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Supporting Strong Schools. Sustaining the Future.

2020 Uniform Per Student Funding Formula (UPSFF) Study

Part I: Executive Summary

June 2020

Updated September 4, 2020

DME OFFICE OF THE DEPUTY MAYOR FOR EDUCATION

GOVERNMENT OF THE DISTRICT OF COLUMBIA
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Executive Summary

This study seeks to identify opportunities to improve the District's student funding formula based on student outcomes data

The 2020 Uniform Per Student Funding Formula ("UPSFF") study, awarded in October 2019, asked questions regarding the per-student **foundation level** funding LEAs receive for every student as well as the additional funds for each **at-risk and English-language learner ("ELL") student.**

To support this scope of work, Afton analyzed **student outcomes data**, documented **state and local practices** across the country, **analyzed spending**, and facilitated an **Advisory Group of local and national education experts**.

This work has identified students that have consistently shown the greatest needs over time. Consequently, this study includes **several options to modify the UPSFF** that may more effectively target funds to these students. This study also highlights cost drivers of the UPSFF foundation level for consideration in future city funding decisions.

The suggested options to refine the UPSFF range from small adjustments to the existing formula to entirely new categories of funding. The options included herein align to the structure of the UPSFF, which **allocates funds to Local Education Agencies ("LEAs") based on student need in a transparent, simple, and flexible framework**.

Several funding options are included in this report based on the outcomes of detailed analyses, supported by local and national experts

The UPSFF allocates funds to each student in DC based on their individual needs, regardless of the school they attend.

UPSFF was designed to be a flexible, equitable formula with minimal restrictions on use that **allows LEAs to determine how to use these dollars to best support their students.** Our approach acknowledges research that LEA and school-level decision-making, rather than a particular set of resources, is central to driving outcomes.[1]

With the goal of improving outcomes, increased weights would generate additional funding for groups of students that have shown the greatest needs in DC. The funding would remain flexible but send a signal that in receiving this money **LEAs and schools are responsible for raising outcomes** for targeted groups of students.[2]

Consequently, this report recommends coupling any incremental funding with **robust measurement of student outcomes for these groups.**[3]

Communicating the desired outcomes for each group alongside the funding to LEAs will be critical in signaling to LEAs and schools that it is their responsibility to ensure progress.[4]

The report acknowledges that there is **no empirical means of determining the "right amount" to spend**[5] on any student type and total available funding is constrained. So, **funds generated by and for particular categories of students can and should be combined with other funds** to best serve those students.

Sources

1. Bloom, Nicholas, Renata Lemos, Raffaella Sadun, and John Van Reenen. Does Management Matter in Schools? NBER Working Paper No. 20667. Cambridge, MA: National Bureau of Economic Research, 2014.
2. Derby, Elena, and Marguerite Roza. California's Weighted Student Formula: Does It Help Money Matter More? Rapid Response Series. Seattle, WA: Edunomics Lab at Georgetown University, 2017.
3. Roza, Marguerite. Funding Student Types: How States Can Mine Their Own Data To Guide Finance Policy on High-Needs Students. Seattle, WA: Edunomics Lab at Georgetown University, 2017
4. Roza, Marguerite. Funding for Students' Sake: How to Stop Financing Tomorrow's Schools Based on Yesterday's Priorities. Seattle, WA. Edunomics Lab at Georgetown University, 2019.
5. Roza, Marguerite. Funding Student Types: How States Can Mine Their Own Data To Guide Finance Policy on High-Needs Students. Seattle, WA: Edunomics Lab at Georgetown University, 2017.

Any change to the UPSFF should ensure flexibility and be coupled with robust accountability processes and data to measure outcomes

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This study has identified multiple options to update ELL and at-risk student weights, while also considering cost drivers for the foundation level

At-risk student need: This report details multiple options for better targeting segments of the District's at-risk student population that are particularly low-performing, including students designated as **high school over-age and/or those placed in foster care by the Child and Family Services Agency ("CFSA")**, as well as those experiencing **multiple at-risk factors**.

At-risk concentration funding: Though research on "concentration funding" or a "non-linear" exponential increase in per pupil funding based on the concentration of at-risk students at schools is inconclusive, this report presents several options for DME consideration

ELL formula: National experts and local practitioners, as well as analysis of student-level PARCC testing data, favor consideration of multiple options to "tier" funding (or allocate differentiated amounts) by **grade level** and for **students with limited or interrupted formal education** ("SLIFE").

Foundation: DCPS and sample public charter schools studied spent $22.4K per pupil in FY19, an increase of 4.1% on average from FY16 to FY19. The increases were driven primarily by personnel costs, representing 75% of total spending, and more specifically employees represented by a collective bargaining agreement ("CBA"), which reflect 91% of all DCPS employees.

Each option included in this report has been evaluated for implementation considerations, funding goals and quantified using a long-term UPSFF forecast model

To arrive at options for consideration, this study evaluated student-level outcomes data, performed national research on best practices, and consulted with local and national experts

1. **Analysis of student outcomes data**: Afton performed detailed school and student-level analysis on PARCC math and ELA outcomes data as well as WIDA data from FY15 to FY19. The results of these analyses helped guide options considered by the Advisory Group and are documented herein.
2. **National benchmarking and expertise:** Afton and a team of national experts reviewed state and local methodologies for funding student needs and identified unique or emerging practices for future consideration.
3. **Consultation of local experts and practitioners**: An Advisory Group of local experts was formed to advise upon and stress test potential options for the UPSFF. Seven Advisory Group meetings were held from November 2019 through January 2020.
4. **Interviews with sample LEAs and schools**: Afton performed structured interviews with high-performing schools and LEAs to understand effective pedagogical strategies for students with the greatest needs.
5. **Review of detailed financial data**: Afton analyzed historical spending data for a sample of Public Charter Schools and DCPS to identify cost drivers for the foundation analysis.
6. **Utilization of a UPSFF forecasting tool:** Afton developed a five-year forecast model to understand the potential cost and LEA-level impact of each option.

All UPSFF options considered are also evaluated through the lens of student-based funding goals, including transparency, simplicity and impacting the students who need the most support

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At-risk student need findings and options

This study identifies multiple options to support segments of at-risk students whose performance gaps have increased compared to their at-risk and not at-risk peers from FY15 to FY19

1. Like most states, the District funds all at-risk students **at the same level**, though some students have demonstrated greater needs than others. However, unlike most states, the District has **five components to the at-risk weight** – Temporary Assistance for Needy Families (TANF), Supplemental Nutrition Assistance Program (SNAP), homeless, CFSA and high school over-age students. For the purposes of this study, students designated as receiving either TANF or SNAP assistance are classified as "Direct Certification" students.

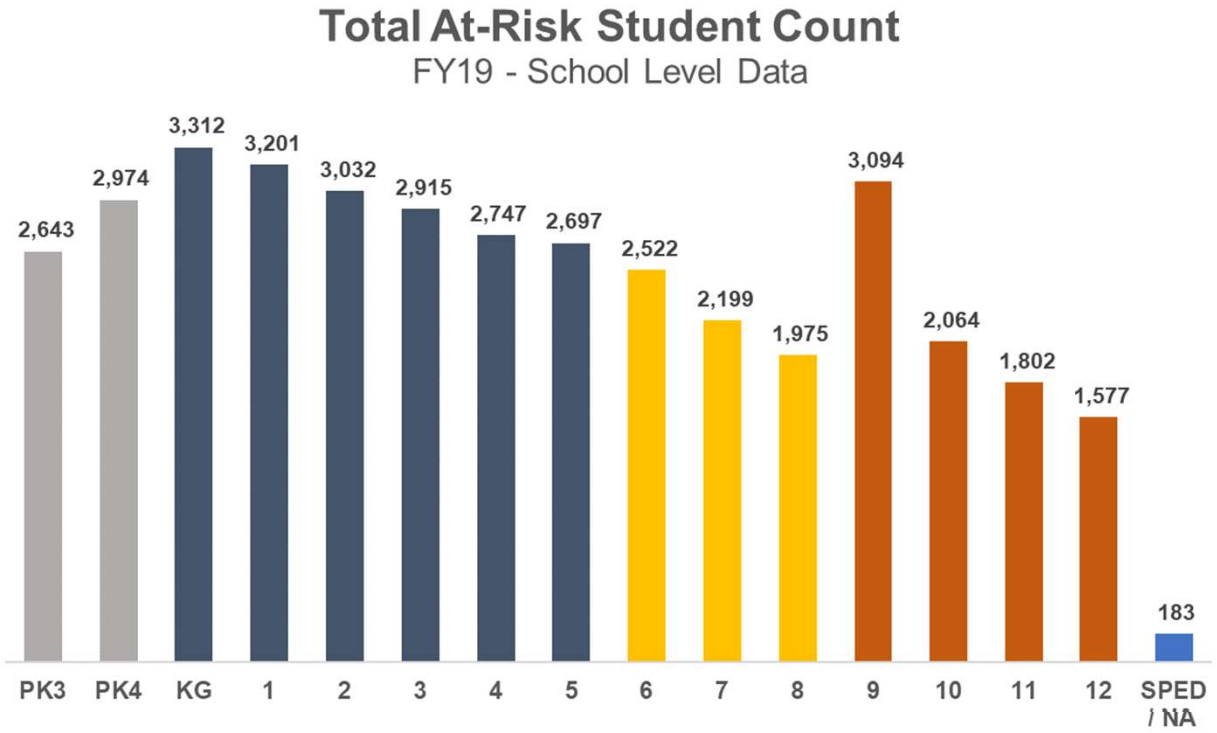
2. Student outcomes data, as well as LEA interviews and advisory group feedback, highlights additional needs for high school **over-age students** (and possibly **CFSA**), as well as **students with 2 or 3 at-risk factors**. These groups lag both at-risk and not-at-risk peers.

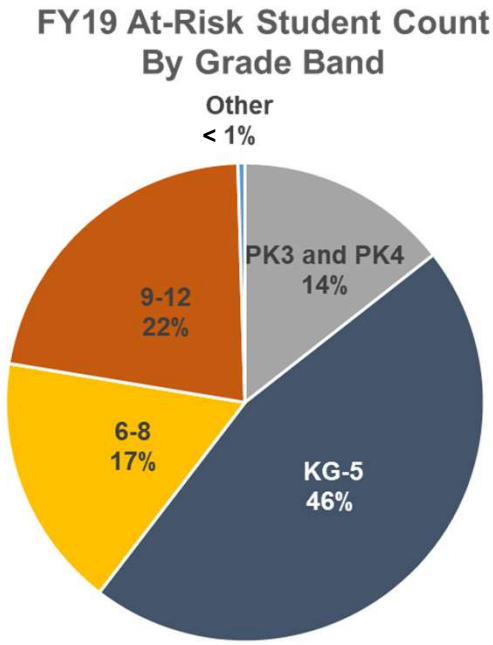
3. Schools in the District with higher performing at-risk student populations have invested in **technology and data, extended day, extended year, after school activities** and **social-emotional supports** to support at-risk students.

4. Additionally, a small number of urban school Districts are beginning to adopt more nuanced strategies to support at-risk students, including the **equity index** used in Chicago and **opportunity index** used in Boston. Though these funding mechanisms offer a potentially more personalized approach to at-risk funding, they may be better suited for implementation on the LEA-level.

Note: High performing schools as identified by Empower K-12, which publishes an annual list of schools that "beat the odds" given their mix of student needs and demographics.

In FY19, nearly 39,000 of DC students (over 45% of all students) were designated as "at-risk", with the largest numbers in KG, 1st and 9th grades

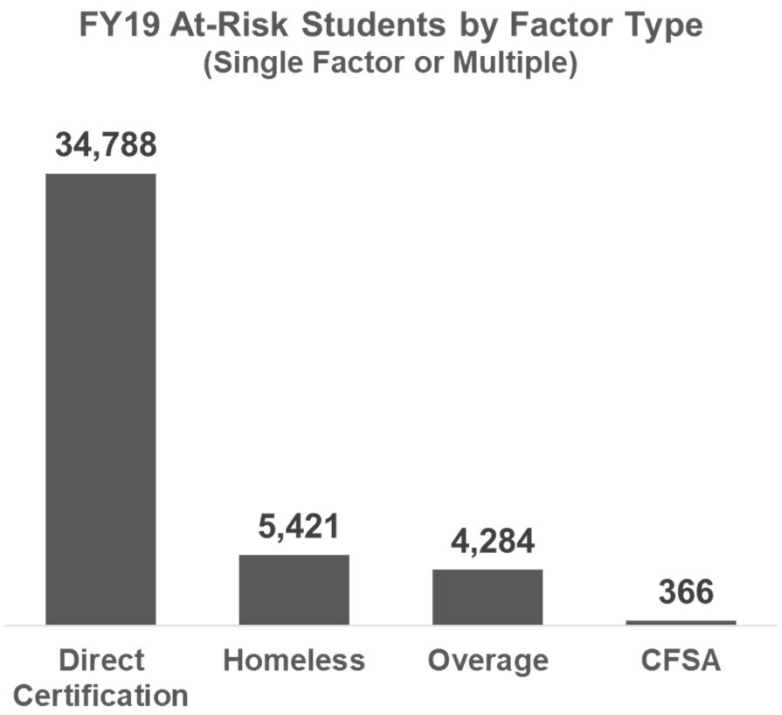


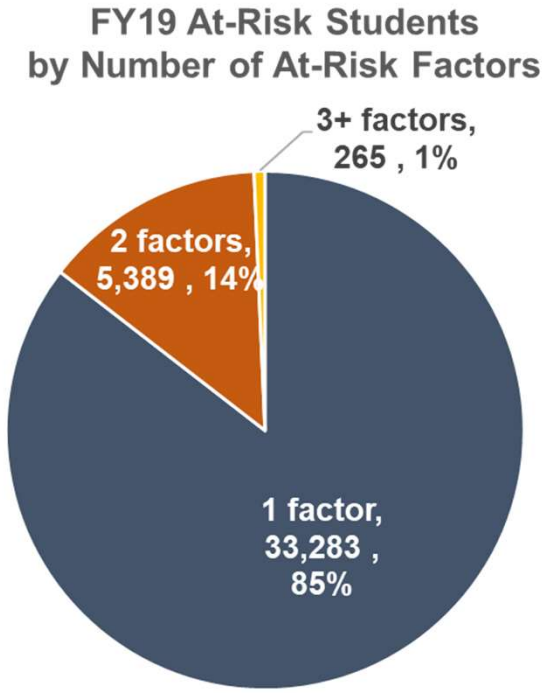


58% of 9th grade students are designated as at-risk, compared to an average 44% of students in grades PK - 8. High School grades have a higher percentage of at-risk students, driven largely by the additional at-risk factor of over-age, which applies only to students in grades 9-12. 1/3 of all 9th graders are designated as over-age.

Actual (not budgeted) UPSFF enrollment – excludes Adult and Alternative Students

Most students were designated as "at-risk" in FY19 due to their family's eligibly for SNAP or TANF federal programs





Historically, each at-risk student has been funded the same.

In FY19, with an incremental $2,387 per pupil - UPSFF weight of 0.224

Notes

- **Actual (not budgeted) UPSFF enrollment** – excludes Adult and Alternative Students
- Bar chart categories are **not mutually exclusive and include students with multiple factors**. Students with multiple factors are counted in each relevant factor category.

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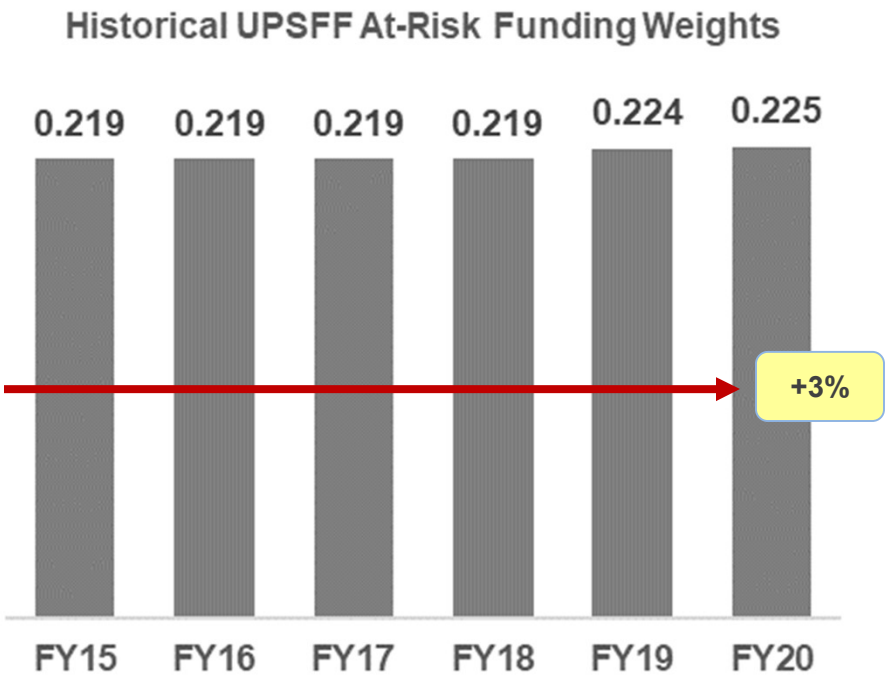
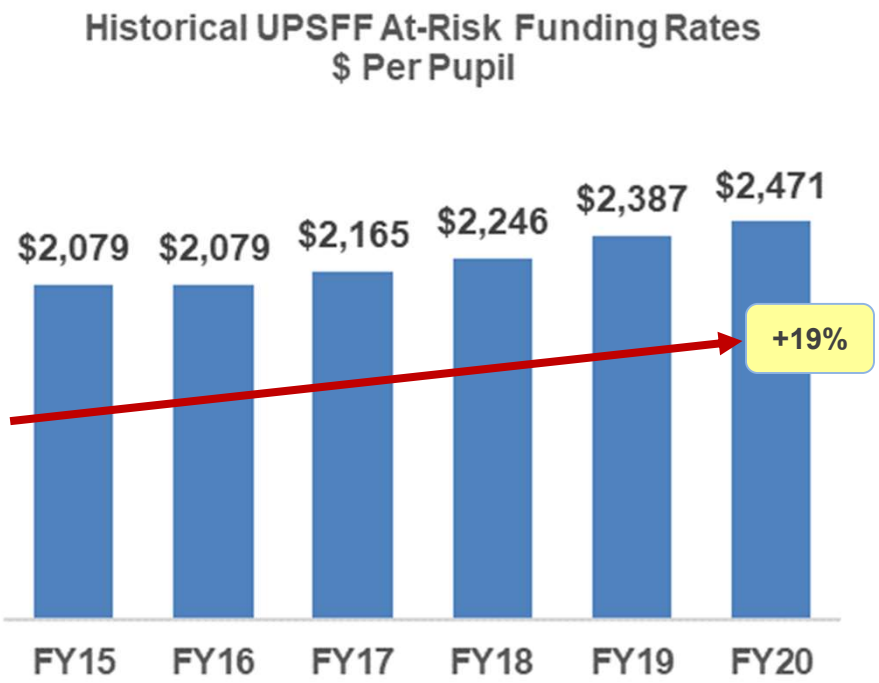
Over the last six years, per pupil funding for at-risk students has increased 19%, primarily due to increases in the foundation level of the UPSFF





Note: FY17 FY18 funding amounts reflect the retroactive increases stemming from the 2017 Washington Teachers' Union (WTU) contract agreement.

This study includes several options to provide additional supports to sub-sets of at-risk students that have shown a higher relative need based on student outcomes

Question from RFA

Should the UPSFF include a funding weight based on higher relative need for certain characteristics?

Key Decisions and Options to Modify UPSFF

Decision 1: Should the UPSFF weight for at-risk students be updated?

Decision 2: If yes, which students should be targeted and what options for changing the formula exist?

A. Increase funding for over-age, CFSA or both
B. Fund intervention prior to high school to mitigate risk of over-age designation
C. Increase funding for students with 2+ at-risk characteristics
D. Increase funding for students with 3+ at-risk characteristics
E. Increase high school *base* amount (all HS students, not just at-risk)
F. Increase to high school *at-risk* amount (only HS at-risk students)

Decision 3: Should the change be funded with *redistributed* or *incremental* funding?

A. Redistributed funding: new UPSFF student need categories with higher relative funding weights, paid for by decreasing weights on the "all other" at-risk student category, or through changes to the foundation amount
B. Incremental funding: new UPSFF student need categories with higher relative funding weights, paid for with incremental/new funds available over time

Risks, opportunities and implementation considerations, as well as quantified impact for each of these options is included in the 'At-Risk Student Needs' section of this report

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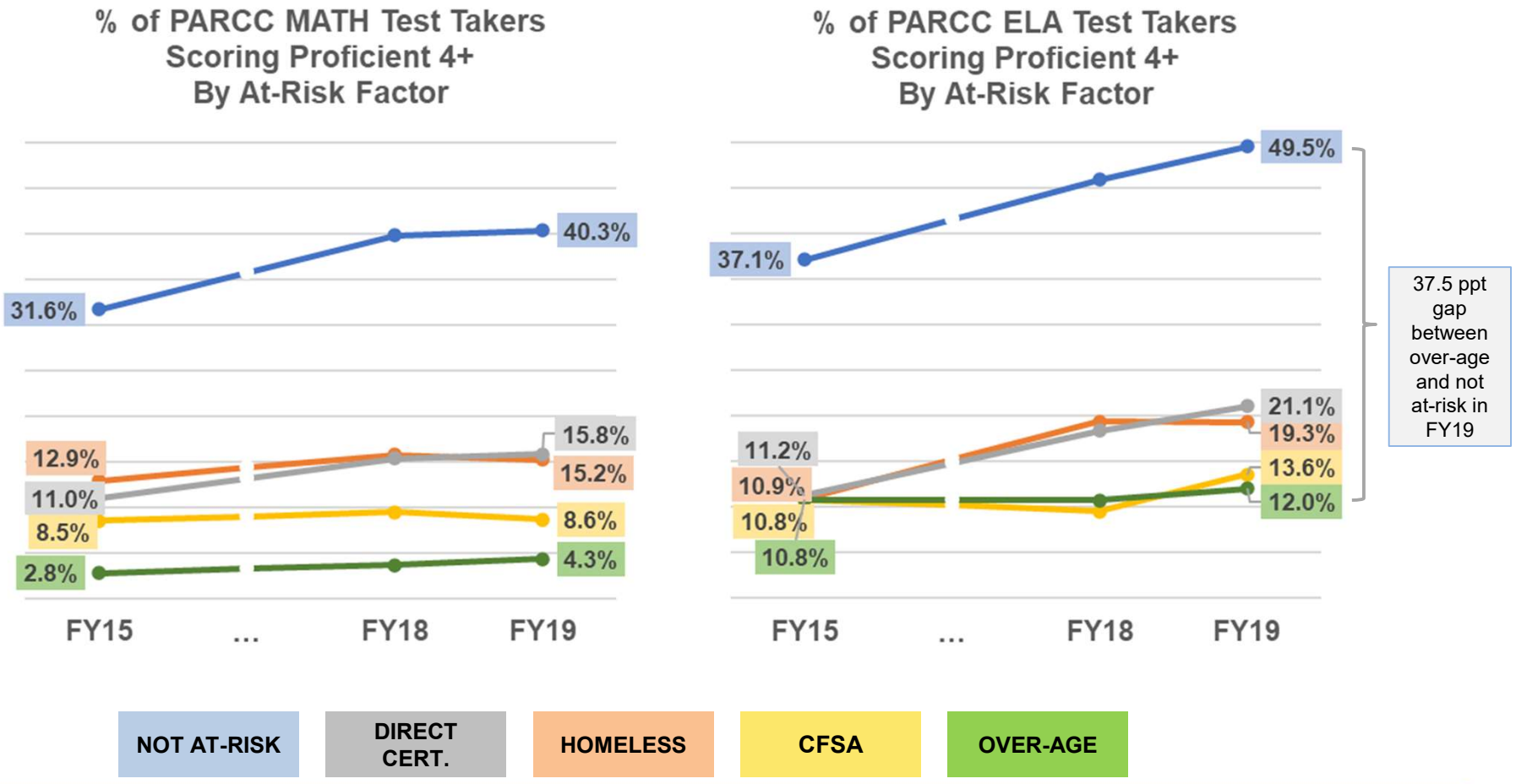
At-risk student data – Though the proficiency gap has increased for all at-risk students, over-age and CFSA students have had the most significant performance gaps compared to other students.



Looking at all grade levels, over-age students underperform other at-risk peers. This group only applies to High School students, however.

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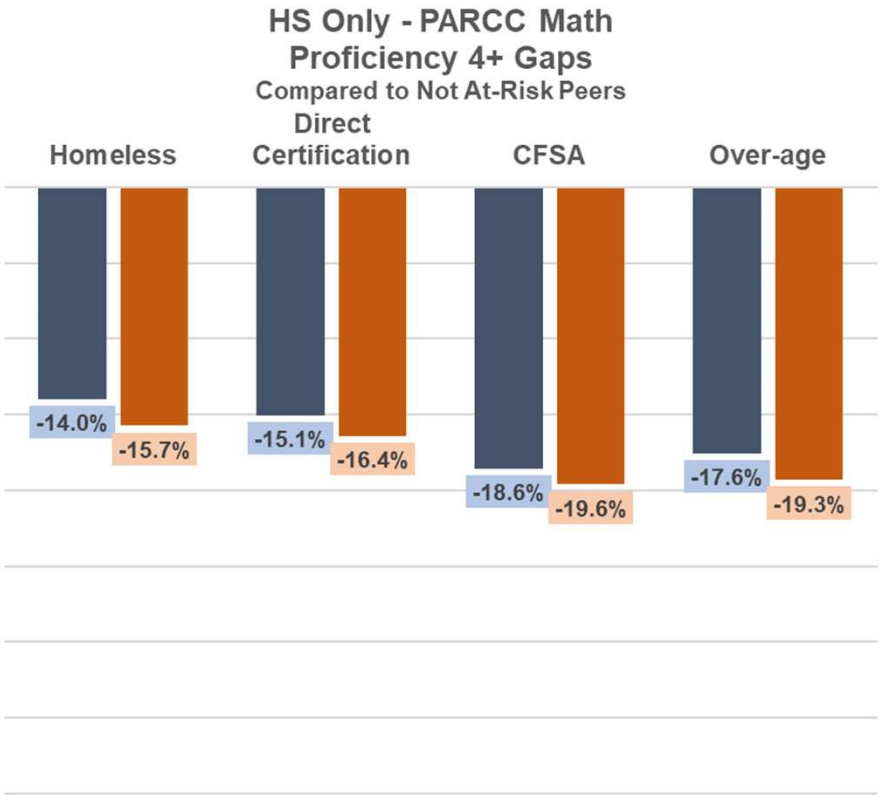
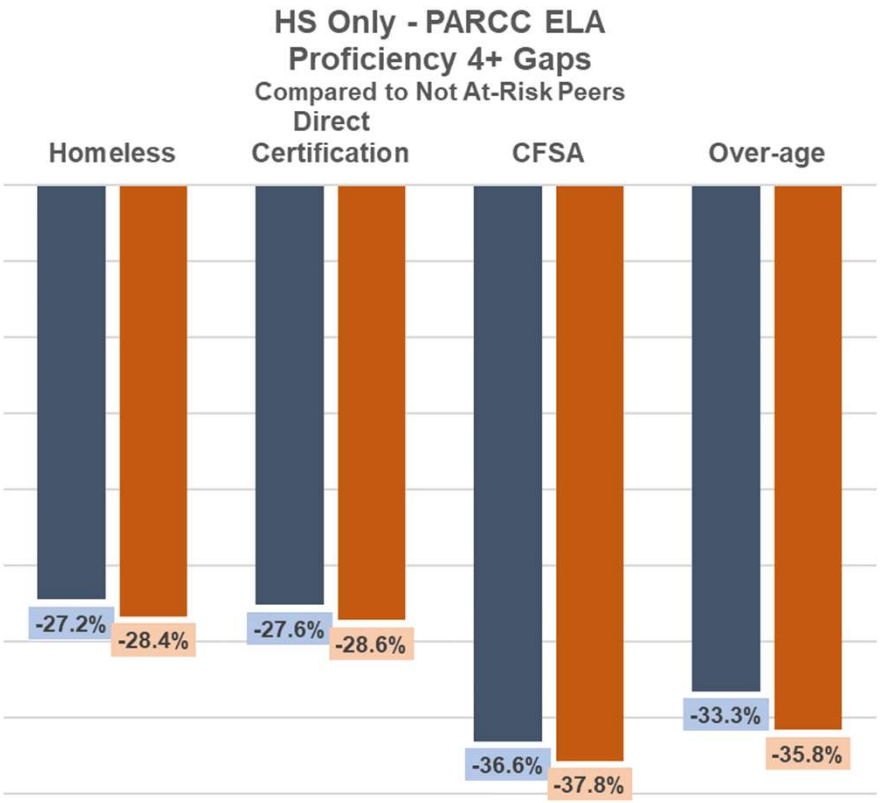
At-risk student data – Looking at High School students only, over-age students underperform other at-risk student groups. CFSA students, with significantly fewer students and test takers than other at-risk student groups, also underperform.





3 Year Performance (FY15, FY18, FY19)

2 Year Performance (FY18 & FY19)

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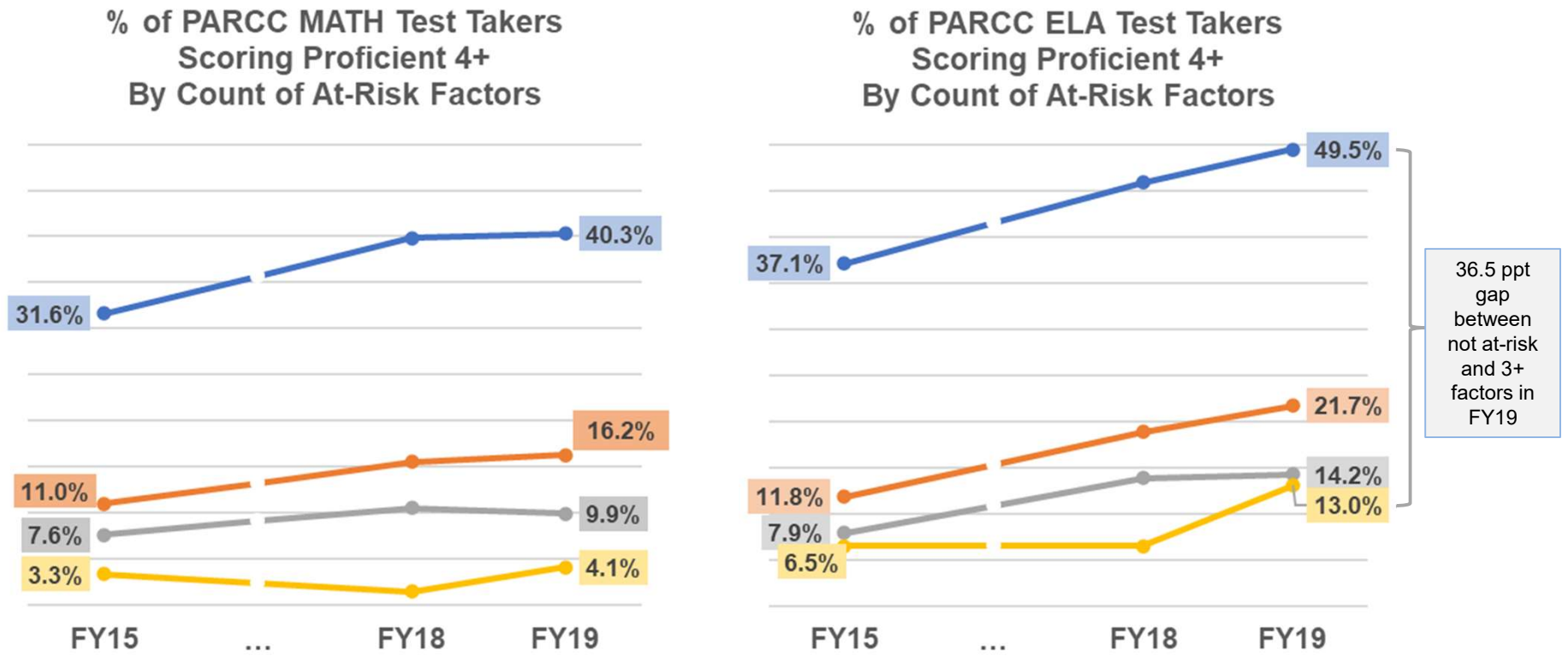
At-risk student data – Additionally, students with more at-risk factors tend to have larger proficiency gaps compared to students with fewer or no at-risk factors

By Count of At-Risk Factors - All Grades



	0 FACTORS	1 FACTOR	2 FACTORS	3+ FACTORS
FY19 Test Score Count (Math)	*22,337*	*15,809*	*1,952*	*73*
FY19 UPSFF Enrollment	*47,362*	*33,283*	*5,389*	*265*

- FY19 reported n<10 students with 4 Factors, none of which record a test score;
- Enrollment reflects Actual (not budgeted) UPSFF enrollment and excludes Adult and Alternative students

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At-risk concentration findings and options

National research on the impact of concentration funding is inconclusive, and support for this school-level weight is mixed

1. Student outcomes in the District are **closely aligned to concentration levels of schools**, meriting the consideration of an additional weight for high-concentration schools
2. However, national research and recent studies have been **inconclusive on the impact of concentration funding** on student outcomes
3. Implementation of concentration funding would require adding a **school-level weight to the at-risk component of the UPSFF.** Other school-level weights in the UPSFF, such as for SPED and residential programs, are program- (and site-) specific and do not change materially year over year. A school-level concentration weight could change each year based on student demographics and needs.
4. The Advisory Group generally expressed concern about adding another **school-level weight** to the funding formula. However, some members supported a **sliding scale methodology** if concentration were considered.

Based on national research and benchmarking, multiple options exist for the DME to implement concentration funding

Question from RFA

Should the UPSFF include a funding weight for school-level at-risk concentration (i.e. funding students in schools with a higher at-risk concentration more than students in schools with a lower concentration)?

Key Decisions and Options to Modify UPSFF

Decision 1: Should the UPSFF add additional funding for high-at-risk concentration schools?

Decision 2: If yes, which *schools* should be targeted and what options for changing the formula exist?

A. Qualification level for at-risk funding – establish a minimum at-risk threshold for at-risk funding, allocate all at-risk funding to schools above the minimum threshold.

B. Tiered funding – incremental funding for schools above a certain threshold

C. Emulate the Community eligibility provision for school food – as defined in the RFA, this would treat schools above a certain threshold as having 100% at-risk students

D. Sliding scale – additional per pupil funding as concentration level increases

Decision 3: Should the change be funded with *redistributed* or *incremental* funding?

A. Redistributed funding: reallocate existing funding levels based on concentration levels of schools, through changes to at-risk funding pool or foundation level

B. Incremental funding: support concentration funding based on availability of new funds

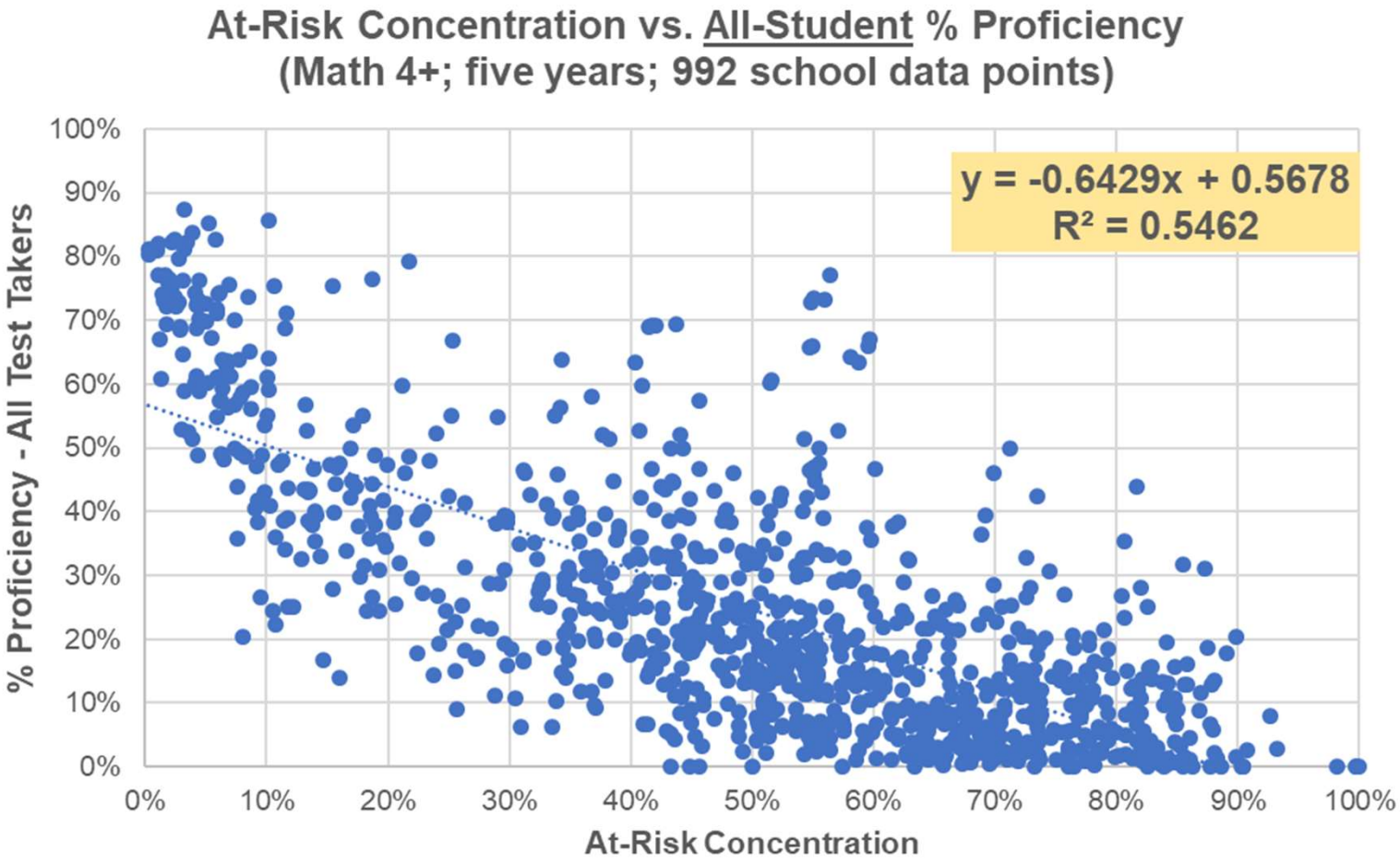
Risks, opportunities and implementation considerations, as well as quantified impact for each of these options is included in the 'At-Risk Concentration' section of this report

State definitions of high concentrations of at-risk students varies significantly, as do funding mechanisms

Sixteen states have implemented concentration funding with an **array of funding structures and eligibility levels**

- Eligibility for concentration funding ranges **from 5% (in Nebraska) to over 80% (North Carolina)**
- Funding mechanisms include:
  - **Tiered funding** (*Arkansas, California*) based on concentration levels (i.e. all schools above a certain threshold receive additional per pupil funding)
  - **A "sliding scale" methodology** (*Ohio, Minnesota*), where schools receive additional per pupil funding as concentration increases. Utilizing this methodology would result in students in each school receiving a different funding amount based on the concentration level at their school.
  - **Mixed tiered funding and sliding scale** (*Massachusetts*) – per pupil funding based on poverty "decile" of the district (12 deciles implementing for FY21). Utilizing this methodology would result in students in schools with similar concentration levels receiving the same funding amount per pupil. In Massachusetts, multiple schools are in each "tier" and receive funding levels based on a range of concentration, rather than each school receiving a different per pupil amount (such as a full sliding scale)

Math PARCC test results for all students are correlated to school-level at-risk concentration…



School-level all-student proficiency rates are generally higher at schools with a smaller concentration of at-risk students and are generally lower at schools with a higher concentration of at-risk students.

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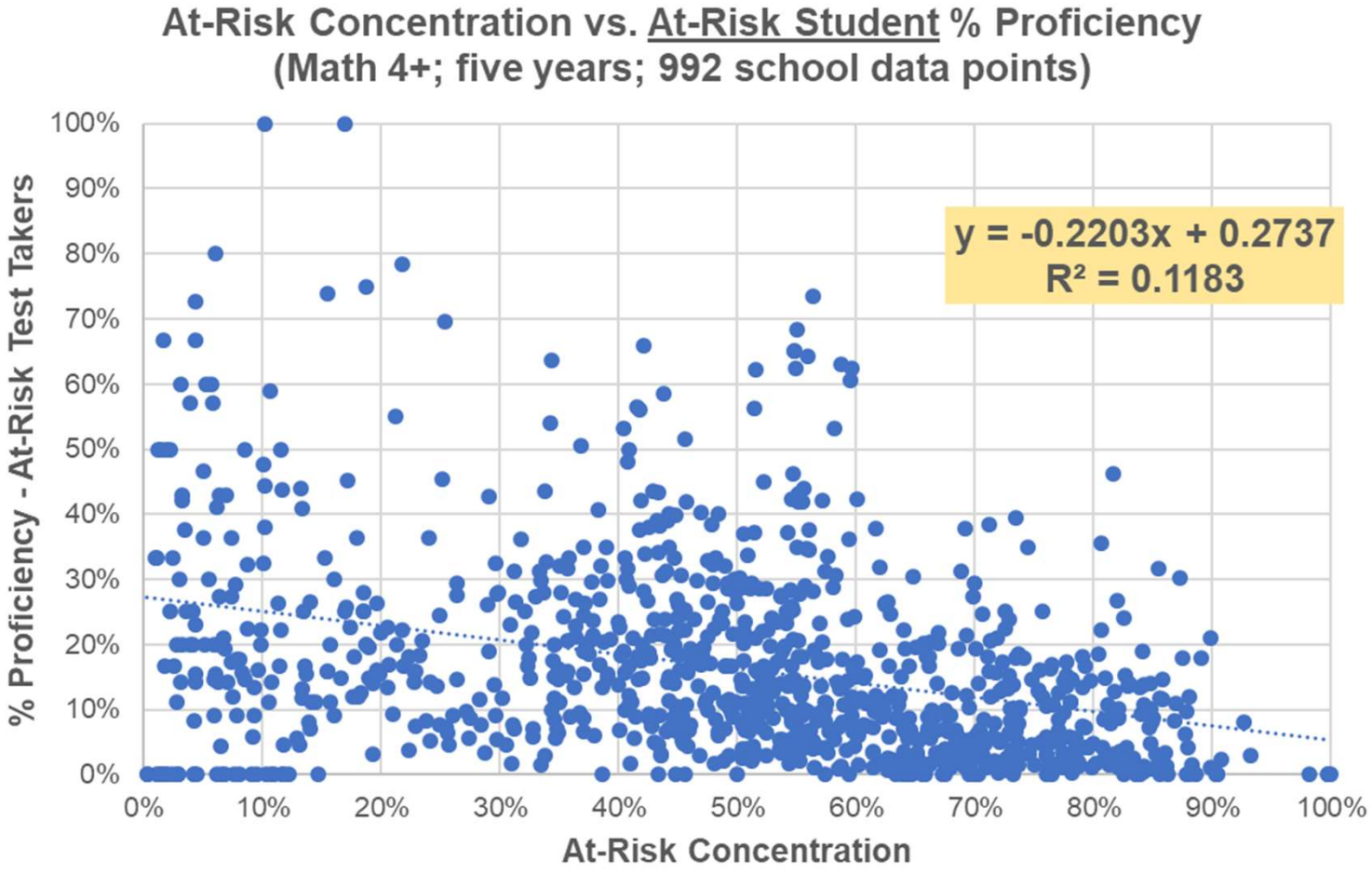
…and Math PARCC test results for at-risk students only are also correlated to school-level at-risk concentration, though the correlation is not as strong



Though at-risk student performance tends to decline as concentration increases, the correlation is stronger when measuring total-student performance.

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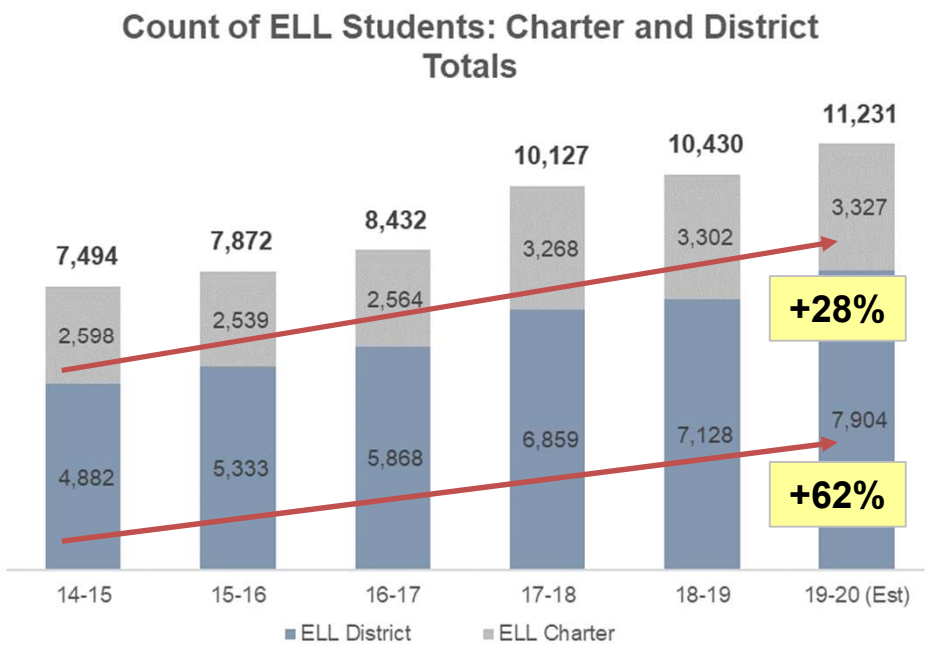
ELL formula findings and options

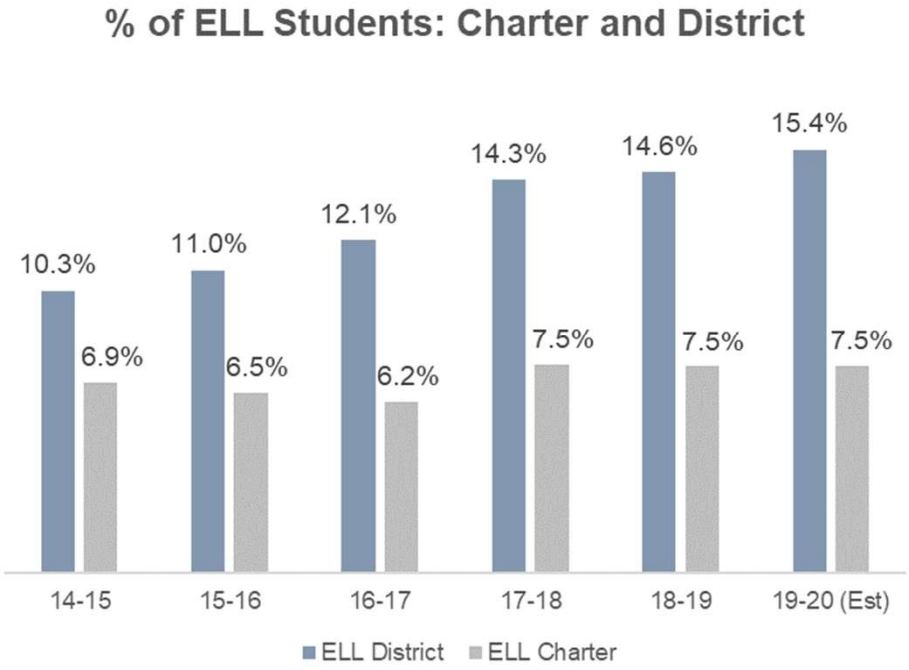
This study identifies multiple options to "tier" funding for ELL students, including at the grade level, by proficiency level and new to the country status

1. Similar to most states, the District funds all English Language Learner ("ELL") students **at the same level**, regardless of demonstrated student need. However, several large, urban school districts and two states **fund ELL students based on grade band and proficiency level**.
2. The **number of ELL students in the District has increased by 50% from FY15 to FY20**, while funding in total dollars has increased by over 70% in that time. The achievement gap has also improved during that time, particularly for **elementary school students in math**.
3. This study has identified multiple options to tier funding of students based on **grade band,** while local and national practitioners also support incremental funding for **students with limited or interrupted formal education ("SLIFE").** Additionally, student outcomes data reflect additional needs for students with **low proficiency scores**, though implementing a proficiency-based weight is more common for LEAs than States.
4. Implementation will require developing **common definitions for student need**, consistent **data collection** methodologies from all LEAs, as well as **coordination with OSSE** on any forthcoming changes to ELL exit requirements due to changes in the rigor of the World Class Instructional Design and Assessment exam ("WIDA"*).

*Note: The World-Class Instructional Design and Assessment ("WIDA") ACCESS test is an assessment tool for ELL students utilized by over 30 states, including the District of Columbia

Students designated as ELL have increased by 50% from FY15 to FY20. This growth has impacted DCPS most significantly, with ELL students representing 15% of the total student population in FY20.





Note:
1) All data pulled from Enrollment Audit Reports at: https://osse.dc.gov/page/data-and-reports-0
2) FY15 excludes 14 ELL students at OSSE Managed Washington Hospitality Foundation

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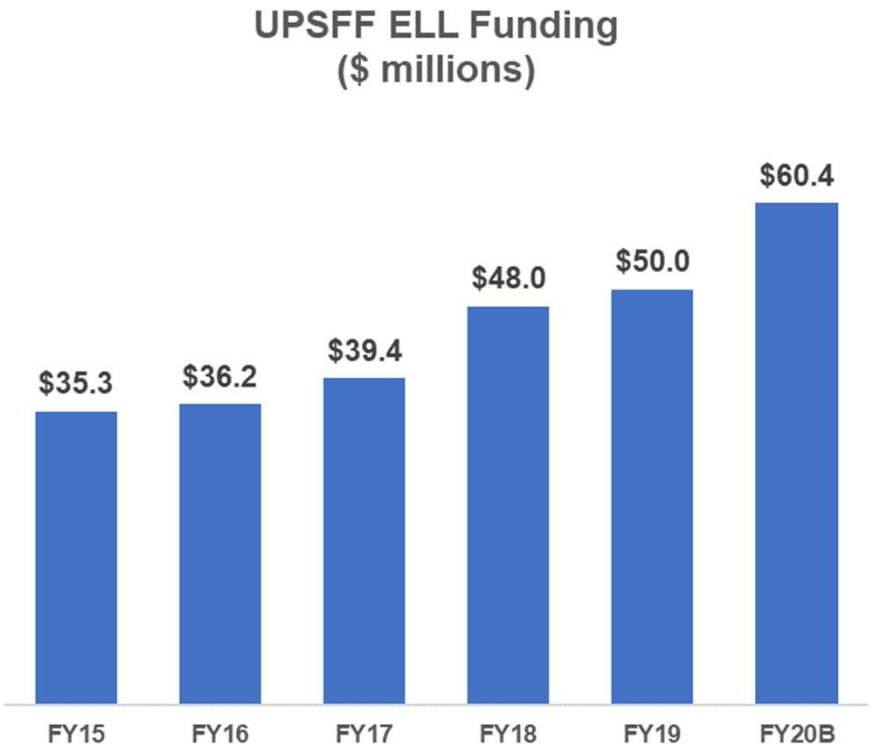
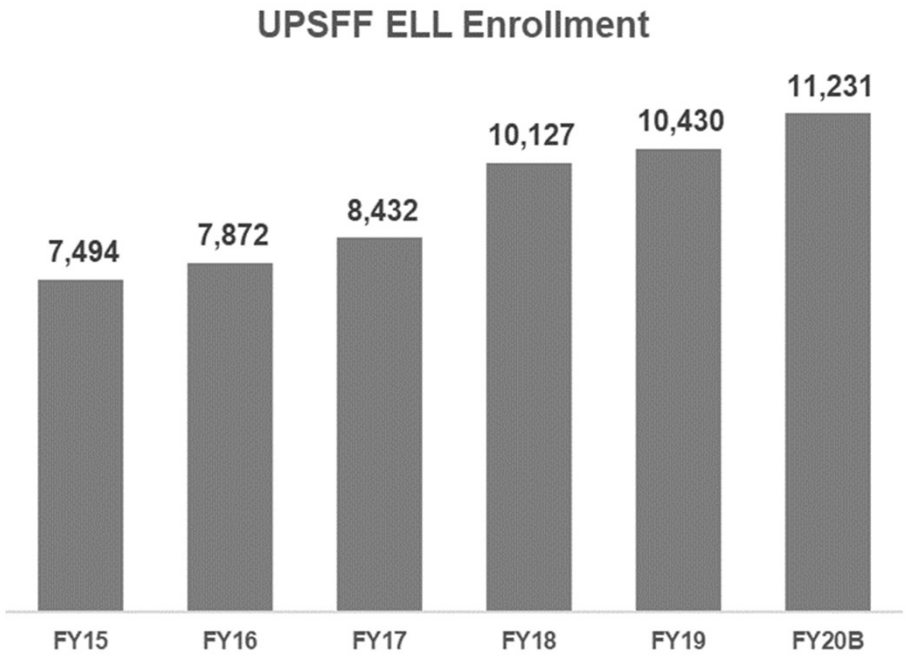
Annual total UPSFF funding for ELL has increased 71% from FY15 actual to FY20 projected; at the same time total ELL students have increased 50%





Notes
- Funding is not adjusted for inflation.
- Funding data uses actual charter funding from OSSE and DCPS budgeted funding from budget books – FY17 and FY18 reflect rate adjustments (per Foundation Level letter) due to retroactive WTU increases.
- Enrollment data pulled from Enrollment Audit Reports at: https://osse.dc.gov/page/data-and-reports-0

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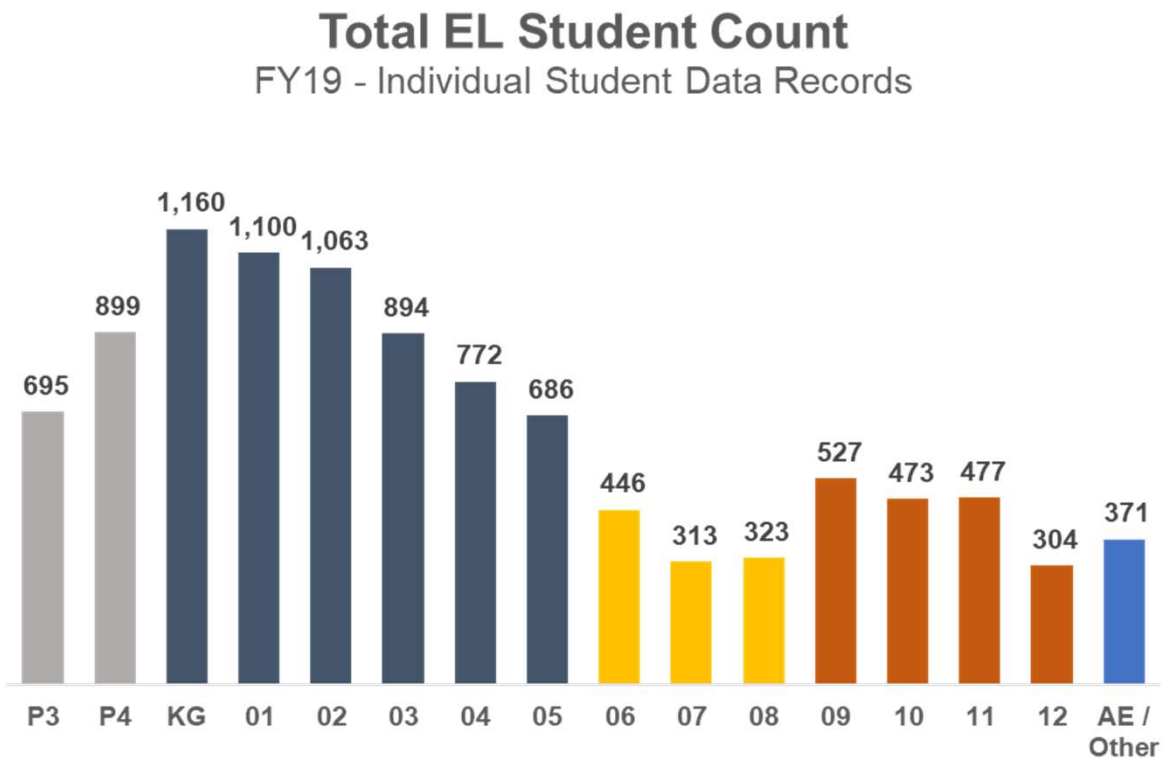
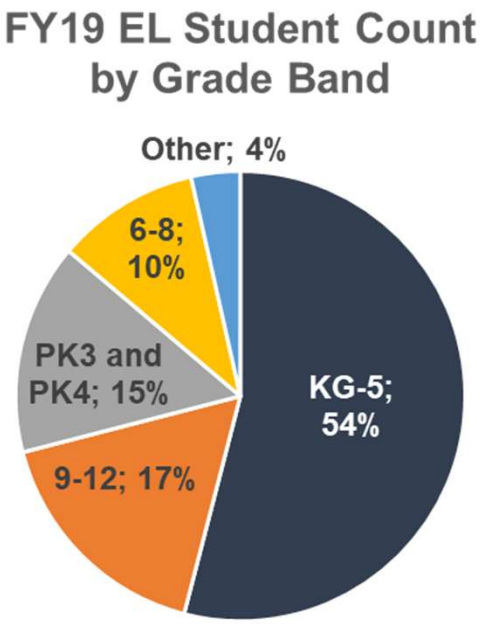
More than half of ELL students are in grades PK to 3, though the number of students significantly increases in 9th grade





- Source data – ELL student-level data from DME & OSSE
- Data Filters: FY19 students flagged as "Yes" for English Learner Status and "Yes" for Enrollment Audit Population.

This study has identified and quantified several options to "tier" funding for ELL students

Question from RFA

Should the English Language Learner weight be tiered, reflecting differing costs by service needs, and along what line of differentiation?

Key Decisions and Options to Modify UPSFF

Decision 1: Should the UPSFF weight for ELL students be updated?

Decision 2: If yes, which students should be targeted and what options for changing the formula exist?

A. Grade Level 1 - Tiered funding for ES, MS, HS students
B. Grade Level 2 - Tiered funding for PK-8, HS students
C. Grade Level 3 - Tiered funding for PK-5, 6-12 students
D. Proficiency – targeted funding for lowest WIDA test scores
E. Combination of grade levels and proficiency
F. Additional funding for students designated as "new to country"
G. Additional funding for students identified as SLIFE

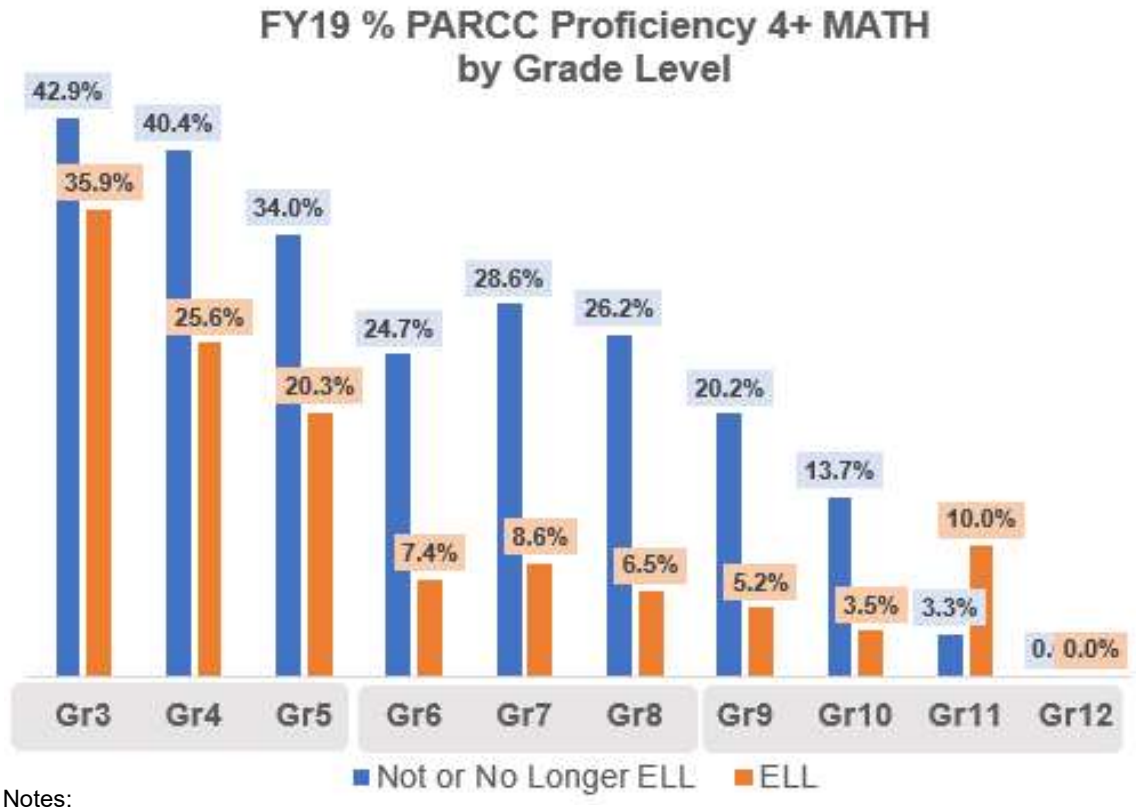
Decision 3: Should the change be funded with *redistributed* or *incremental* funding

A. Redistributed funding: new UPSFF ELL categories with higher relative funding weights, paid for by decreasing weights on currently existing ELL student categories, or through changes to the foundation amount
B. Incremental funding: new UPSFF student need categories with higher relative funding weights, paid for with incremental/new funds available over time

Risks, opportunities and implementation considerations, as well as quantified impact for each of these options is included in the 'ELL Weight Structure' section of this report

Student outcomes data reflect that ELL student math proficiency levels drop in middle grades and persist through high school

MATH
FY19 ONLY



FY19 ONLY - MATH			
	Proficient 4+		
Grade Level	Not or No Longer ELL	ELL	Deviation from Not ELL
Gr3	42.9%	35.9%	-7.0%
Gr4	40.4%	25.6%	-14.8%
Gr5	34.0%	20.3%	-13.7%
Gr6	24.7%	7.4%	-17.3%
Gr7	28.6%	8.6%	-19.9%
Gr8	26.2%	6.5%	-19.7%
Gr9	20.2%	5.2%	-14.9%
Gr10	13.7%	3.5%	-10.2%
Gr11	3.3%	10.0%	6.7%
Gr12	0.0%	0.0%	0.0%

Notes:

- ELL students counted: FY15 – FY19 students flagged as "Yes" for English Learner Status and "Yes" for Enrollment Audit Population.
- Including Valid PARCC scores only
- PARCC scores used for valid scores reported from students in UPSFF grade levels 3-12 only
- There are significantly fewer test takers (and data points) for grades 11 and 12

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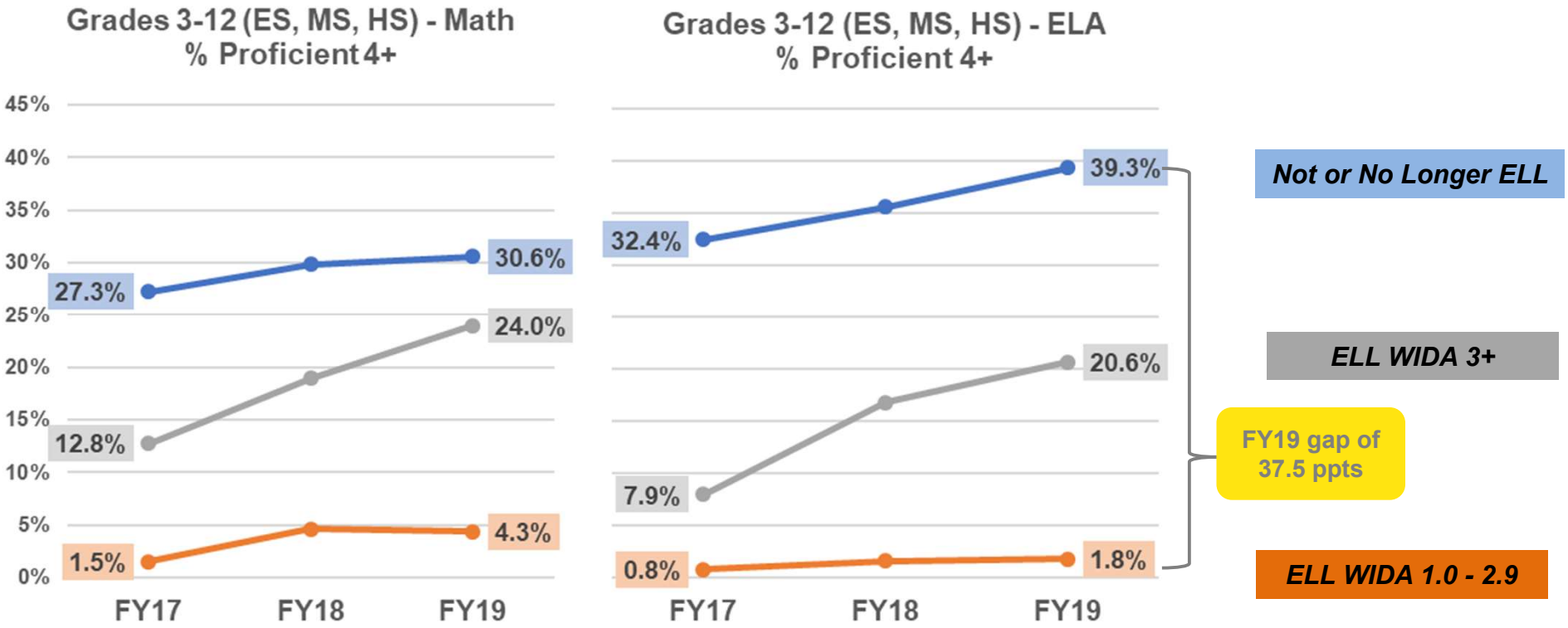
Gains on ELL student PARCC math scores over the last three years has been driven by students that have scored 3 or higher on the WIDA exam (students exit ELL at 5 or above)



Notes:

- ELL students counted: FY15 – FY19 students flagged as "Yes" for English Learner Status and "Yes" for Enrollment Audit Population.
- Including Valid PARCC scores only; excludes ELL students with NO WIDA scores reported.
- PARCC scores used for valid scores reported from students in UPSFF grade levels 3-12 only

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Foundation Analysis

What are the actual cost drivers experienced by LEAs operating in the District of Columbia?

1. **Total spending**. In FY19, all LEAs included in this study spent $22.4K per pupil.
   - DCPS spent on average $21.1K per pupil, while the sample PCS LEAs spent $23.9K per pupil, or a difference of $2.8K in FY19. This differential is primarily due to charter spending on facility financing costs which DCPS does not incur.
   - Charter schools received an additional allotment of approximately $3.1K per pupil to offset this cost

2. **Growth in spending**. Per pupil spending has increased from $19.9K to $22.4K from FY16 to FY19, or a compounded annual growth rate ("CAGR") of 4.1% per year.
   - Per pupil spend at DCPS and sample charter networks increased at a compound annual growth rate (CAGR) of 4.6% and 3.4% per year, respectively, from FY16 to FY19
   - These increases in spending were primarily driven by increased personnel costs
   - 91% of DCPS employees are a part of a collective bargaining agreement, with nearly 60% of FTEs represented by the Washington Teachers Union (WTU)

What are the actual cost drivers experienced by LEAs operating in the District of Columbia?

3. **Personnel vs. Non-Personnel spending.** When looking at all LEAs included in the study, and excluding facility rent, debt service and depreciation primarily impacting PCS spending, the LEAs included in this study spent 75% on personnel and 25% on non-personnel.
   - In FY19, DCPS spent nearly 80% on personnel, while PCS spent approximately 70% over the same time period
   - About half of personnel spend has been on Classroom Teacher FTE for both DCPS and PCS
   - The PCS included in this study were more likely to contract out some services that DCPS performed with in-house staff (including some special education services)

4. **Average teacher salary**. For the LEAs included in this study, the average teacher salary grew from $70.0K to $80.2K from FY16 to FY19, or a compound annual growth rate of 4.7%.
   - DCPS spends approximately 20% more on average teacher salaries than the sample charter networks (base salary only)
   - Both PCS and DCPS experienced a large increase in average teacher salaries in FY19, with an increase of 11.7% and 11.5%, respectively
   - The outcomes of teacher contract negotiations at DCPS, which included a “retroactive” compensation component, materially impact increased personnel costs

How do cost drivers differ for various school models (i.e. dual-language schools, schools with CTE programs, and dual-enrollment schools)?

To answer this question, Afton analyzed and compared spending, student need, student outcomes, enrollment and capacity utilization at **whole school programs at DCPS** compared to schools with no programs.

DCPS allocated incremental FTEs for four program types: **Career and Technical Education ("CTE"), International Baccalaureate ("IB"), Global Studies and Schoolwide Enrichment Model ("SEM")**. The remaining differences in per pupil spending at DCPS is primarily driven by enrollment and student need.

In comparing school-level per-pupil spend, factors such as school size, student need, and facility utilization rates have a direct impact on reported per pupil spend. Regardless of program offered, **smaller schools, schools serving a higher needs population, and schools with a lower facility utilization rates tend to spend more, on a per pupil basis.**

Generally, with a few exceptions, school programs with **lower per pupil spend serve a lower proportion of at-risk students and perform better on PARCC tests.**

How should the UPSFF take these costs into account (i.e. changes to the foundation level, changes to weights, or both)?

1. In order to address cost pressures experienced by LEAs, the city can either address the **primary cost drivers** which put upward pressure on the UPSFF, address **how the rate is increased** in response to those cost pressures, or **some combination of the two**.

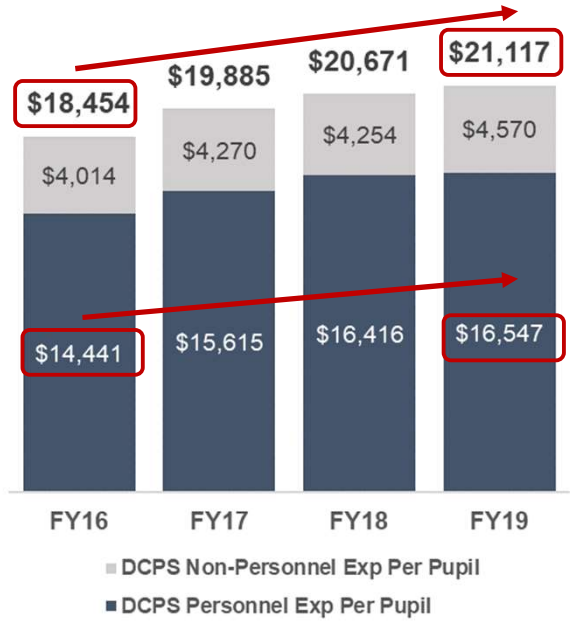
2. As highlighted in this report, LEA costs have been impacted by increasing **personnel costs**, lower **utilization of facilities**, and the cost of **financing and maintaining facilities**. As a result, the city might consider:
    a. Understanding the **impact of collective bargaining agreements** ("CBAs") on UPSFF increases
    b. Understanding the relative impact for LEAS of providing some services **in-house vs. outsourcing**, and how and why LEAs choose their mix of in-house service provision and outsourcing.
    c. Supporting higher performing school programs, or other initiatives to **address small or under-utilized schools and facilities**
    d. Supporting efforts to **minimize the cost of capital**, primarily for PCS

3. To address the rate itself, the city might further consider utilizing a **Cost of Living Adjustment (or "COLA")** that may better reflect the current and future needs of all LEAs.

Ultimately, the UPSFF should be structured for the current and future mix of LEAs and students, rather than based on historical experience.

DCPS and sample PCS per pupil spending increased by 14.4% and 10.4%, respectively, over the four-year period analyzed. Spending increases were primarily driven by personnel costs

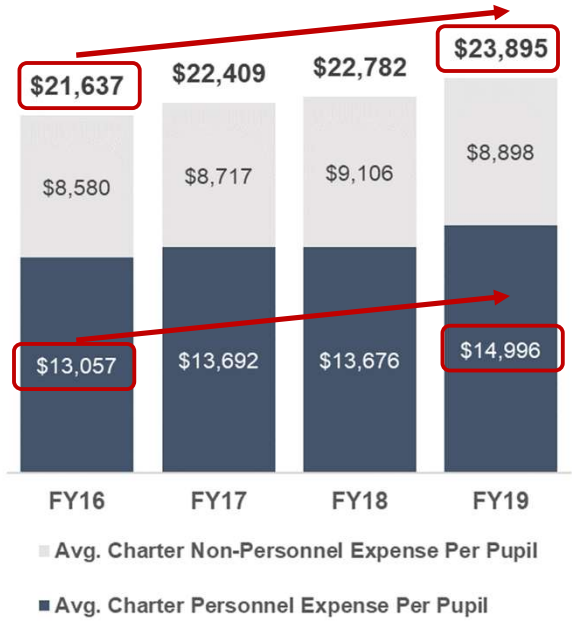
Annual Per Pupil Expenditures DPCS



Total Expenses: +4.6% CAGR; +14.4% total

Personnel Only: +4.6% CAGR; +14.6% total

Annual Per Pupil Expenditures Sample PCS Average (4 LEAs)



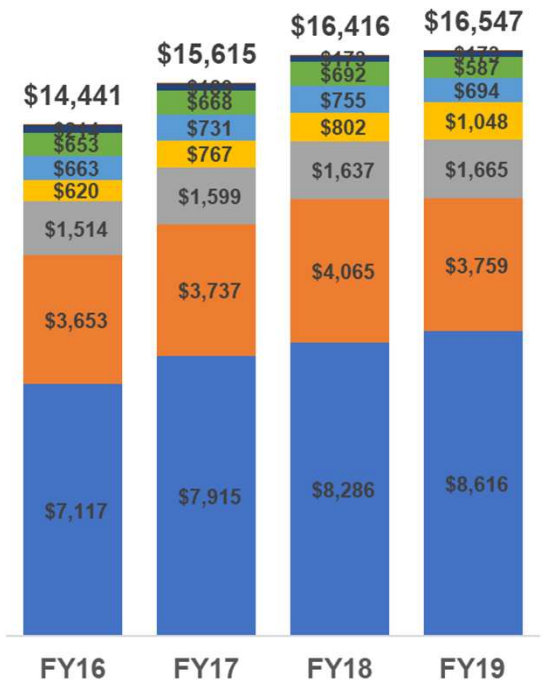
Total Expenses: +3.4% CAGR; +10.4% total

Personnel Only: +4.7% CAGR; +14.9% total

Notes:
1) Personnel costs include wages (salary), employee benefits, stipends, bonuses, and substitutes and exclude contracted services.
2) Non-personnel expenditures include facilities expenditures. Sample PCS reported an average spend of $2,604 on Facility Rent, Debt Service, and Depreciation expenditures in FY19. PCS receive incremental "Facilities" Funding through the UPSFF formula for these types of expenditures.

Per pupil spending on staff at DCPS and PCS has increased a similar rate, though Charters spent approximately $1,500 less than DCPS as of FY19

DCPS
Annual Personnel Expenditures Per Student



Personnel Only: +4.6% CAGR

Sample PCS Average
Annual Personnel Expenditures Per Student

Personnel Only: +4.7% CAGR

Personnel Category	DCPS FY19 % Total Personnel Expenses	PCS FY19 % Total Personnel Expenses
Food Service	0%	1%
Substitutes	1%	1%
Facility Operations Support	4%	1%
Classroom Staff-Other	4%	5%
Central Management	6%	12%
School Administration	10%	11%
Schoolwide Staff	23%	19%
Classroom Staff-Teachers	52%	50%

Note: Personnel costs include wages (salary), employee benefits, stipends, bonuses, and substitutes and exclude contracted services.

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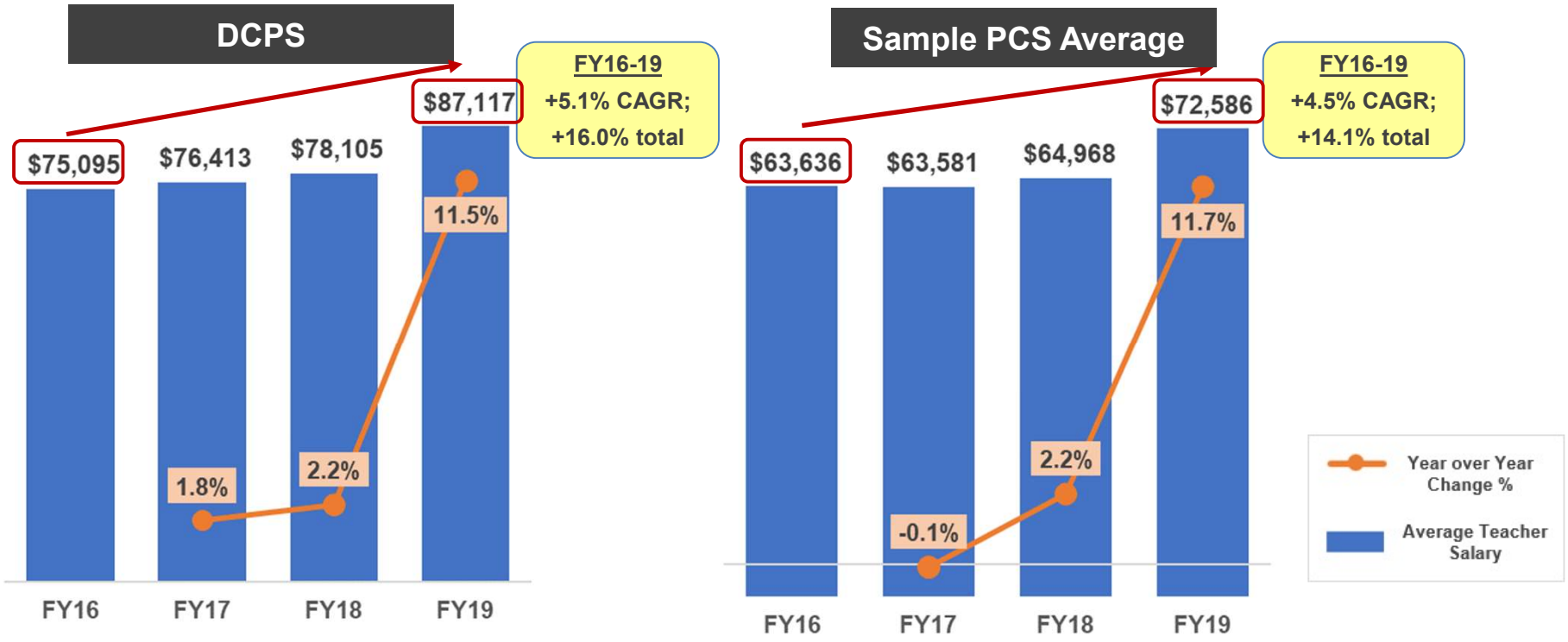
DCPS has historically spent an average of 20% more on classroom teachers than sample PCS. Both saw significant increases in FY19 due to a new CBA.

Historical Average Teacher Salary and Year-Over-Year % Change



For both DCPS and PCS, the largest YOY increase in average teacher salary happened between FY18 and FY19, at which point the CBA retroactive payments went into effect.

Notes:
1. This reflects average teacher pay, which is largely influenced by teacher tenure.
2. Source data for DCPS Average Teacher Salary base source is publicly available budget books; source for charters is provided FTE-level data from participating charters.
3. Salaries reflect base salary only, excluding stipends, benefits, and bonuses.
4. One of four participating PCS LEAs is excluded from Charter Average, due to data availability

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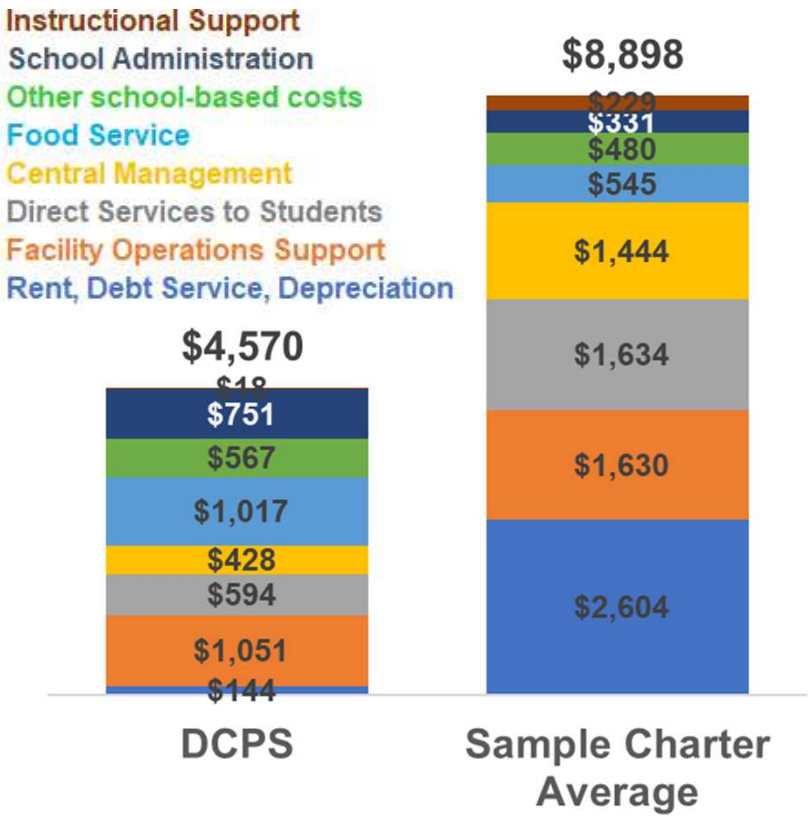
On a per-student basis, the sample PCS spend nearly double that of DCPS on non-personnel items, on average

FY19 Non-Personnel Expenditures – Per Student



Variance Drivers

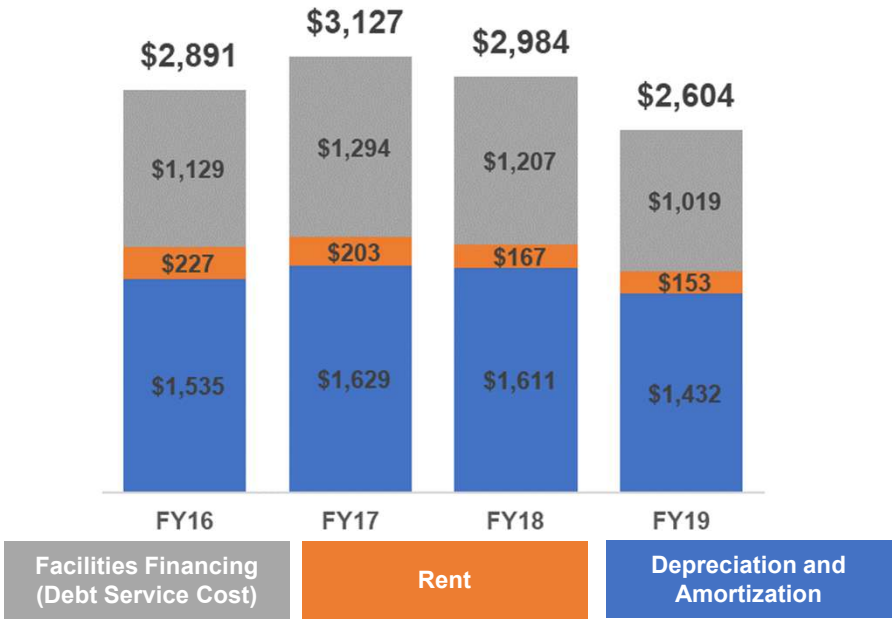
- **Rent, Debt Service, and Depreciation:** PCS incur these costs, while DCPS does not. PCS receive incremental "Facilities" Funding on a per-student basis through the UPSFF formula for these types of costs.
- **Contracting vs. Staffing:** Some of the sample charters have chosen to contract out services that DCPS has full time staff for.
  - Direct Services to Students – A sample of charters on average have a higher per pupil spend in this non-personnel category, driven in part by contracting out SPED and other instructional services that DCPS provides in-house with its own staff.
  - Facilities Operations Support - DCPS has more staff-related costs for functions that some of the sample charters have contracted out, primarily for custodians. When combining Personnel with Non-Personnel costs, the per pupil variance for Facilities Operation Support in total decreases to $155.
- **Economies of Scale:** DCPS enrollment is nearly 20x higher than the median enrollment of Charters in this study. Spreading organization-wide costs that are largely not driven by enrollment, over a larger student base results in lower per pupil costs in some areas.

Rent, Debt Service, and Depreciation costs drive $2,500 of the variance between DCPS and PCS non-personnel per pupil spend. PCS receive incremental "Facilities" Funding on a per-student basis through the UPSFF formula for these types of costs.

Note: Non-personnel includes contracted services and excludes employee wages (salary), employee benefits, stipends, bonuses, and substitutes.

For the sample of four DC Public Charter School LEAs, average per-student expenditure on Rent, Debt Service, and Depreciation ranged from $2,604 to $3,127 over the past four years

Rent, Debt Service, and Depreciation Expenditures Per Pupil - Sample PCS Average



Historical UPSFF Non-Residential Facilities Allotment

While large facilities deals can impact cost trends and per-pupil spend significantly, on average, these facilities-related expenditures have decreased on a per-pupil basis for the sample PCS included.

Note that Charters are not obligated to use facility allotment funds on these specific expenditure categories. Some PCS use these funds for items not included in these categories, such as: operational needs (utilities, maintenance, etc.), non-operating capital expenditures, and to build reserves to meet debt service covenants. The intention for this category is to include facilities costs that PCS must incur that DCPS does not. Depreciation (a non-cash expense) is included in this category, as it is an operating expenditure representing the cost of capitalized assets (mostly facilities) over time.

Also note that some of the sample charters included in this group may have more sophisticated debt instruments and access to a lower cost of capital than less established CMOs.

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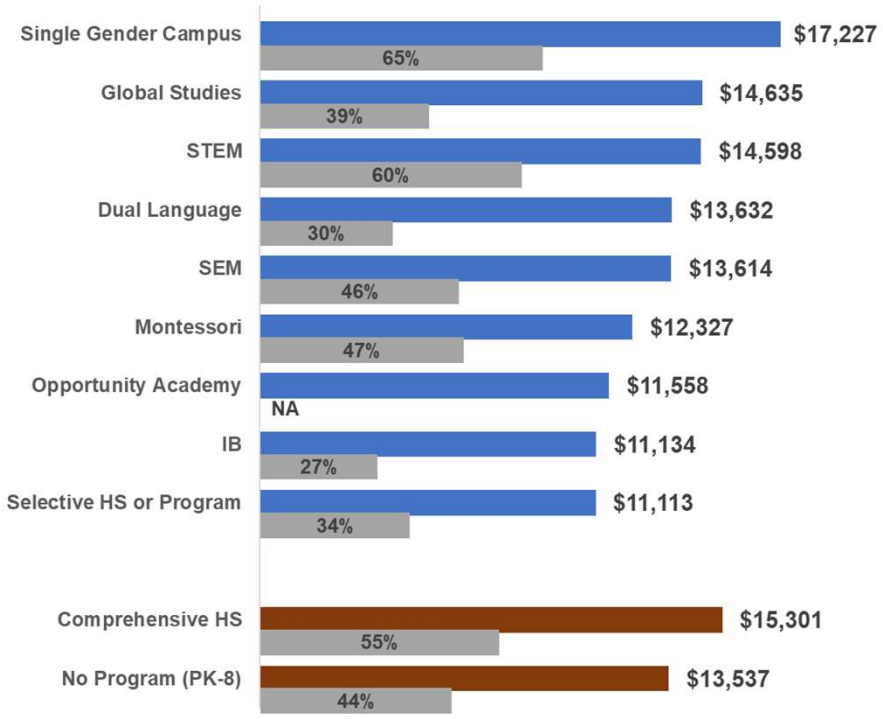
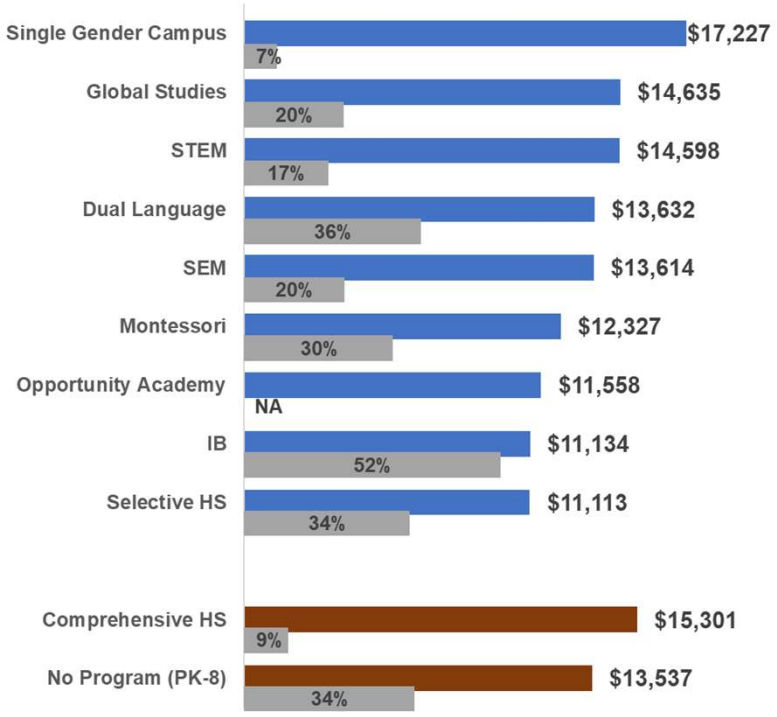
Generally, with a few exceptions, school programs with lower per pupil spend serve a lower proportion of At-Risk students and perform better on the PARCC tests

FY19 School-Level Expenditure Per Pupil and % "At-Risk" by DCPS Program



FY19 School-Level Expenditure Per Pupil and % Proficient 4+ (MATH) by DCPS Program



Notes:

- Figures shown include expenditures coded to schools only and exclude central and schoolwide expenditures, which DCPS does not assign directly to schools.
- % At-Risk and % Proficiency calculations exclude Adult and Alternative students; proficiency excludes students in grades that are note tested (PK-2).

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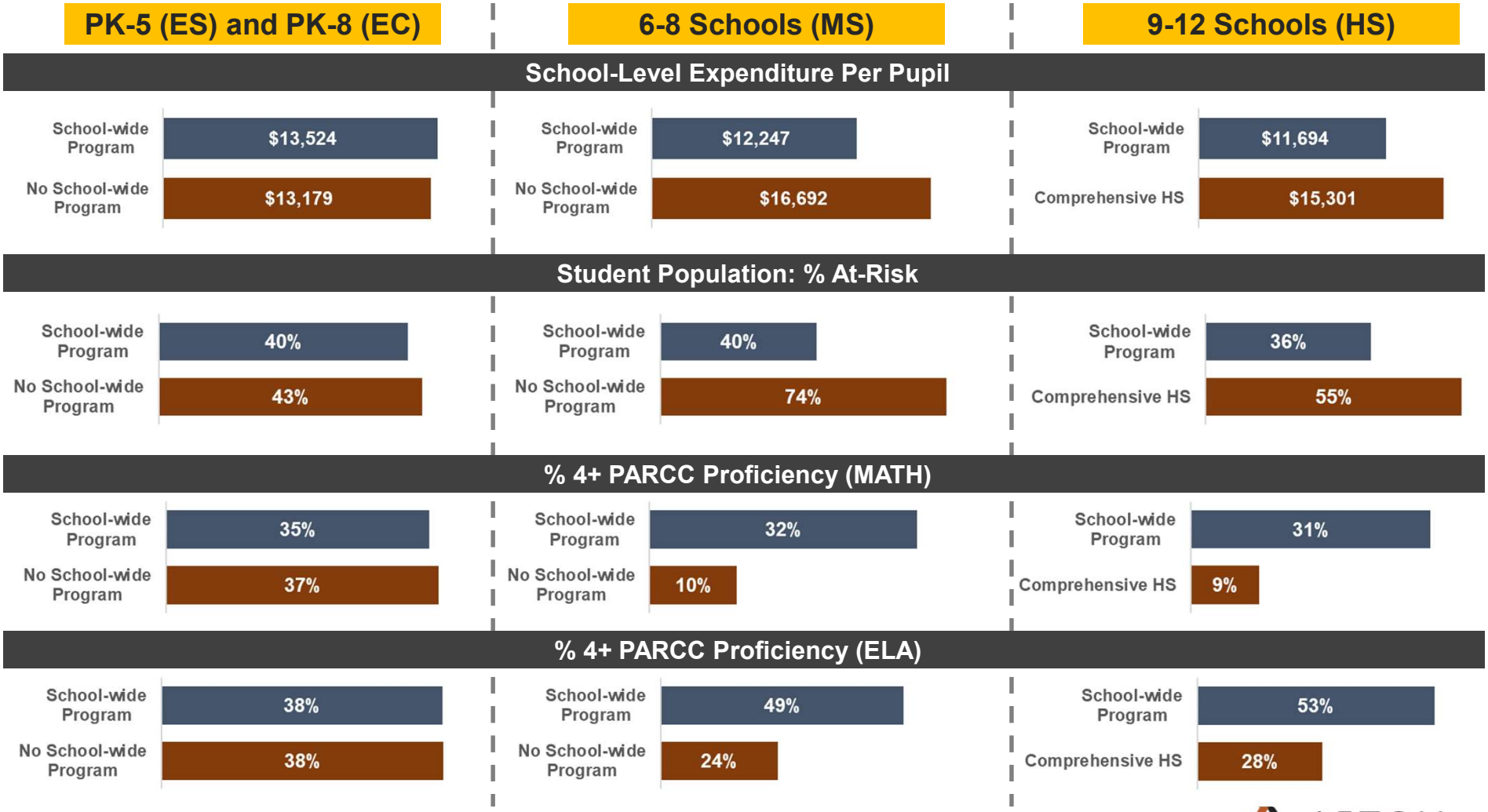
Elementary school programs have mixed results compared to those with no program, though Middle Schools and High Schools with programs spend less per pupil, serve a lower proportion of at-risk students, and have better outcomes



- Figures shown include expenditures coded to schools only and exclude central and schoolwide expenditures, which DCPS does not assign directly to schools.
- Figures included represent a weighted average, regardless of program type. Proficiency rates exclude Adult and Alternative Students and students in grades that are not tested (PK to 2nd).

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Implementation considerations

When reviewing UPSFF options, consideration should be given to both implementation opportunities and challenges, as well as adherence to student funding formula goals

Implementation Considerations *Affect the ability to readily implement potential change to UPSFF*
An existing **common definition** of student need and population considered for funding
Student outcomes data – availability of timely, accurate data
Ease (or difficulty) of projection – ability to project student needs with reasonable accuracy, as the UPSFF funds for projected LEA needs
Level of **legislative or policy changes** required to implement

Student Funding Goals *Alignment to key goals of allocating funds via a funding formula*
Simplicity – the option considered is easily explained to impacted stakeholder groups
Impact – the change results in funds going to the students that need it most
Accountability – outcomes of funding changes can be measured over time
Aligned incentives – the incentives created by the funding option align with goals of the UPSFF

Each option has been assessed given these criteria, which impact both the technical challenges associated with implementation, in addition to each options adherence to student funding formula goals

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Based on implementation considerations and Student Funding Formula Goals, options fall into four categories:

1	2	3	4
Shorter Implementation Timeline	Shorter Implementation Timeline	Longer Implementation Timeline	Longer Implementation Timeline
More Aligned to Student Funding Goals	Less Aligned to Student Funding Goals	More Aligned to Student Funding Goals	Less Aligned to Student Funding Goals
At-Risk: Overage / CFSA	At-Risk: 2+ Factors	At-Risk: Equity Index	At-Risk: Overage Intervention before HS
At-Risk: At-Risk HS Weight	At-Risk: 3+ Factors	ELL: SLIFE	Concentration: CEP Implementation
At-Risk: Increase HS Weight		ELL: New to the Country	Concentration: Minimum Eligibility
ELL: Grade Band			Concentration: Funding Tiers
			Concentration: Sliding Scale
			ELL: Proficiency
			ELL: Grade & Proficiency Combination

Three of the options included in table 1 also received the most expert support through advisory group member votes.

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