



Office of Data & Accountability

Developing a School Quality Index – Analysis for SQWG

February 2015

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Executive Summary

- From March of 2012 to February of 2013 the External Advisory Committee (EAC), a Mayoral appointed committee, developed a new Boston student assignment process that would ensure increased equity of school choice across Boston Public Schools. As part of the new home-based school assignment model, the EAC recommended that the district develop a more holistic measure of school quality that families could use when identifying their top choice schools.
- To accomplish this, the Boston School Committee convened the School Quality Working Group (SQWG), a committee made up of parents, education leaders, and district personnel to create a new School Quality Index.
- As part of the process the team worked with The District Management Council (DMC), a Boston-based education consulting firm, to develop a framework to guide their work, conduct research on other urban districts, and interview other urban school leaders that had previously tackled similar work. From this, the team built a metrics database of over 140 metrics.
- The team then used a DMC-developed metric assessment rubric to narrow down the database from 140 metrics to 50 metrics, and then conducted rigorous statistical analysis on each of the metrics to narrow the list down further. After the SQWG voted on final metrics, a model was built that combined all metric scores together to arrive at one final score for each of the 128 schools in the district. On September 16th, 2014 the SQWG presented its recommendation to the Boston School Committee, and the framework was formally adopted. The new framework will be used during the 2016-17 school choice process.
- The content in this package provides details on the process and the analysis that went into the metric selection.

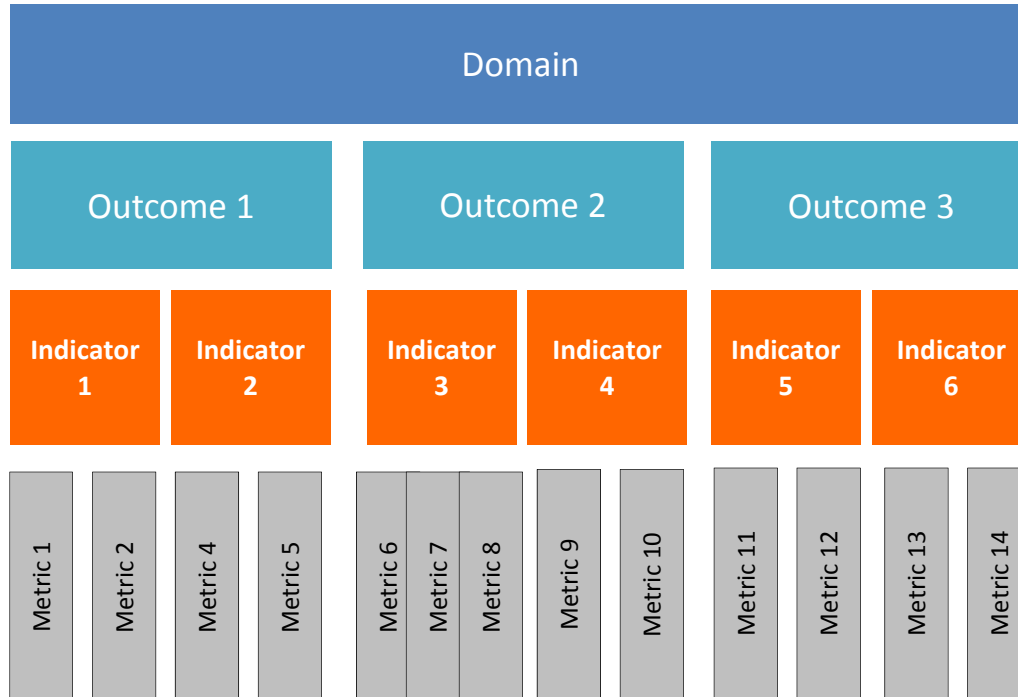
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A framework for school quality measurement helped solidify a shared vocabulary and outlined the desired end product.


School Quality Measurement Framework

The framework below was created to codify a lexicon of terms, and to clearly outline the ultimate end deliverable the team was working towards. The remaining slides in this package outline the process for defining the lowest level of the framework: the metric selection.



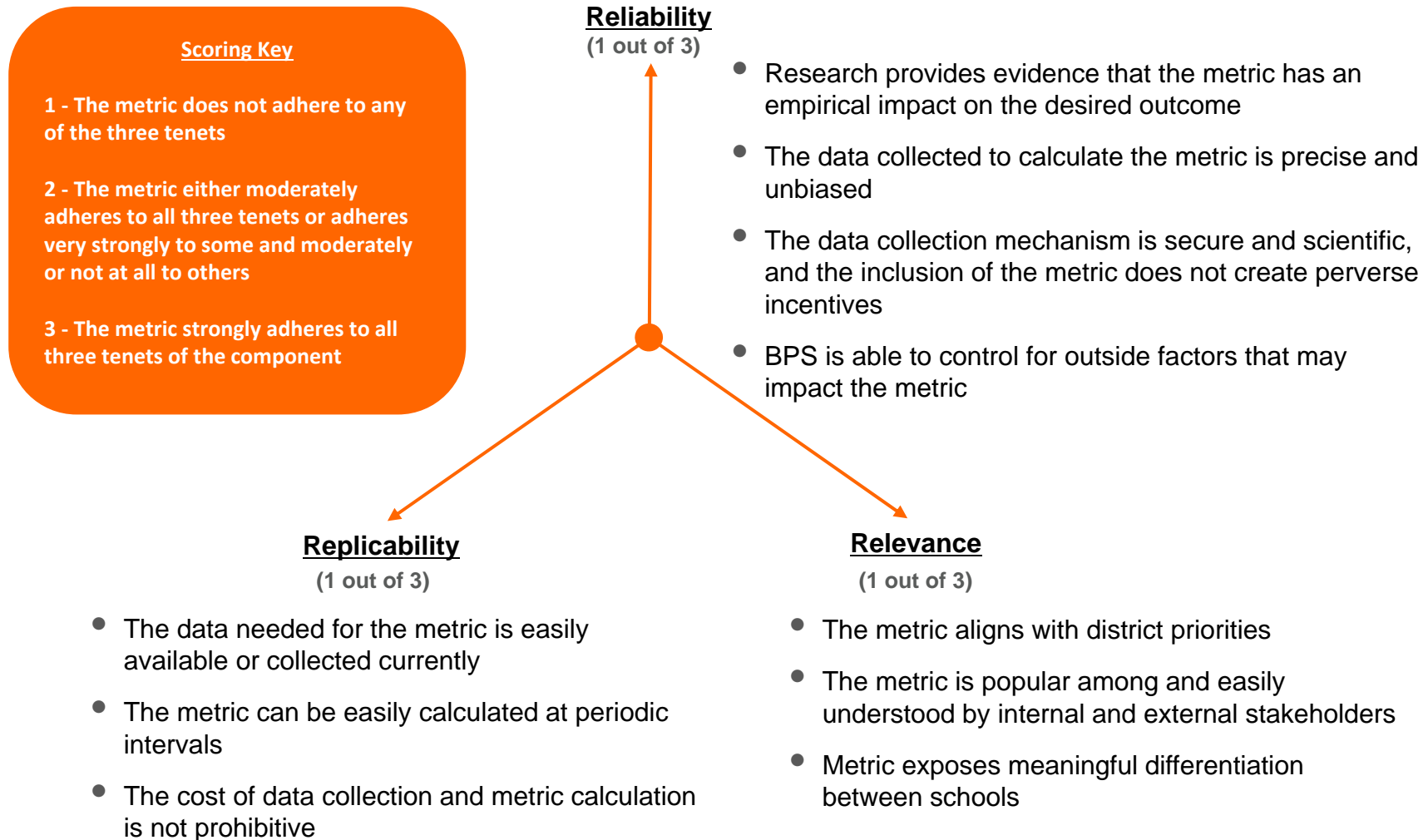
- **Domain**: Broad category or theme
e.g. Student outcomes
- **Outcome**: The desired result the district and community are looking for
e.g. Academic learning gains for all students
- **Indicator**: Area of measurement for progress against outcome
e.g. Student progress on summative test scores
- **Metric**: Data collection mechanism
e.g. School's median Student Growth Percentile on MCAS tests

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The 3R metric assessment rubric created a consistent rationale for narrowing down the large database of potential metrics.

3R Metric Assessment Rubric

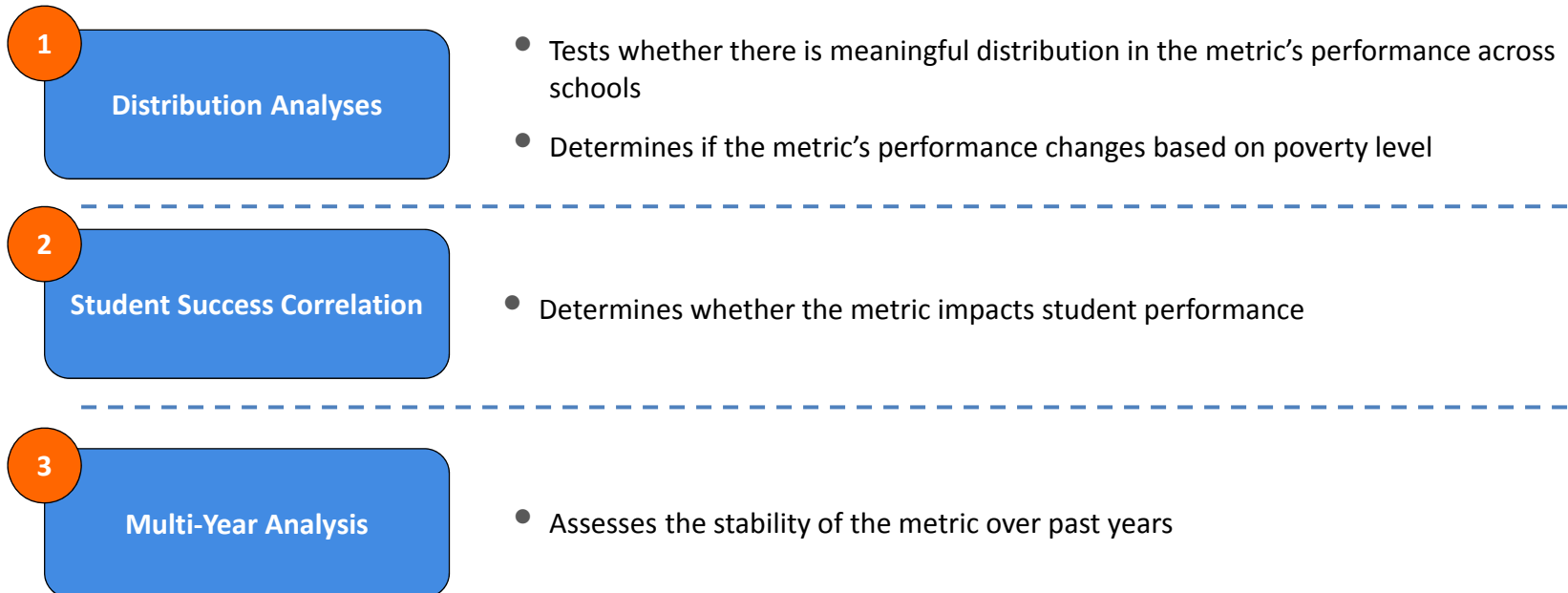


Note: The 3R Metric Assessment Rubric was developed by The District Management Council

From there, a robust set of analyses was conducted on short-listed metrics in order to assess each metric's performance and confirm its inclusion in the index.

Overview of Analysis Methodology

Overview of Analysis Objective

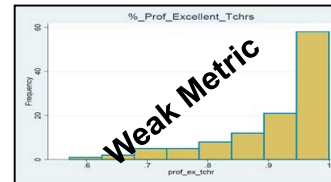
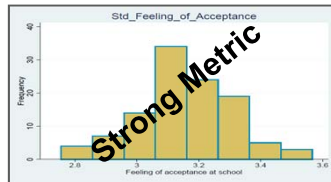


The distribution analyses determined if the spread across schools was meaningful, and if poverty status impacts the results.

Methodology – Additional Details (1/2)

Distribution Analysis: One-Way

1a

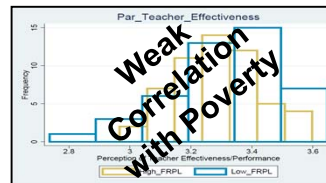
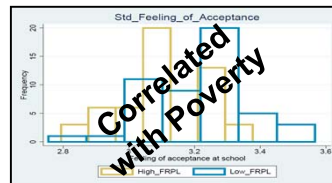


Data from past years was used to develop a histogram illustrating how schools across the district perform on each metric. We then asked:

- 1) Is there a normal distribution? Does this histogram expose meaningful differentiation across schools?
- 2) Does the performance of each school align with our qualitative understanding of the school?

Distribution Analysis: Two-Way

1b



Two separate histograms were overlaid on top of one another – one for schools with high FRPL populations and another for schools with low FRPL populations to determine the correlation between poverty status and the metric's distribution. We then asked:

- 1) Does the shape of the graph look similar (indicating low correlation with poverty status) or different (indicating high correlation) for high and low FRPL schools?

The correlation analyses assessed each metric's impact on student outcomes and other metrics; multi-year analyses tested reliability over time.

Methodology – Additional Details (2/2)

2

Student Success Correlation

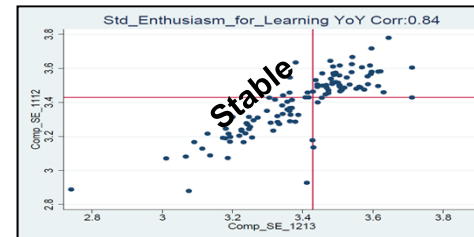
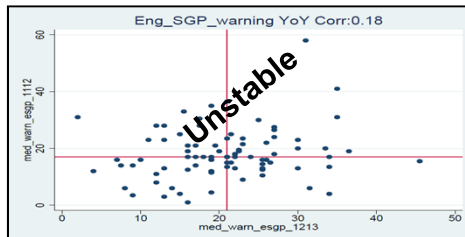
		msgp_all		esgp_all		Count
		Corr.	P-value	Corr.	P-value	
Att.	Average Attendance Rate	0.51	0.00	0.11	0.24	115
	Chronic Absence % (should be <0)	-0.55	0.00	-0.19	0.04	115
	Change in Chron. Abs.	0.17	0.06	-0.01	0.92	115

All metrics were regressed again Math SGP and English SGP to determine the metric's predictive power of student success. We then asked:

1. Is this correlation coefficient statistically significant, meaning is the p-value less than 0.05?
2. If yes, is this metric moderately correlated with SGP, meaning does it have a correlation coefficient of 0.4 or higher?

3

Multi-Year Analysis



Scatterplots are created to illustrate schools' variability in performance on each metric from the past 2 to 3 years. We are then asked:

1. Can we identify a positively sloped trend line, meaning the metric is stable from year to year?

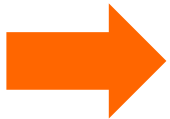
The same principles of the district’s “Quadrant Analysis” were applied in the School Quality Index’s methodology.

Overview of Quadrant Analysis

- **About the Quadrant Analysis:** The Quadrant analysis is a unique BPS methodology used to analyze and understand trends for students in general education, as well as for students with disabilities (SWD’s) and English Language Learner (ELL’s).
- **Importance of the Quadrant Analysis:** In its calculations of proficiency rates and student growth, DESE does not make a distinction **within** SWD and ELL populations. However, research and data demonstrates that students in these groups have a very wide **range** of needs. Some students with very high needs are served in specialized strands; therefore some schools **have higher** proportions of these students in order to deliver more efficient and effective services. The progress and achievement of these students is properly assessed as separate programs rather than including them in an analysis that compares the performance of schools relative to one another.
- **Quadrant Analysis’ Application to the School Quality Framework:** In order to fairly and accurately compare schools, the district (following the principles of the Quadrant Analysis) has removed ELL’s, ELD levels 1, 2, and 3 and SWD’s not in resource rooms from the metrics bulleted below. Please note that the index accounts for these high needs subgroups in different index metrics.
 - *Whether school is meeting MCAS proficiency targets in ELA and Math – All students*
 - *Whether school is meeting MCAS proficiency targets in ELA and Math – All subgroups*
 - *Median Math and ELA SGP – All students*
 - *Median Math and ELA SGP – All subgroups*
 - *Whether school is decreasing Math/ELA proficiency gaps between White & Asian students and their Black & Hispanic peers – not analyzed¹*

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The Student Performance domain had 13 metrics recommended for inclusion in final index.

 = Included  = Excluded

Domain	Outcome	Metric
Student Performance	1. All students show progress in skills critical to school, college, and career success, including critical thinking, peer and adult relationships, and perseverance.	4 year graduation rate (average of subgroups)
		5 year graduation rate (average of subgroups)
		Drop-out rate - reflects number of 9th through 12th graders who drop out each year
		Percent of student enrolled in college within 16 months of graduation
		Student Climate Survey questions on whether students progress in critical skills (such as goal-setting and perseverance)
		Change in adjusted average PSAT score between 10th and 11th grade
		Percent of students enrolled in college not taking remedial courses
	2. Students across all subgroups demonstrate mastery of grade level content over the course of the school year.	Whether school meets ELA/Math MCAS proficiency targets (as determined by DESE) – All students and subgroups
		% of students well below or below benchmark who move to benchmark on DIBELS
		Achievement Gap: Whether school is decreasing Math/ELA proficiency gaps between White & Asian students and their Black & Hispanic peers
	3. Students across all subgroups demonstrate academic growth towards mastery of grade level content.	School's median SGP
		Math and ELA median SGP by subgroup
		Percent of students in 75th growth percentile by subgroup
		Median growth percentile for students who are Proficient on MCAS
		Median growth percentile for students who are Warning/Failing on MCAS
		% of ELL students at ELD Levels 1-3 who progress on ACCESS test
		School-wide change in CPI (for same cohort of students)

Note: Given previous analyses and data availability, not all metrics were analyzed as part of this process; therefore some of the metrics above are not represented in subsequent slides.

The Teaching & Learning domain had 7 metrics recommended for inclusion in final index.

 = Included  = Excluded

Domain	Outcome	Metric
Teaching and Learning	4. All students are taught by highly effective, caring, and committed teachers.	Student Climate Survey questions on teacher effectiveness
		Teacher Climate Survey questions on teacher skills and knowledge
		Parent Climate Survey question on teacher commitment to student learning
		Number of National Board Certified Teachers
	5. The school is led by effective instructional leader(s).	Teacher Climate Survey questions on school leaders' standards and expectations for teaching
	6. All students are exposed to engaging and rigorous standards-based curriculum designed to keep them on track for college and prepare them for careers.	Percentage of students that felt the school prepared them for further education, employment, and personal life after high school (from Senior Exit Survey)
		Student Climate Survey question on preparation for the next grade (or college)
		Parent Climate Survey question on preparation for the next grade (or college)
		% of eligible students enrolled in AP classes
		% of eligible 8th grade students enrolled in Algebra I
	7. Teachers focus on the development of skills critical to college and career success alongside mastery of academic subject matter.	[Placeholder for future metric]

Note: Given previous analyses and data availability, not all metrics were analyzed as part of this process; therefore some of the metrics above are not represented in subsequent slides.

The Family, Community & Culture domain had 14 metrics recommended for inclusion in final index.

 = Included  = Excluded

Domain	Outcome	Metric
FC&C	8. The school is safe, well-organized, and conducive to meeting educational goals.	Student Climate Survey questions on discipline, consequences, and bullying prevention
		Teacher Climate Survey questions on classroom management and organization
		Parent Climate Survey questions on feelings of safety at school
		Number of out-of-school suspensions per 100 students
		Number of arrests of students at school
		Expulsion rate
		Environmental Conditions Index (air quality)
		Number of trespassory notices issued to parents
		Score on MSBA Facilities Condition Index
	9. All students are engaged and enthusiastic about their classes and see relevant connections between academic lessons and their own lives.	Average daily attendance
		Chronic absenteeism
		Student Climate Survey questions on engagement and enthusiasm for learning
		Teacher Climate Survey questions on student effort
		Change in chronic absenteeism - percent of students missing 10% of school a year for any reason
	10. Schools ensure all families feel welcomed and are involved in activities that support their child's academic and social growth.	Teacher Climate Survey questions on parent engagement in learning
		Parent Climate Survey questions on communication, accessibility, and decision-making
		Family Engagement Index (School Site Councils, School Parent Councils, engagement plans, etc.)
	11. The school promotes inclusion of all students, families and community stakeholders so the school community learns to acknowledge, respect, and build on social and cultural differences.	Parent Climate Survey questions on developing thriving, inclusive schools, classrooms, and communities
		Staff diversity: % of teachers of color
	12. School demonstrates a culture of high achievement.	Student Climate Survey question on teacher expectations
		Teacher Climate Survey questions on high standards among school staff

Note: Given previous analyses and data availability, not all metrics were analyzed as part of this process; therefore some of the metrics above are not represented in subsequent slides.

The Student Access & Opportunities had only 1 metric recommended for inclusion, and the domain was ultimately removed from final index

 = Included  = Excluded

Domain	Outcome	Metric
Student Access and Opportunities	13. All students have equal access to high-quality activities that reinforce classroom learning and promote skill building and positive youth development.	% of students receiving arts instruction (weekly instruction for students in grades K-8 and meeting Mass Core requirement for students in high school)
		School meets guidelines for PE offerings
	14. Students have access to health and social services.	Parent Climate Survey question on support for learning and behavior problems
		# of health care FTEs per 100 students
		# of guidance counselor FTEs per 100 students
		School has a Wellness Council and has completed a wellness action plan
	15. Students have access to high-quality out-of-school-time programs and partners that provide students with a choice of opportunities that reinforce academics, build skills, and pursue their interests.	[Placeholder for future metric]

A majority of the Student Access & Opportunities domain metrics are not statistically sound based on our analysis. While we will be exploring alternative ways to measure these outcomes in the future, **given the timeline, we recommend that the SQWG table this domain for the first iteration of the School Quality index. Instead, we will ensure that key opportunities be included in the “lists of attributes” through DiscoverBPS.**

Note: Given previous analyses and data availability, not all metrics were analyzed as part of this process; therefore some of the metrics above are not represented in subsequent slides.

The Leadership & Collaboration domain had 9 metrics recommended for inclusion in final index.

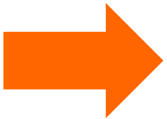
 = Included  = Excluded

Domain	Outcome	Metric
Leadership and Collaboration	16. School leadership sets a vision for the school that actively engages teachers, staff, students, families, and the wider community to be a part of the school's success	Student Climate Survey questions on principal effectiveness and outreach to students
		Teacher Climate Survey questions on staff engagement around school success
		Parent Climate Survey question on principal's relationship with students
	17. School leadership creates a culture of collaboration among all staff members.	Teacher Climate Survey questions on staff collaboration
	18. School leadership develops clear and effective structures for communication with families and within the school community.	Parent Climate Survey questions on regular and effective communication
	19. School leadership builds community partnerships including with local stakeholders that expand learning opportunities, promote student well-being and enable the school to achieve its overarching mission.	Student Climate Survey question on opportunities to participate before and after school
		Parent Climate Survey question on community partnerships
	20. School leadership retains and leverages effective teachers.	Teacher retention rate for proficient and exemplary teachers
		Teacher Climate Survey questions on support, encouragement, and engagement with staff
		Staff attendance
	21. School leadership appropriately manages and leverages resources.	[Placeholder for future metric]

Note: Given previous analyses and data availability, not all metrics were analyzed as part of this process; therefore some of the metrics above are not represented in subsequent slides.

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Student Performance

4 year graduation rate

Overall Recommendation: **Include**

Key Takeaways

- **Pros:** Distributed across schools (though slightly skewed); reliable across years
- **Cons:** Weak correlation with SGP

FRPL Correlation: $-.08$

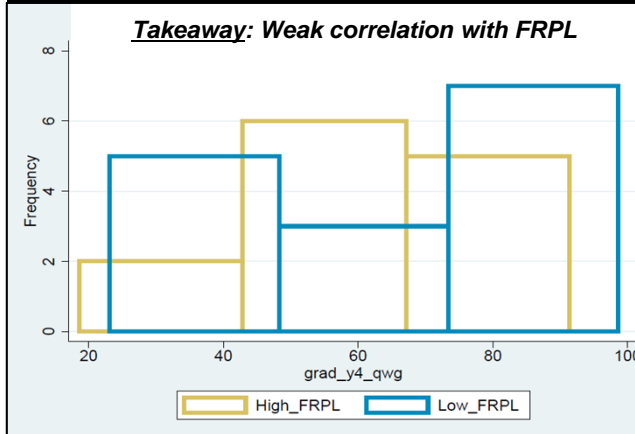
Student Success Correlation:

* = statistically significant

MSGP: 0.23

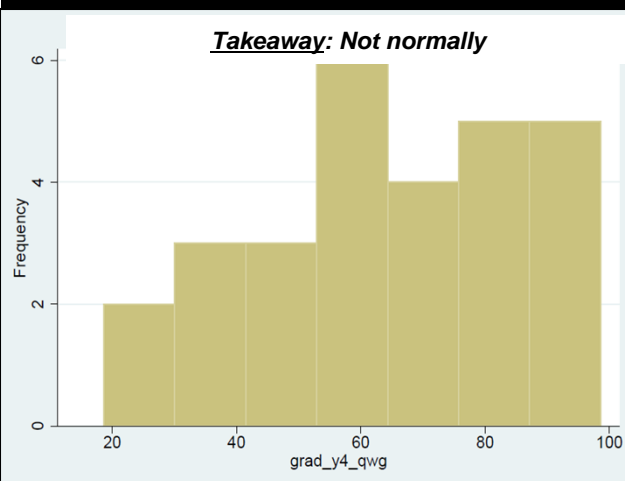
ESGP: 0.24

Distribution – by FRPL (all schools)

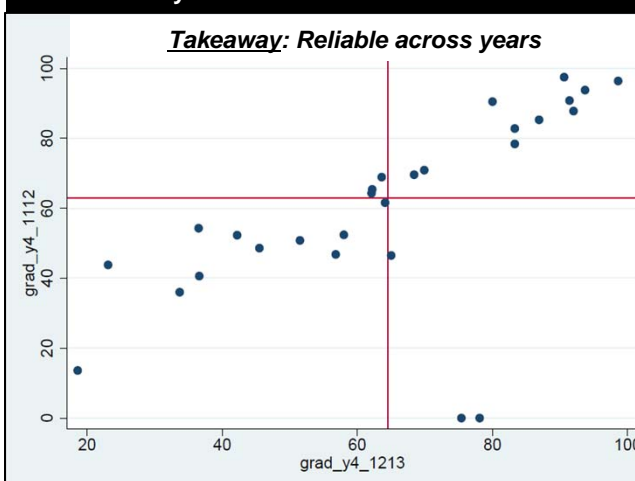


Coefficient: $-.08$

Distribution – all schools



YOY Reliability



Cut-Off & Methodology

- **100 points** – 95% or higher
- **75 points** – Met four-year target rate of 80% but was below 95%
- **50 points** – Improvement in the four-year rate of 2.5 percentage points of more from prior year
- **25 points** – Within plus or minus 2.5 percentage points of four-year rate from prior year
- **0 points** – Decline of more than 2.5 percentage points from prior year
- Note: the total score was an average of the scaled scores for each of the following subgroups: All students, Black students, White Students, Asian Student, Special Education, English Language Learners

Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Performance

5 year graduation rate

Overall Recommendation: Include

Key Takeaways

- **Pros:** Strong YOY reliability
- **Cons:** Left skewed (but still distributed over schools); Weak correlation with SGP

FRPL Correlation: $-.10$

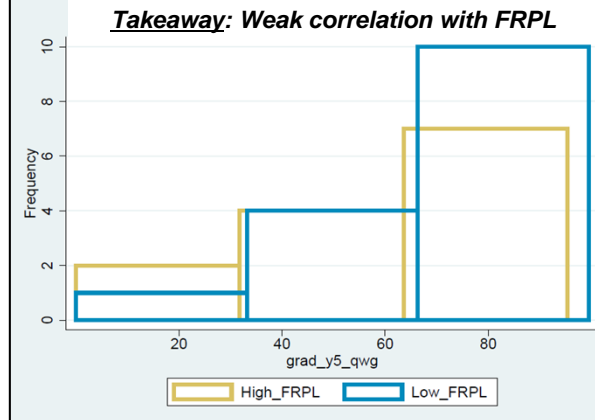
Student Success Correlation:

* = statistically significant

MSGP: -0.06

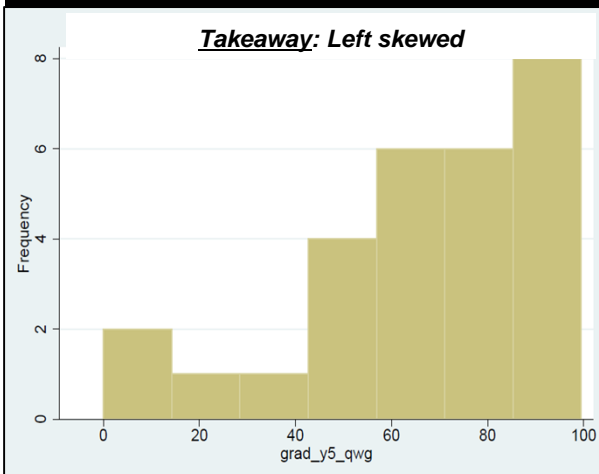
ESGP: 0.18

Distribution – by FRPL (all schools)

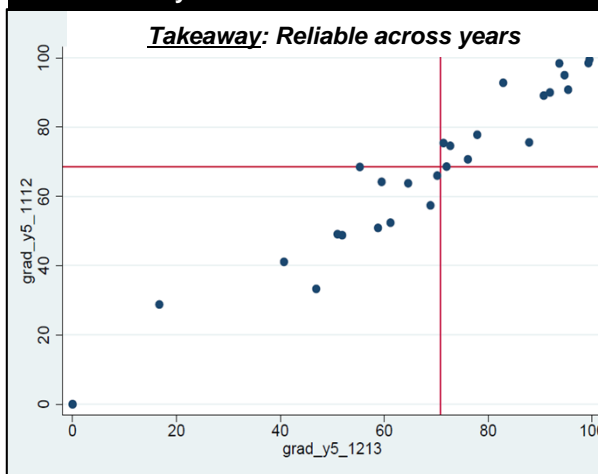


Coefficient: $-.10$

Distribution – all schools



YOY Reliability



Cut-Offs & Methodology

- **100 points** – 95% or higher
- **75 points** – Met five-year target rate of 80% but was below 95%
- **50 points** – Improvement in the five-year rate of 2.5 percentage points of more from prior year
- **25 points** – Within plus or minus 2.5 percentage points of four-year rate from prior year
- **0 points** – Decline of more than 2.5 percentage points from prior year
- Note: the total score was an average of the scaled scores for each of the following subgroups: All students, Black students, White Students, Asian Student, Special Education, English Language Learners

Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Performance

Drop-out rate (reflects number of 9th to 12th graders who drop out each year)

Overall Recommendation: Include

Key Takeaways

- **Pros:** Some reliability across years
- **Cons:** Poor YoY reliability; Weak correlation with SGPP

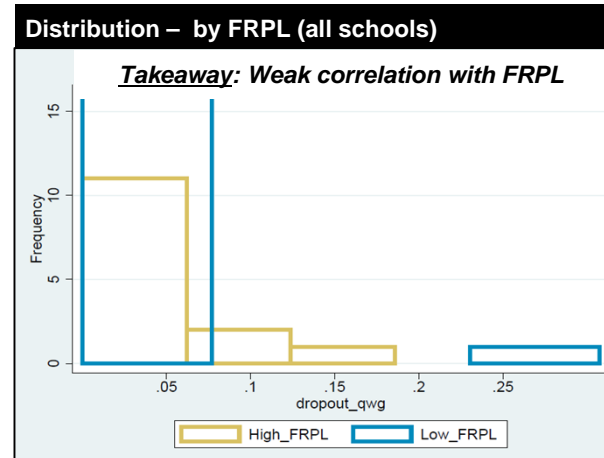
FRPL Correlation: .29

Student Success Correlation:

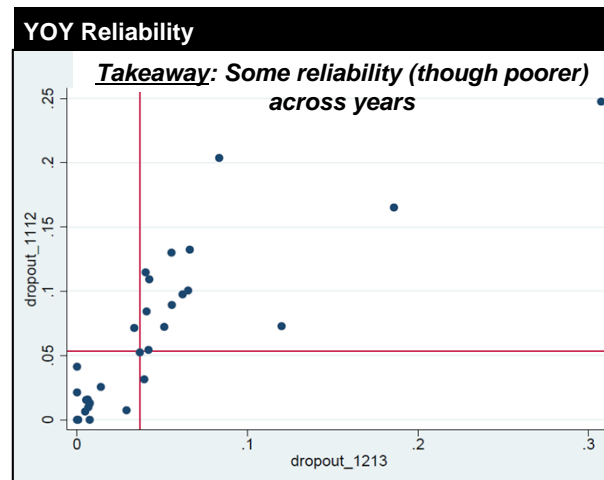
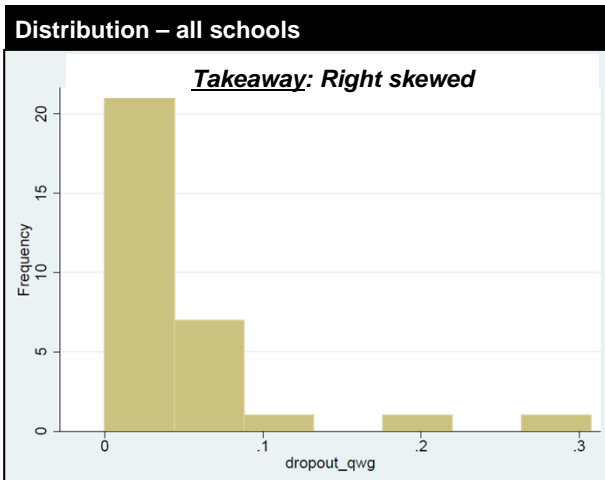
* = statistically significant

MSGP: -0.24

ESGP: -0.36



Coefficient: .29



Cut-Offs & Methodology

- **100 points** – 0% or less than target by 0.5
- **75 points** – Greater than or equal to target by .05 or less than or equal to target by 0.5
- **50 points** – Greater than target by 0.5 and less than SY 2011-12 by 0.5
- **25 points** – Greater than or equal to SY 2011-12 by 0.5 and less than or equal to SY 2011-12 by 0.5
- **0 points** – Greater than SY 2011-12 by .05 or more

Note: For FRPL distribution, “weakly correlated” is classified as 0 to +/-0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Performance

Percent of students enrolled in college within 16 months of graduation

Overall Recommendation: **Include**

Key Takeaways

- **Pros:** Distributed across schools ; Strong correlation with SGP
- **Cons:** n/a

FRPL Correlation: $-.32$

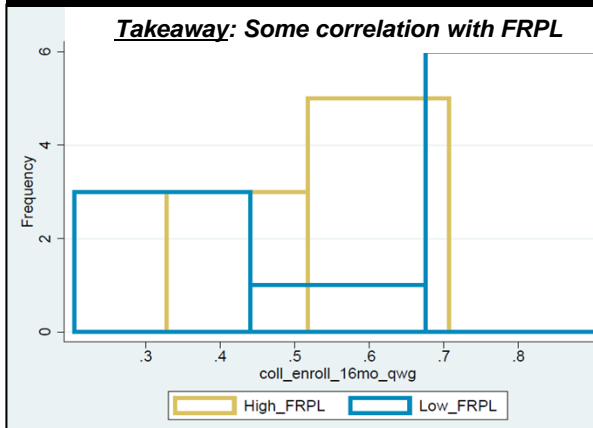
Student Success Correlation:

* = statistically significant

MSGP: 0.53

ESGP: 0.52

Distribution – by FRPL (all schools)



Coefficient: $-.32$

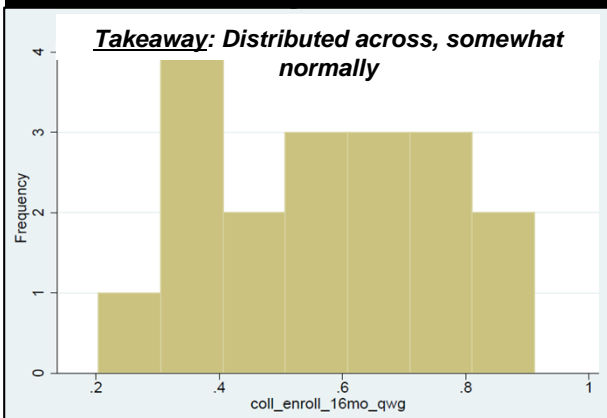
YOY Reliability

Data not available

Cut-Offs & Methodology

- **100 points** - 72% or above target
- **75 points** - Greater than or equal to 68% and less than 72%
- **50 points** - Less than 68% and greater than SY 2011-12
- **25 points** - Greater than or equal to SY 2011-12 by 2 and less than or equal to SY 2011-12
- **0 points** - Less than SY 2011-12 by 2
- Note: in order to calculate this there must have been a minimum of 20 high school graduates in SY 2012-13

Distribution – all schools



Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3 .

Student Performance

% of students well below or below benchmark who move to benchmark on DIBELS

Overall Recommendation: **Include**

Key Takeaways

- **Pros:** Distributed across schools (though not normally)
- **Cons:** Weak SGP correlation

FRPL Correlation: $-.02$

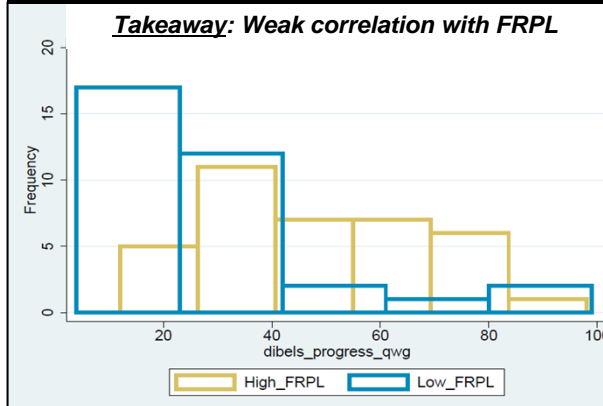
Student Success Correlation:

* = statistically significant

MSGP: 0.15

ESGP: -0.12

Distribution – by FRPL (all schools)

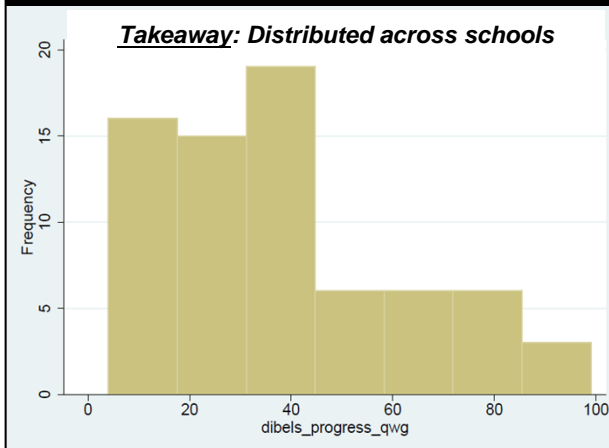


Coefficient: $-.02$

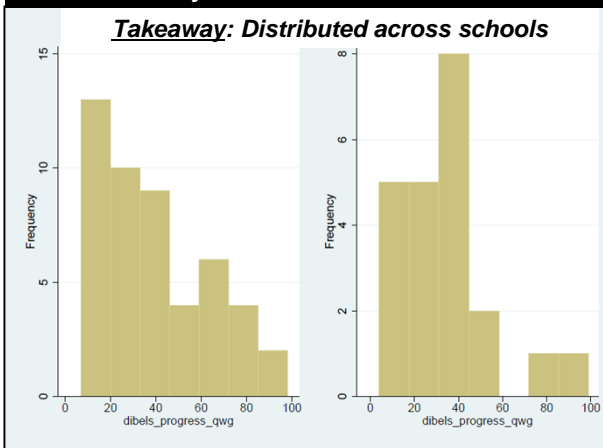
Cut-Offs & Methodology

- **100 points** – 60% or greater
 - **75 points** – 55-60%
 - **50 points** – 50-55%
 - **25 points** – 40-50%
 - **0 points** – 0-40%
- Note: Does not include students who were already at benchmark in the BOY

Distribution – all schools



Distribution – by school level



Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3 .

Student Performance

Climate Survey Outcome: All students show progress in critical skills

Overall Recommendation: **Include**

Key Takeaways

- **Pros:** Approx. normally distributed
- **Cons:** Weak correlation with SGP

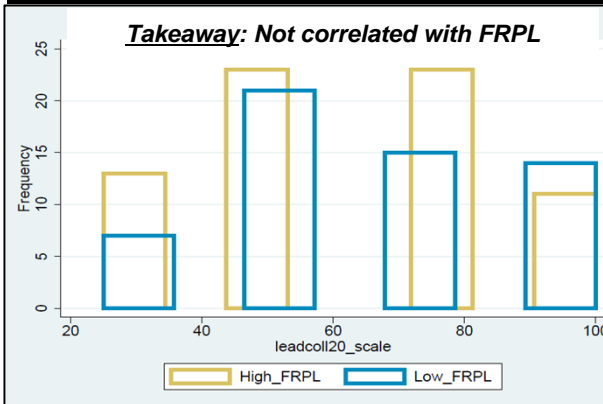
FRPL Correlation: n/a

Student Success Correlation:

* = statistically significant
MSGP: 0.02

ESGP: 0.22

Distribution – by FRPL (all schools)



Coefficient: n/a

Distribution – by school level

Data not available

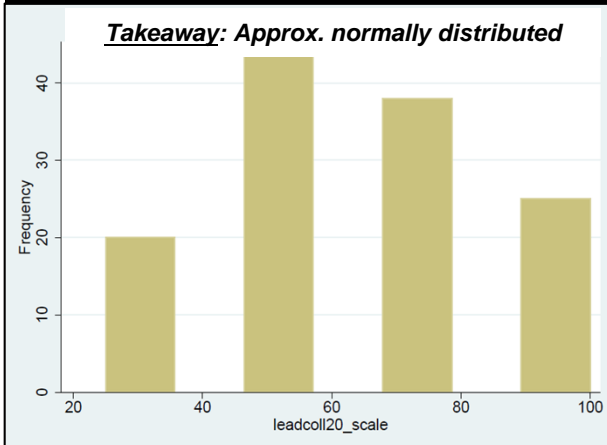
Cut-Offs & Methodology

Each school's average Likert scale scores were compared to the average of all schools in the same level (elementary, middle, high). The decimal points below indicate a school's distance from the mean in either direction.

- **100 points** – .5 or higher
- **75 points** – Between 0 and .5
- **50 points** – Between -.5 and 0
- **25 points** – -.5 or below
- **0 points** – School received less than 30 respondents

Note: any school that received a 3.5 or higher on the Likert scale received 100 points for that question

Distribution – all schools



Note: For FRPL distribution, "weakly correlated" is classified as 0 to +/-0.3 (inclusive). "Some correlation" is classified as above 0.3 or below -0.3.

Student Performance

School meets MCAS proficiency targets – All Students (as determined by DESE)

Overall Recommendation: **Include**

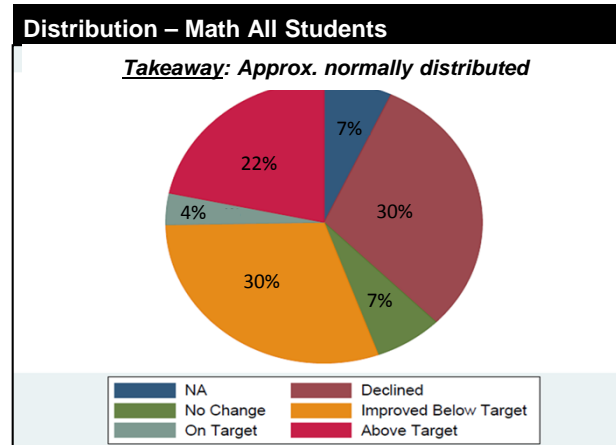
Key Takeaways

- Pros:** Distributed across schools (though not normally)
- Cons:** Weak SGP correlation

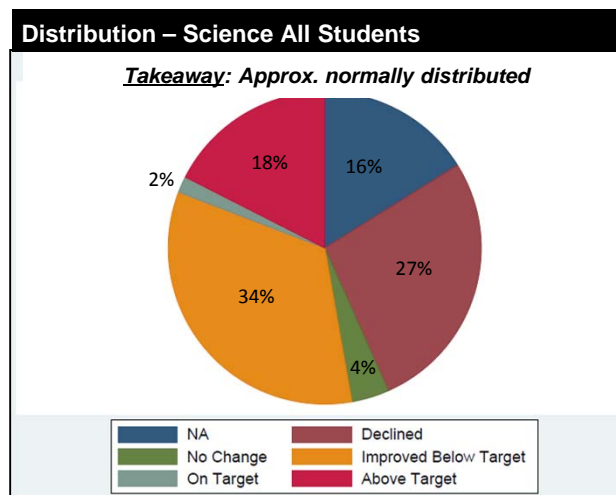
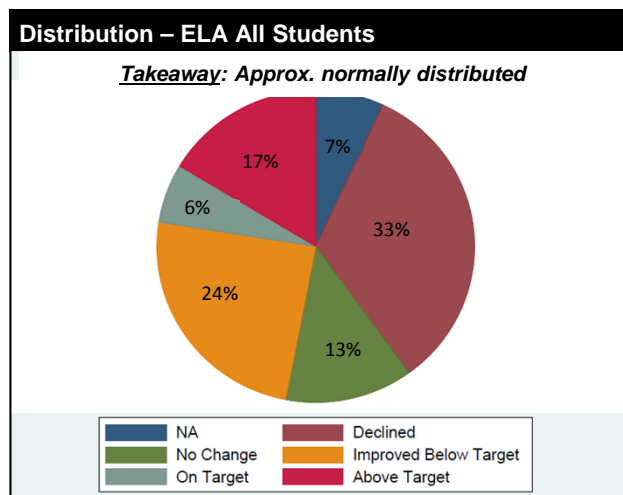
Student Success Correlation:
 * = statistically significant

MSGP: 0.15

ESGP: -0.12



- Cut-Offs & Methodology**
- 100 points** – 2104 rate greater than or equal to (2014 target +1)
 - 75 points** – 2014 rate greater than or equal to (2014 target-1) AND 2014 rate less than (2014 target +1)
 - 50 points** – 2014 rate greater than (2013 rate+1) AND less than (2014 target-1)
 - 25 points** – 2014 rate greater than or equal to (2013 rate-1) AND 2014 rate less than or equal to (2013 rate +1)
 - 0 points** – 2014 rate less than (2013 rate-1)
 - Note: Schools that did not have 2013 proficiency data did not receive a score on this metric



Note: This metric does not include English Language Learners, ELD levels 1, 2, and 3 or Special Education students not in resource rooms

Student Performance

School meets MCAS proficiency targets – Black Students (as determined by DESE)

Overall Recommendation: **Include**

Key Takeaways

- **Pros:** Distributed across schools (though not normally)
- **Cons:** low SGP correlation

Student Success Correlation:

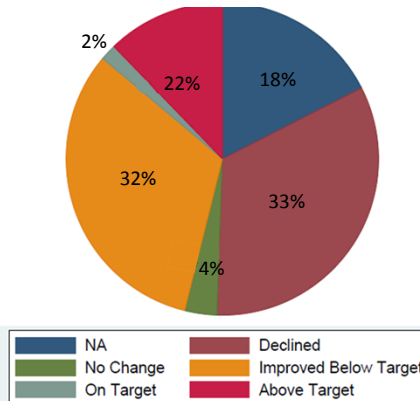
* = statistically significant

MSGP: 0.15

ESGP: -0.12

Distribution – Math: African American Students

Takeaway: Approx. normally distributed



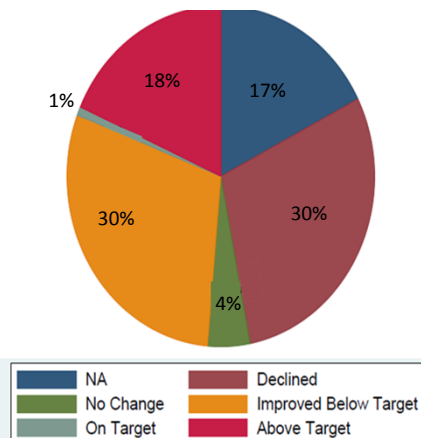
Cut-Offs & Methodology

- **100 points** – 2104 rate greater than or equal to (2014 target +1)
- **75 points** – 2014 rate greater than or equal to (2014 target-1) AND 2014 rate less than (2014 target +1)
- **50 points** – 2014 rate greater than (2013 rate+1) AND less than (2014 target-1)
- **25 points** – 2014 rate greater than or equal to (2013 rate-1) AND 2014 rate less than or equal to (2013 rate +1)
- **0 points** – 2014 rate less than (2013 rate-1)

- Note: Schools that did not have 2013 proficiency data did not receive a score on this metric
- Note: Each school was given a separate score for meeting proficiency targets for the following student subgroups: Black, Hispanic, Asian, and White. These 4 separate scores were then averaged together to arrive at one master score for this metric. Please note that this analysis was only conducted for Black and Hispanic subgroups

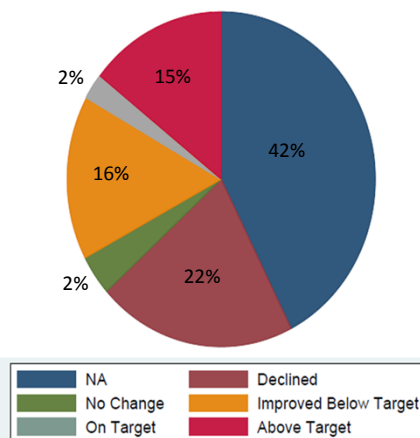
Distribution – ELA: African American Students

Takeaway: Approx. normally distributed



Distribution – Science: African American Students

Takeaway: Approx. normally distributed



Note: This metric does not include English Language Learners, ELD levels 1, 2, and 3 or Special Education students not in resource rooms

Student Performance

School meets MCAS proficiency targets – Hispanic Students (as determined by DESE)

Overall Recommendation: **Include**

Key Takeaways

- **Pros:** Distributed across schools (though not normally)
- **Cons:** Weak SGP correlation

Student Success Correlation:

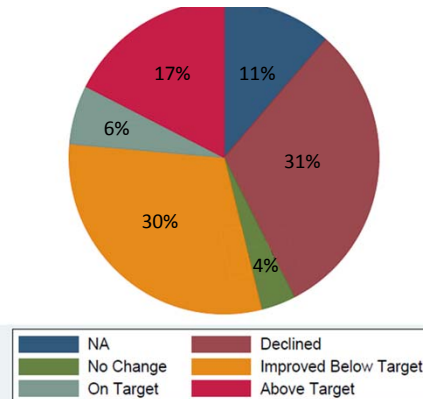
* = statistically significant

MSGP: 0.15

ESGP: -0.12

Distribution – Math: Hispanic Students

Takeaway: Approx. normally distributed



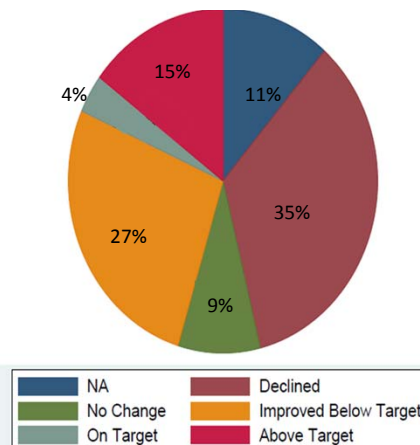
Cut-Offs & Methodology

- **100 points** – 2104 rate greater than or equal to (2014 target +1)
- **75 points** – 2014 rate greater than or equal to (2014 target-1) AND 2014 rate less than (2014 target +1)
- **50 points** – 2014 rate greater than (2013 rate+1) AND less than (2014 target-1)
- **25 points** – 2014 rate greater than or equal to (2013 rate-1) AND 2014 rate less than or equal to (2013 rate +1)
- **0 points** – 2014 rate less than (2013 rate-1)

- Note: Schools that did not have 2013 proficiency data did not receive a score on this metric
- Note: Each school was given a separate score for meeting proficiency targets for the following student subgroups: Black, Hispanic, Asian, and White. These 4 separate scores were then averaged together to arrive at one master score for this metric. Please note that this analysis was only conducted for Black and Hispanic subgroups

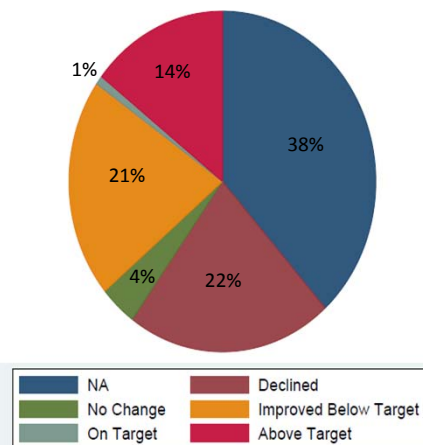
Distribution – ELA: Hispanic Students

Takeaway: Approx. normally distributed



Distribution – Science: Hispanic Students

Takeaway: Approx. normally distributed



Note: This metric does not include English Language Learners, ELD levels 1, 2, and 3 or Special Education students not in resource rooms.

Student Performance

School meets MCAS proficiency targets – Special Education Students

Overall Recommendation: Include (included in “All Students” metric – see slide 25)

Key Takeaways

- **Pros:** Distributed across schools (though not normally)
- **Cons:** Weak SGP correlation

Student Success Correlation:

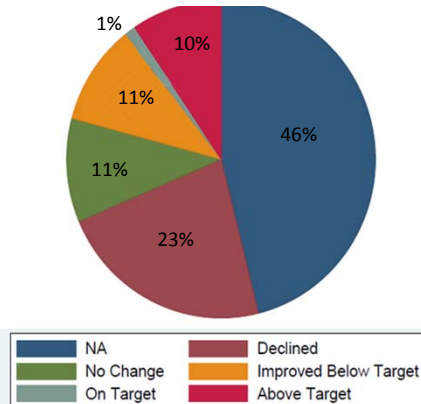
* = statistically significant

MSGP: 0.15

ESGP: -0.12

Distribution – Math: Special Education Students

Takeaway: Not normally distributed

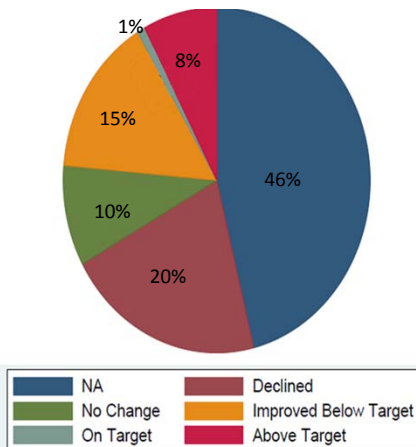


Cut-Offs & Methodology

- **100 points** – 2104 rate greater than or equal to (2014 target +1)
- **75 points** – 2014 rate greater than or equal to (2014 target-1) AND 2014 rate less than (2014 target +1)
- **50 points** – 2014 rate greater than (2013 rate+1) AND less than (2014 target-1)
- **25 points** – 2014 rate greater than or equal to (2013 rate-1) AND 2014 rate less than or equal to (2013 rate +1)
- **0 points** – 2014 rate less than (2013 rate-1)

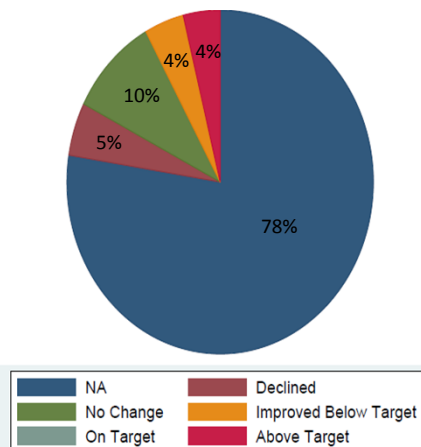
Distribution – ELA: Special Education Students

Takeaway: Not normally distributed



Distribution – Science: Special Students

Takeaway: Not normally distributed



- Note: Schools that did not have 2013 proficiency data did not receive a score on this metric
- Note: The score for meeting proficiency targets for Special Education students in resource rooms was incorporated into the following metric: “School meets MCAS proficiency targets for all students” (see slide 25)

Note: This metric does not include English Language Learners, ELD levels 1, 2, and 3 or Special Education students not in resource rooms

Student Performance

School's median SGP - ELA

Overall Recommendation: **Include**

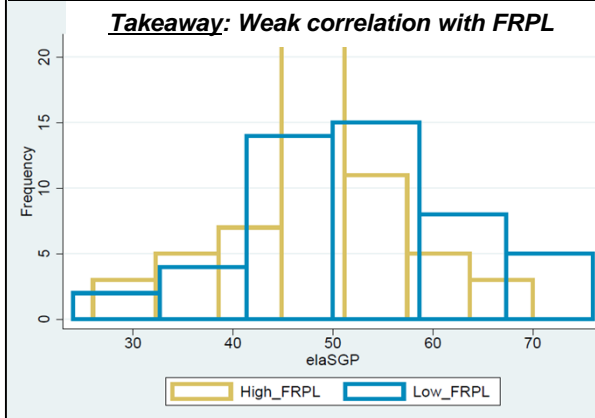
Key Takeaways

- **Pros:** Normally distributed
- **Cons:** Poor YoY reliability

FRPL Correlation: $-.15$

Student Success Correlation: n/a

Distribution – by FRPL (all schools)

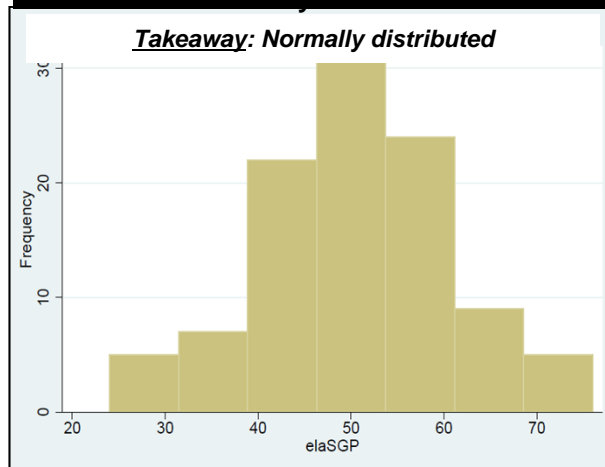


Coefficient: $-.15$

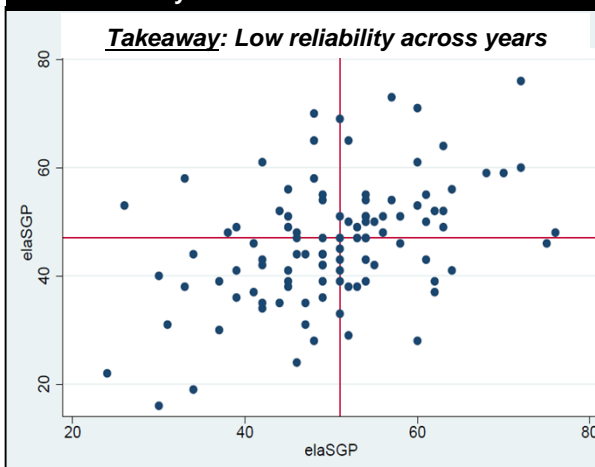
Cut-Offs & Methodology

- **100 points** – SGP of 60 points or higher; or SGP improvement of 15 or more points from prior year
- **75 points** – SGP between 51 and 59; or 10-14 median SGP point improvement; or decreased non-proficient percent by 10 percent or more from prior year
- **50 points** – SGP of 41 – 50; or 1-9 point SGP improvement from prior year
- **25 points** – SGP of 31 – 40
- **0 points** – SGP of 1 – 30

Distribution – all schools



YOY Reliability



Note: This metric does not include English Language Learners, ELD levels 1, 2, and 3 or Special Education students not in resource rooms

Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3 .

Student Performance

School's median SGP - Math

Overall Recommendation: **Include**

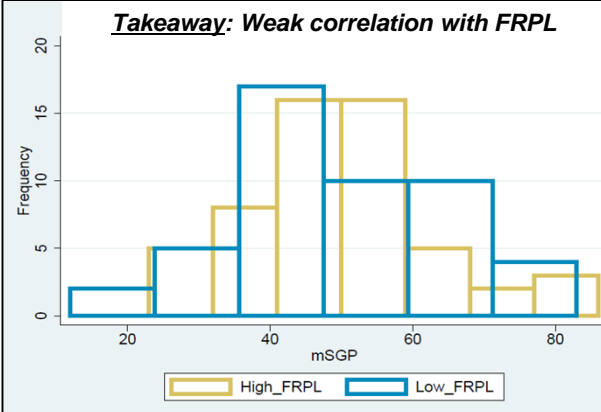
Key Takeaways

- **Pros:** Normally distributed
- **Cons:** Poor YoY reliability

FRPL Correlation: $-.15$

Student Success Correlation: n/a

Distribution – by FRPL (all schools)

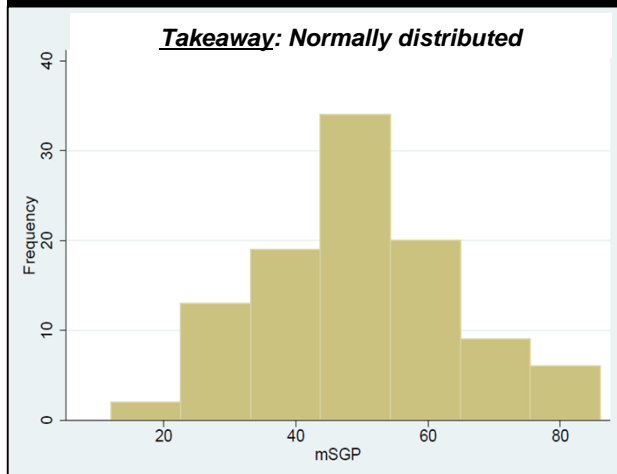


Coefficient: $-.15$

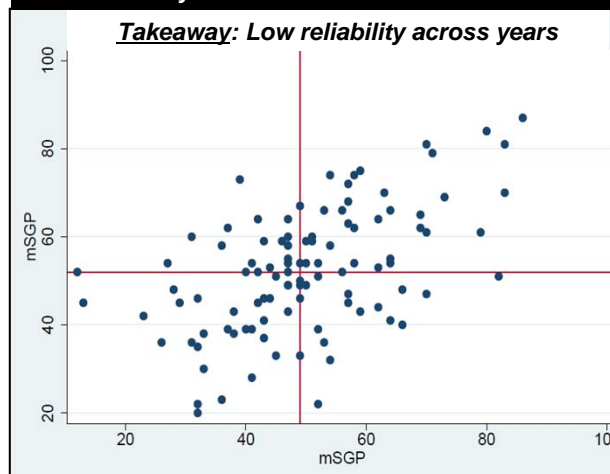
Cut-Offs & Methodology

- **100 points** – SGP of 60 points or higher; or SGP improvement of 15 or more points from prior year
- **75 points** – SGP between 51 and 59; or 10-14 median SGP point improvement; or decreased non-proficient percent by 10 percent or more from prior year
- **50 points** – SGP of 41 – 50; or 1-9 point SGP improvement from prior year
- **25 points** – SGP of 31 – 40
- **0 points** – SGP of 1 – 30

Distribution – all schools



YOY Reliability



Note: This metric does not include English Language Learners, ELD levels 1, 2, and 3 or Special Education students not in resource rooms

Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Performance

ELA median SGP – by Subgroup (Asian)

Overall Recommendation: Include

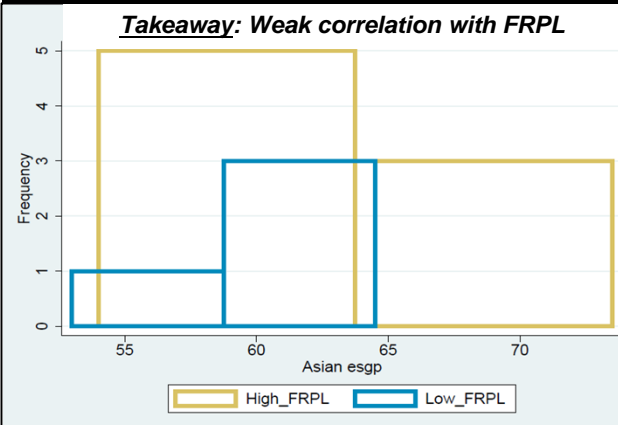
Key Takeaways

- **Pros:** Some distribution across schools (though not normal)
- **Cons:** Poor YoY reliability

FRPL Correlation: -.03

Student Success Correlation: n/a

Distribution – by FRPL (all schools)



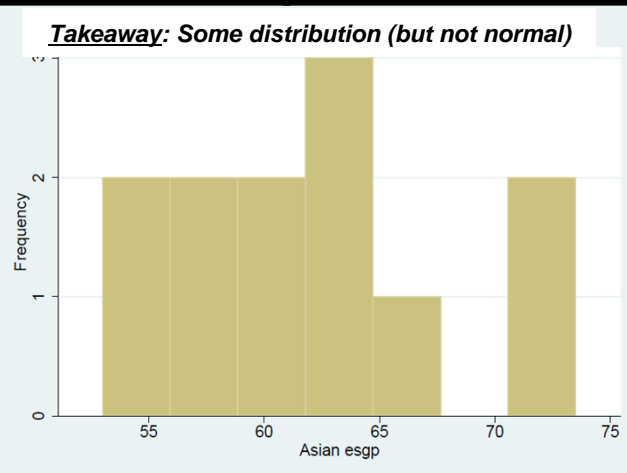
Coefficient: -.03

Cut-Offs & Methodology

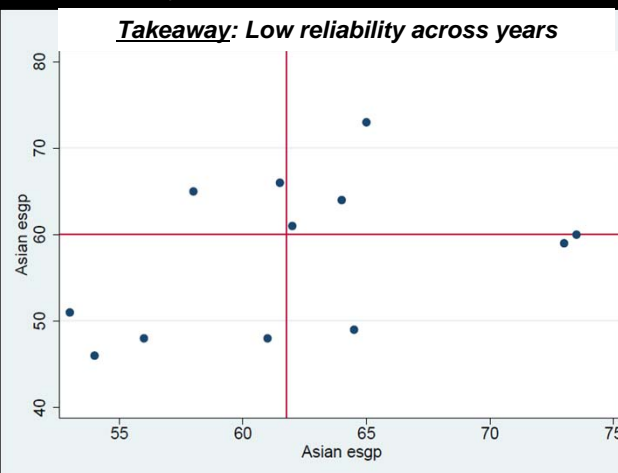
- **100 points** – SGP of 60 points or higher; or SGP improvement of 15 or more points from prior year
- **75 points** – SGP between 51 and 59; or 10-14 median SGP point improvement; or decreased non-proficient percent by 10 percent or more from prior year
- **50 points** – SGP of 41 – 50; or 1-9 point SGP improvement from prior year
- **25 points** – SGP of 31 – 40
- **0 points** – SGP of 1 – 30

Note: Each school was given a separate median SGP score for the following student subgroups: Black, Hispanic, Asian, and White, and Special Education. These 5 separate scores were then averaged together to arrive at one master score for this metric. Please note that this analysis was only conducted for Black, Hispanic, White, and Asian subgroups

Distribution – all schools



YOY Reliability



Note: This metric does not include English Language Learners, ELD levels 1, 2, and 3 or Special Education students not in resource rooms

Note: For FRPL distribution, “weakly correlated” is classified as 0 to +/-0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Performance

Math median SGP – by Subgroup (Asian)

Overall Recommendation: Include

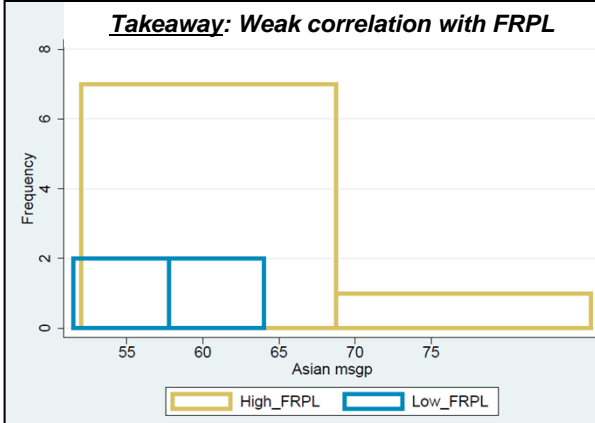
Key Takeaways

- **Pros:** Some distribution across schools (though not normal)
- **Cons:** Poor YoY reliability

FRPL Correlation: -.03

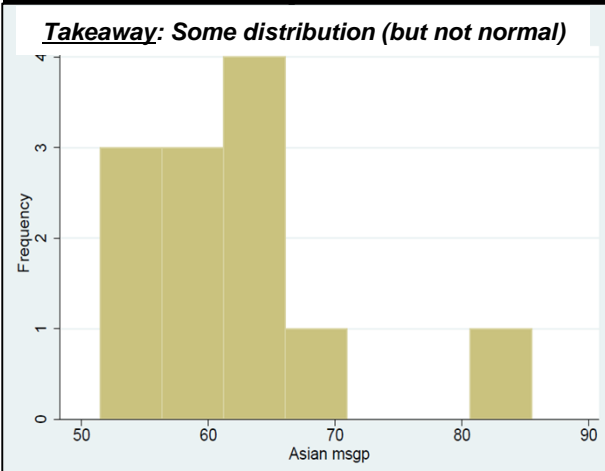
Student Success Correlation: n/a

Distribution – by FRPL (all schools)

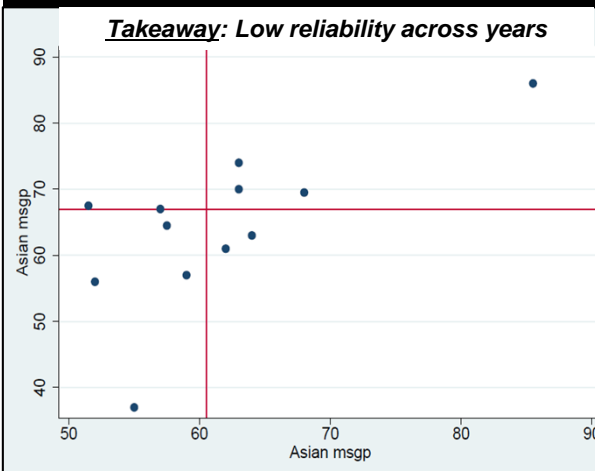


Coefficient: -.03

Distribution – all schools



YOY Reliability



Cut-Offs & Methodology

- **100 points** – SGP of 60 points or higher; or SGP improvement of 15 or more points from prior year
- **75 points** – SGP between 51 and 59; or 10-14 median SGP point improvement; or decreased non-proficient percent by 10 percent or more from prior year
- **50 points** – SGP of 41 – 50; or 1-9 point SGP improvement from prior year
- **25 points** – SGP of 31 – 40
- **0 points** – SGP of 1 – 30
- Note: Each school was given a separate median SGP score for the following student subgroups: Black, Hispanic, Asian, and White, and Special Education. These 5 separate scores were then averaged together to arrive at one master score for this metric. Please note that this analysis was only conducted for Black, Hispanic, White, and Asian subgroups

Note: This metric does not include English Language Learners, ELD levels 1, 2, and 3 or Special Education students not in resource rooms
 Note: For FRPL distribution, “weakly correlated” is classified as 0 to +/-0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Performance

ELA median SGP – by Subgroup (Black)

Overall Recommendation: **Include**

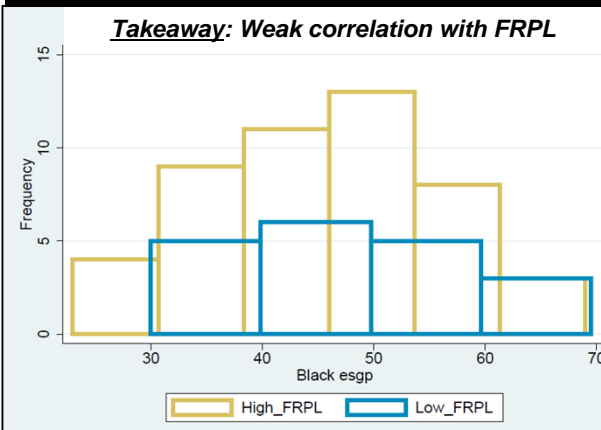
Key Takeaways

- **Pros:** Normally distributed
- **Cons:** Poor YoY reliability

FRPL Correlation: $-.25$

Student Success Correlation: n/a

Distribution – by FRPL (all schools)

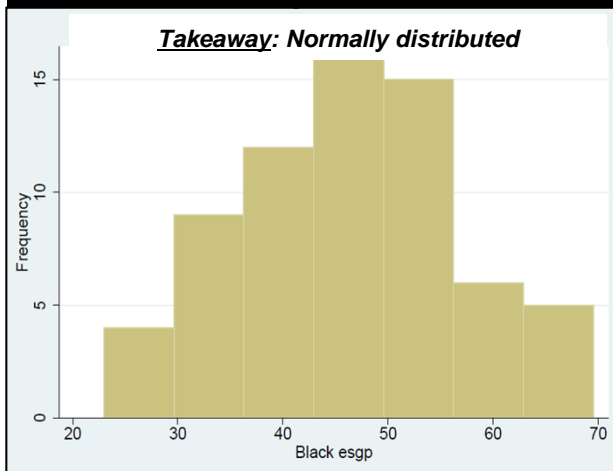


Coefficient: $-.25$

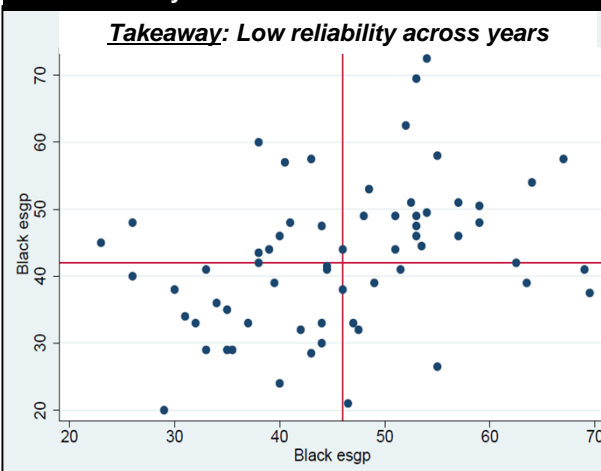
Cut-Offs & Methodology

- **100 points** – SGP of 60 points or higher; or SGP improvement of 15 or more points from prior year
- **75 points** – SGP between 51 and 59; or 10-14 median SGP point improvement; or decreased non-proficient percent by 10 percent or more from prior year
- **50 points** – SGP of 41 – 50; or 1-9 point SGP improvement from prior year
- **25 points** – SGP of 31 – 40
- **0 points** – SGP of 1 – 30
- Note: Each school was given a separate median SGP score for the following student subgroups: Black, Hispanic, Asian, and White, and Special Education. These 5 separate scores were then averaged together to arrive at one master score for this metric. Please note that this analysis was only conducted for Black, Hispanic, White, and Asian subgroups

Distribution – all schools



YOY Reliability



Note: This metric does not include English Language Learners, ELD levels 1, 2, and 3 or Special Education students not in resource rooms

Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Performance

Math median SGP – by Subgroup (Black)

Overall Recommendation: Include

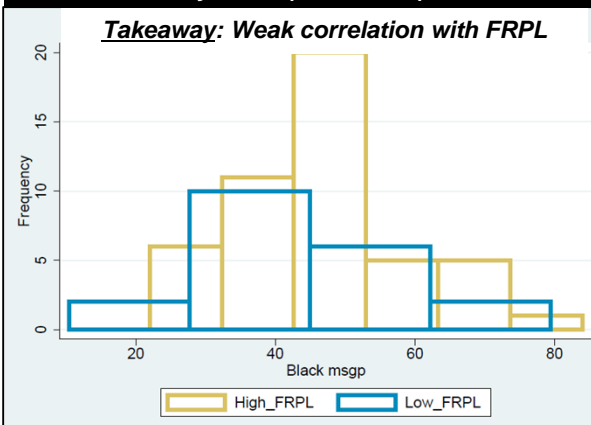
Key Takeaways

- **Pros:** Normally distributed
- **Cons:** Poor YoY reliability

FRPL Correlation: $-.29$

Student Success Correlation: n/a

Distribution – by FRPL (all schools)

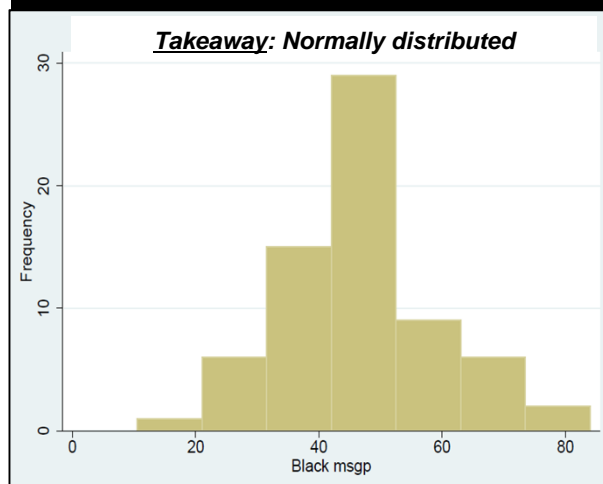


Coefficient: $-.29$

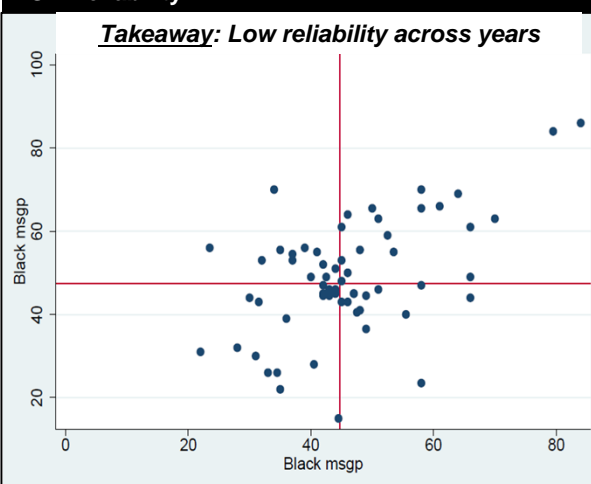
Cut-Offs & Methodology

- **100 points** – SGP of 60 points or higher; or SGP improvement of 15 or more points from prior year
- **75 points** – SGP between 51 and 59; or 10-14 median SGP point improvement; or decreased non-proficient percent by 10 percent or more from prior year
- **50 points** – SGP of 41 – 50; or 1-9 point SGP improvement from prior year
- **25 points** – SGP of 31 – 40
- **0 points** – SGP of 1 – 30
- Note: Each school was given a separate median SGP score for the following student subgroups: Black, Hispanic, Asian, and White, and Special Education. These 5 separate scores were then averaged together to arrive at one master score for this metric. Please note that this analysis was only conducted for Black, Hispanic, White, and Asian subgroups

Distribution – all schools



YOY Reliability



Note: This metric does not include English Language Learners, ELD levels 1, 2, and 3 or Special Education students not in resource rooms

Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Performance

ELA median SGP – by Subgroup (Hispanic)

Overall Recommendation: Include

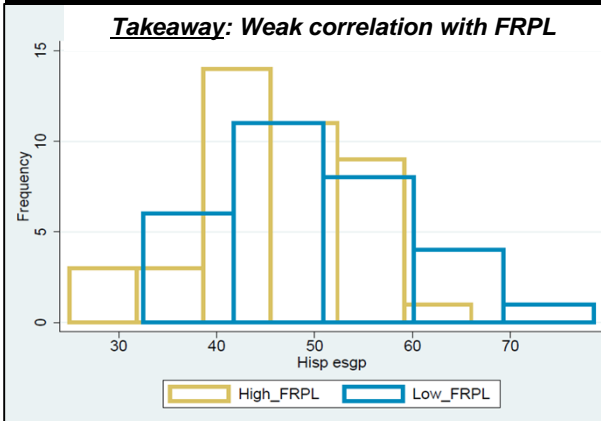
Key Takeaways

- **Pros:** Normally distributed
- **Cons:** Poor YoY reliability

FRPL Correlation: -.15

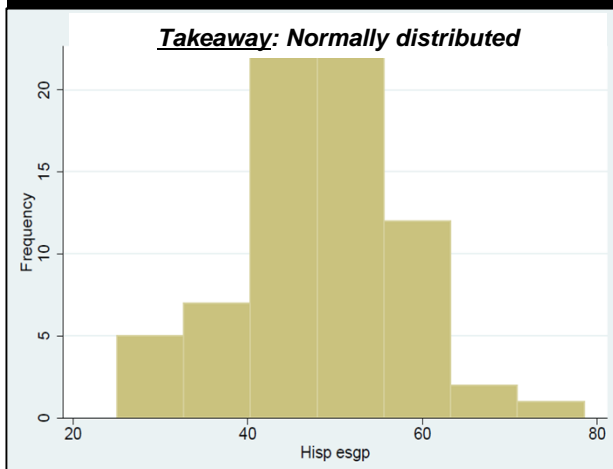
Student Success Correlation: n/a

Distribution – by FRPL (all schools)

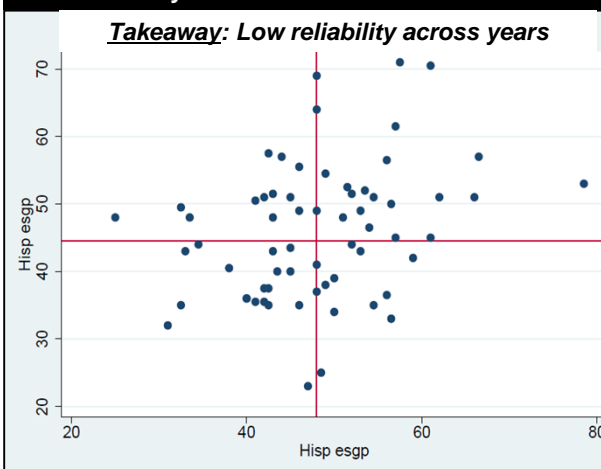


Coefficient: -.15

Distribution – all schools



YOY Reliability



Cut-Offs & Methodology

- **100 points** – SGP of 60 points or higher; or SGP improvement of 15 or more points from prior year
- **75 points** – SGP between 51 and 59; or 10-14 median SGP point improvement; or decreased non-proficient percent by 10 percent or more from prior year
- **50 points** – SGP of 41 – 50; or 1-9 point SGP improvement from prior year
- **25 points** – SGP of 31 – 40
- **0 points** – SGP of 1 – 30
- Note: Each school was given a separate median SGP score for the following student subgroups: Black, Hispanic, Asian, and White, and Special Education. These 5 separate scores were then averaged together to arrive at one master score for this metric. Please note that this analysis was only conducted for Black, Hispanic, White, and Asian subgroups

Note: This metric does not include English Language Learners, ELD levels 1, 2, and 3 or Special Education students not in resource rooms

Note: For FRPL distribution, “weakly correlated” is classified as 0 to +/-0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Performance

Math median SGP – by Subgroup (Hispanic)

Overall Recommendation: **Include**

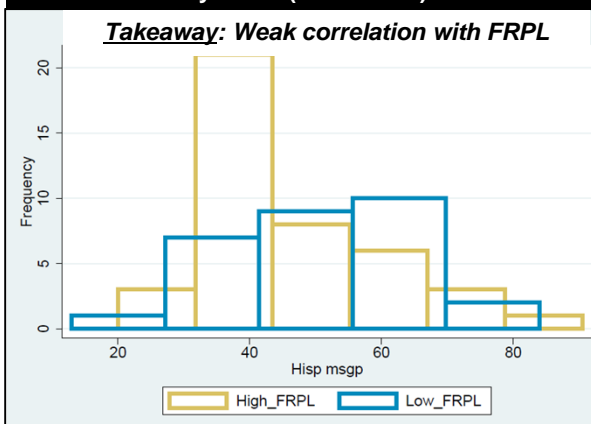
Key Takeaways

- **Pros:** Normally distributed
- **Cons:** Poor YoY reliability

FRPL Correlation: $-.09$

Student Success Correlation: n/a

Distribution – by FRPL (all schools)



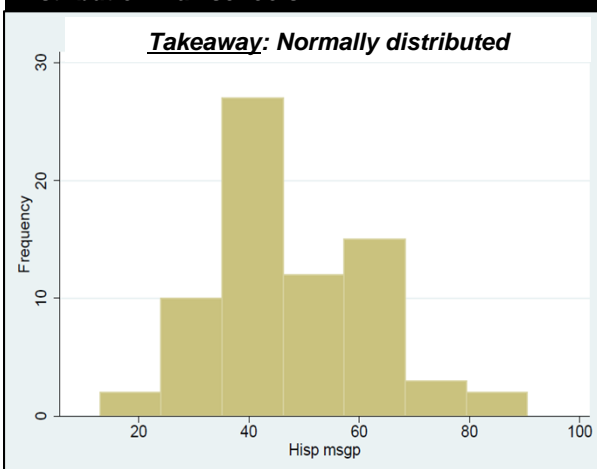
Coefficient: $-.09$

Cut-Offs & Methodology

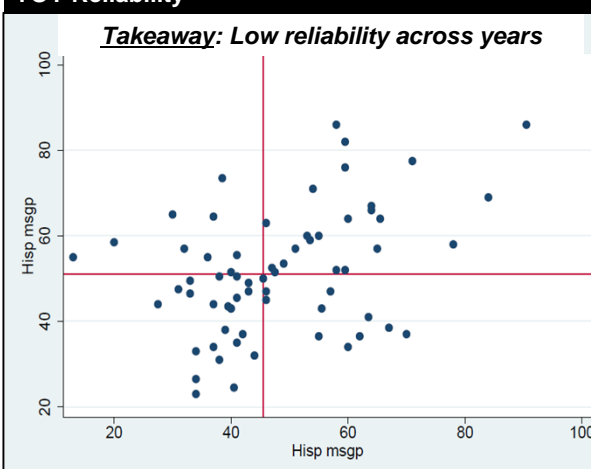
- **100 points** – SGP of 60 points or higher; or SGP improvement of 15 or more points from prior year
- **75 points** – SGP between 51 and 59; or 10-14 median SGP point improvement; or decreased non-proficient percent by 10 percent or more from prior year
- **50 points** – SGP of 41 – 50; or 1-9 point SGP improvement from prior year
- **25 points** – SGP of 31 – 40
- **0 points** – SGP of 1 – 30

Note: Each school was given a separate median SGP score for the following student subgroups: Black, Hispanic, Asian, and White, and Special Education. These 5 separate scores were then averaged together to arrive at one master score for this metric. Please note that this analysis was only conducted for Black, Hispanic, White, and Asian subgroups

Distribution – all schools



YOY Reliability



Note: This metric does not include English Language Learners, ELD levels 1, 2, and 3 or Special Education students not in resource rooms

Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Performance

ELA median SGP – by Subgroup (White)

Overall Recommendation: Include

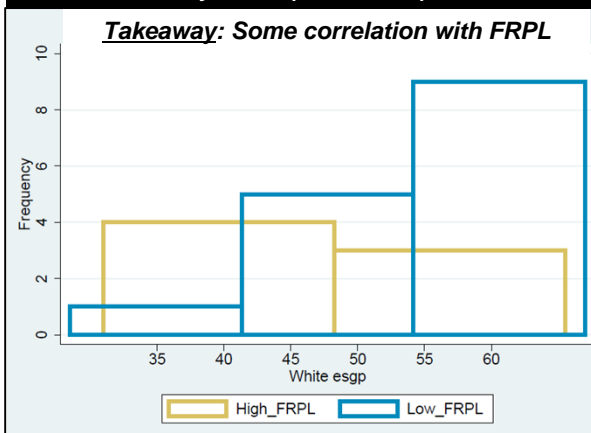
Key Takeaways

- **Pros:** Some distribution across schools (though not normally)
- **Cons:** Poor YoY reliability

FRPL Correlation: -.40

Student Success Correlation: n/a

Distribution – by FRPL (all schools)

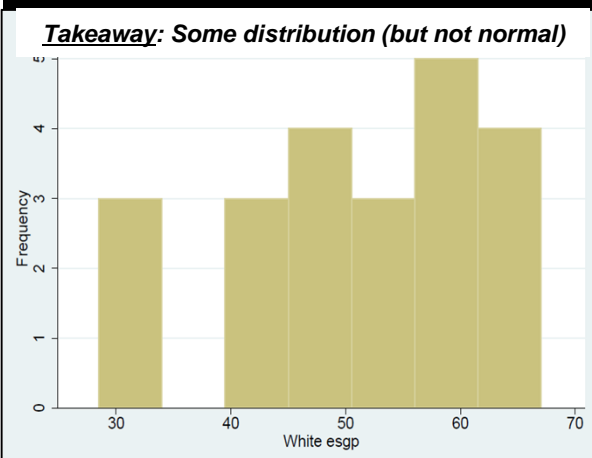


Coefficient: -.40

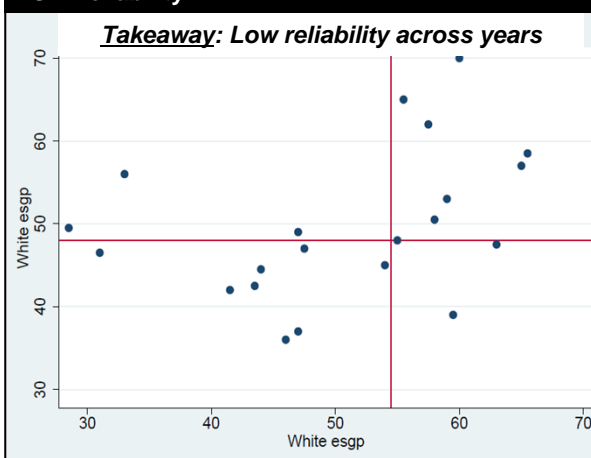
Cut-Offs & Methodology

- **100 points** – SGP of 60 points or higher; or SGP improvement of 15 or more points from prior year
- **75 points** – SGP between 51 and 59; or 10-14 median SGP point improvement; or decreased non-proficient percent by 10 percent or more from prior year
- **50 points** – SGP of 41 – 50; or 1-9 point SGP improvement from prior year
- **25 points** – SGP of 31 – 40
- **0 points** – SGP of 1 – 30
- Note: Each school was given a separate median SGP score for the following student subgroups: Black, Hispanic, Asian, and White, and Special Education. These 5 separate scores were then averaged together to arrive at one master score for this metric. Please note that this analysis was only conducted for Black, Hispanic, White, and Asian subgroups

Distribution – all schools



YOY Reliability



Note: This metric does not include English Language Learners, ELD levels 1, 2, and 3 or Special Education students not in resource rooms

Note: For FRPL distribution, “weakly correlated” is classified as 0 to +/-0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Performance

Math median SGP – by Subgroup (White)

Overall Recommendation: Include

Key Takeaways

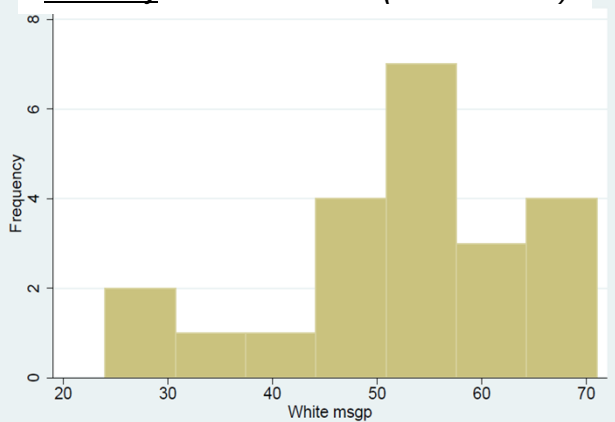
- **Pros:** Distributed across schools (though not normally)
- **Cons:** Poor YoY reliability

FRPL Correlation: $-.37$

Student Success Correlation: n/a

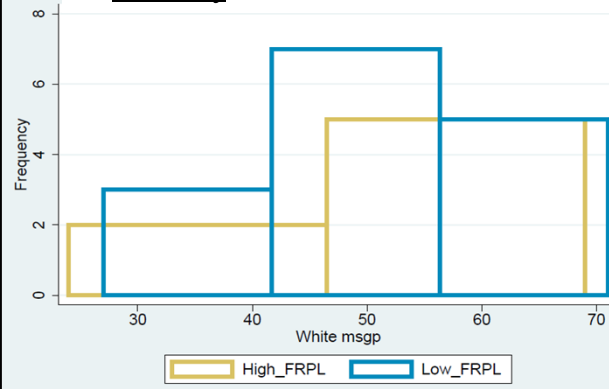
Distribution – all schools

Takeaway: Some distribution (but not normal)



Distribution – by FRPL (all schools)

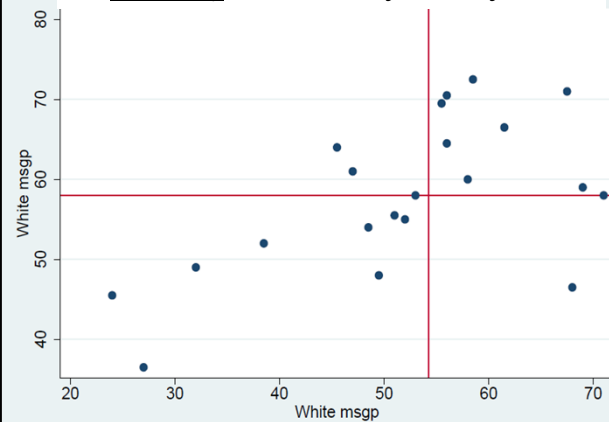
Takeaway: Some correlation with FRPL



Coefficient: $-.37$

YOY Reliability

Takeaway: Low reliability across years



Cut-Offs & Methodology

- **100 points** – SGP of 60 points or higher; or SGP improvement of 15 or more points from prior year
- **75 points** – SGP between 51 and 59; or 10-14 median SGP point improvement; or decreased non-proficient percent by 10 percent or more from prior year
- **50 points** – SGP of 41 – 50; or 1-9 point SGP improvement from prior year
- **25 points** – SGP of 31 – 40
- **0 points** – SGP of 1 – 30
- Note: Each school was given a separate median SGP score for the following student subgroups: Black, Hispanic, Asian, and White, and Special Education. These 5 separate scores were then averaged together to arrive at one master score for this metric. Please note that this analysis was only conducted for Black, Hispanic, White, and Asian subgroups

Note: This metric does not include English Language Learners, ELD levels 1, 2, and 3 or Special Education students not in resource rooms

Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3 .

Student Performance

Median SGP for students who are Proficient on MCAS – ELA

Overall Recommendation: **Include**

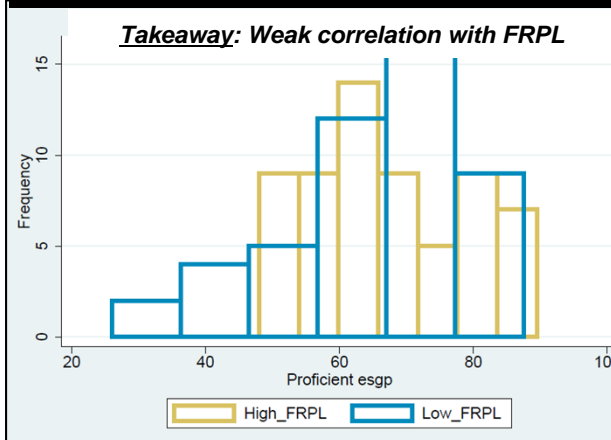
Key Takeaways

- **Pros:** Normally distributed; relatively stable YoY reliability
- **Cons:** n/a

FRPL Correlation: $-.14$

Student Success Correlation: n/a

Distribution – by FRPL (all schools)

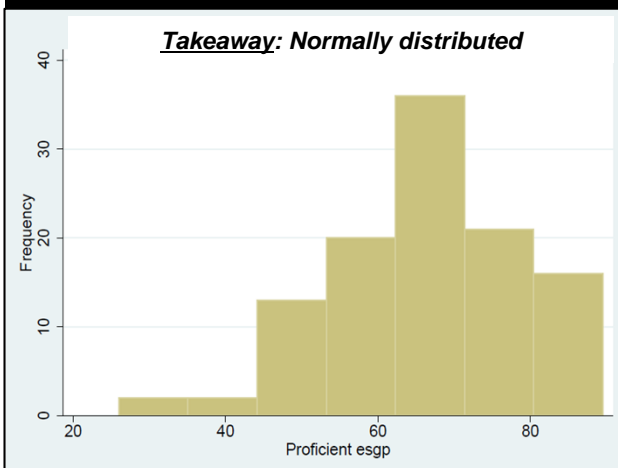


Coefficient: $-.14$

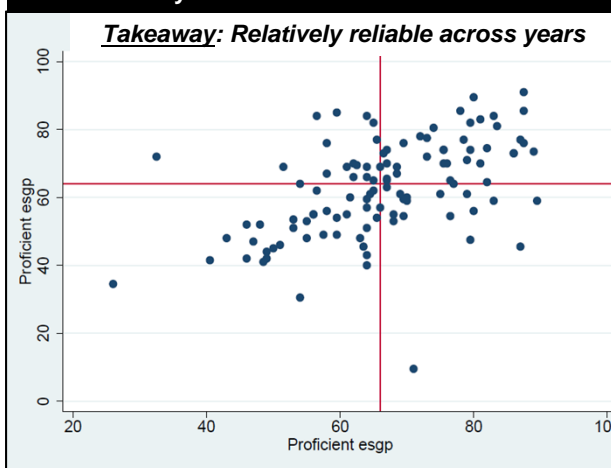
Cut-Offs & Methodology

- **100 points** – SGP of 60 points or higher; or SGP improvement of 15 or more points from prior year
- **75 points** – SGP between 51 and 59 or 10-14 median SGP point improvement
- **50 points** – SGP of 41 – 50; or 1-9 point SGP improvement from prior year
- **25 points** – SGP of 31 - 40
- **0 points** – SGP of 1 - 30

Distribution – all schools



YOY Reliability



Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Performance

Median SGP for students who are Proficient on MCAS – Math

Overall Recommendation: Include

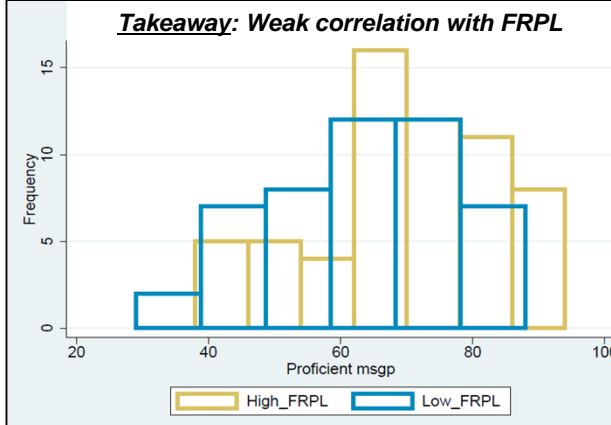
Key Takeaways

- **Pros:** Normally distributed
- **Cons:** Poor YoY reliability

FRPL Correlation: $-.11$

Student Success Correlation: n/a

Distribution – by FRPL (all schools)

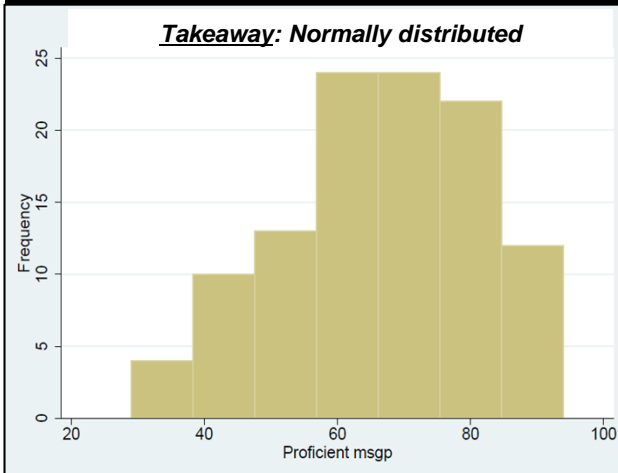


Coefficient: $-.11$

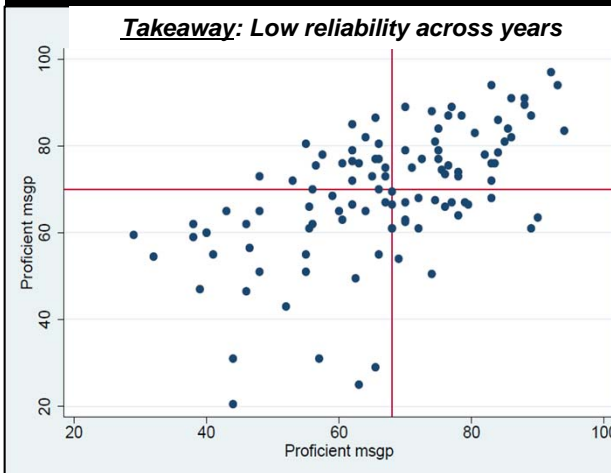
Cut-Offs & Methodology

- **100 points** – SGP of 60 points or higher; or SGP improvement of 15 or more points from prior year
- **75 points** – SGP between 51 and 59 or 10-14 median SGP point improvement
- **50 points** – SGP of 41 – 50; or 1-9 point SGP improvement from prior year
- **25 points** – SGP of 31 - 40
- **0 points** – SGP of 1 - 30

Distribution – all schools



YOY Reliability



Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Performance

Median SGP for students who are Warning/Failing on MCAS – ELA

Overall Recommendation: **Include**

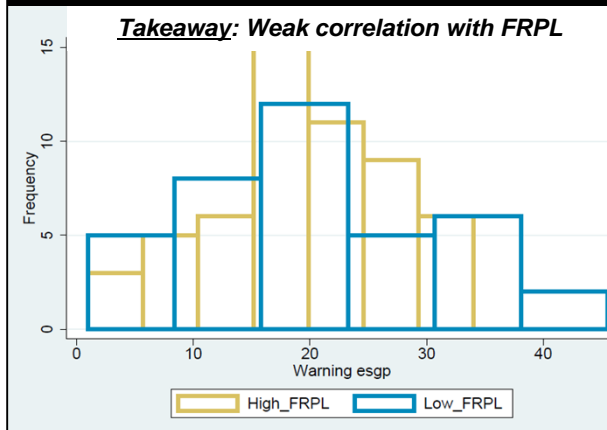
Key Takeaways

- **Pros:** Normally distributed
- **Cons:** Poor YoY reliability

FRPL Correlation: $-.17$

Student Success Correlation: n/a

Distribution – by FRPL (all schools)

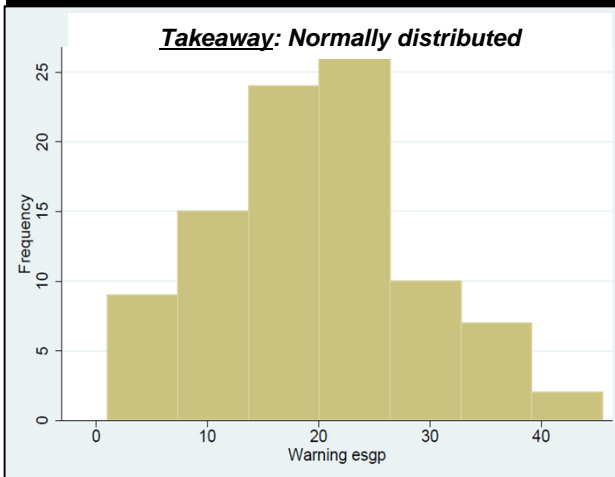


Coefficient: $-.17$

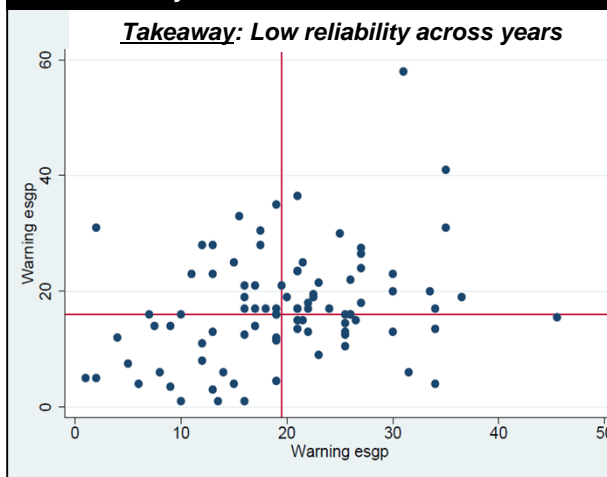
Cut-Offs & Methodology

- **100 points** – SGP of 60 points or higher; or SGP improvement of 15 or more points from prior year
- **75 points** – SGP between 51 and 59 or 10-14 median SGP point improvement
- **50 points** – SGP of 41 – 50; or 1-9 point SGP improvement from prior year
- **25 points** – SGP of 31 - 40
- **0 points** – SGP of 1 - 30

Distribution – all schools



YOY Reliability



Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3 .

Student Performance

Median SGP for students who are Warning/Failing on MCAS – Math

Overall Recommendation: **Include**

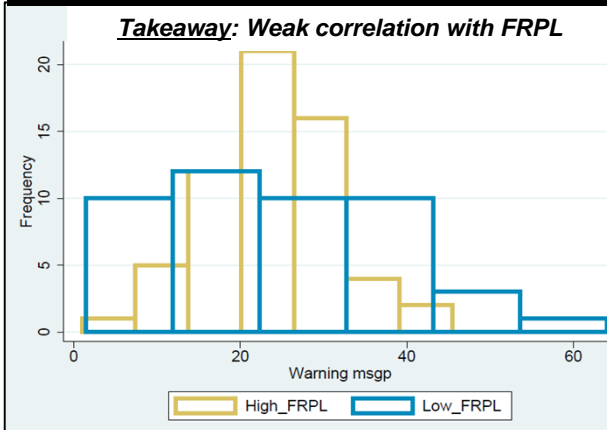
Key Takeaways

- **Pros:** Normally distributed
- **Cons:** Poor YoY reliability

FRPL Correlation: $-.17$

Student Success Correlation: n/a

Distribution – by FRPL (all schools)

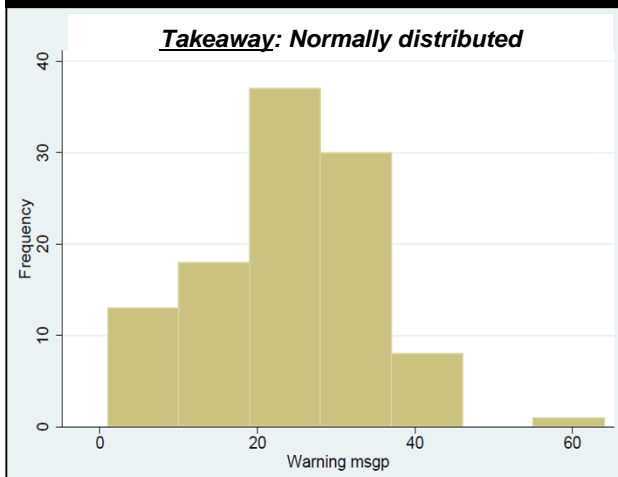


Coefficient: $-.17$

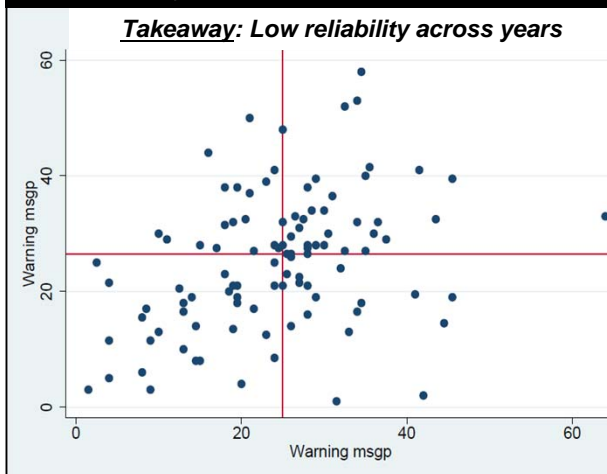
Cut-Offs & Methodology

- **100 points** – SGP of 60 points or higher; or SGP improvement of 15 or more points from prior year
- **75 points** – SGP between 51 and 59 or 10-14 median SGP point improvement
- **50 points** – SGP of 41 – 50; or 1-9 point SGP improvement from prior year
- **25 points** – SGP of 31 - 40
- **0 points** – SGP of 1 - 30

Distribution – all schools



YOY Reliability



Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3 .

Teaching and Learning

Climate Survey Outcome: All students are taught by effective, caring and committed teachers

Overall Recommendation: Include

Key Takeaways

- **Pros:** Normally distributed
- **Cons:** Weak correlation with SGP

FRPL Correlation: $-.13$

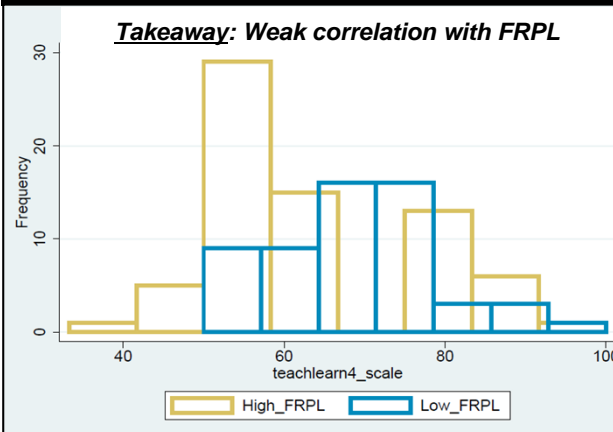
Student Success Correlation:

* = statistically significant

MSGP: 0.11

ESGP: 0.32

Distribution – by FRPL (all schools)



Coefficient: $-.13$

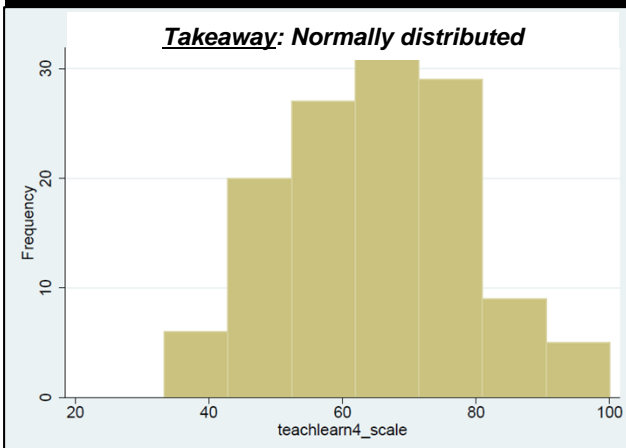
Cut-Offs & Methodology

Each school's average Likert scale scores were compared to the average of all schools in the same level (elementary, middle, high). The decimal points below indicate a school's distance from the mean in either direction.

- **100 points** – $.5$ or higher
- **75 points** – Between 0 and $.5$
- **50 points** – Between $-.5$ and 0
- **25 points** – $-.5$ or below
- **0 points** – School received less than 30 respondents

Note: any school that received a 3.5 or higher on the Likert scale received 100 points for that question

Distribution – all schools



YOY Reliability

Data not available

Note: This outcome is measured through three metrics (Student climate survey questions on teacher effectiveness, Teacher climate survey questions on teacher skills and knowledge, Parent climate survey question on teacher commitment to student learning)

Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3 .

Teaching and Learning

Climate Survey Outcome: The School is led by effective instructional leader(s)

Overall Recommendation: **Include**

Key Takeaways

- **Pros:** Approx. normal distribution
- **Cons:** Weak correlation with SGP

FRPL Correlation: -.15

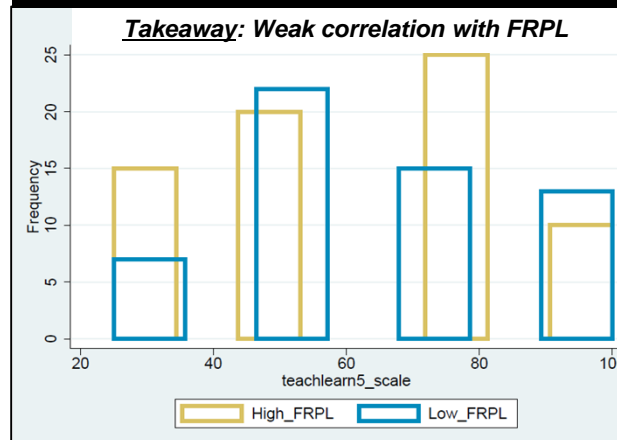
Student Success Correlation:

* = statistically significant

MSGP: 0.14

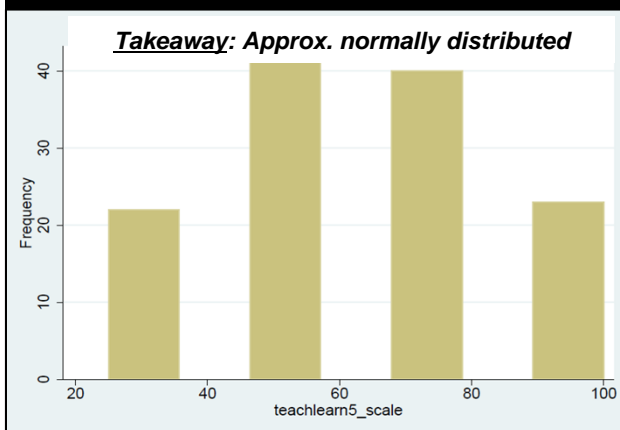
ESGP: -0.03

Distribution – by FRPL (all schools)



Coefficient: -.15

Distribution – all schools



YOY Reliability

Data not available

Cut-Offs & Methodology

Each school's average Likert scale scores were compared to the average of all schools in the same level (elementary, middle, high). The decimal points below indicate a school's distance from the mean in either direction.

- **100 points** – .5 or higher
- **75 points** – Between 0 and .5
- **50 points** – Between -.5 and 0
- **25 points** – -.5 or below
- **0 points** – School received less than 30 respondents

Note: any school that received a 3.5 or higher on the Likert scale received 100 points for that question

Note: This outcome is measured by the metric "Teacher climate survey questions on school leaders' standards and expectations for teaching"

Note: For FRPL distribution, "weakly correlated" is classified as 0 to +/-0.3 (inclusive). "Some correlation" is classified as above 0.3 or below -0.3.

Teaching and Learning

Climate Survey Outcome: All Students are exposed to engaging and rigorous curriculum

Overall Recommendation: Include

Key Takeaways

- **Pros:** Approx. normal distribution
- **Cons:** n/a

FRPL Correlation: $-.23$

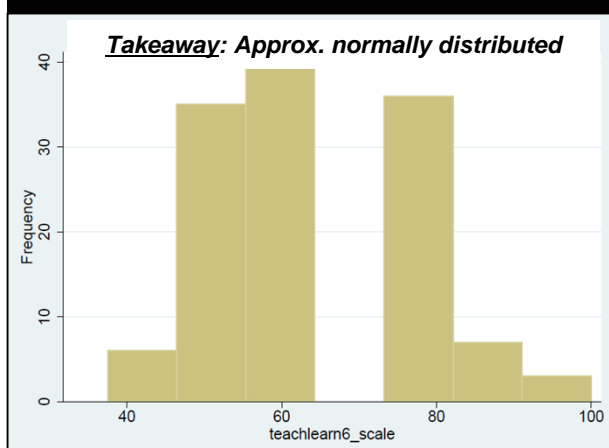
Student Success Correlation:

* = statistically significant

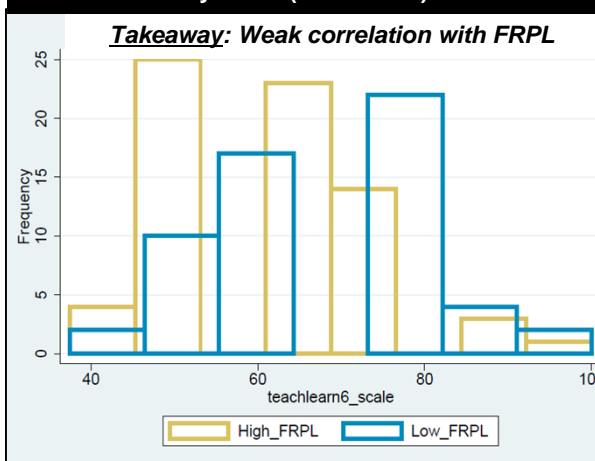
MSGP: 0.26^*

ESGP: 0.48^*

Distribution – all schools



Distribution – by FRPL (all schools)



Coefficient: $-.23$

YOY Reliability

Data not available

Cut-Offs & Methodology

Each school's average Likert scale scores were compared to the average of all schools in the same level (elementary, middle, high). The decimal points below indicate a school's distance from the mean in either direction.

- **100 points** – $.5$ or higher
- **75 points** – Between 0 and $.5$
- **50 points** – Between $-.5$ and 0
- **25 points** – $-.5$ or below
- **0 points** – School received less than 30 respondents

Note: any school that received a 3.5 or higher on the Likert scale received 100 points for that question

Note: This outcome is measured through three metrics (Percentage of students that felt school prepared them, Student climate survey question on preparation for the next grade or college, Parent climate survey question on preparation for the next grade or college)

Note: For FRPL distribution, "weakly correlated" is classified as 0 to ± 0.3 (inclusive). "Some correlation" is classified as above 0.3 or below -0.3 .

Family, Community, and Culture

Climate Survey Outcome: The school is safe, well-organized, and conducive to meeting goals

Overall Recommendation: **Include**

Key Takeaways

- **Pros:** Normally distributed
- **Cons:** n/a

FRPL Correlation: $-.43$

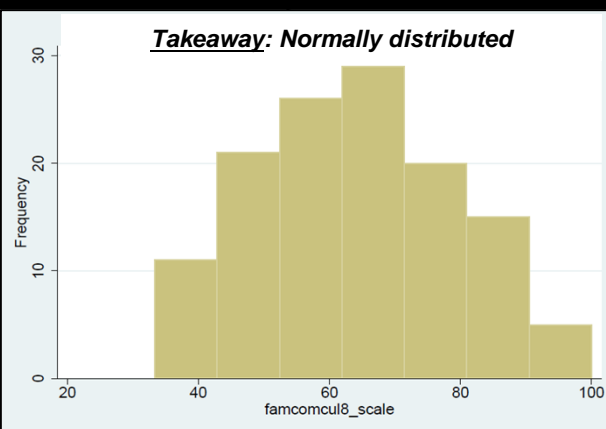
Student Success Correlation:

* = statistically significant

MSGP: 0.35^*

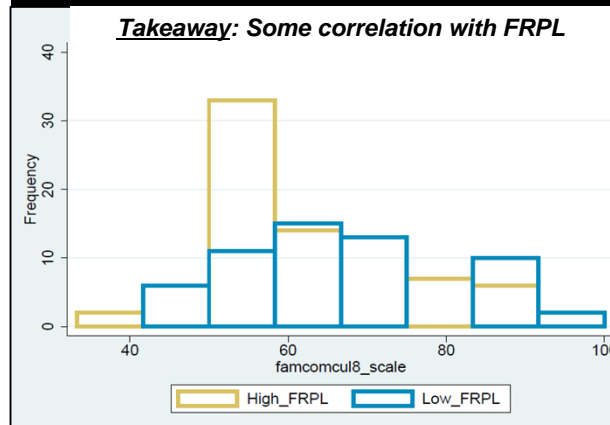
ESGP: 0.36^*

Distribution – all schools



**Denotes statistical significance*

Distribution – by FRPL (all schools)



Coefficient: $-.43$

YOY Reliability

Data not available

Cut-Offs & Methodology

Each school's average Likert scale scores were compared to the average of all schools in the same level (elementary, middle, high). The decimal points below indicate a school's distance from the mean in either direction.

- **100 points** – $.5$ or higher
- **75 points** – Between 0 and $.5$
- **50 points** – Between $-.5$ and 0
- **25 points** – $-.5$ or below
- **0 points** – School received less than 30 respondents

Note: any school that received a 3.5 or higher on the Likert scale received 100 points for that question

Note: This outcome is measured through three metrics (Student climate survey questions on discipline, consequences, and bullying prevention; Teacher climate survey questions on classroom management and organization; Parent climate survey questions on feelings of safety at school)

Note: For FRPL distribution, "weakly correlated" is classified as 0 to ± 0.3 (inclusive). "Some correlation" is classified as above 0.3 or below -0.3 .

Family, Community & Culture

Average daily attendance

Overall Recommendation: **Include**

Key Takeaways

- **Pros:** n/a
- **Cons:** Skewed distribution

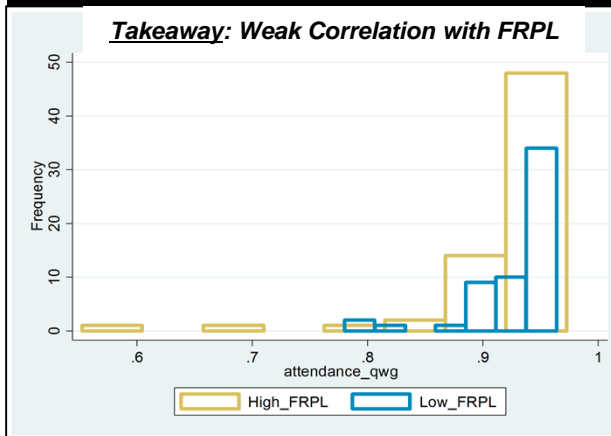
FRPL Correlation: **-.17**

Student Success Correlation:
* = statistically significant

MSGP: .50*

ESGP: .29*

Distribution – Two Way

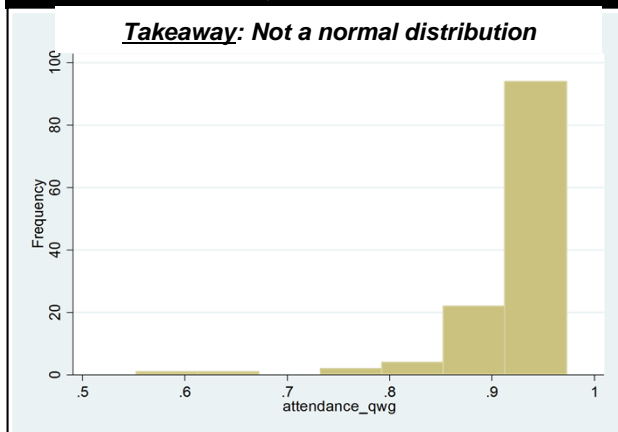


Coefficient: **-.17**

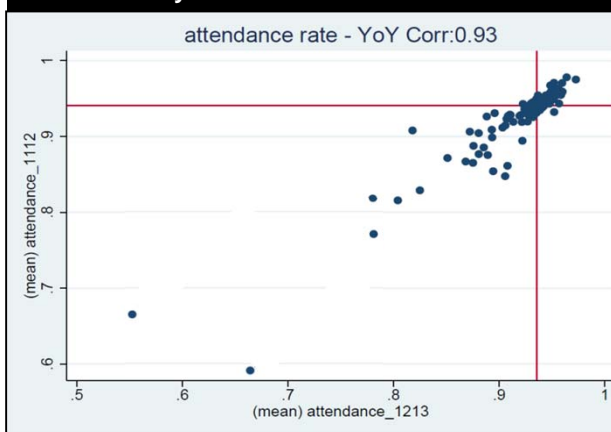
Cut-Offs & Methodology

- **100 points** – greater than 92%
- **75 points** – 92%
- **50 points** – less than 92% and greater than SY 2012-13
- **25 points** – greater than or equal to SY 2012-13 by 2 percentage points, and less than or equal to SY 2012-13
- **0 points** – less than SY 2012-13 by 2 percentage points

Distribution – One Way



YOY Reliability



Note: For FRPL distribution, “weakly correlated” is classified as 0 to +/-0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Family, Community, and Culture

Climate Survey Outcome: All students are engaged and enthusiastic about their classes

Overall Recommendation: Include

Key Takeaways

- **Pros:** Approx. normally distributed (for scaled values)
- **Cons:** n/a

FRPL Correlation: $-.17$

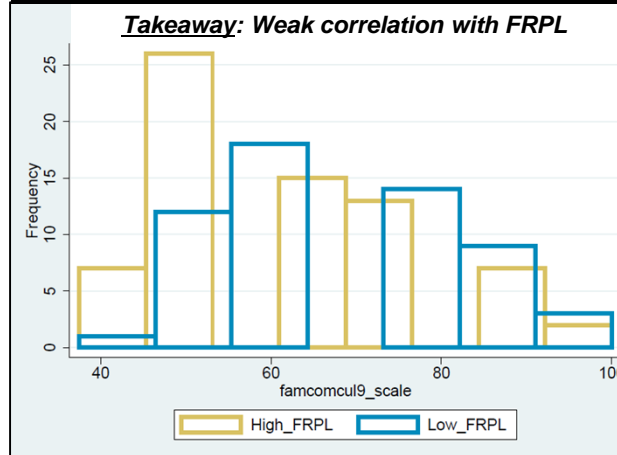
Student Success Correlation:

* = statistically significant

MSGP: 0.30^*

ESGP: 0.29^*

Distribution – by FRPL (all schools)



Coefficient: $-.17$

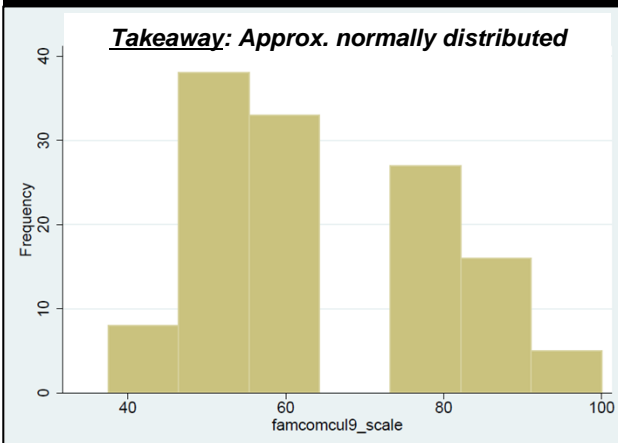
Cut-Offs & Methodology

Each school's average Likert scale scores were compared to the average of all schools in the same level (elementary, middle, high). The decimal points below indicate a school's distance from the mean in either direction.

- **100 points** – $.5$ or higher
- **75 points** – Between 0 and $.5$
- **50 points** – Between $-.5$ and 0
- **25 points** – $-.5$ or below
- **0 points** – School received less than 30 respondents

Note: any school that received a 3.5 or higher on the Likert scale received 100 points for that question

Distribution – all schools



YOY Reliability

Data not available

Note: This outcome is measured through two metrics (Student climate survey questions on engagement and enthusiasm for learning; Teacher climate survey questions on student effort)

Note: For FRPL distribution, "weakly correlated" is classified as 0 to ± 0.3 (inclusive). "Some correlation" is classified as above 0.3 or below -0.3 .

Family, Community, and Culture

Climate Survey Outcome: Schools ensure all families feel welcomed and are involved

Overall Recommendation: Include

Key Takeaways

- **Pros:** Normally distributed
- **Cons:** n/a

FRPL Correlation: $-.34$

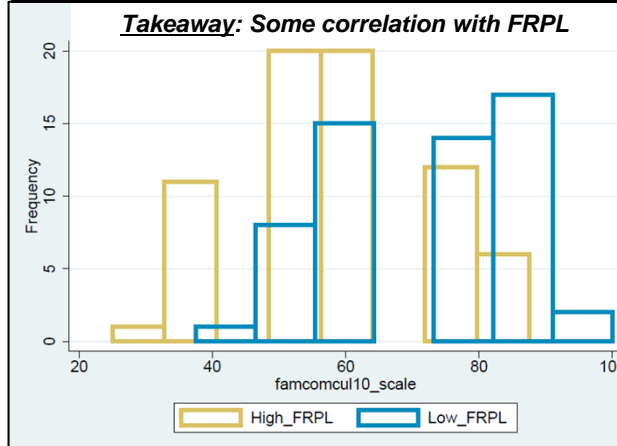
Student Success Correlation:

* = statistically significant

MSGP: 0.21^*

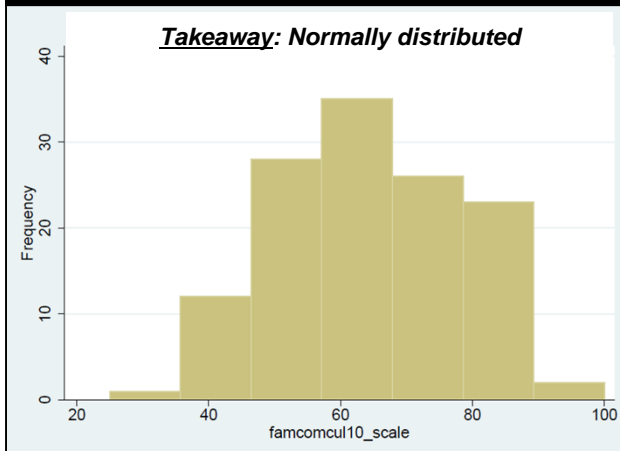
ESGP: 0.23^*

Distribution – by FRPL (all schools)



Coefficient: $-.34$

Distribution – all schools



YOY Reliability

Data not available

Cut-Offs & Methodology

Each school's average Likert scale scores were compared to the average of all schools in the same level (elementary, middle, high). The decimal points below indicate a school's distance from the mean in either direction.

- **100 points** – $.5$ or higher
- **75 points** – Between 0 and $.5$
- **50 points** – Between $-.5$ and 0
- **25 points** – $-.5$ or below
- **0 points** – School received less than 30 respondents

Note: any school that received a 3.5 or higher on the Likert scale received 100 points for that question

Note: This outcome is measured through two metrics (Teacher climate survey questions on parent engagement in learning; Parent climate survey questions on communication, accessibility, and decision-making)

Note: For FRPL distribution, "weakly correlated" is classified as 0 to ± 0.3 (inclusive). "Some correlation" is classified as above 0.3 or below -0.3 .

Family, Community & Culture

Climate Survey Outcome: The school promotes inclusion of students, families & stakeholders

Overall Recommendation: **Include**

Key Takeaways

- **Pros:** Approx. normally distributed (for scaled values)
- **Cons:** Weak correlation with SGP

FRPL Correlation: $-.23$

Student Success Correlation:

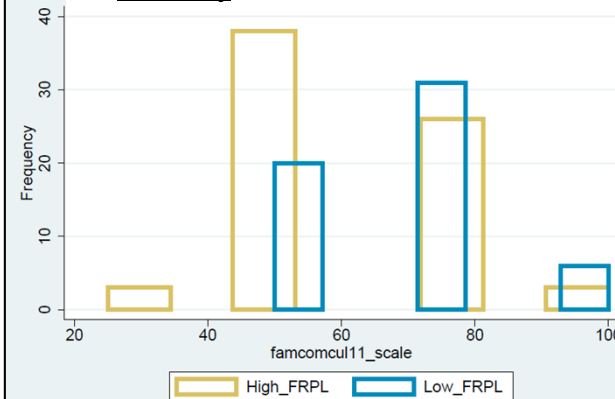
* = statistically significant

MSGP: 0.08

ESGP: 0.21

Distribution – by FRPL (all schools)

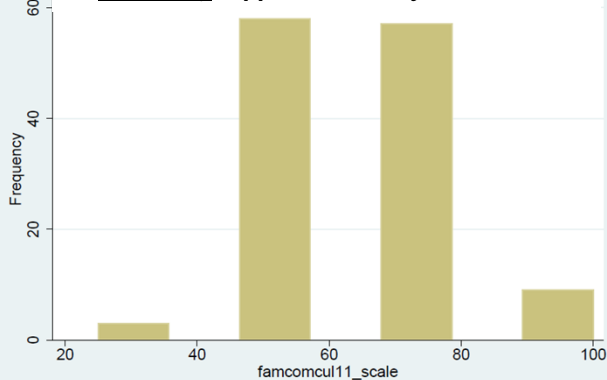
Takeaway: Weak correlation with FRPL



Coefficient: $-.23$

Distribution – all schools

Takeaway: Approx. normally distributed



YOY Reliability

Data not available

Cut-Offs & Methodology

Each school's average Likert scale scores were compared to the average of all schools in the same level (elementary, middle, high). The decimal points below indicate a school's distance from the mean in either direction.

- **100 points** – $.5$ or higher
- **75 points** – Between 0 and $.5$
- **50 points** – Between $-.5$ and 0
- **25 points** – $-.5$ or below
- **0 points** – School received less than 30 respondents

Note: any school that received a 3.5 or higher on the Likert scale received 100 points for that question

Note: This outcome is measured through the metric "Parent climate survey questions on developing thriving, inclusive schools, classrooms, and communities"

Note: For FRPL distribution, "weakly correlated" is classified as 0 to ± 0.3 (inclusive). "Some correlation" is classified as above 0.3 or below -0.3 .

Family, Community & Culture

Percent teachers of color

Overall Recommendation: **Include**

Key Takeaways

- **Pros:** Normally distributed; Strong YoY reliability
- **Cons:** n/a

FRPL Correlation: -.24

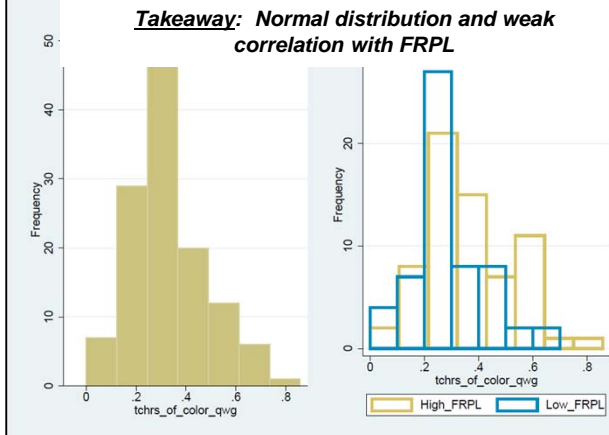
Student Success Correlation:

* = statistically significant

MSGP: -0.07

ESGP: -0.10

Distribution – One & Two Way



Coefficient: -.24

Cut-Offs & Methodology

Percent of Black Teachers:

- **100 points** - +26%
- **75 points** - 25-26%
- **50 points** - 20 - 25%
- **25 points** - 15 - 20%
- **0 points** - less than 15%

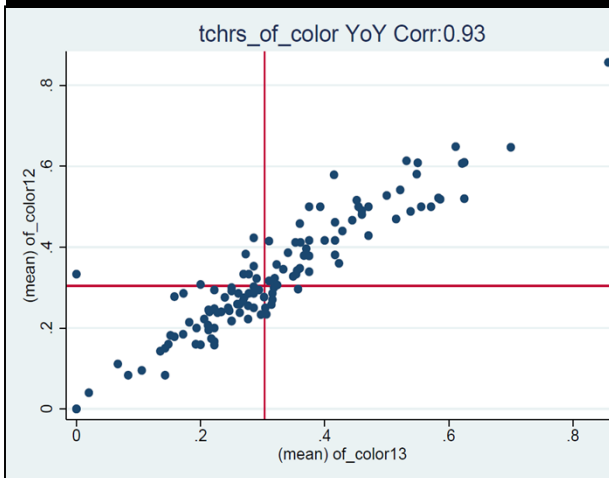
Percent of other Minority Teachers:

- **100 points** - +11%
- **75 points** - 10-11%
- **50 points** - 7-10%
- **25 points** - 5-7%
- **0 points** - less than 5%

Distribution – See top right quadrant

See top right quadrant

YOY Reliability



Note: For FRPL distribution, “weakly correlated” is classified as 0 to +/-0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Family, Community & Culture

Climate Survey Outcome: School demonstrates a culture of high achievement

Overall Recommendation: Include

Key Takeaways

- **Pros:** Approx. normally distributed
- **Cons:** Weak correlation with SGP

FRPL Correlation: $-.08$

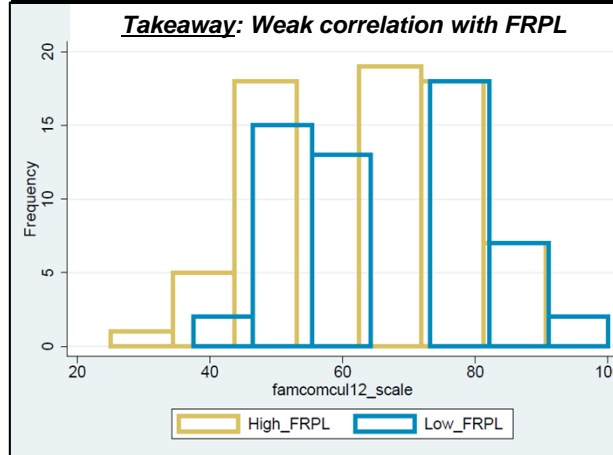
Student Success Correlation:

* = statistically significant

MSGP: 0.16

ESGP: 0.23

Distribution – by FRPL (all schools)



Coefficient: $-.08$

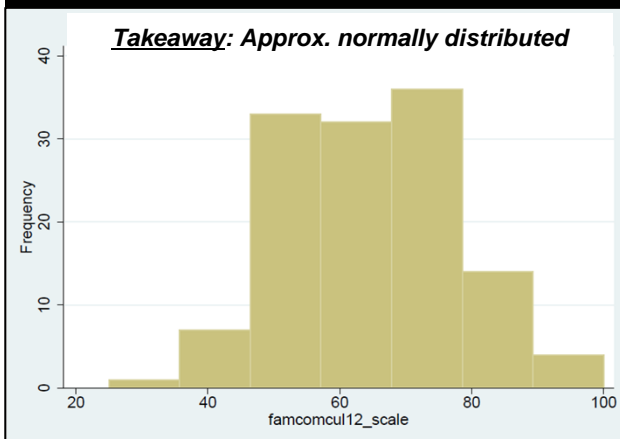
Cut-Offs & Methodology

Each school's average Likert scale scores were compared to the average of all schools in the same level (elementary, middle, high). The decimal points below indicate a school's distance from the mean in either direction.

- 100 points - .5 or higher
- 75 points – Between 0 and .5
- 50 points – Between $-.5$ and 0
- 25 points - $-.5$ or below
- 0 points – School received less than 30 respondents

Note: any school that received a 3.5 or higher on the Likert scale received 100 points for that question

Distribution – all schools



YOY Reliability

Data not available

Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3 .

Family, Community & Culture

Suspension rate *(Note: only included out of school suspensions for final index)*

Overall Recommendation: Include - suspensions only

Key Takeaways

- Pros:**
 - Minimizing both in- and out-of-school suspensions is a district priority; BPS wants to encourage alternate disciplinary tactics
- Cons:**
 - 26 schools have data indicating zero suspensions in '12-'13

FRPL Correlation: -.15

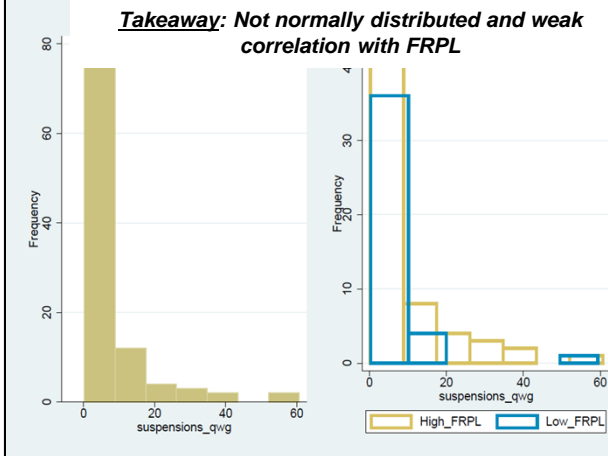
Student Success Correlation:

* = statistically significant

MSGP: -0.26

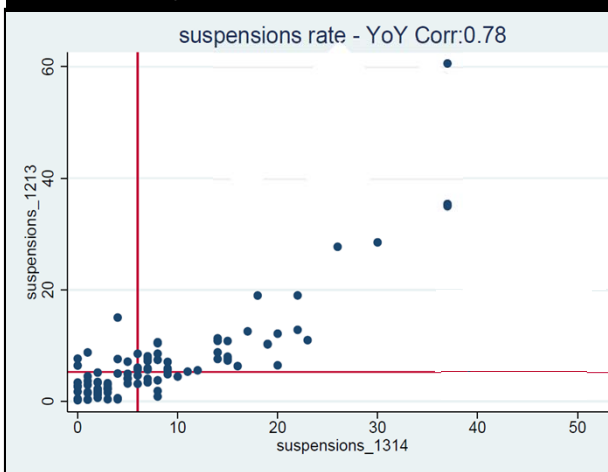
ESGP: -0.10

Distribution – One- & Two-Way



Coefficient: -.15

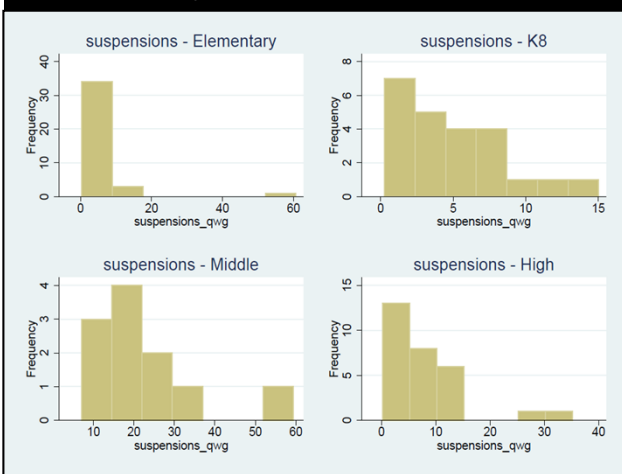
YOY Reliability



Cut-Offs & Methodology

- 100 points** - 0 percent
 - 75 points** - less than 3%
 - 50 points** - 3-10%
 - 25 points** - 10-25%
 - 0 points** - 25%+
- Notes: Cut-offs are based on approximate quartiles
 - Only includes students in grades 6 through 12
 - Suspensions are measured as incidents per 100 students and is not a measure of unique students

Distribution – By School Level



Note: In-school and out of school suspensions are grouped together

Note: For FRPL distribution, "weakly correlated" is classified as 0 to +/-0.3 (inclusive). "Some correlation" is classified as above 0.3 or below -0.3.

Leadership and Collaboration

Climate Survey Outcome: School leadership sets a school vision that engages the community

Overall Recommendation: **Include**

Key Takeaways

- **Pros:** Normally distributed
- **Cons:** n/a

FRPL Correlation: $-.14$

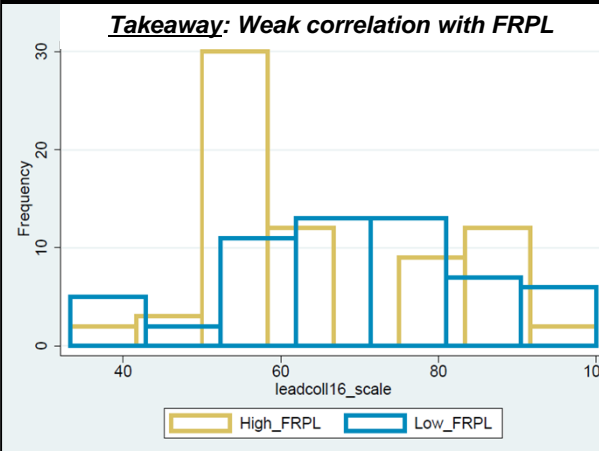
Student Success Correlation:

* = statistically significant

MSGP: 0.24^*

ESGP: 0.33^*

Distribution – by FRPL (all schools)



Coefficient: $-.14$

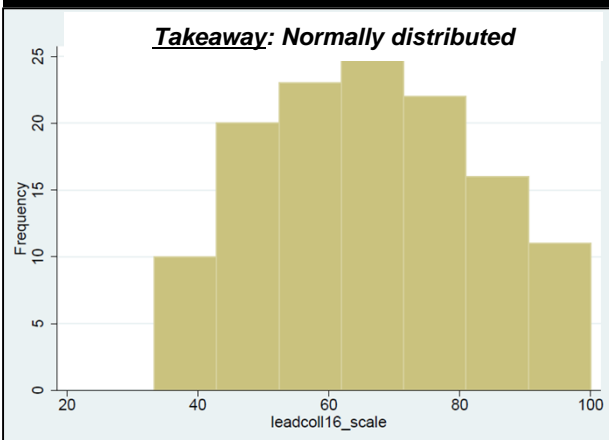
Cut-Offs & Methodology

Each school's average Likert scale scores were compared to the average of all schools in the same level (elementary, middle, high). The decimal points below indicate a school's distance from the mean in either direction.

- **100 points** – $.5$ or higher
- **75 points** – Between 0 and $.5$
- **50 points** – Between $-.5$ and 0
- **25 points** – $-.5$ or below
- **0 points** – School received less than 30 respondents

Note: any school that received a 3.5 or higher on the Likert scale received 100 points for that question

Distribution – all schools



YOY Reliability

Data not available

Note: This outcome is measured through three metrics (Student climate survey questions on principal effectiveness and outreach to students; Teacher climate survey questions on staff engagement around school success; Parent climate survey question on principal's relationship with students)

Note: For FRPL distribution, "weakly correlated" is classified as 0 to ± 0.3 (inclusive). "Some correlation" is classified as above 0.3 or below -0.3 .

Leadership & Collaboration

Climate Survey Outcome: School leadership creates a culture of collaboration among all staff

Overall Recommendation: Include

Key Takeaways

- **Pros:** Approx. normally distributed (for scaled values)
- **Cons:** Weak correlation with SGP

FRPL Correlation: $-.10$

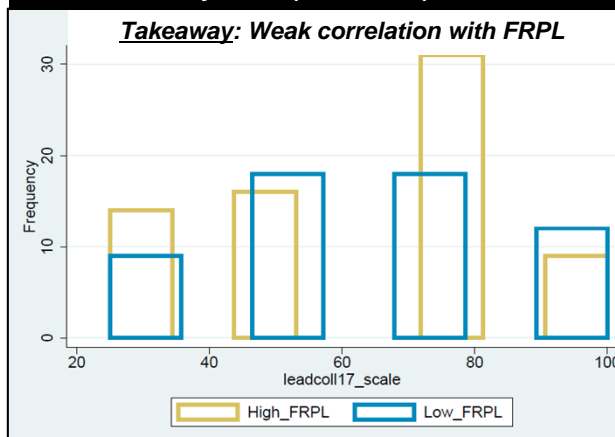
Student Success Correlation:

* = statistically significant

MSGP: 0.05

ESGP: 0.10

Distribution – by FRPL (all schools)



Coefficient: $-.10$

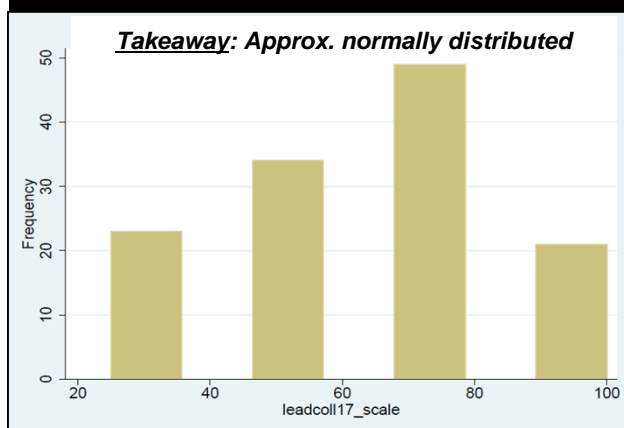
Cut-Offs & Methodology

Each school's average Likert scale scores were compared to the average of all schools in the same level (elementary, middle, high). The decimal points below indicate a school's distance from the mean in either direction.

- **100 points** – $.5$ or higher
- **75 points** – Between 0 and $.5$
- **50 points** – Between $-.5$ and 0
- **25 points** – $-.5$ or below
- **0 points** – School received less than 30 respondents

Note: any school that received a 3.5 or higher on the Likert scale received 100 points for that question

Distribution – all schools



YOY Reliability

Data not available

Note: This outcome is measured through the metric "Teacher climate survey questions on staff collaboration"

Note: For FRPL distribution, "weakly correlated" is classified as 0 to ± 0.3 (inclusive). "Some correlation" is classified as above 0.3 or below -0.3 .

Leadership and Collaboration

Climate Survey Outcome: School leadership develops clear/effective structures for communication

Overall Recommendation: **Include**

Key Takeaways

- **Pros:** Approx. normally distributed (for scaled values)
- **Cons:** Weak correlation with SGP

FRPL Correlation: **-.20**

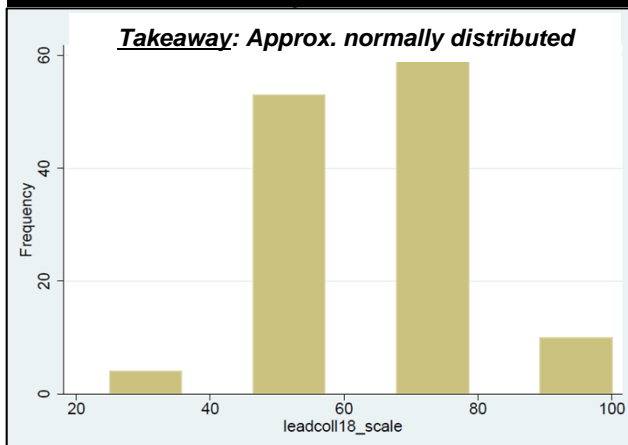
Student Success Correlation:

* = statistically significant

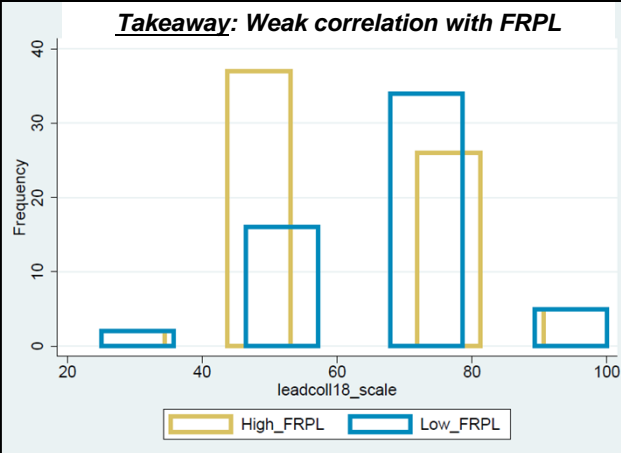
MSGP: 0.09

ESGP: 0.20

Distribution – all schools



Distribution – by FRPL (all schools)



Coefficient: **-.20**

YOY Reliability

Data not available

Cut-Offs & Methodology

Each school's average Likert scale scores were compared to the average of all schools in the same level (elementary, middle, high). The decimal points below indicate a school's distance from the mean in either direction.

- **100 points** – .5 or higher
- **75 points** – Between 0 and .5
- **50 points** – Between -.5 and 0
- **25 points** – -.5 or below
- **0 points** – School received less than 30 respondents

Note: any school that received a 3.5 or higher on the Likert scale received 100 points for that question

Note: This outcome is measured through the metric "Parent climate survey questions on regular and effective communication"

Note: For FRPL distribution, "weakly correlated" is classified as 0 to +/-0.3 (inclusive). "Some correlation" is classified as above 0.3 or below -0.3.

Leadership and Collaboration

Climate Survey Outcome: School leadership builds partnerships including local stakeholders

Overall Recommendation: **Include**

Key Takeaways

- **Pros:** Normally distributed
- **Cons:** Weak correlation with SGP

FRPL Correlation: $-.17$

Student Success Correlation:

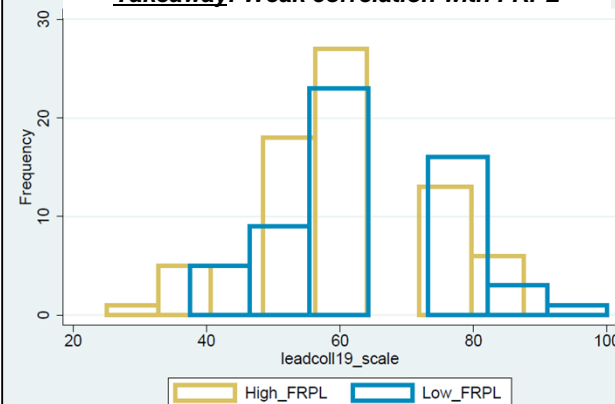
* = statistically significant

MSGP: 0.18

ESGP: 0.38

Distribution – by FRPL (all schools)

Takeaway: *Weak correlation with FRPL*



Coefficient: $-.17$

Cut-Offs & Methodology

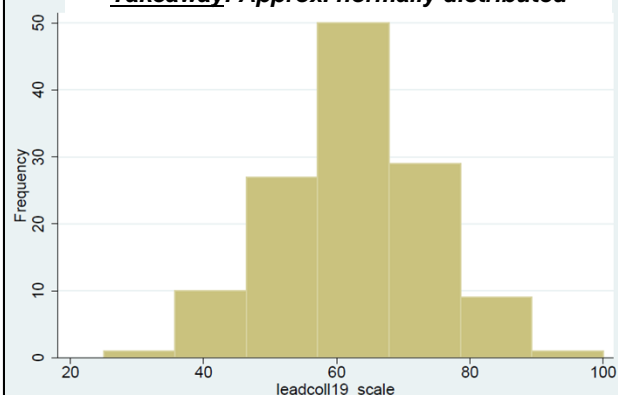
Each school's average Likert scale scores were compared to the average of all schools in the same level (elementary, middle, high). The decimal points below indicate a school's distance from the mean in either direction.

- **100 points** – $.5$ or higher
- **75 points** – Between 0 and $.5$
- **50 points** – Between $-.5$ and 0
- **25 points** – $-.5$ or below
- **0 points** – School received less than 30 respondents

Note: any school that received a 3.5 or higher on the Likert scale received 100 points for that question

Distribution – all schools

Takeaway: *Approx. normally distributed*



YOY Reliability

Data not available

Note: This outcome is measured through two metrics (Student climate survey question on opportunities to participate before and after school; Parent climate survey question on communicate partnerships)

Note: For FRPL distribution, "weakly correlated" is classified as 0 to ± 0.3 (inclusive). "Some correlation" is classified as above 0.3 or below -0.3 .

Leadership and Collaboration

Teacher retention rate for Proficient and Exemplary teachers

Overall Recommendation: **Include**

Key Takeaways

- **Pros:** Critical culture-building metric that will become more accurate as teacher evaluations evolve and improve
- **Cons:** Skewed distribution

FRPL Correlation: $-.17$

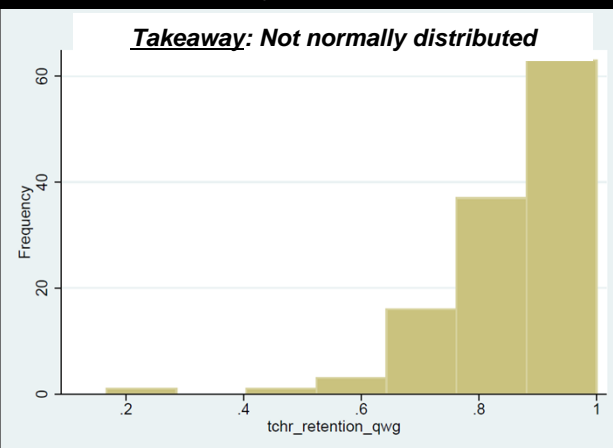
Student Success Correlation:

* = statistically significant

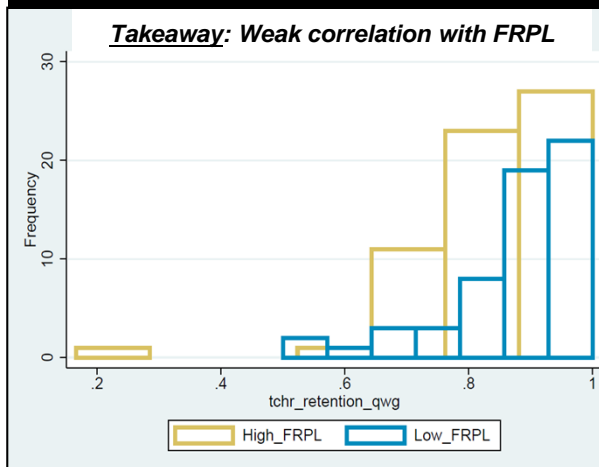
MSGP: 0.13

ESGP: -0.06

Distribution – One-Way

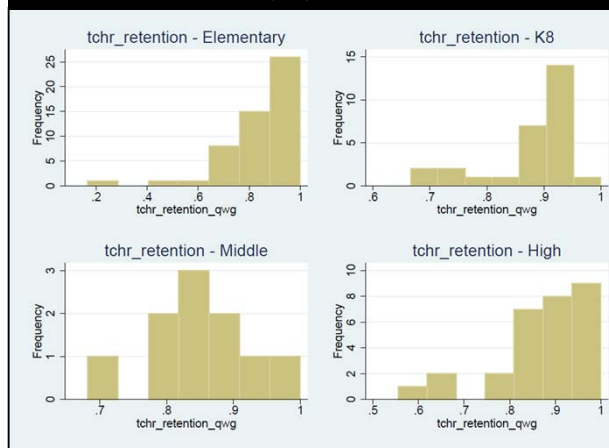


Distribution – Two-Way



Coefficient: $-.17$

Distribution – One-Way by School Level



Cut-Offs & Methodology

- **100 points** - +95% retained
- **75 points** - 90-95% retained
- **50 points** - 80-90% retained
- **25 points** - 50-80% retained
- **0 points** - <50% prof/exemplary teachers retained
- Note: Based on approximate quartile data from 2013 to 2014

Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Leadership and Collaboration

Climate Survey Outcome: School leadership retains and leverages effective teachers

Overall Recommendation: **Include**

Key Takeaways

- **Pros:** Approx. normally distributed (for scaled values)
- **Cons:** Weak correlation with SGP

FRPL Correlation: $-.13$

Student Success Correlation:

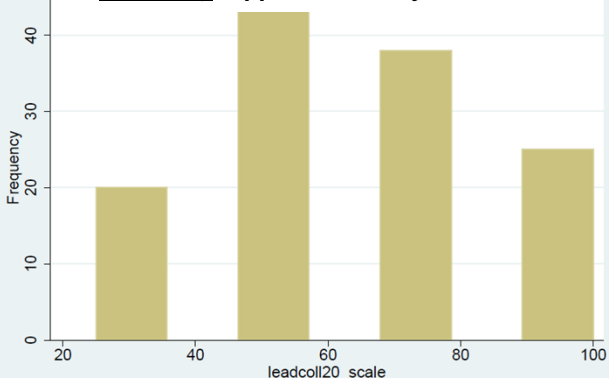
* = statistically significant

MSGP: 0.07

ESGP: -0.08

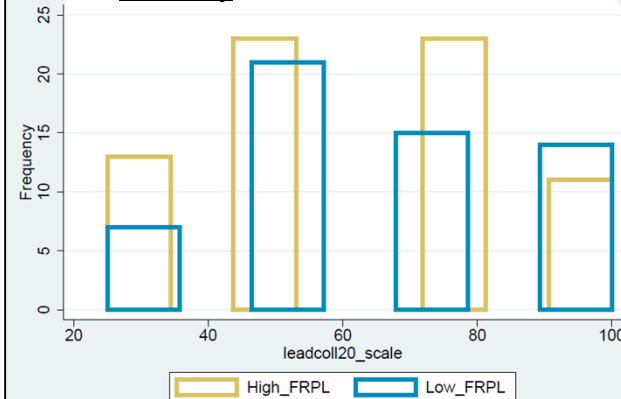
Distribution – all schools

Takeaway: *Approx. normally distributed*



Distribution – by FRPL (all schools)

Takeaway: *Weak correlation with FRPL*



Coefficient: $-.12$

YOY Reliability

Data not available

Cut-Offs & Methodology

Each school's average Likert scale scores were compared to the average of all schools in the same level (elementary, middle, high). The decimal points below indicate a school's distance from the mean in either direction.

- **100 points** – .5 or higher
- **75 points** – Between 0 and .5
- **50 points** – Between -.5 and 0
- **25 points** – -.5 or below
- **0 points** – School received less than 30 respondents

Note: any school that received a 3.5 or higher on the Likert scale received 100 points for that question

Note: This outcome is measured through the metric "Teacher climate survey questions on support, encouragement, and engagement with staff"

Note: For FRPL distribution, "weakly correlated" is classified as 0 to ± 0.3 (inclusive). "Some correlation" is classified as above 0.3 or below -0.3.

Table of Contents

- Executive Summary
- Overview of Framework
- Overall Process and Analysis Methodology
- Summary of Recommended Metrics
- Detailed Analysis – *Metrics to Include*
- Detailed Analysis – *Metrics to Exclude*
- Appendix



Student Performance

Percent of students in 75th growth percentile – by subgroup (Asian) for ELA SGP

Overall Recommendation: Do Not Include

Key Takeaways

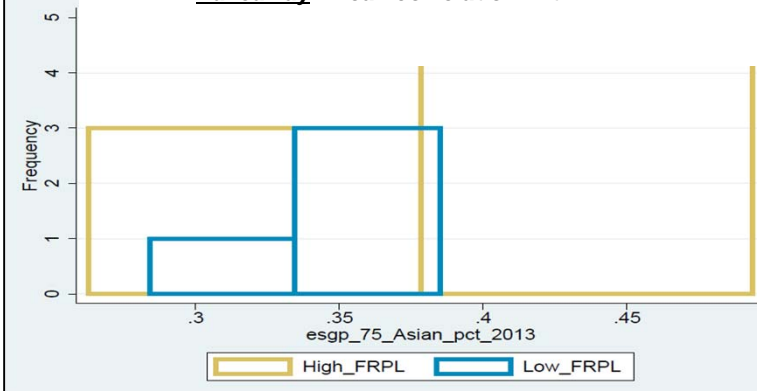
- **Pros:** Distributed across schools, though not normally
- **Cons:** Poor YoY reliability

FRPL Correlation: -.06

Student Success Correlation: n/a

Distribution – by FRPL (all schools)

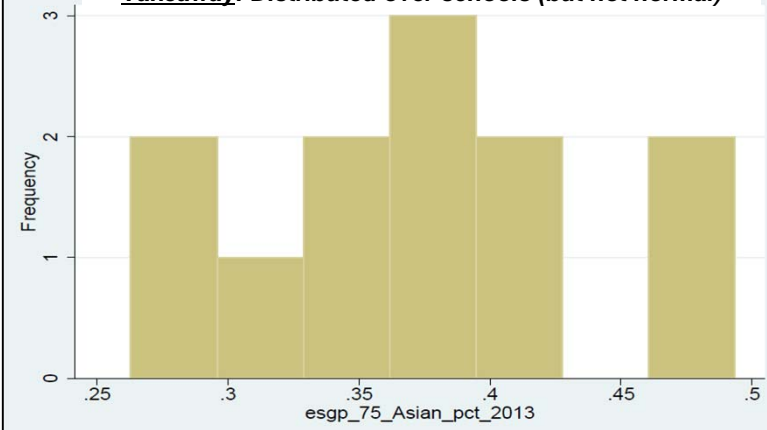
Takeaway: Weak correlation with FRPL



Coefficient: -.06

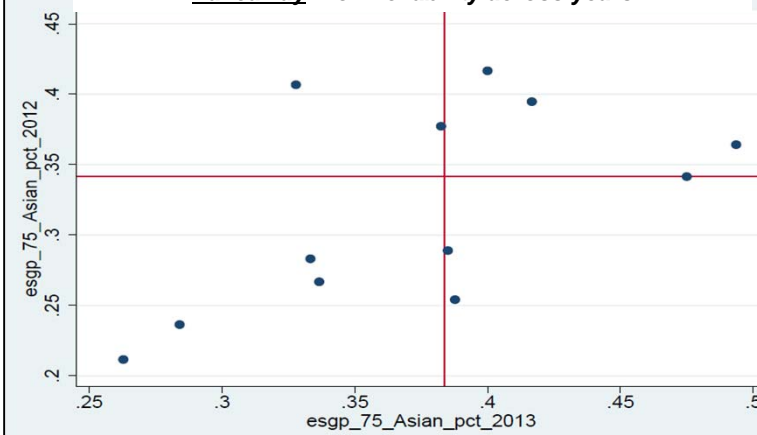
Distribution – all schools

Takeaway: Distributed over schools (but not normal)



YOY Reliability

Takeaway: Low reliability across years



Note: Cut-off guidelines do not apply for metrics that were not included in final index

Note: For FRPL distribution, “weakly correlated” is classified as 0 to +/-0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Performance

Percent of students in 75th growth percentile – by subgroup (Asian) for Math SGP

Overall Recommendation: Do Not Include

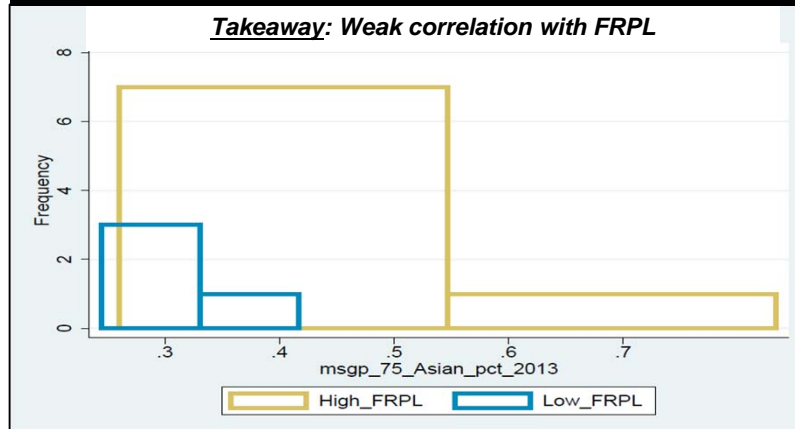
Key Takeaways

- **Pros:** Distributed across schools (though not normally)
- **Cons:** Poor YoY reliability

FRPL Correlation: -.07

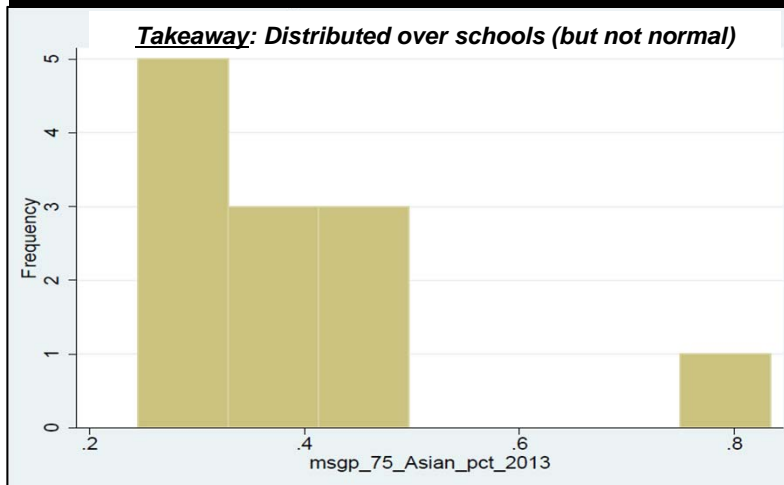
Student Success Correlation: n/a

Distribution – by FRPL (all schools)

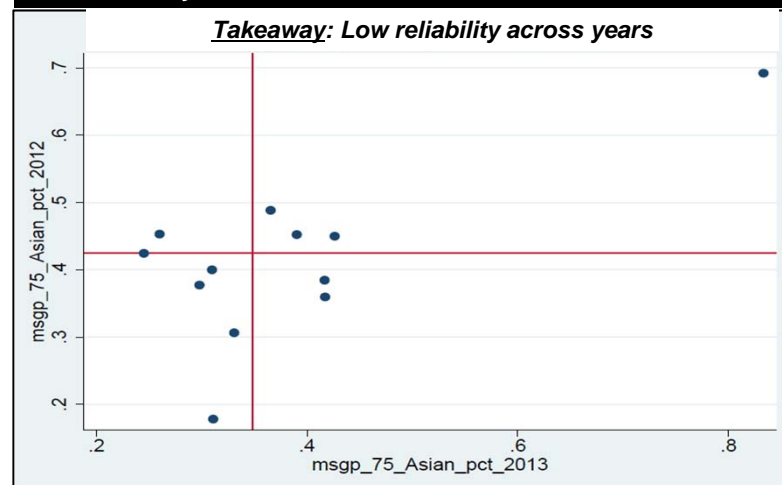


Coefficient: -.07

Distribution – all schools



YOY Reliability



Note: Cut-off guidelines do not apply for metrics that were not included in final index

Note: For FRPL distribution, “weakly correlated” is classified as 0 to +/-0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Performance

Percent of students in 75th growth percentile – by subgroup (Black) for ELA SGP

Overall Recommendation: **Do Not Include**

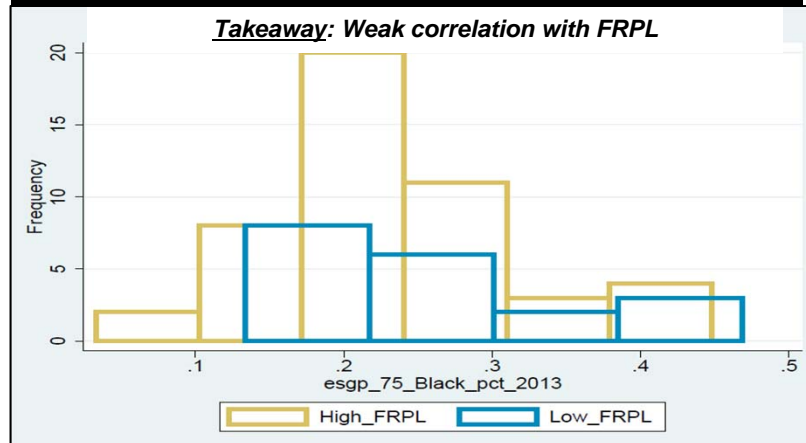
Key Takeaways

- **Pros:** Normally distributed
- **Cons:** Poor YoY reliability

FRPL Correlation: $-.30$

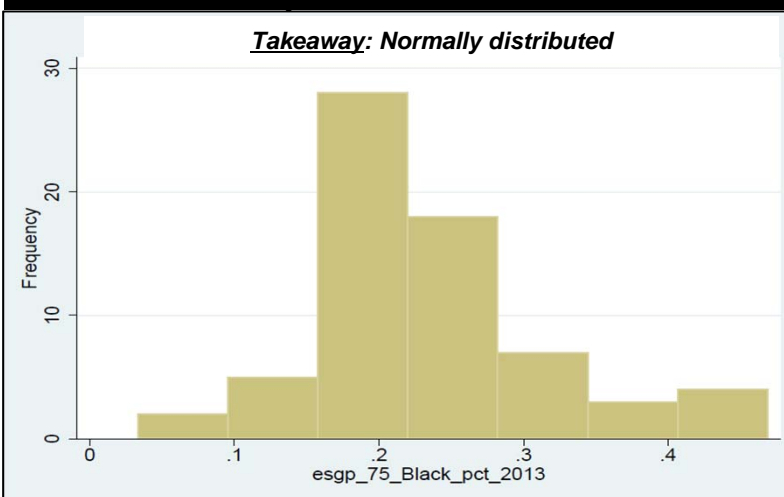
Student Success Correlation: n/a

Distribution – by FRPL (all schools)

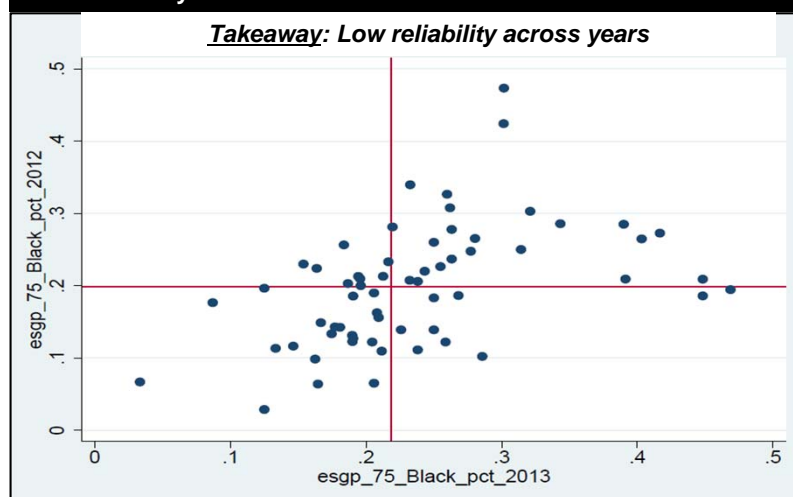


Coefficient: $-.30$

Distribution – all schools



YOY Reliability



Note: Cut-off guidelines do not apply for metrics that were not included in final index

Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Performance

Percent of students in 75th growth percentile – by subgroup (Black) for Math SGP

Overall Recommendation: Do Not Include

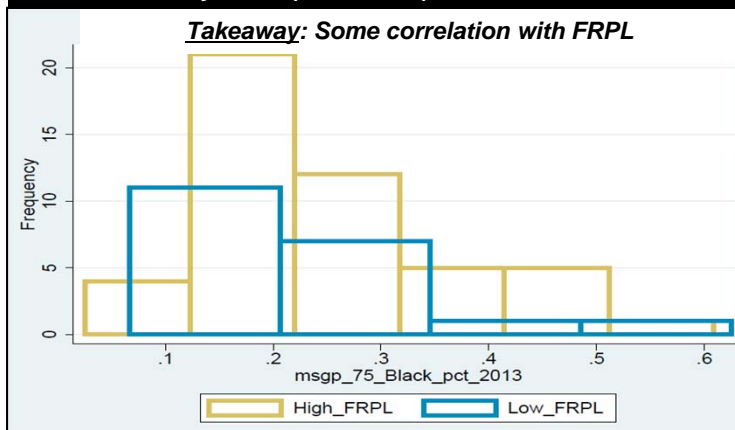
Key Takeaways

- **Pros:** Normally distributed
- **Cons:** Poor YoY reliability

FRPL Correlation: -.32

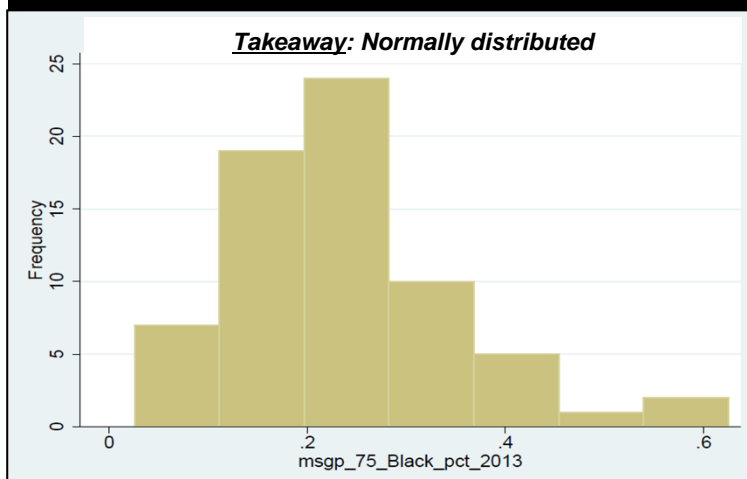
Student Success Correlation: n/a

Distribution – by FRPL (all schools)

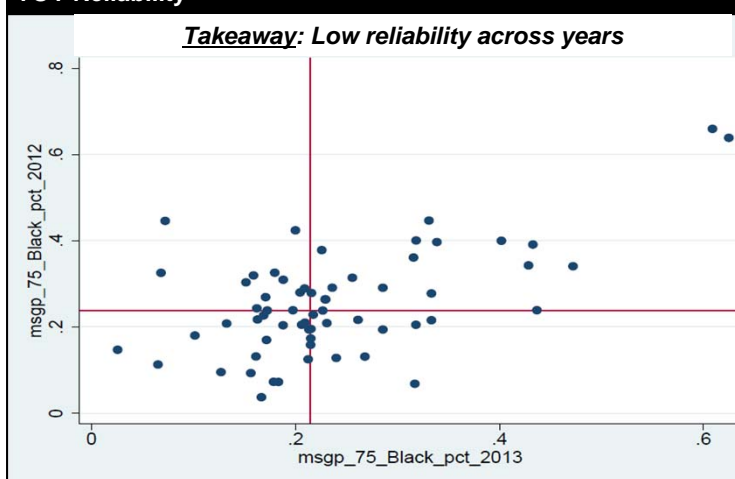


Coefficient: -.32

Distribution – all schools



YOY Reliability



Note: Cut-off guidelines do not apply for metrics that were not included in final index

Note: For FRPL distribution, “weakly correlated” is classified as 0 to +/-0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Performance

Percent of students in 75th growth percentile – by subgroup (Hispanic) for ELA SGP

Overall Recommendation: **Do Not Include**

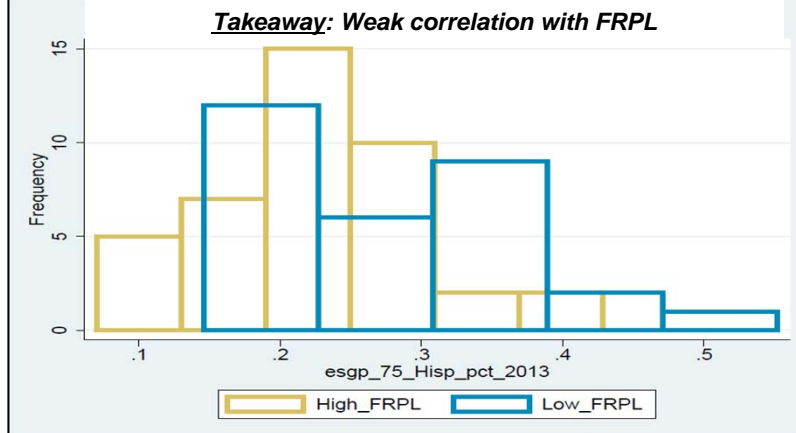
Key Takeaways

- **Pros:** Normally distributed
- **Cons:** Poor YoY reliability

FRPL Correlation: $-.08$

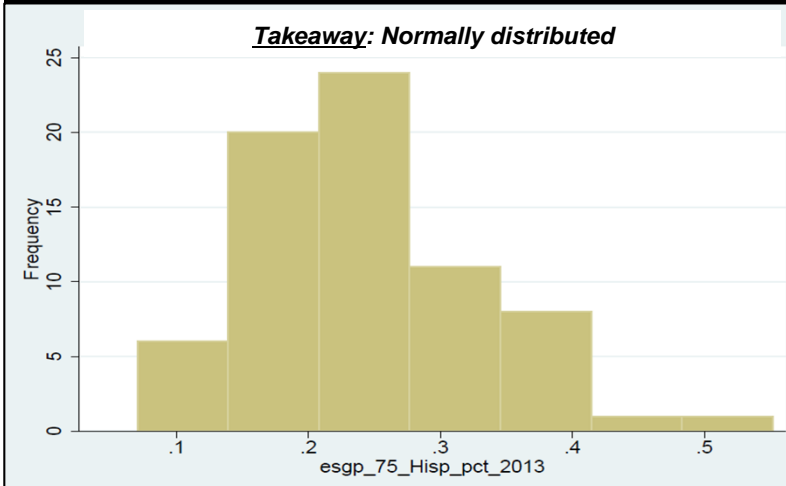
Student Success Correlation: n/a

Distribution – by FRPL (all schools)

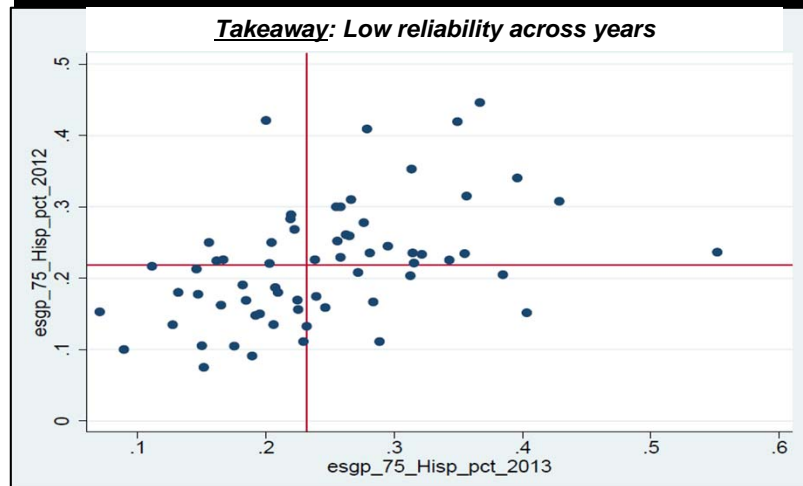


Coefficient: $-.08$

Distribution – all schools



YOY Reliability



Note: Cut-off guidelines do not apply for metrics that were not included in final index

Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Performance

Percent of students in 75th growth percentile – by subgroup (Hispanic) for Math SGP

Overall Recommendation: Do Not Include

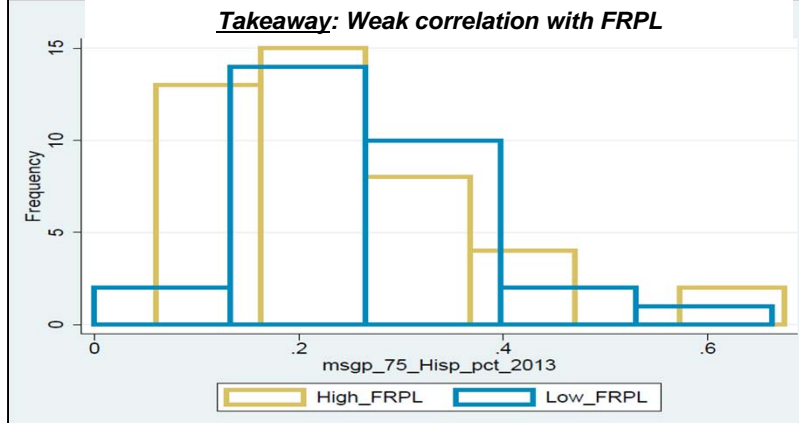
Key Takeaways

- **Pros:** Normally distributed
- **Cons:** Poor YoY reliability

FRPL Correlation: -.01

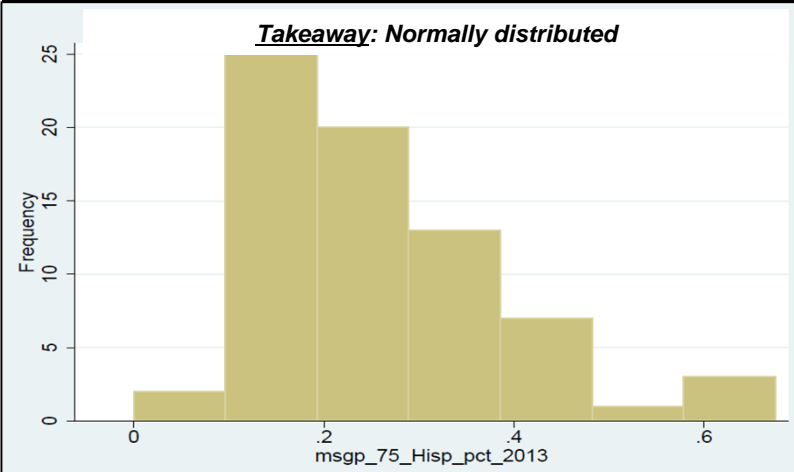
Student Success Correlation: n/a

Distribution – by FRPL (all schools)

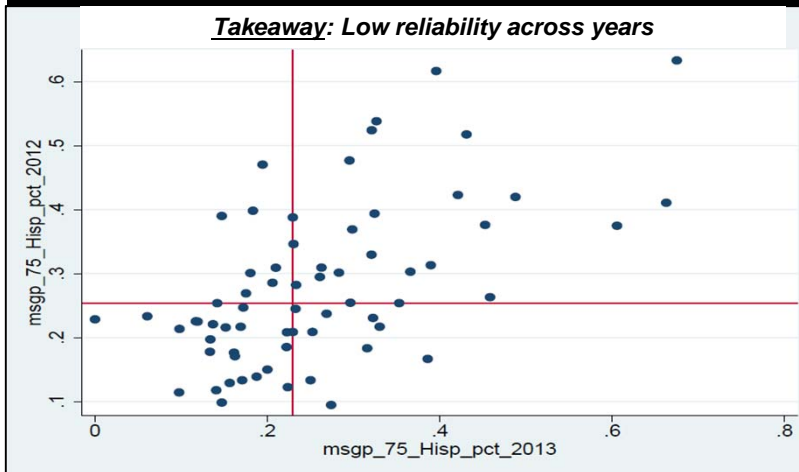


Coefficient: -.01

Distribution – all schools



YOY Reliability



Note: Cut-off guidelines do not apply for metrics that were not included in final index

Note: For FRPL distribution, “weakly correlated” is classified as 0 to +/-0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Performance

Percent of students in 75th growth percentile – by subgroup (White) for ELA SGP

Overall Recommendation: Do Not Include

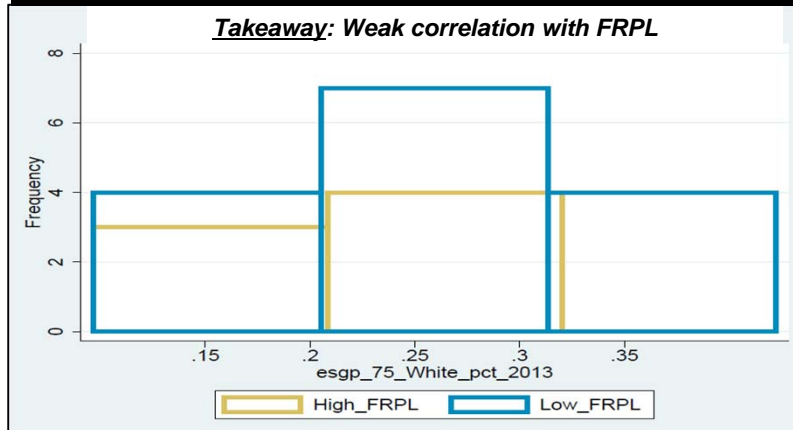
Key Takeaways

- **Pros:** Normally distributed
- **Cons:** Poor YoY reliability

FRPL Correlation: -.29

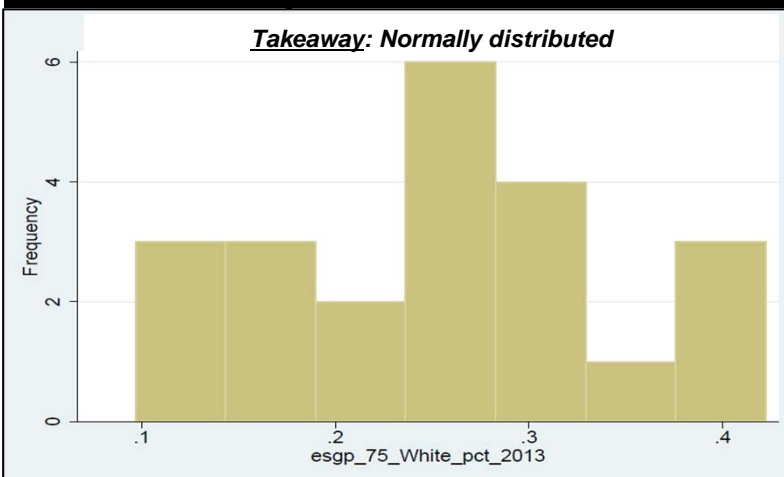
Student Success Correlation: n/a

Distribution – by FRPL (all schools)

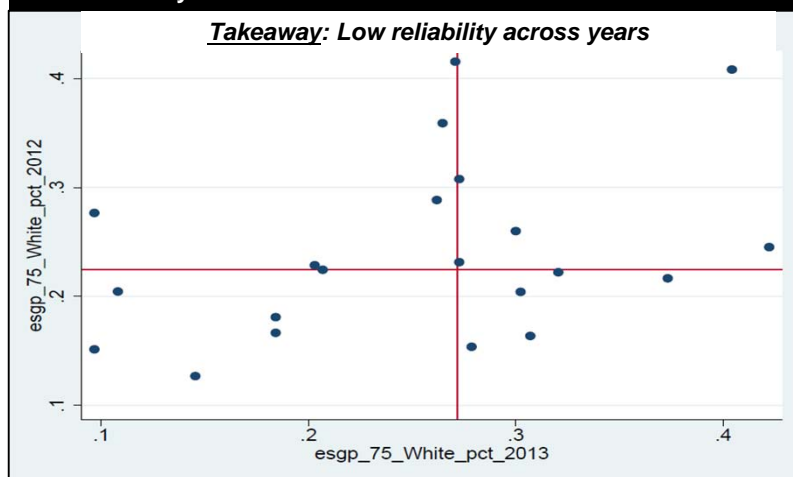


Coefficient: -.29

Distribution – all schools



YOY Reliability



Note: Cut-off guidelines do not apply for metrics that were not included in final index

Note: For FRPL distribution, “weakly correlated” is classified as 0 to +/-0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Performance

Percent of students in 75th growth percentile – by subgroup (White) for Math SGP

Overall Recommendation: Do Not Include

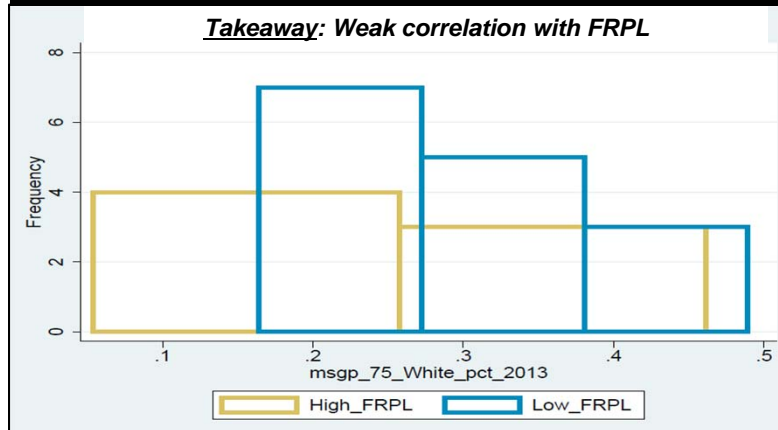
Key Takeaways

- **Pros:** Normally distributed
- **Cons:** Poor YoY reliability

FRPL Correlation: -.25

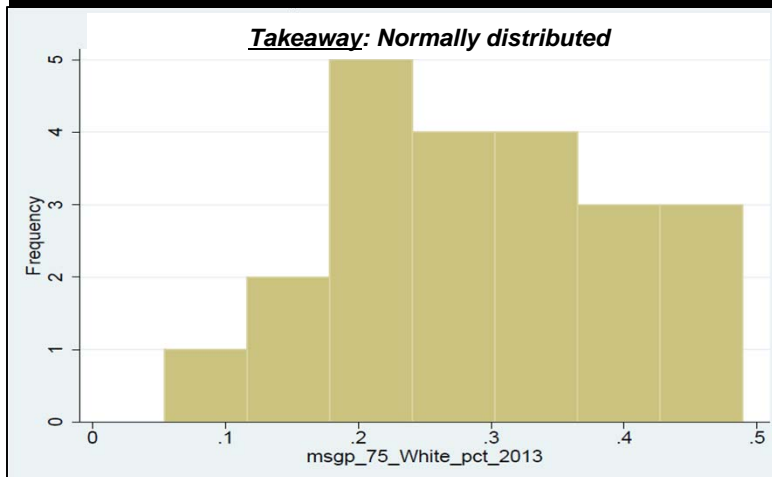
Student Success Correlation: n/a

Distribution – by FRPL (all schools)

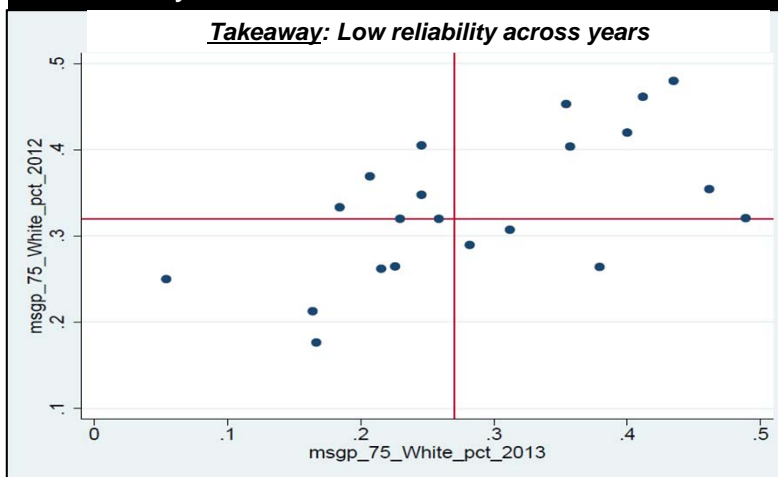


Coefficient: -.25

Distribution – all schools



YOY Reliability



Note: Cut-off guidelines do not apply for metrics that were not included in final index

Note: For FRPL distribution, “weakly correlated” is classified as 0 to +/-0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Teaching and Learning

Number of national board certified teachers

Overall Recommendation: **Do Not Include**

* = statistically significant

Key Takeaways

- **Pros:** n/a
- **Cons:** Most schools have zero NBC teachers

FRPL Correlation: -0.20

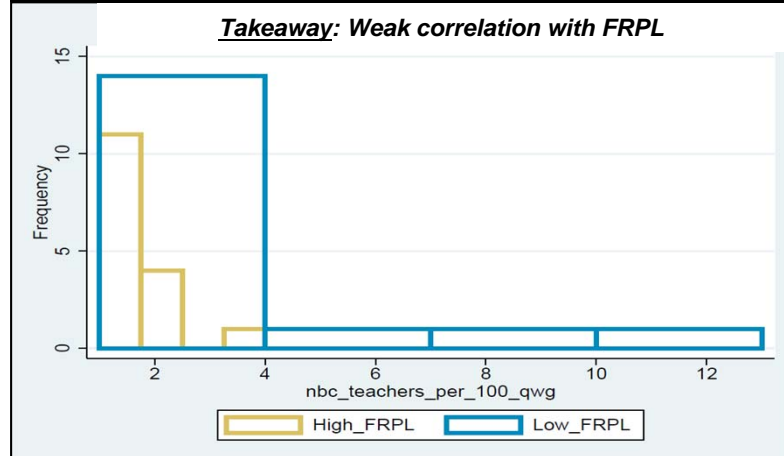
Student Success Correlation:

* = statistically significant

MSGP: -0.16^*

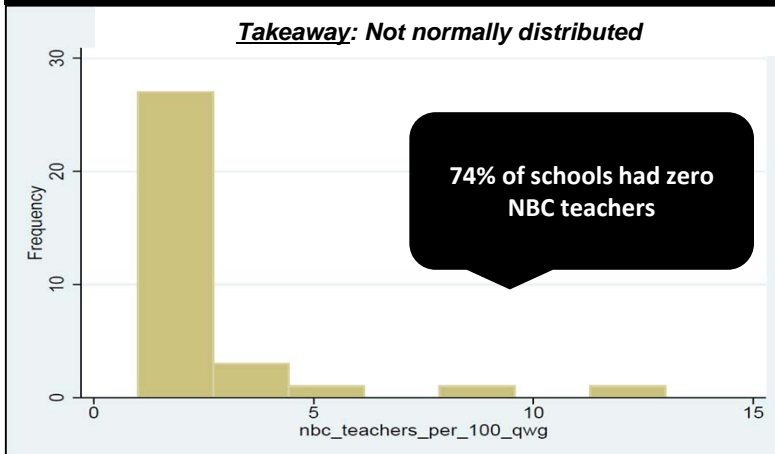
ESGP: 0.17^*

Distribution – Two Way

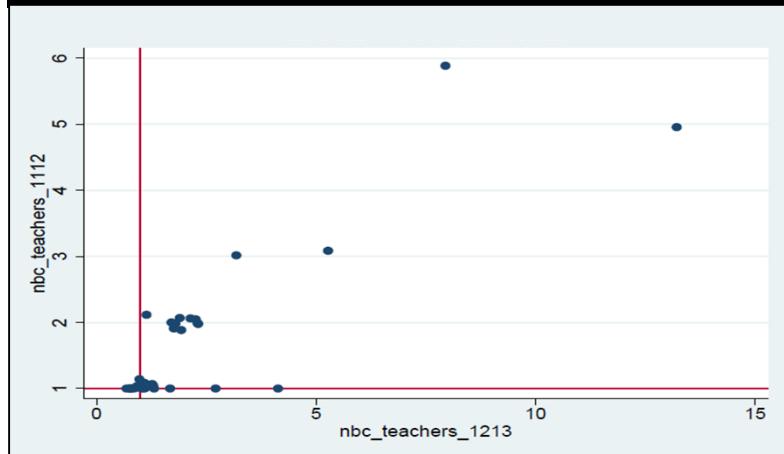


Coefficient: -0.20

Distribution – One Way



YOY Reliability



Note: Cut-off guidelines do not apply for metrics that were not included in final index

Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Teaching and Learning

% of eligible students enrolled in AP classes

Overall Recommendation: Do Not Include

Key Takeaways

- **Pros:** n/a
- **Cons:** Right skewed distribution; Weak correlation with SGP

FRPL Correlation: $-.48$

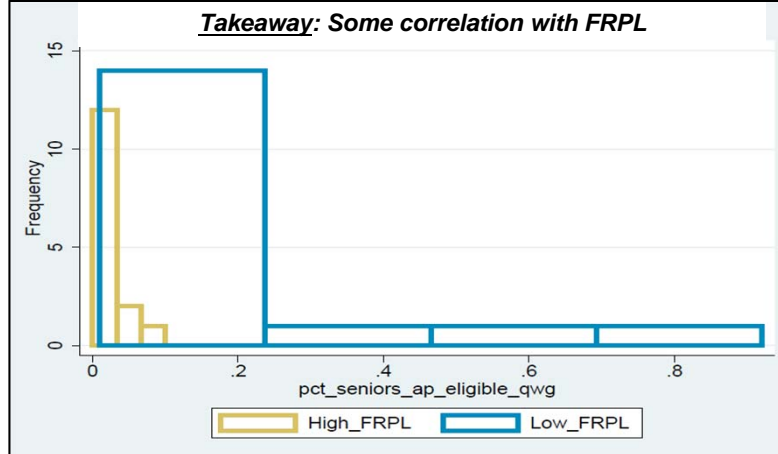
Student Success Correlation:

* = statistically significant

MSGP: 0.24

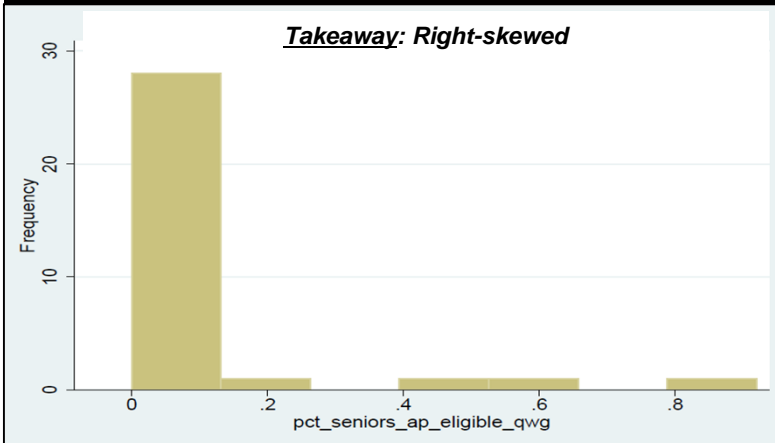
ESGP: 0.11

Distribution – by FRPL (all schools)



Coefficient: $-.48$

Distribution – all schools



YOY Reliability

Data not available

Note: Cut-off guidelines do not apply for metrics that were not included in final index

Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3 .

Teaching & Learning

Percent of 8th grade students enrolled in Algebra I

Overall Recommendation: Do Not Include

Key Takeaways

- **Pros:** n/a
- **Cons:** Majority of schools have either 0% or 100% of students (there is not much variation in the middle)

FRPL Correlation: -.04

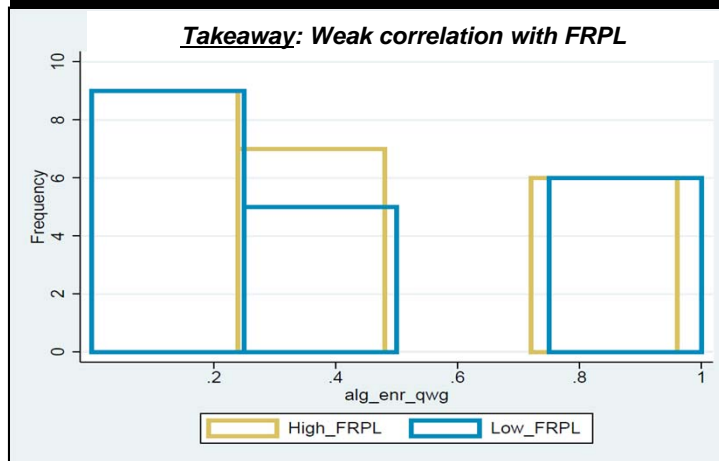
Student Success Correlation:

* = statistically significant

MSGP: 0.12

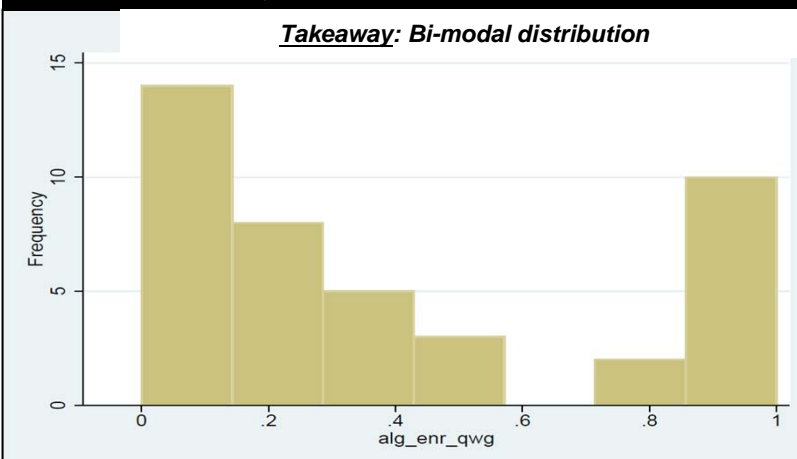
ESGP: -0.01

Distribution – Two Way

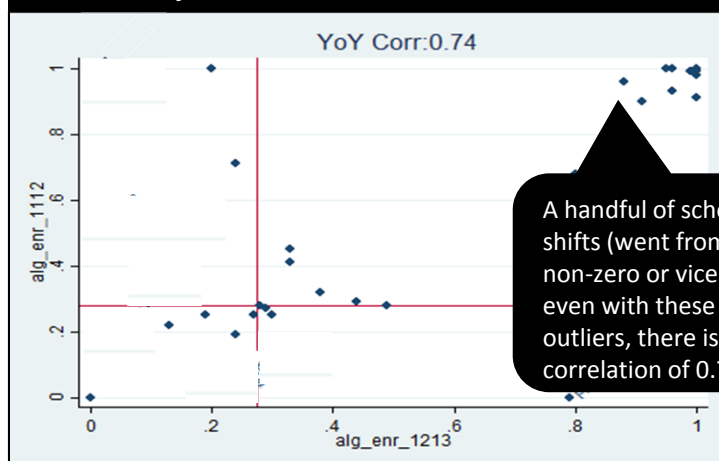


Coefficient: -.04

Distribution – One Way



YOY Reliability



Note: Cut-off guidelines do not apply for metrics that were not included in final index

Note: For FRPL distribution, “weakly correlated” is classified as 0 to +/-0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Family, Community & Culture

Expulsion rate

Overall Recommendation: Do Not Include - expulsions only

Key Takeaways

- **Pros:** n/a
- **Cons:** Expulsions are rare events in BPS

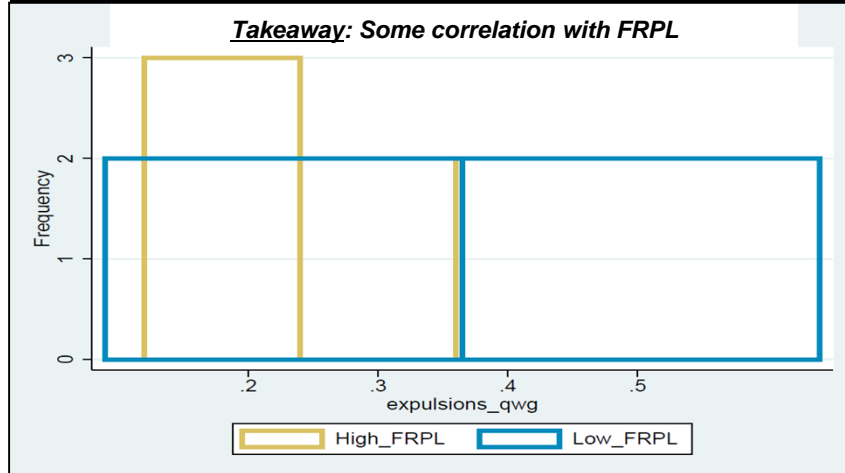
FRPL Correlation: $-.34$

Student Success Correlation:

MSGP: Too few data points to calculate

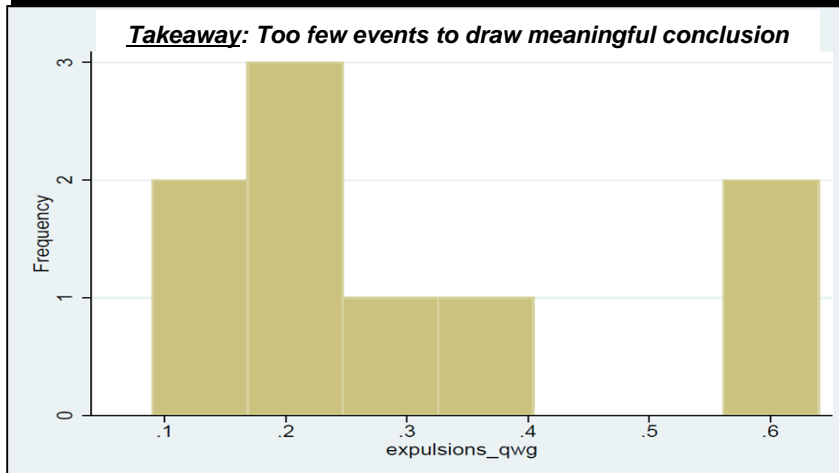
ESGP: Too few data points to calculate

Distribution – Two-Way



Coefficient: $-.34$

Distribution – One-Way



Note: Cut-off guidelines do not apply for metrics that were not included in final index

Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3 .

Very few schools have expulsions in multiple years, so there is not enough data to calculate a statistically sound YOY analysis.

Family, Community & Culture

Number of arrests of students at school

Overall Recommendation: **Do Not Include**

Key Takeaways

- **Pros:** n/a
- **Cons:**
 - Right-skewed
 - Metric is highly sensitive to occurrence of rare event

FRPL Correlation: $-.13$

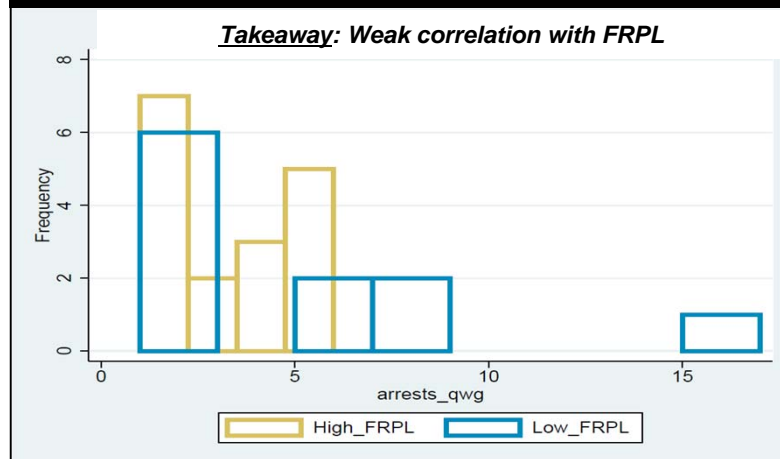
Student Success Correlation:

* = statistically significant

MSGP: -0.27

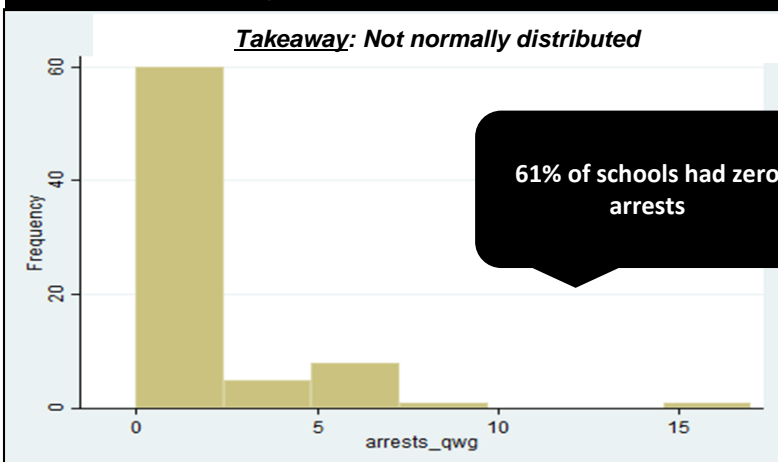
ESGP: -0.13

Distribution – Two-Way

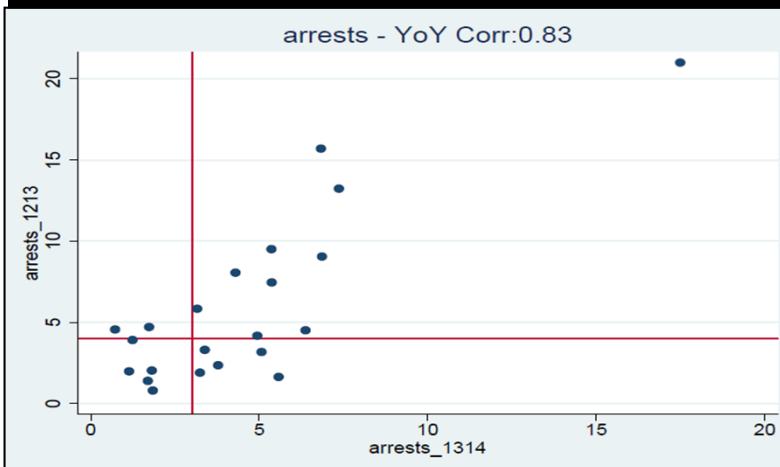


Coefficient: $-.13$

Distribution – One-Way



YOY Reliability



Note: Cut-off guidelines do not apply for metrics that were not included in final index

Note: For FRPL distribution, “weakly correlated” is classified as 0 to ± 0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3 .

Family, Community & Culture

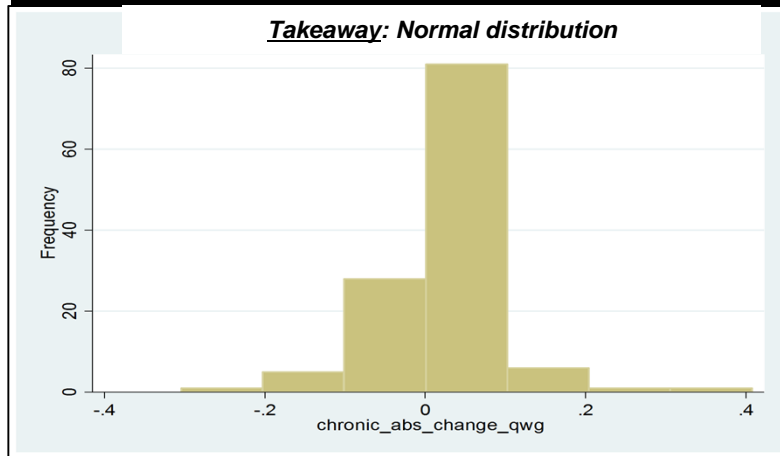
Change in chronic absenteeism

Overall Recommendation: Do Not Include

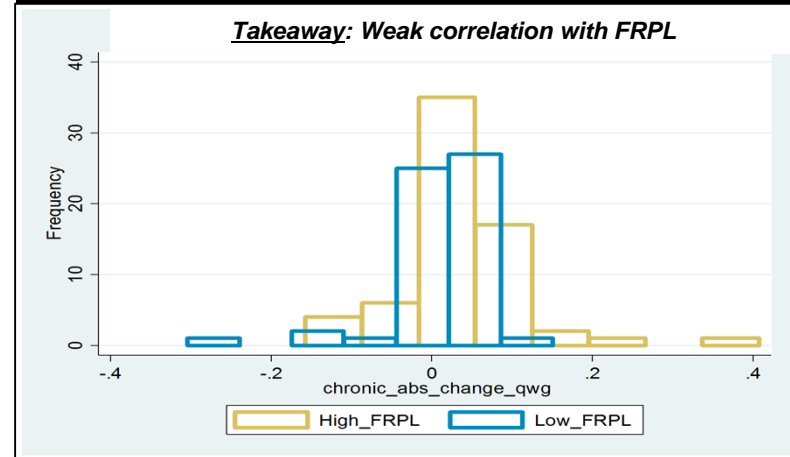
Key Takeaways

- **Pros:** n/a
- **Cons:** Not statistically sound - if a school has low chronic absenteeism it is much more likely to have a negative change (even if small) than a school who starts with high chronic absent.
- **FRPL Correlation:** -.06
- **Student Success Correlation:**
* = statistically significant
MSGP: 0.08
ESGP: 0.07

Distribution – One Way

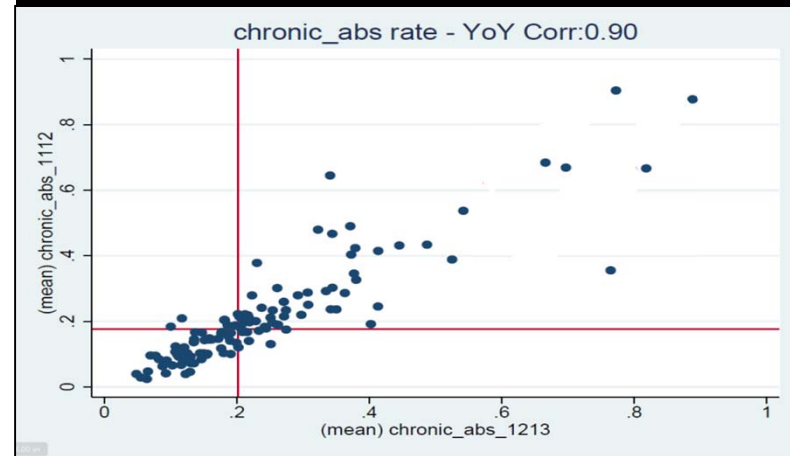


Distribution – Two Way



Coefficient: -.06

YOY Reliability



Note: Cut-off guidelines do not apply for metrics that were not included in final index

Note: For FRPL distribution, “weakly correlated” is classified as 0 to +/-0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Family, Community & Culture

Chronic absenteeism

Overall Recommendation: **Do Not Include**

Key Takeaways

- **Pros:** n/a
- **Cons:** Penalizes those schools that are working with struggling populations

FRPL Correlation: $-.24$

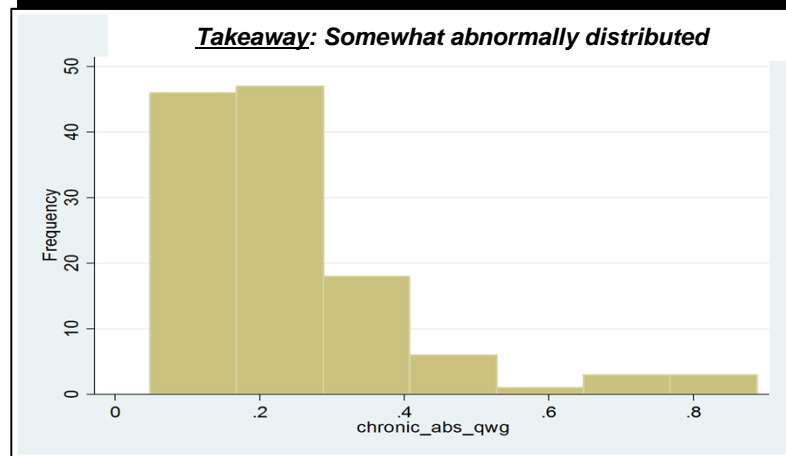
Student Success Correlation:

* = statistically significant

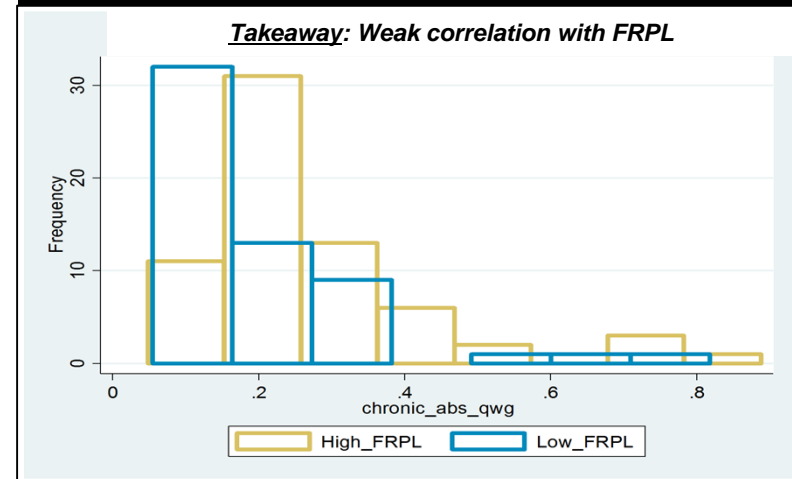
MSGP: $-.47^*$

ESGP: $-.30^*$

Distribution – One Way

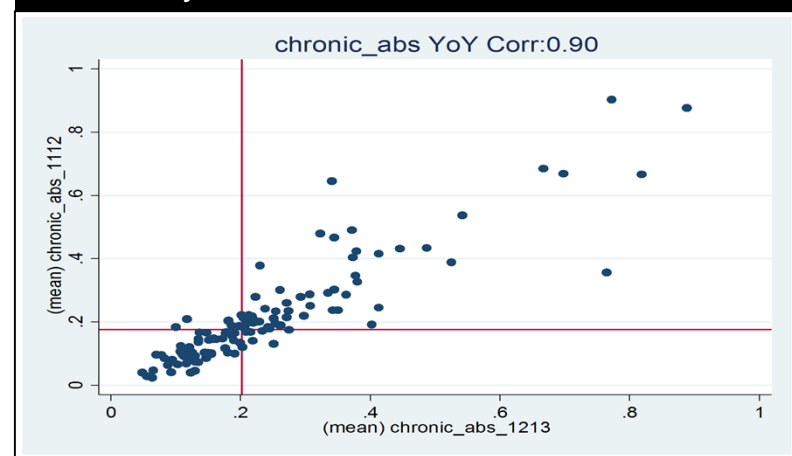


Distribution – Two Way



Coefficient: $-.24$

YOY Reliability



Note: Cut-off guidelines do not apply for metrics that were not included in final index

Note: For FRPL distribution, “weakly correlated” is classified as 0 to +/-0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Access & Opportunities

Percent of K-8 students receiving weekly arts instruction

Overall Recommendation: Do Not Include

Key Takeaways

- **Pros:** Arts is a critical focus for district
- **Cons:**
 - Does not expose differentiation between schools
 - Schools tend to jump from 0 to 100%
 - Metric does not account for strength of quality of arts programs

FRPL Correlation: -.03

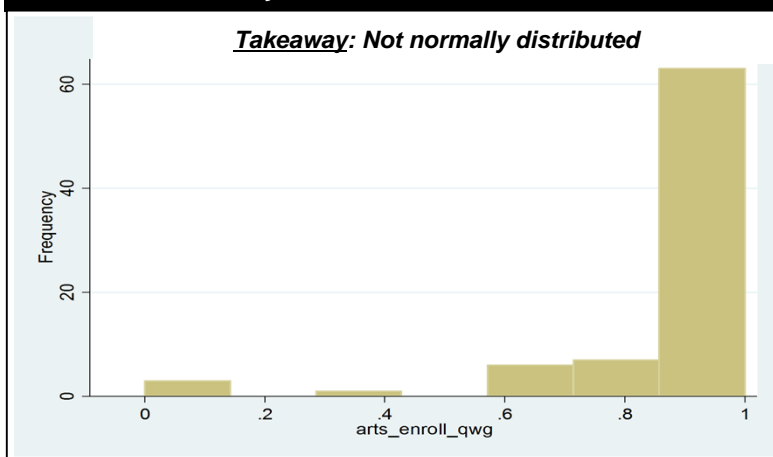
Student Success Correlation:

* = statistically significant

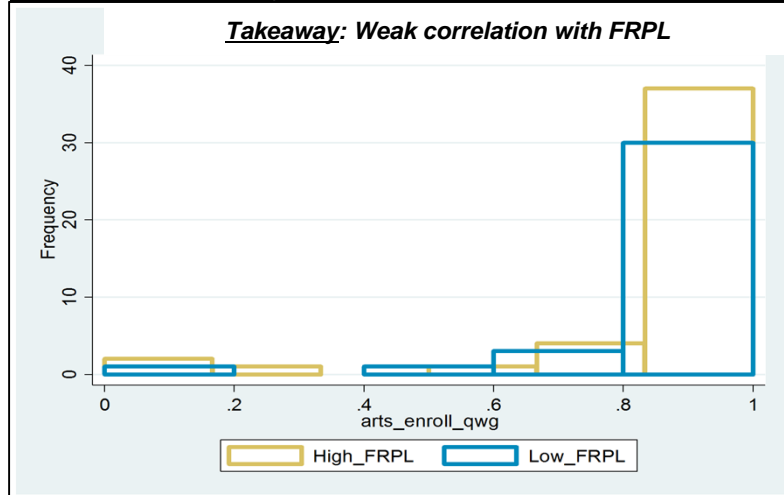
MSGP: -0.09

ESGP: -0.07

Distribution – One Way

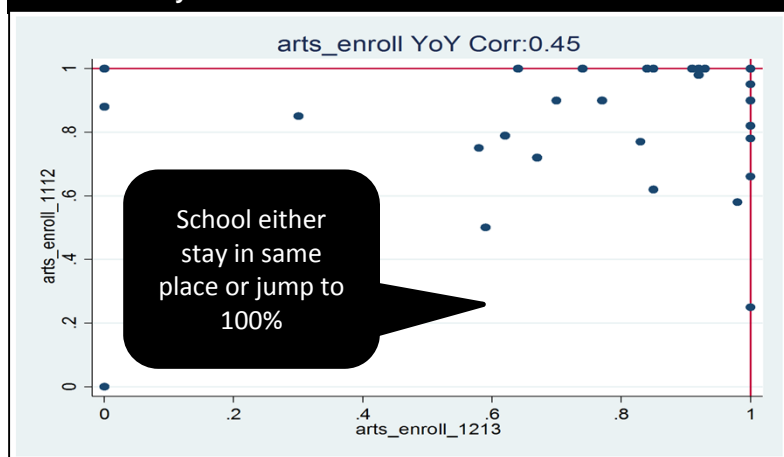


Distribution – Two Way



Coefficient: -.03

YOY Reliability



Note: Cut-off guidelines do not apply for metrics that were not included in final index

Note: For FRPL distribution, “weakly correlated” is classified as 0 to +/-0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Access and Opportunities

Number of nurse FTE's per 100 students

Overall Recommendation: Do Not Include

Key Takeaways

- **Pros:** n/a
- **Cons:** There is very little variation between schools and is very sensitive to number of students in school, meaning small schools are much more likely to score well on this metric

FRPL Correlation: -.03

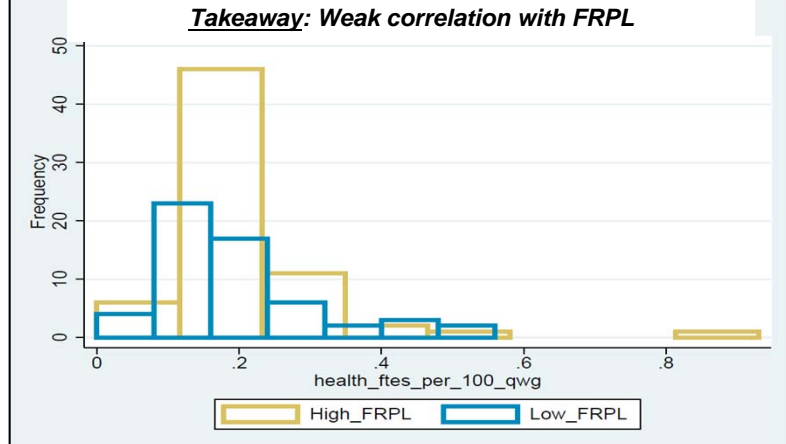
Student Success Correlation:

* = statistically significant

MSGP: 0.10

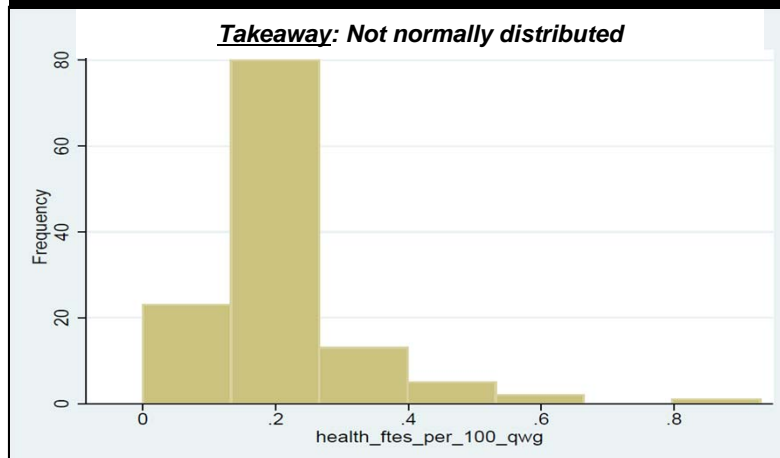
ESGP: 0.22

Distribution – Two-Way

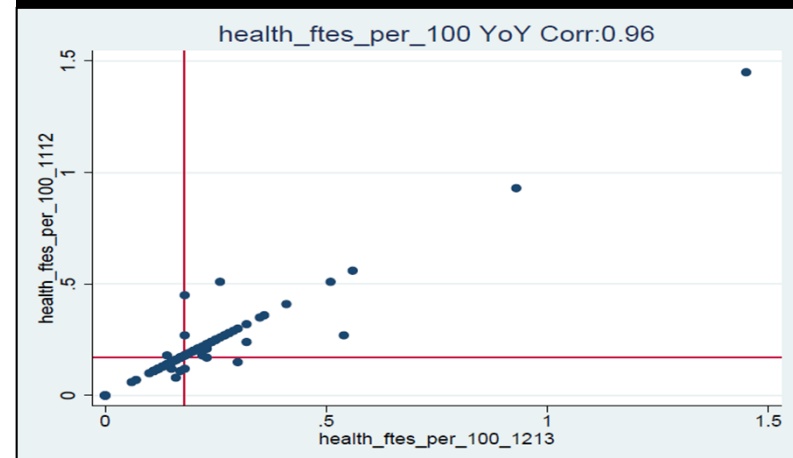


Coefficient: -.03

Distribution – One-Way



YOY Reliability



Note: Cut-off guidelines do not apply for metrics that were not included in final index

Note: For FRPL distribution, “weakly correlated” is classified as 0 to +/-0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Student Access & Opportunities

School has a wellness action plan

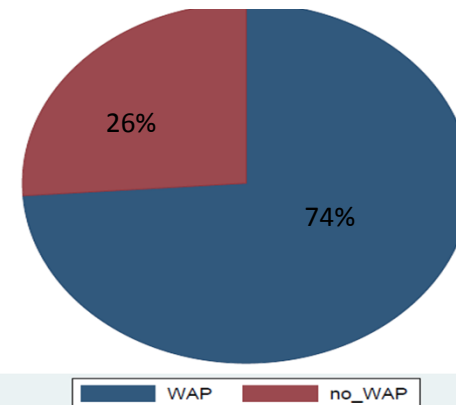
Overall Recommendation: **Do Not Include**

Key Takeaways

- **Pros:** n/a
- **Cons:**
 - ~75% of schools have WAP
 - Metric does not account for strength of WAP or fidelity of implementation

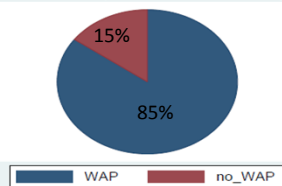
Distribution – One-Way

Takeaway: Not normally distributed

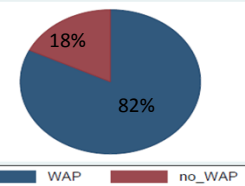


Distribution – One-Way

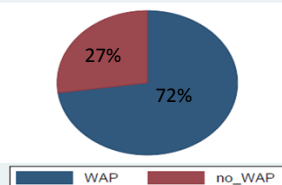
WAP Completion - Elementary



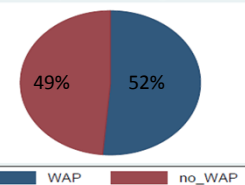
WAP Completion - K8



WAP Completion - Middle



WAP Completion - High Schools



**Do not have multiple years worth of data
+ metric is binary in nature so YOY
reliability does not make sense**

Note: Cut-off guidelines do not apply for metrics that were not included in final index

Leadership & Collaboration

Staff attendance — *don't currently have data to calculate chronic absenteeism*

Overall Recommendation: Do Not Include Attendance (consider chronic absenteeism if data is available in future)

Key Takeaways

- **Pros:** n/a
- **Cons:**
 - Very little variation
 - Unable to tell if one teacher is absent for long duration or if multiple teachers are frequently absent for short durations

FRPL Correlation: -.01

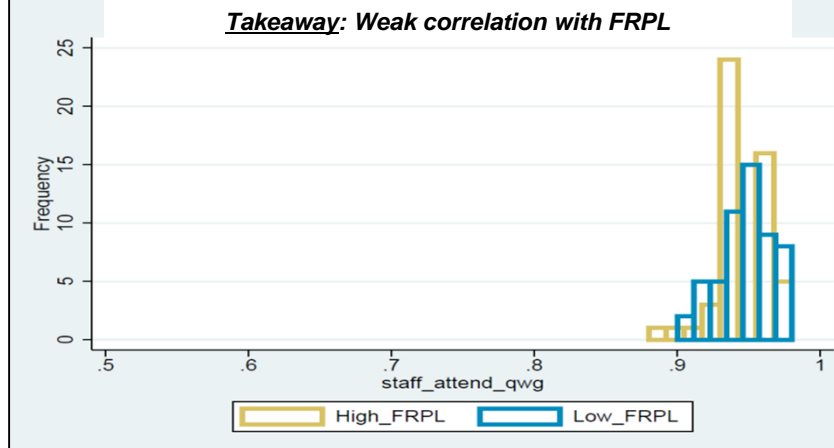
Student Success Correlation:

* = statistically significant

MSGP: -0.16

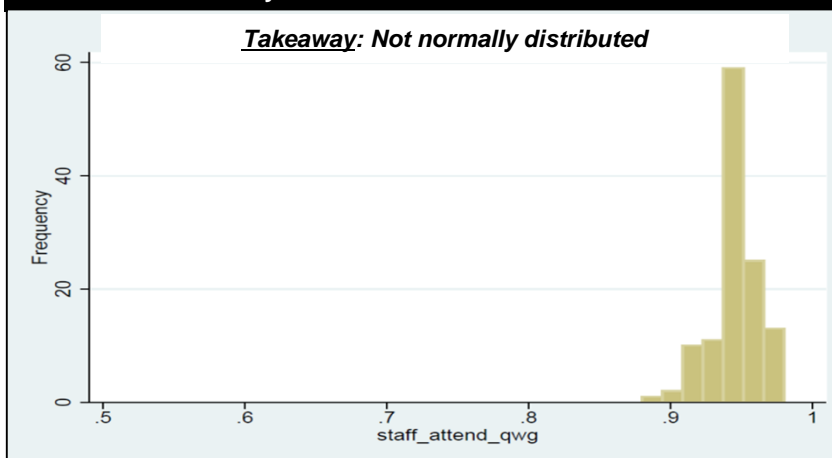
ESGP: 0.17

Distribution – Two Way

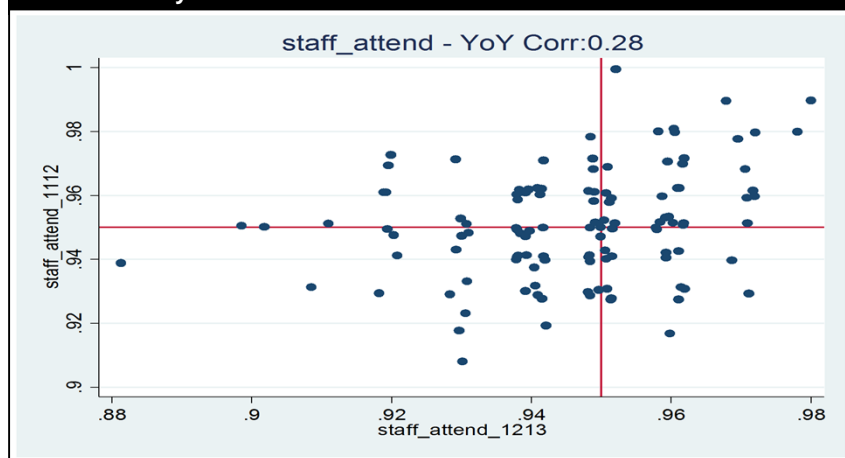


Coefficient: -.01

Distribution – One Way



YOY Reliability



Note: Cut-off guidelines do not apply for metrics that were not included in final index

Note: For FRPL distribution, “weakly correlated” is classified as 0 to +/-0.3 (inclusive). “Some correlation” is classified as above 0.3 or below -0.3.

Table of Contents

- Executive Summary
- Overview of Framework
- Overall Process and Analysis Methodology
- Summary of Recommended Metrics
- Detailed Analysis – *Metrics to Include*
- Detailed Analysis – *Metrics to Exclude*



- Appendix

The following metrics were omitted from this year's index, given data availability issues.

Metrics Recommended For Omission Due to Data Issues

Domain	Outcome	Metric	Rationale
Student Performance	1. All students show progress in skills critical to school, college, and career success, including critical thinking, peer and adult relationships, and perseverance.	Change in adjusted average PSAT score between 10th and 11th grade	<ul style="list-style-type: none"> • <i>Data not available for this year</i>
		Percent of students enrolled in college not taking remedial courses	<ul style="list-style-type: none"> • <i>Data only available for MA schools (excluding University of MA)</i>
FC&C	8. The school is safe, well-organized, and conducive to meeting educational goals.	Number of trespassory notices issued to parents	<ul style="list-style-type: none"> • <i>Data not available</i>
		Score on MSBA Facilities Condition Index	<ul style="list-style-type: none"> • <i>Data collection method not reliable at this time</i>
Student A&O	13. All students have equal access to high-quality activities that reinforce classroom learning and promote skill building and positive youth development.	% of high school students meeting Mass Core arts requirement	<ul style="list-style-type: none"> • <i>*Data unreliable</i>
		School meets guidelines for PE offerings	<ul style="list-style-type: none"> • <i>Data not available at this time</i>
	14. Students have access to health and social services.	School has a Wellness Council and has completed a wellness action plan	<ul style="list-style-type: none"> • <i>Wellness council data not available</i> • <i>Almost 75% of schools have a WAP</i>