

Modeling the Impact of Potential FSF Changes (Part I)



Potential FSF Changes

1. **Increase the Per School Base Foundation Funding (\$225,000/school)** – Net zero cost by adjusting the full base per weighted pupil funding that includes collective bargaining.
 - a. **Change** SE and ELL weights in addition to base funding, to protect funds for those students

2. **Replace Incoming Test Scores with Poverty Data:** Use Poverty (free lunch) to replace the Below/Well Below **Academic** Need Weight

3. **Add a new weight for Students in Temporary Housing (STH)** – Net zero by adjusting base per weighted pupil funding
 - a. **Change** SE and ELL weights in addition to base funding, to protect funds for those students

Grade-Level and Academic Need Weights for FY 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

Increasing the Base Foundation Funding - Let's Do Some Math

Smaller schools with the same needs profiles will have a higher per pupil budget because of the \$225,000 foundation.

Let's take two hypothetical schools with the same need profile – where they receive \$7,000 per pupil based on the average need at the school – one small with 200 students, another large with 1,000 students.

- $\$225,000 + (\$7,000 \times 200 \text{ kids}) = \$1,625,000$ FSF budget.
 - This works out to \$8,125 per pupil.
- $\$225,000 + (\$7,000 \times 1,000 \text{ kids}) = \$7,225,000$ FSF budget.
 - This works out to \$7,225 per pupil.

The smaller school therefore receives \$900 more per capita, or a 12% larger per capita budget, than the larger school.

1. Increasing the Base Foundation Funding

Adjust SE and maintain ELL weights in order to continue to meet mandated needs; other academic need weights lowered.

Net impact: This change removes funding from the FSF per capita formula and reallocates it equally across the board to all schools as part of the base, redistributing funding from larger to smaller schools.

We've run two scenarios, one smaller adding a social worker to each school, one larger adding a social worker, guidance counselor, and AP to each school.

Lower Adjustment: **Net impact: \$160 million**

- Add funding roughly equivalent to 1 Social Worker (SW), using the citywide average salary excluding benefits of Guidance Counselors and SW, to Base Per-School Funding - \$105,041
- Reduce the Per-Weighted-Pupil weight (incl. Collective Bargaining) by **\$239.47** to make net-zero.

Higher Adjustment: **Net impact: \$527 million**

- Add funding roughly equivalent to 1 Social Worker (\$105,041) 1 Assistant Principal (\$135,206), and 1 Guidance Counselor (\$105,041) to Base Per-School Funding - \$345,288 per school.
- Reduce Per-Weighted-Pupil weight by **\$787.18** to make net-zero.

1. Increasing the Base Foundation Funding

Adjust SE and maintain ELL weights in order to continue to meet mandated needs; other academic need weights lowered.

IMPACT:

- Transfers funds from about 500 schools, all larger than about 500 kids, to about 1,000 schools, smaller than about 500 kids.
- Generally, a net redistribution from lower-poverty schools to higher-poverty schools as higher-poverty schools are smaller.
- ICT and SC weights increase to preserve the SE class funding and ELL weights remain unchanged.
- The table below shows how each need weight is adjusted for this model:

Category	Impact
Grade Weight \$	(615,045,643)
ICT \$	145,112,150
SC \$	23,388,258
AIS \$	(68,949,775)
ELL \$	-
Portfolio \$	(11,069,190)
Total Change \$	(526,564,200)

1. Increasing the Base Foundation Funding - (\$225K/school) – District Level Total and Per Capita Impact

Districts w/largest increases per capita	D16 (+\$290 pp) D23 (+\$247 pp) D5 (+\$178 pp) D18 (+\$154 pp)
Districts w/largest decreases per capita	D20 (-\$100 pp) D24 (-\$98 pp) D26 (-\$82 pp) D21 (-\$81 pp)

District	1. Base Per-School Funding					
	Low			High		
	\$ Change Per Pupil	% \$ Change Per Pupil	\$ Change	\$ Change Per Pupil	% \$ Change Per Pupil	\$ Change
1	\$ 125	1.4%	\$ 1,114,005	\$ 411	4.6%	\$ 3,661,928
2	\$ 23	0.3%	\$ 1,202,214	\$ 77	0.9%	\$ 3,951,886
3	\$ 63	0.7%	\$ 1,075,919	\$ 207	2.4%	\$ 3,536,732
4	\$ 124	1.4%	\$ 1,241,817	\$ 408	4.5%	\$ 4,082,069
5	\$ 178	1.9%	\$ 1,344,859	\$ 584	6.1%	\$ 4,420,784
6	\$ 99	1.0%	\$ 1,587,223	\$ 324	3.4%	\$ 5,217,479
7	\$ 107	1.1%	\$ 1,428,450	\$ 350	3.6%	\$ 4,695,565
8	\$ 52	0.6%	\$ 1,081,100	\$ 169	1.9%	\$ 3,553,765
9	\$ 94	1.0%	\$ 2,206,378	\$ 310	3.2%	\$ 7,252,747
10	\$ (9)	-0.1%	\$ (381,771)	\$ (31)	-0.3%	\$ (1,254,947)
11	\$ 10	0.1%	\$ 304,973	\$ 34	0.4%	\$ 1,002,500
12	\$ 89	0.9%	\$ 1,402,767	\$ 291	3.0%	\$ 4,611,139
13	\$ (4)	-0.1%	\$ (82,164)	\$ (15)	-0.2%	\$ (270,088)
14	\$ 83	0.9%	\$ 1,148,173	\$ 272	3.0%	\$ 3,774,243
15	\$ 23	0.3%	\$ 581,906	\$ 77	0.9%	\$ 1,912,827
16	\$ 290	3.0%	\$ 1,422,466	\$ 954	9.9%	\$ 4,675,893
17	\$ 79	0.9%	\$ 1,319,027	\$ 260	3.0%	\$ 4,335,869
18	\$ 154	1.7%	\$ 1,423,428	\$ 506	5.5%	\$ 4,679,056
19	\$ 115	1.2%	\$ 1,973,777	\$ 380	4.1%	\$ 6,488,149
20	\$ (100)	-1.2%	\$ (4,157,908)	\$ (327)	-4.0%	\$ (13,667,765)
21	\$ (81)	-1.0%	\$ (2,599,906)	\$ (268)	-3.3%	\$ (8,546,342)
22	\$ (53)	-0.7%	\$ (1,424,384)	\$ (173)	-2.2%	\$ (4,682,198)
23	\$ 247	2.5%	\$ 1,631,667	\$ 812	8.4%	\$ 5,363,572
24	\$ (98)	-1.2%	\$ (4,668,788)	\$ (322)	-3.8%	\$ (15,347,115)
25	\$ (67)	-0.8%	\$ (2,103,259)	\$ (219)	-2.7%	\$ (6,913,778)
26	\$ (82)	-1.1%	\$ (2,236,636)	\$ (269)	-3.6%	\$ (7,352,211)
27	\$ (18)	-0.2%	\$ (621,550)	\$ (58)	-0.7%	\$ (2,043,144)
28	\$ (62)	-0.8%	\$ (2,082,260)	\$ (205)	-2.6%	\$ (6,844,751)
29	\$ 18	0.2%	\$ 356,414	\$ 58	0.7%	\$ 1,171,596
30	\$ (55)	-0.7%	\$ (1,807,377)	\$ (181)	-2.2%	\$ (5,941,163)
31	\$ (46)	-0.6%	\$ (2,521,238)	\$ (153)	-1.8%	\$ (8,287,747)
32	\$ 90	1.0%	\$ 840,677	\$ 297	3.2%	\$ 2,763,452

1. Increasing the Base Foundation Funding

IMPACT:

- Average school gaining funding gains \$44k/\$145k in low/high scenarios. About 1,000 schools gain funding.
- Average school losing funding loses \$94k/\$308k in low/high scenarios. About 500 schools lose funding.
- Sample schools with large impacts:
 - Francis Lewis High School, with approximately 4,000 registers, loses \$800k/\$2.7m in low/high scenarios, amounting to 3%/9% of overall FSF budget.
 - Brooklyn Environmental Exploration School, with approximately 165 registers, gains \$93k/\$304k in low/high scenarios, amounting to 4%/15% of overall FSF budget.

2. Replace Academic Need Weight with Poverty Weight

Use Poverty (in this case, free lunch) to replace the Below/Well Below Academic weight (AIS weight)

Net impact: This change moves approximately \$361 million from approximately 600 schools to approximately 900 schools.

- This change, counterintuitively, ends up being a transfer from high-poverty schools to lower-poverty schools.
- The reason for this in this model is that poverty is more broadly distributed than low test scores, so the test score-based weights are higher than the poverty weight will be.
- Therefore, funding is redistributed from schools with very high poverty and low scores to schools (with lots of funding driven by the scores) with medium poverty and better scores (who would have received very little, because they have better scores).
- There's more research for us to do here – depending on how we could implement this change.

IMPACT:

Category	Impact
Poverty	\$230,134,244
4-8 Below Standards	\$ (26,418,133)
4-8 Well Below Standards	\$ (73,282,254)
9-12 Below Standards	\$ (33,938,057)
9-12 Well Below Standards	\$ (96,495,800)
Total Change	\$ -

2. Replace Academic Need Weight with Poverty Weight – District Level Total and Per Capita Impact

Districts w/increased per capita: (from largest per capita gain to smallest gain)	D4, D20, D13, D22, D26, D25, D30, D1, D2, D21, D3, D28, D24, D27
Districts w/decreased per capita: (from largest per capita loss to smallest loss)	D18, D12, D19, D8, D9, D16, D23, D11, D7, D32, D29, D6, D10, D31, D5, D17, D15, D14

District	2. Replace Test Scores w/ Poverty		
	\$ Change Per Pupil	% \$ Change Per Pupil	\$ Change
1	\$ 44	0.5%	\$ 392,867
2	\$ 35	0.4%	\$ 1,793,334
3	\$ 28	0.3%	\$ 483,562
4	\$ 102	1.1%	\$ 1,022,105
5	\$ (20)	-0.2%	\$ (154,313)
6	\$ (37)	-0.4%	\$ (591,099)
7	\$ (71)	-0.7%	\$ (951,839)
8	\$ (97)	-1.1%	\$ (2,044,398)
9	\$ (89)	-0.9%	\$ (2,070,709)
10	\$ (32)	-0.4%	\$ (1,304,390)
11	\$ (80)	-0.9%	\$ (2,340,638)
12	\$ (24)	-1.3%	\$ (1,967,454)
13	\$ 82	1.0%	\$ 1,507,351
14	\$ (12)	-0.1%	\$ (171,093)
15	\$ (14)	-0.2%	\$ (346,333)
16	\$ (87)	-0.9%	\$ (428,528)
17	\$ (15)	-0.2%	\$ (248,362)
18	\$ (36)	-1.5%	\$ (1,263,239)
19	\$ (14)	-1.2%	\$ (1,947,763)
20	\$ 85	1.0%	\$ 3,550,774
21	\$ 29	0.3%	\$ 914,591
22	\$ 82	1.0%	\$ 2,215,644
23	\$ (86)	-0.9%	\$ (565,509)
24	\$ 21	0.3%	\$ 1,012,219
25	\$ 55	0.7%	\$ 1,727,484
26	\$ 72	0.9%	\$ 1,954,671
27	\$ 8	0.1%	\$ 283,937
28	\$ 27	0.3%	\$ 894,028
29	\$ (48)	-0.6%	\$ (966,780)
30	\$ 49	0.6%	\$ 1,597,129
31	\$ (27)	-0.3%	\$ (1,481,859)
32	\$ (54)	-0.6%	\$ (505,390)

3. Add a new weight for Students in Temporary Housing (STH)

Adjust SE and maintain ELL weights in order to continue to meet mandated needs; other academic need weights lowered.

Net impact: This change reallocates funding to a new STH weight from other parts of the FSF formula. It moves funding from approximately 700 *mostly* lower-poverty schools to mostly higher-poverty schools.

Lower Adjustment:

- STH weight: 0.12
- Net impact: \$43 million
- Reduce the per-weighted-pupil weight by \$64.28, while keeping SE and ELL funding constant, to make net-zero

Higher Adjustment:

- STH weight: 0.24
- Net impact: \$86 million
- Reduce the per-weighted-pupil weight by \$128.55, while keeping SE and ELL funding constant, to make net-zero

3. Add a new weight for Students in Temporary Housing (STH)

Adjust SE and maintain ELL weights in order to continue to meet mandated needs; other academic need weights lowered.

IMPACT:

- Generally, this change is pro-equity, moving funding to higher-poverty schools and districts
- ICT and SC weights increase to preserve the SE class funding and ELL weights remain unchanged.
- The table below shows how each need weight is adjusted for this model:

Category	Impact
Grade Weight \$	(100,442,603)
ICT \$	23,698,147
SC \$	3,819,517
AIS \$	(11,260,132)
ELL \$	-
Portfolio \$	(1,807,700)
Total Change \$	(85,992,771)

3. Add a new weight for STH – District Level Total and Per Capita Impact

Districts w/largest increase per capita	D9 (+\$71 pp) D32 (+\$57 pp) D5 (+\$51 pp) D6 (+\$50 pp)
Districts w/largest decreases per capita	D26 (-\$33 pp) D31 (-\$31 pp) D25 (-\$25 pp) D20 (-\$24 pp)

District	3. Add STH Weight					
	Low			High		
	\$ Change Per Pupil	% \$ Change Per Pupil	\$ Change	\$ Change Per Pupil	% \$ Change Per Pupil	\$ Change
1	\$ 20	0.2%	\$ 173,968	\$ 39	0.4%	\$ 347,935
2	\$ (16)	-0.2%	\$ (814,993)	\$ (32)	-0.4%	\$ (1,629,986)
3	\$ (13)	-0.2%	\$ (218,026)	\$ (26)	-0.3%	\$ (436,051)
4	\$ 32	0.4%	\$ 322,277	\$ 65	0.7%	\$ 644,553
5	\$ 51	0.5%	\$ 388,445	\$ 103	1.1%	\$ 776,890
6	\$ 50	0.5%	\$ 812,556	\$ 101	1.1%	\$ 1,625,112
7	\$ 48	0.5%	\$ 643,806	\$ 96	1.0%	\$ 1,287,612
8	\$ 12	0.1%	\$ 260,423	\$ 25	0.3%	\$ 520,845
9	\$ 71	0.7%	\$ 1,658,478	\$ 142	1.5%	\$ 3,316,956
10	\$ 38	0.4%	\$ 1,557,655	\$ 76	0.8%	\$ 3,115,311
11	\$ 6	0.1%	\$ 183,622	\$ 13	0.1%	\$ 367,244
12	\$ 43	0.4%	\$ 680,517	\$ 86	0.9%	\$ 1,361,033
13	\$ (22)	-0.3%	\$ (395,460)	\$ (43)	-0.5%	\$ (790,920)
14	\$ 6	0.1%	\$ 86,591	\$ 13	0.1%	\$ 173,182
15	\$ (12)	-0.1%	\$ (296,879)	\$ (24)	-0.3%	\$ (593,759)
16	\$ 32	0.3%	\$ 155,010	\$ 63	0.7%	\$ 310,021
17	\$ 18	0.2%	\$ 302,013	\$ 36	0.4%	\$ 604,026
18	\$ 1	0.0%	\$ 6,790	\$ 1	0.0%	\$ 13,580
19	\$ 25	0.3%	\$ 427,346	\$ 50	0.5%	\$ 854,691
20	\$ (24)	-0.3%	\$ (995,971)	\$ (48)	-0.6%	\$ (1,991,942)
21	\$ (20)	-0.2%	\$ (641,200)	\$ (40)	-0.5%	\$ (1,282,400)
22	\$ (18)	-0.2%	\$ (473,970)	\$ (35)	-0.4%	\$ (947,939)
23	\$ 47	0.5%	\$ 312,620	\$ 95	1.0%	\$ 625,240
24	\$ 12	0.1%	\$ 552,938	\$ 23	0.3%	\$ 1,105,875
25	\$ (25)	-0.3%	\$ (802,788)	\$ (51)	-0.6%	\$ (1,605,576)
26	\$ (33)	-0.4%	\$ (907,743)	\$ (67)	-0.9%	\$ (1,815,487)
27	\$ (22)	-0.3%	\$ (779,287)	\$ (44)	-0.5%	\$ (1,558,573)
28	\$ (19)	-0.2%	\$ (648,802)	\$ (39)	-0.5%	\$ (1,297,603)
29	\$ (2)	0.0%	\$ (34,905)	\$ (3)	0.0%	\$ (69,811)
30	\$ (12)	-0.1%	\$ (385,930)	\$ (23)	-0.3%	\$ (771,860)
31	\$ (31)	-0.4%	\$ (1,656,064)	\$ (61)	-0.7%	\$ (3,312,127)
32	\$ 57	0.6%	\$ 526,964	\$ 113	1.2%	\$ 1,053,927

Next steps for modeling

1. **Additional Qs/thoughts on tweaks to these proposals?**
2. **Potential next sets of analyses:**
 - Concentration weights
 - Average teacher salary
 - Portfolio weights proposals
 - Ideas around special education students
 - Impact of Class Size

Modeling Potential FSF Changes (Part II)



Agenda

1. Review modeled changes from last meeting
2. New potential changes:
 - A. Portfolio Weights
 - B. Concentration Weight
 - C. Special Education Breakage
 - D. Poverty without removing AIS weights
 - E. Change ATS policy
3. Discuss next steps

Last Meeting's Modeling

1. **Increase the Per School Base Foundation Funding (\$225,000/school)** – Adjust the full base per weighted pupil funding that includes collective bargaining.
 - a. **Change** SE and ELL weights in addition to base funding, to protect funds for those students

2. **Replace Incoming Test Scores with Poverty Data:** Use Poverty (free lunch) to replace the Below/Well Below **Academic** Need Weight

3. **Add a new weight for Students in Temporary Housing (STH)** – Add a new weight for students in temporary housing.
 - a. **Change** SE and ELL weights in addition to base funding, to protect funds for those students

This Meeting's Potential FSF Changes

1. **Discuss portfolio weights** – discussion of the current portfolio weights and their costs, and any discussion of potential options the group would like to see modeled.
2. **Create concentration weights** – these weights direct funding specifically to schools with concentrations of need, including poverty, students with disabilities, ELLs, students in temporary housing, and other needs.
3. **To address breakage, create new weights for special education students in small schools** – modeled at 0.5 for schools that qualify.
4. **Model new poverty weights without removing AIS weights** – Create new weights of 0.24 for K-5 poverty and 0.12 for 6-12 poverty.
5. **Replace actual teacher salaries in schools with citywide average teacher salaries** – charge all schools the same amount for staff, regardless of actual staff salaries.

Assumptions: Run to work at current funding level; with information included to ensure you have information on the additional funding needed to make these changes while protecting current allocations.

1. Quick Review of Portfolio Weights

Portfolio weights, unlike most FSF weights, fund students based not on the characteristics of the student, but of the school, in certain categories: CTE, Specialized Academic, Specialized Audition, Transfer.

Portfolio weights total roughly \$60 million across the system overall.

FSF Category Type of Pupil Need and Grade Span	Weights	FY 2023 Per Capita	Number of Students	Total Cost
Portfolio High Schools - CTE Tier 1	0.26	\$1,091.31	4,347	\$4,743,611
Portfolio High Schools - CTE Tier 2	0.17	\$713.71	13,233	\$9,444,413
Portfolio High Schools - CTE Tier 3	0.12	\$503.11	9,568	\$4,813,580
Portfolio High Schools - CTE Tier 4	0.05	\$209.54	1,414	\$296,262
Portfolio High Schools - Specialized Academic	0.25	\$1,048.77	19,530	\$20,482,393
Portfolio High Schools - Specialized Audition	0.35	\$1,468.91	4,420	\$6,492,583
Portfolio High Schools - Transfer - Heavy Graduation Challenge	0.40	\$1,678.45	6,230	\$10,456,747
Portfolio High Schools - Transfer - Regular Graduation Challenge	0.21	\$874.73	2,619	\$2,290,926
Total			61,360	\$59,020,515

2. What is a Concentration Weight?

FSF allocations, except for Portfolio weights, look only at individual students.

A concentration weight allocates a variable amount of funding depending on the concentration of need *overall at the school*, not just at the individual level.

This is in line with studies on this topic that show that as needs compound, they each require more resources to address than individually.

More districts across the country are adding these types of calculations to their school funding formulas. Examples include Boston and San Francisco.

2. Add concentration weights

Adjust SE and maintain ELL weights in order to continue to meet mandated needs; other academic need weights lowered.

Net impact: This change models reallocating funding to 508 schools identified as being in the top third of concentrations of need (as defined below). These schools will (generally) receive increases, and other schools will receive decreases. If new funding were instead available, the cost to do this where no school loses funding would be \$60 million plus fringe benefits.

Needs being considered are:

- School free lunch eligibility percentage
- School English Language Learner percentage
- School Students in Temporary Housing/Students in Shelters percentage
- School Students with Disabilities percentage
- School students in foster care percentage

Schools are identified based on the overall proportion of schools with these needs. Each student with the need receives one point, plus a fraction of a point based on their overall proportion of need for each need identified. We then calculate the schools with the highest numbers of points per actual student.

2. Add concentration weights

Example: P.S. 123 enrolls ten students.

Eight students – 80% – of their students receive free lunch, so P.S. 123 receives 1.80 for each of those eight students, totaling 14.4 points.

Four students – 40% – of their students are ELLs, so P.S. 123 receives 1.40 for each of these students, totaling 5.6 points.

Three students – 30% – of their students are SWDs, so P.S. 123 receives 1.30 for each of those students, totaling 3.9 points.

We then total up all those points – 14.4, 5.6, and 3.9 to get a total of 23.9.

This total is then divided against the number of students, to get an index of 2.39 for the school.

We then compare P.S. 123 to every school in the system, and look at the one-third of schools with the highest indices to receive additional funding under this model.

2. Add concentration weights

- School P.S. 123 has a higher index than P.S. 456 because P.S. 123 has a higher concentration of poverty.

P.S. 123				
Students	Concentration weight			Total
	Free Lunch	ELL	SWD	
	1.8	1.4	1.3	
Olga	●	●		3.2
Sara	●	●		3.2
Fatim	●		●	3.1
Nicholas	●		●	3.1
Rishi	●		●	3.1
Ester	●			1.8
Tamir	●			1.8
Anna	●			1.8
Jhon		●		1.4
Michael		●		1.4
10	8	4	3	23.9

P.S. 123's average need is 2.39 per pupil

P.S. 456				
Students	Concentration weight			Total
	Free Lunch	ELL	SWD	
	1.4	1.4	1.3	
Joel	●	●		2.8
Kathy	●	●		2.8
Eric	●		●	2.7
Dennis	●		●	2.7
Myra			●	1.3
Carmen				0.0
Linda				0.0
Misha				0.0
Richard		●		1.4
Marsha		●		1.4
10	4	4	3	15.1

P.S. 456's average need is 1.51 per pupil

2. Add concentration weights

We've run two scenarios, one using a “continuous” approach, one using a “tiered” approach, both at \$60 million.

Continuous approach: **Net impact: \$60 million**

- This is similar to the approach used in the Academic Recovery ARPA allocations we distributed to schools last year and this year.
- Schools that qualify receive funding on a variable per capita – where the per capita will increase as the need increases – based on their need proportional to the neediest school.
- This creates more of an opportunity for schools at the highest end to receive additional funding, but as the multipliers are variable, it is difficult for principals to effectively plan.

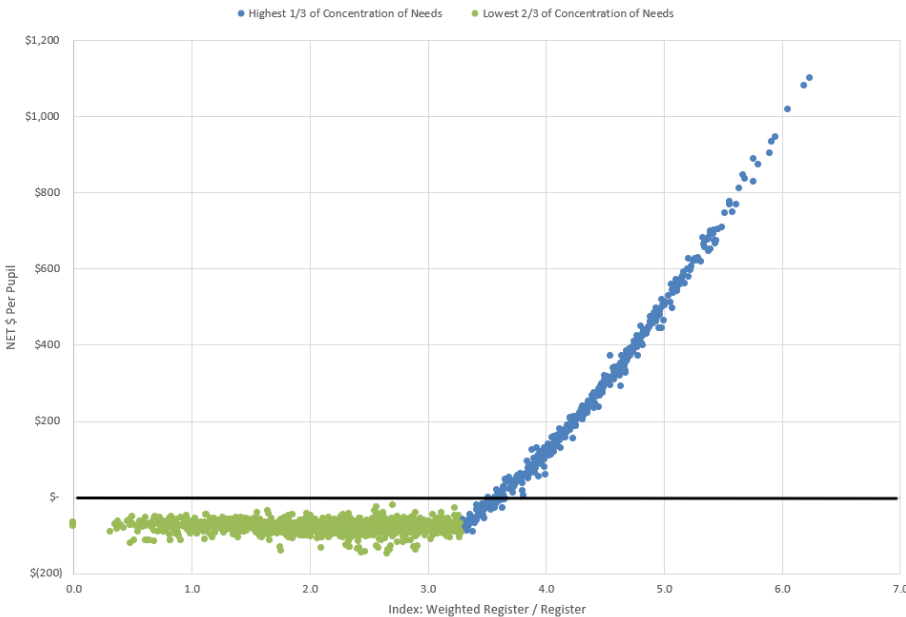
Tiered approach: **Net impact: \$60 million**

- This approach creates three tiers based on concentration of need, with different cutoffs for three different per capita amounts depending on need concentration.
- Schools that qualify receive funding on a per capita basis – at \$157.44 per pupil, \$314.89 per pupil (twice as much), or \$472.33 per pupil (three times as much).
- This ensures that all schools that qualify receive additional net funding, and a fixed per capita makes planning simpler for schools, but is less scientific in its allocation.

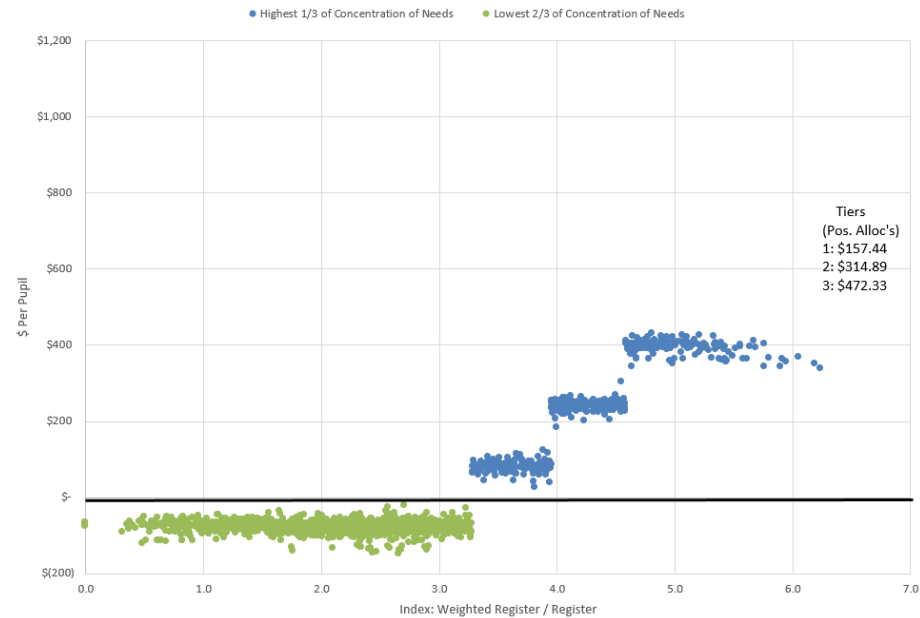
2. Add concentration weights

Gradually increasing the weight of the concentration allocation through the continuous methodology or the tiered methodology ensures that no school jumps from a large allocation to zero funds from one year to another based on small changes in student needs.

1.a Continuous Model: Scatter NET Alloc PC vs Index (WReg/Reg). FSF Schools



1.b Tiers Model: Scatter of Allocation Per Pupil vs. Index (W.Reg/Reg). FSF Schools.



IMPACT:

- Average school gaining funding gains \$108k/\$88k in continuous/tiered scenarios.
- Average school losing funding loses \$42k/\$44k in continuous/tiered scenarios.

2. Add concentration weights

Net impact:

- The continuous model moves approximately \$46 million from approximately 1,100 schools to approximately 400 schools.
 - Fewer schools receive funds in the continuous model because the schools at the margin receive less funds in the new weight which is offset the reduced FSF per capita.
- The tiered model moves approximately \$45 million from approximately 1,000 schools to approximately 500 schools.
- This change transfers funds from generally low-poverty schools to high-poverty schools.
- There are schools with very high poverty who will receive a reduction with this allocation because they have very low counts of students with other needs (e.g., ELLs, STH).

Category	Impact
Grade Weight	(\$70,082,126)
ICT	\$16,534,981
SC	\$2,665,004
AIS	(\$7,856,566)
ELL	\$0
Portfolio	(\$1,261,292)
New Concentration Weight	\$60,000,000
Total Change	\$0

2. Add concentration weights

	Continuous Model	Tiers Model	Continuous Model less Tiers Model
Districts w/largest increases per capita	D09 (+\$206 pp) D12 (+\$183 pp) D32 (+\$115 pp) D07 (+\$107 pp)	D09 (+\$156 pp) D12 (+\$146 pp) D32 (+\$105 pp) D23 (+\$ 93 pp)	D09 (+\$50 pp) D12 (+\$37 pp) D24 (+\$24 pp) D07 (+\$19 pp)
Districts w/largest decreases per capita	D26 (-\$80 pp) D29 (-\$73 pp) D18 (-\$70 pp) D03 (-\$70 pp)	D26 (-\$80 pp) D03 (-\$66 pp) D29 (-\$64 pp) D02 (-\$61 pp)	D22 (-\$23 pp) D21 (-\$17 pp) D11 (-\$17 pp) D25 (-\$15 pp)

Total	All FSF-Funded Schools						Cont. less Tiers PC
	\$ (0.00)		\$ (0)	\$ (0.00)		\$ (0)	
	5.a Continuous Model			5.b Tiers Model			
District	\$ Change Per Pupil	% \$ Change Per Pupil	\$ Change	\$ Change Per Pupil	% \$ Change Per Pupil	\$ Change	
01	\$ 17	0.2%	\$ 148,136	\$ 23	0.3%	\$ 209,078	(\$ 7)
02	(\$ 54)	-0.6%	(\$ 2,799,072)	(\$ 61)	-0.7%	(\$ 3,191,490)	\$ 8
03	(\$ 70)	-0.8%	(\$ 1,189,778)	(\$ 66)	-0.8%	(\$ 1,124,419)	(\$ 4)
04	\$ 63	0.7%	\$ 629,801	\$ 78	0.9%	\$ 777,664	(\$ 15)
05	\$ 95	1.0%	\$ 718,204	\$ 88	0.9%	\$ 668,404	\$ 7
06	\$ 71	0.7%	\$ 1,138,042	\$ 80	0.8%	\$ 1,284,394	(\$ 9)
07	\$ 107	1.1%	\$ 1,439,953	\$ 88	0.9%	\$ 1,179,639	\$ 19
08	\$ 50	0.5%	\$ 1,048,260	\$ 47	0.5%	\$ 991,462	\$ 3
09	\$ 206	2.1%	\$ 4,818,785	\$ 156	1.6%	\$ 3,638,695	\$ 50
10	\$ 104	1.2%	\$ 4,260,044	\$ 87	1.0%	\$ 3,576,077	\$ 17
11	(\$ 22)	-0.3%	(\$ 648,039)	(\$ 5)	-0.1%	(\$ 154,923)	(\$ 17)
12	\$ 183	1.9%	\$ 2,895,669	\$ 146	1.5%	\$ 2,309,845	\$ 37
13	(\$ 60)	-0.7%	(\$ 1,094,870)	(\$ 60)	-0.7%	(\$ 1,095,376)	\$ 0
14	(\$ 24)	-0.3%	(\$ 338,212)	(\$ 20)	-0.2%	(\$ 271,353)	(\$ 5)
15	\$ 4	0.0%	\$ 108,968	\$ 3	0.0%	\$ 81,946	\$ 1
16	\$ 18	0.2%	\$ 88,174	\$ 28	0.3%	\$ 136,737	(\$ 10)
17	(\$ 33)	-0.4%	(\$ 550,069)	(\$ 22)	-0.3%	(\$ 371,547)	(\$ 11)
18	(\$ 70)	-0.8%	(\$ 649,914)	(\$ 58)	-0.6%	(\$ 532,500)	(\$ 13)
19	\$ 60	0.6%	\$ 1,020,689	\$ 70	0.7%	\$ 1,189,338	(\$ 10)
20	(\$ 13)	-0.2%	(\$ 524,737)	(\$ 11)	-0.1%	(\$ 457,859)	(\$ 2)
21	(\$ 34)	-0.4%	(\$ 1,088,369)	(\$ 17)	-0.2%	(\$ 540,199)	(\$ 17)
22	(\$ 63)	-0.8%	(\$ 1,704,394)	(\$ 40)	-0.5%	(\$ 1,093,043)	(\$ 23)
23	\$ 84	0.9%	\$ 552,188	\$ 93	1.0%	\$ 613,980	(\$ 9)
24	\$ 63	0.7%	\$ 3,010,617	\$ 40	0.5%	\$ 1,885,479	\$ 24
25	(\$ 51)	-0.6%	(\$ 1,619,850)	(\$ 36)	-0.4%	(\$ 1,145,226)	(\$ 15)
26	(\$ 80)	-1.1%	(\$ 2,175,462)	(\$ 80)	-1.1%	(\$ 2,175,462)	\$ -
27	(\$ 53)	-0.6%	(\$ 1,882,834)	(\$ 42)	-0.5%	(\$ 1,465,810)	(\$ 12)
28	(\$ 66)	-0.8%	(\$ 2,219,165)	(\$ 55)	-0.7%	(\$ 1,828,626)	(\$ 12)
29	(\$ 73)	-0.9%	(\$ 1,485,068)	(\$ 64)	-0.8%	(\$ 1,291,075)	(\$ 10)
30	(\$ 19)	-0.2%	(\$ 629,895)	(\$ 21)	-0.3%	(\$ 691,093)	\$ 2
31	(\$ 43)	-0.5%	(\$ 2,346,646)	(\$ 39)	-0.5%	(\$ 2,092,317)	(\$ 5)
32	\$ 115	1.2%	\$ 1,068,840	\$ 105	1.1%	\$ 979,579	\$ 10

3. Create a new weight for special education in small schools

Adjust SE and maintain ELL weights in order to continue to meet mandated needs; other academic need weights lowered.

This change models addressing breakage by looking at schools have fewer than 60 registers per grade, and for those schools adding a weight of 0.50 (about \$2,100 plus associated CB) for students in ICT and self-contained settings.

Net impact:

- This change reallocates about \$57 million in funding to a new SE weight from other parts of the FSF formula. It moves funding from approximately 1,000 schools to approximately 500 schools. If new funding were instead available, the cost to do this where no school loses funding would be \$57 million plus fringe benefits.
- This reduces the per-weighted-pupil weight by **\$84.50**, while keeping SE and ELL funding constant.
- Table by need weight impact:

Category	Impact
Grade Weight	(\$66,003,001)
ICT	\$15,572,564
SC	\$2,509,887
AIS	(\$7,399,275)
ELL	\$0
Portfolio	(\$1,187,879)
New Concentration Weight	\$56,507,705
Total Change	(\$0)

3. Create a new weight for special education in small schools

Districts w/largest increase per capita	D23 (+346 pp) D04 (+216 pp) D16 (+215 pp) D05 (+191 pp)
Districts w/largest decreases per capita	D24 (-\$72 pp) D20 (-\$61 pp) D28 (-\$55 pp) D21 (-\$53 pp)

District	3. Add SE Weight		
	\$ Change Per Pupil	% \$ Change Per Pupil	\$ Change
1	\$173	1.9%	\$1,538,463
2	(\$20)	(0.2%)	(\$1,056,067)
3	\$75	0.9%	\$1,271,772
4	\$216	2.4%	\$2,162,817
5	\$191	2.0%	\$1,446,391
6	\$85	0.9%	\$1,361,912
7	\$83	0.8%	\$1,109,136
8	(\$7)	(0.1%)	(\$140,972)
9	\$61	0.6%	\$1,429,252
10	(\$39)	(0.4%)	(\$1,584,289)
11	(\$25)	(0.3%)	(\$747,133)
12	\$20	0.2%	\$321,646
13	(\$7)	(0.1%)	(\$119,550)
14	\$85	0.9%	\$1,175,714
15	(\$10)	(0.1%)	(\$261,765)
16	\$215	2.2%	\$1,054,577
17	\$63	0.7%	\$1,054,054
18	\$115	1.3%	\$1,068,543
19	\$27	0.3%	\$453,880
20	(\$61)	(0.7%)	(\$2,567,333)
21	(\$53)	(0.6%)	(\$1,706,196)
22	(\$25)	(0.3%)	(\$678,999)
23	\$346	3.6%	\$2,286,351
24	(\$72)	(0.8%)	(\$3,421,110)
25	(\$46)	(0.6%)	(\$1,463,183)
26	(\$28)	(0.4%)	(\$767,382)
27	\$17	0.2%	\$594,896
28	(\$55)	(0.7%)	(\$1,837,717)
29	\$9	0.1%	\$172,828
30	(\$49)	(0.6%)	(\$1,621,987)
31	(\$19)	(0.2%)	(\$1,017,446)
32	\$53	0.6%	\$488,896

4. Add a poverty weight

Add a new poverty weight (in this case, free lunch) for schools that currently receive test score-based AIS Weights and double the existing poverty weight for schools that currently receive the poverty weight. This translates to a weight of 0.24 for K-5 schools and 0.12 for grades 6-12 schools.

Net impact: This change moves \$277 million from generally lower-poverty schools to higher-poverty schools. If new funding were instead available, the cost to do this where no school loses funding would be \$277 million plus fringe benefits.

- Approximately 550 schools lose funding, at about \$75,000 per school.
- Approximately 950 schools gain funding, at about \$45,000 per school.
- Reduce the Per-Weighted-Pupil weight (incl. Collective Bargaining) by **\$475.89**.

IMPACT:

Category	Impact
Grade Weight	(\$371,826,646)
ICT	\$87,727,740
SC	\$14,139,402
AIS	\$0
ELL	\$0
Portfolio	(\$6,691,893)
New AIS Funding	\$ 276,651,398.22
Current Poverty to .24	\$130,716,613
New Poverty of .12	\$145,934,784
Total Change	\$0

4. Add a poverty weight

Districts w/increased per capita: (from largest per capita gain to smallest gain)	D9, D12, D7, D8, D10, D19, D11, D6, D20, D27, D4, D23, D14, D32, D5, D18, D16, D17, D1
Districts w/decreased per capita: (from largest per capita loss to smallest loss)	D24, D15, D29, D22, D21, D30, D25, D28, D3, D13, D31, D26, D2

District	2.b Add 0.12 for Free-Lunch K-12		
	\$ Change Per Pupil	% \$ Change Per Pupil	\$ Change
1	\$ 5	0.1%	\$ 41,802
2	\$ (734)	-8.7%	\$ (6,206,148)
3	\$ (253)	-3.1%	\$ (2,228,637)
4	\$ 116	1.3%	\$ 1,046,055
5	\$ 54	0.6%	\$ 520,473
6	\$ 154	1.7%	\$ 1,561,026
7	\$ 214	2.2%	\$ 2,079,821
8	\$ 207	2.3%	\$ 1,887,489
9	\$ 349	3.6%	\$ 3,353,803
10	\$ 204	2.3%	\$ 1,842,860
11	\$ 192	2.2%	\$ 1,680,252
12	\$ 217	2.2%	\$ 2,089,226
13	\$ (299)	-3.7%	\$ (2,404,674)
14	\$ 73	0.8%	\$ 659,704
15	\$ (30)	-0.3%	\$ (258,240)
16	\$ 40	0.4%	\$ 387,545
17	\$ 27	0.3%	\$ 237,462
18	\$ 44	0.5%	\$ 410,354
19	\$ 201	2.2%	\$ 1,871,182
20	\$ 131	1.6%	\$ 1,081,156
21	\$ (89)	-1.1%	\$ (729,338)
22	\$ (72)	-0.9%	\$ (574,628)
23	\$ 91	0.9%	\$ 878,399
24	\$ (19)	-0.2%	\$ (163,045)
25	\$ (211)	-2.6%	\$ (1,715,810)
26	\$ (412)	-5.4%	\$ (3,122,324)
27	\$ 126	1.5%	\$ 1,057,425
28	\$ (244)	-3.1%	\$ (1,943,739)
29	\$ (38)	-0.5%	\$ (316,899)
30	\$ (122)	-1.5%	\$ (1,000,759)
31	\$ (324)	-3.9%	\$ (2,692,893)
32	\$ 73	0.8%	\$ 671,099

5. Use Citywide Average Teacher Salary for Schools

This change models the impact of “charging” schools the same amount for a teacher regardless of teacher actual salaries – which, in practice, vary across schools.

Net impact:

- This change moves no money between schools; however, it impacts purchasing power at schools – in that schools will find that their existing teachers will be more or less expensive, and therefore these schools will need to adjust their budgets accordingly.
- This shifts approximately \$175 million in budget flexibility from schools with lower average teacher salary to schools with higher teacher average salary. If new funding were instead available, the cost to do this where no school loses funding would be \$175 million plus fringe benefits.
- Generally, average salaries are higher in low poverty schools, and lower in high poverty schools. Salaries are highest in Staten Island and eastern Queens, which will see more purchasing power under this policy, and lowest in the central and south Bronx, which will see less purchasing power.

5. Use Citywide Average Teacher Salary for Schools

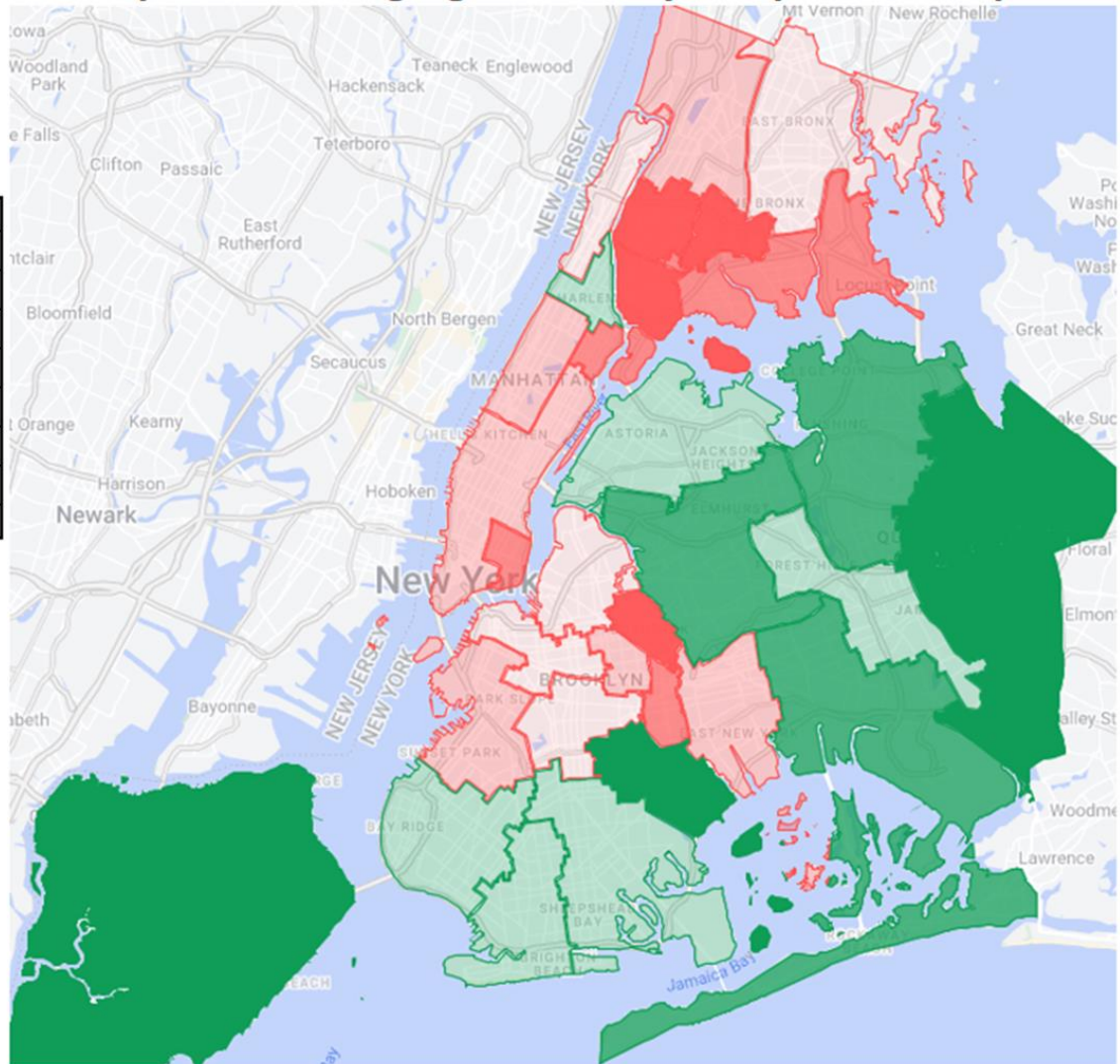
Districts w/largest <i>increase</i> per capita	D18 (+384 pp) D26 (+345 pp) D31 (+335 pp) D29 (+274 pp)
Districts w/largest <i>decreases</i> per capita	D7 (-\$440 pp) D12 (-\$431 pp) D4 (-\$405 pp) D9 (-\$368 pp)

District	4. Change ATS Policy		
	\$ Change Per Pupil	% \$ Change Per Pupil	\$ Change
1	-\$358	(4.0%)	(\$3,189,543)
2	-\$208	(2.5%)	(\$10,754,691)
3	-\$226	(2.7%)	(\$3,851,645)
4	-\$405	(4.5%)	(\$4,047,743)
5	\$80	0.8%	\$607,329
6	\$36	0.4%	\$586,529
7	-\$440	(4.5%)	(\$5,891,098)
8	-\$196	(2.1%)	(\$4,116,333)
9	-\$368	(3.8%)	(\$8,602,986)
10	-\$165	(1.8%)	(\$6,757,595)
11	(\$26)	(0.3%)	(\$752,511)
12	-\$431	(4.5%)	(\$6,822,656)
13	(\$13)	(0.2%)	(\$232,094)
14	-\$109	(1.2%)	(\$1,515,995)
15	-\$135	(1.6%)	(\$3,377,082)
16	-\$208	(2.2%)	(\$1,021,172)
17	(\$75)	(0.9%)	(\$1,253,136)
18	\$384	4.2%	\$3,549,952
19	-\$161	(1.7%)	(\$2,760,148)
20	\$54	0.7%	\$2,261,489
21	\$13	0.2%	\$410,950
22	\$134	1.7%	\$3,610,778
23	-\$175	(1.8%)	(\$1,159,700)
24	\$156	1.8%	\$7,437,998
25	\$155	1.9%	\$4,884,266
26	\$345	4.6%	\$9,419,382
27	\$151	1.8%	\$5,316,642
28	\$114	1.4%	\$3,815,208
29	\$274	3.3%	\$5,533,146
30	\$117	1.4%	\$3,846,746
31	\$335	4.0%	\$18,182,931
32	-\$360	(3.9%)	(\$3,351,168)

NYC School Districts: FY 2023 Financial Impact of Changing ATS Policy - Impact Per Capita

Schools in darker red districts would lose more funding per capita if we normalized the salary policy. Schools in dark green districts would gain more funding per capita if we normalized the salary policy.

ATS Cost Diff. PC \$ Range	Districts
(\$460) - (\$345)	7, 9, 12, 32
(\$345) - (\$230)	1, 4, 8, 23
(\$230) - (\$115)	2, 3, 10, 15, 16, 19
(\$115) - \$0	6, 11, 13, 14, 17
\$0 - \$115	5, 20, 21, 22, 28, 30
\$115 - \$230	24, 25, 27
\$230 - \$345	18, 26, 29, 31



Next steps for modeling

1. **Additional Qs/thoughts on tweaks to these proposals?**
2. **Potential next sets of analyses:**
 - Portfolio weights (if recommended by group)
 - Impact of Class Size legislation
 - What else?

APPENDIX

Grade-Level and Academic Need Weights for FY 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