composition of the base foundation amount and depending on how the concentration weight is implemented.
  - Brooklyn Tech, Bronx Science, and Stuyvesant would experience the largest declines.
  - For some of the models that include more staff in the base foundation amount, some of the 13 schools that currently receive the specialized academic weight would experience budget increases even after eliminating the specialized academic weight.
- Based on the combination of changes that are implemented, some schools could gain more than \$3 million compared with their 2022-2023 FSF budget.
  - When looking only at the more than 1,500 schools that would experience budget increases, the median school's budget would increase by between \$246,000 to \$795,000 depending on what positions are included in the base foundation amount.

# Results of IBO Simulations on School-Level FSF Budgets

Eliminate Specialized Academic Weight, Add Poverty Weights, Add STH Weights, Add Concentration Weight, and Potential Changes to Staff Included in Base Foundation as Below:	Median Change in FSF School Budget*	Minimum Change in FSF School Budget*	Maximum Change in FSF School Budget*
Principal + Secretary	\$245,000 to \$255,000	-\$4.3 million to -\$4.1 million	\$1.8 million to \$1.9 million
Principal + Secretary + AP	\$387,000 to \$396,000	-\$4.2 million to -\$3.9 million	\$1.9 million to \$2.1 million
Principal + Secretary + AP + Social Worker	\$493,000 to \$502,000	-\$4.0 million to -\$3.8 million	\$2.0 million to \$2.2 million
Principal + Secretary + AP + Guidance Counselor	\$500,000 to \$509,000	-\$4.0 million to -\$3.8 million	\$2.0 million to \$2.2 million
Principal + Secretary + AP + Social Worker + Guidance Counselor	\$606,000 to \$615,000	-\$3.9 million to -\$3.7 million	\$2.1 million to \$2.3 million
Principal + Secretary + AP + Social Worker + Guidance Counselor + Nurse + School Psychologist	\$785,000 to \$795,000	-\$3.8 million to -\$3.5 million	\$2.3 million to \$2.5 million
Principal + Secretary + Social Worker + Guidance Counselor	\$464,000 to \$473,000	-\$4.1 million to -\$3.8 million	\$1.8 million to \$1.9 million
Principal + Secretary + Social Worker + Nurse	\$425,000 to \$435,000	-\$4.1 million to -\$3.9 million	\$1.9 million to \$2.1 million
Principal + Secretary + Social Worker + Guidance Counselor + Nurse	\$538,000 to \$548,000	-\$4.0 million to -\$3.8 million	\$2.1 million to \$2.2 million

NOTE: \* Ranges represent school-level budget changes when using either the continuous or tiered methodology for the concentration weight.

# FSF Historical Budget History and Other Budget Considerations

- Since 2016-2017, the total FSF budget has ranged between \$5.8 billion to \$6.8 billion in 2021-2022, the first year all schools received full FSF funding.  
  
Some of the amounts IBO used to calculate the total support for students in temporary housing include funds distributed to schools in school allocation memoranda other than FSF, some of which are state and federal funding sources, and \$13.8 million in city tax levy funding including the Bridging the Gap program to provide social workers.
  - **Title I School Allocation**
  - **Title IV Programs**
  - **Attendance Improvement Dropout Prevention**
- Collective bargaining adjustments for the additional staff IBO simulated in the base foundation amount could require much more funding, depending on the positions included.

# IBO Analysis of Projected Foundation Aid for 2023-2024

- In response to inquiries by Task Force members about uses of Foundation Aid, IBO analyzed the proposed expenditures for 2023-2024, when the proposed changes to the FSF formula are intended to be implemented.
  - About 60 percent is planned for classroom instruction and another 11 percent is planned for associated fringe benefits spread across the entire department—a total of \$6.5 billion.
  - About 23 percent is planned for pass-through payments to charter schools, special education pre-K contracts, contract schools, and nonpublic schools—a total of \$2.1 billion.

Dollars in millions. Chart continues on next page

Budget Category	Projected Fiscal Year 2024	Expense Budget	Foundation Aid Support	Foundation Aid Share
<b>General Education</b>				
401/402 (General Ed)	\$7,539	24%	\$3,072	34%
<b>Special Education</b>				
403/404 (Special Ed)	\$2,676	9%	\$1,553	17%
423/424 (Special Ed Inst Support)	735	2%	283	3%
421/422 (Citywide Spec Ed)	1,426	5%	316	3%
<b>Early Education</b>				
407/408 (UPK)	\$1,426	6%	\$0	0%
409/410 (Early Education)	534	2%	0	0%
<b>Remimbursable Programs</b>				
481/482 (Categoricals)	\$2,271	7%	\$242	3%
<b>Subtotal Classroom Instruction</b>	<b>\$17,103</b>	<b>55%</b>	<b>\$5,466</b>	<b>60%</b>
<b>Non Instructional Services</b>				
438 (Pupil Transportation)	\$1,565	5%	\$217	2%
439/440 (School Food)	\$530	2%	\$8	0%
<b>Buildings Support</b>				
435/436 (School Facilities)	\$1,066	3%	\$78	1%
442 (School Safety)	\$389	1%	\$10	0.1%
444 (Energy and Leases)	\$671	2%	\$62	1%
<b>Subtotal NonInstructional Services</b>	<b>\$4,221</b>	<b>14%</b>	<b>\$375</b>	<b>4%</b>

# IBO Analysis of Projected Foundation Aid for 2023-2024

Dollars in millions.

Budget Category	Projected Fiscal Year 2024	Expense Budget	Foundation Aid Support	Foundation Aid Share
<b>Pass-Through Payments</b>				
406 (Charter Schools)	\$4,221	9%	\$1,308	14%
470 (Special Ed PreK Contracts)	\$929	3%	\$261	3%
472 (Contract Schools)	\$910	3%	\$549	6%
474 (Nonpublic Schools)	\$79	0%	\$0	0%
<b>Subtotal Pass-Through Payments</b>	<b>\$4,810</b>	<b>15%</b>	<b>\$2,118</b>	<b>23%</b>
<b>Administration</b>				
415/416 (Regional Admin)	\$290	1%	\$102	1%
453/454 (Central Admin)	\$290	1%	\$36	0.4%
<b>Fringe</b>				
461 (Fringe Benefits)	\$4,436	14%	\$1,048	11%
<b>Subtotal Systemwide Costs</b>	<b>\$5,016</b>	<b>16%</b>	<b>\$1,186</b>	<b>13%</b>
<b>TOTAL</b>	<b>\$31,150</b>	<b>100%</b>	<b>\$9,145</b>	<b>100%</b>

---

## Questions?

- If you have any questions, please email:
  - Sarita Subramanian, Assistant Director of Education,  
[saritas@ibo.nyc.ny.us](mailto:saritas@ibo.nyc.ny.us)
  - Yolanda Smith, Senior Budget and Policy Analyst,  
[yolandas@ibo.nyc.ny.us](mailto:yolandas@ibo.nyc.ny.us)
- The complete Fair Student Funding Task Force report is available [here](#).