

BALTIMORE CITY PUBLIC SCHOOLS

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The View from North Ave: Poverty Data and Challenges of Context

Baltimore Data Day

July 12, 2019

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The Transition to CEP and Similar School Comparisons

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This presentation will discuss two cases from Baltimore City Public Schools that show:

- 1. How a school district applies research and data analysis to solve problems of practice...*
- 2. Why measuring school poverty is important to researchers and evaluators...*
- 1. How difficult measuring these characteristics can be...*
- 2. Perspective and context are important components of analyzing education data...*

Data sets considered:

- MSDE Official Enrollment (9/30)
- MSDE Food and Nutrition: FARMS and Direct Certification
- Maryland Report Card 2018

2015-16 Transition to CEP: Free Lunch for All Students

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USDA's Community Eligibility Provision (CEP) allows **high-poverty school districts meeting a certain threshold** (40% or more students directly certified) to serve free meals to all students.

	SY11-12	SY12-13	SY13-14	SY14-15	SY15-16	SY 16-17
Lunch						
Total Meals Served	8,585,899	8,651,991	8,403,579	8,804,416	10,622,397	10,520,332
Average Daily Participation (ADP)	47,699	47,995	48,275	49,488	59,665	58,718
% of Enrollment*	56%	56%	57%	58%	71%	71%

*: % of Enrollment = (ADP ÷ Official Oct 31 enrollment)*100 [i.e. (ADP/82,555)*100]

SOURCE: MSDE

Problem:

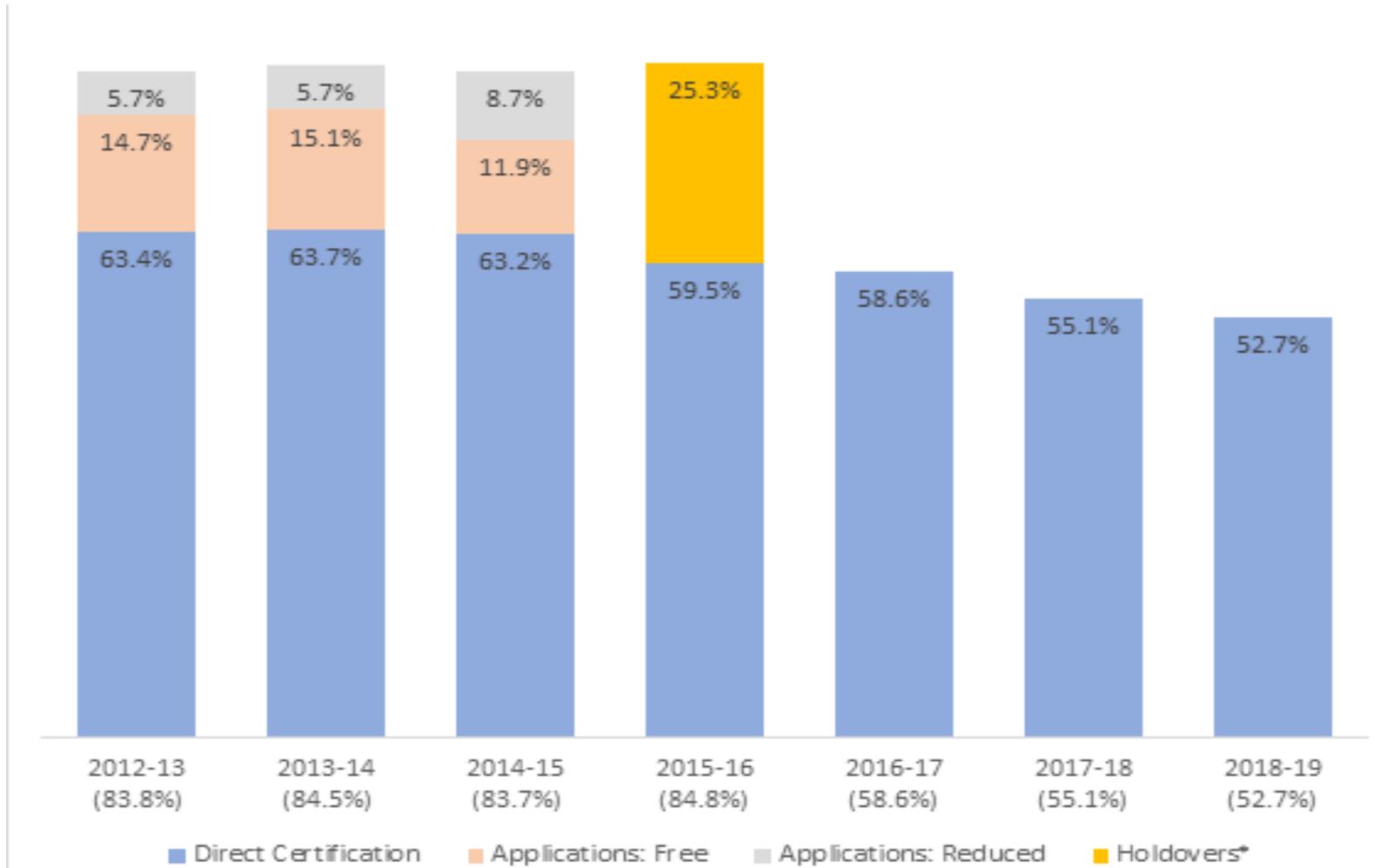
Change in Measuring Economic Disadvantage

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- The CEP transition prompted a methodology change for measuring economically disadvantaged (ED) students.
 - **FARMS (Free and reduced-priced meals) applications are no longer collected**
 - Reduced income students are no longer identified
 - **Direct certification is still collected**
 - Direct certification was and is always counted as “Free” status
 - Direct certification includes: Supplemental Nutrition Assistance Program (SNAP), Temporary Assistance to Needy Families (TANF), Foster Care, and Homeless status
- Old Method (2014-15 and earlier):
Direct Certification + Free App + Reduced App
- New Method (2015-16 and after):
Direct Certification

Districtwide Economic Disadvantage Rate Trend

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Economic Disadvantage Measurement and School Funding Concerns

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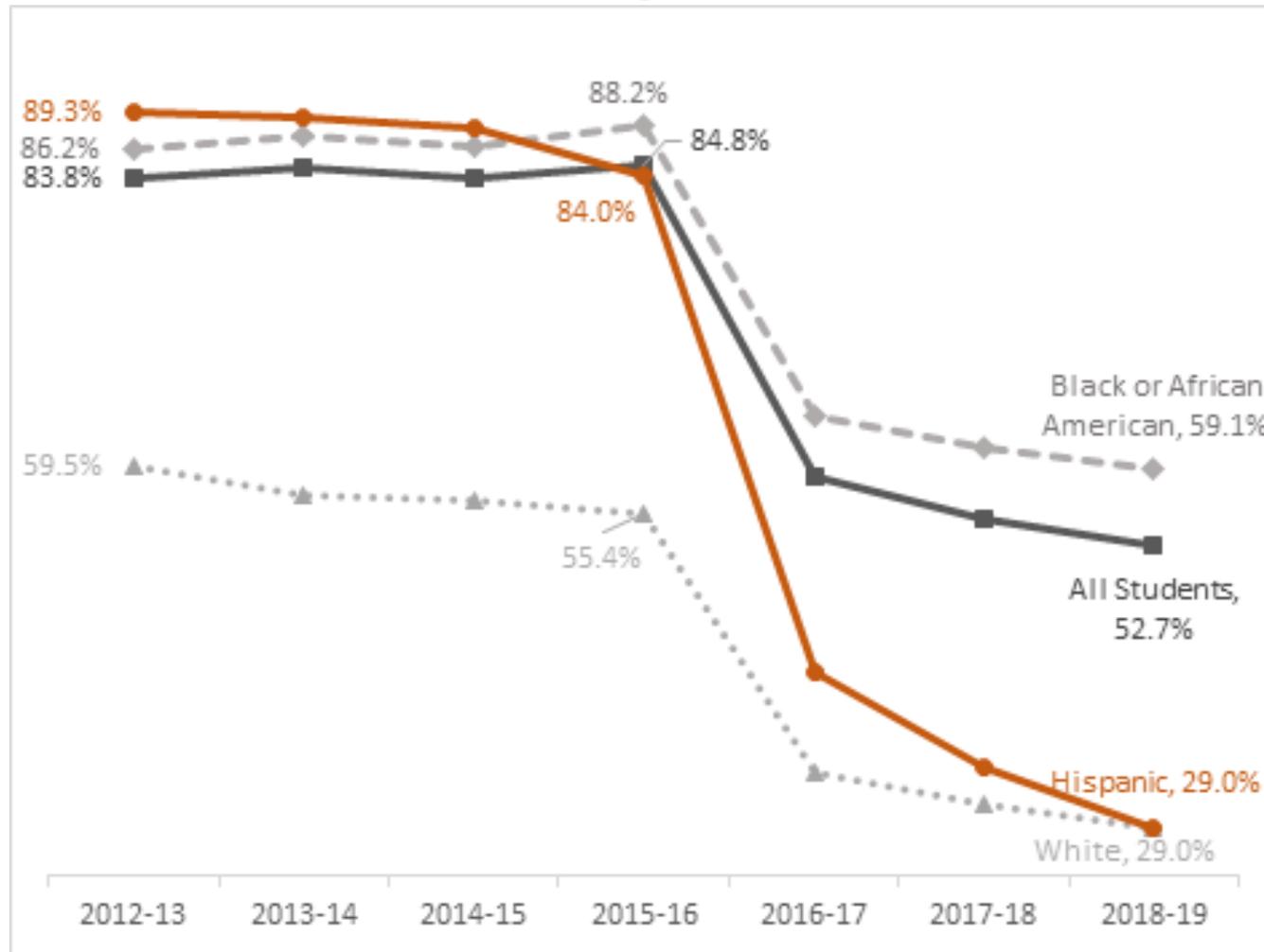
Changes in reported poverty rates were noticed by stakeholders and school communities. Changes in ED measurement had meaningful impact on school budgets through its use in Title 1 funding.

Stakeholder concerns included:

- **Whole families not being counted because FARMs applications were no longer being collected**
- **Growing Hispanic/Latinx and EL populations that do not use services at same rates as other families**
- **High Hispanic/Latinx and EL population schools affected by change**

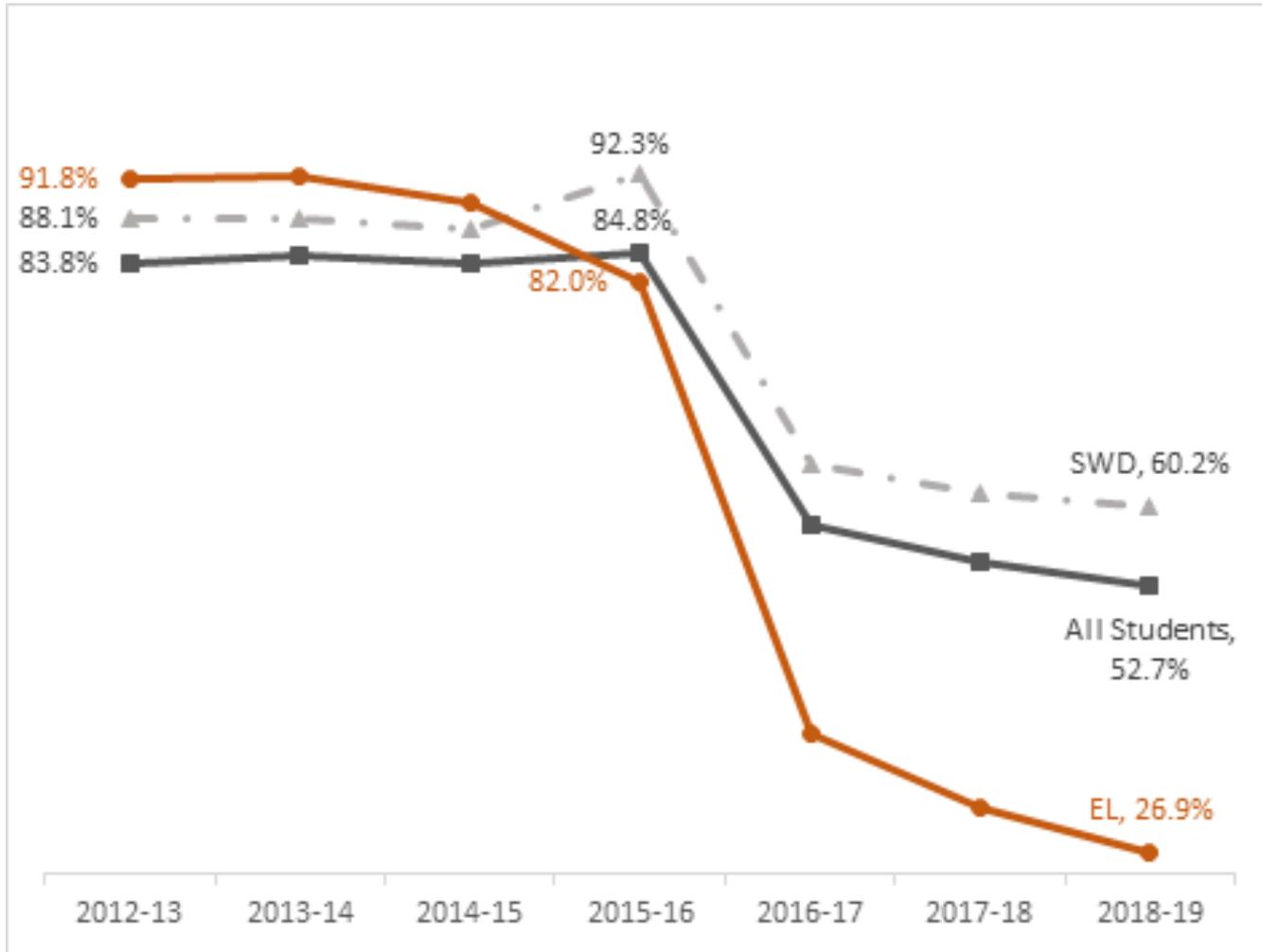
Hispanic students were disproportionately affected by the change in ED measurement

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English Learners were also disproportionately affected by the change in ED measurement

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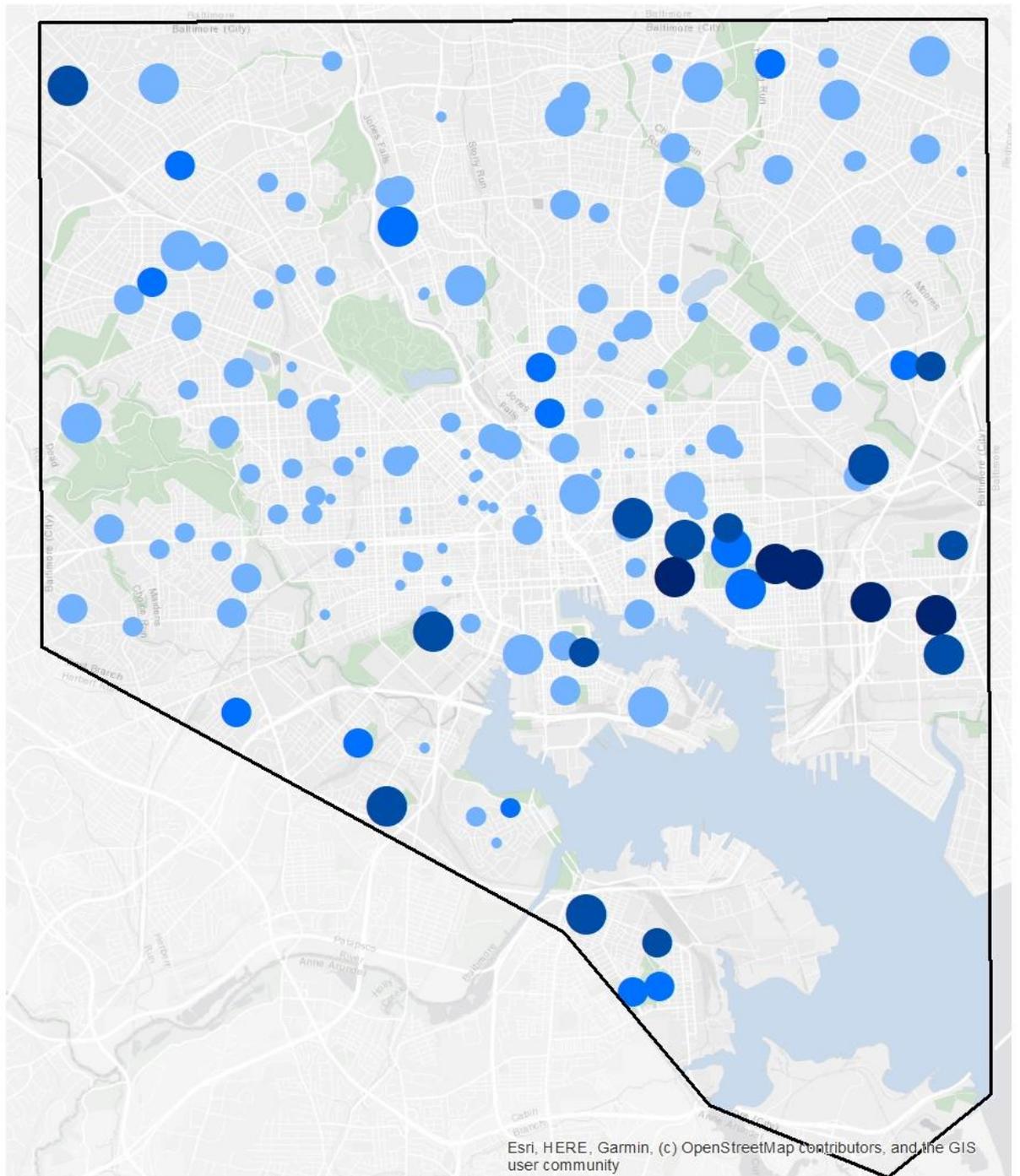


% EL Population

- 0% - 7%
- 8% - 19%
- 20% - 37%
- 38% - 62%

% Change of Economically Disadvantaged Students

- -60% - -40%
- -39% - -29%
- -28% - -21%
- -20% - -2%



Completing the Transition to CEP

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- Initial Solution: Estimate expected form submission
 - **Trained logistic regression on 3 years prior to CEP**
 - Used model to predict form submission rates in years after CEP for students not directly certified
 - Added these estimates to pool of directly certified students to calculate new ED rates
 - **Explored alternative estimates with researchers**
- Started Poverty Workgroup with BEREC (Summer 2019)
- Pilot Form Collection (Fall 2019)

How does this affect our district?

- Poverty data is used to allocate Title 1 (and other) funding to schools.
 - **An error in measurement could mean funds were not matched to need.**
- Poverty is an important characteristic for understanding school performance. Researchers trying to understand program effectiveness often need to account for it in analyses...
 - **An error in measurement could lead to a misinterpretation of school effects...**

Similar School Comparisons

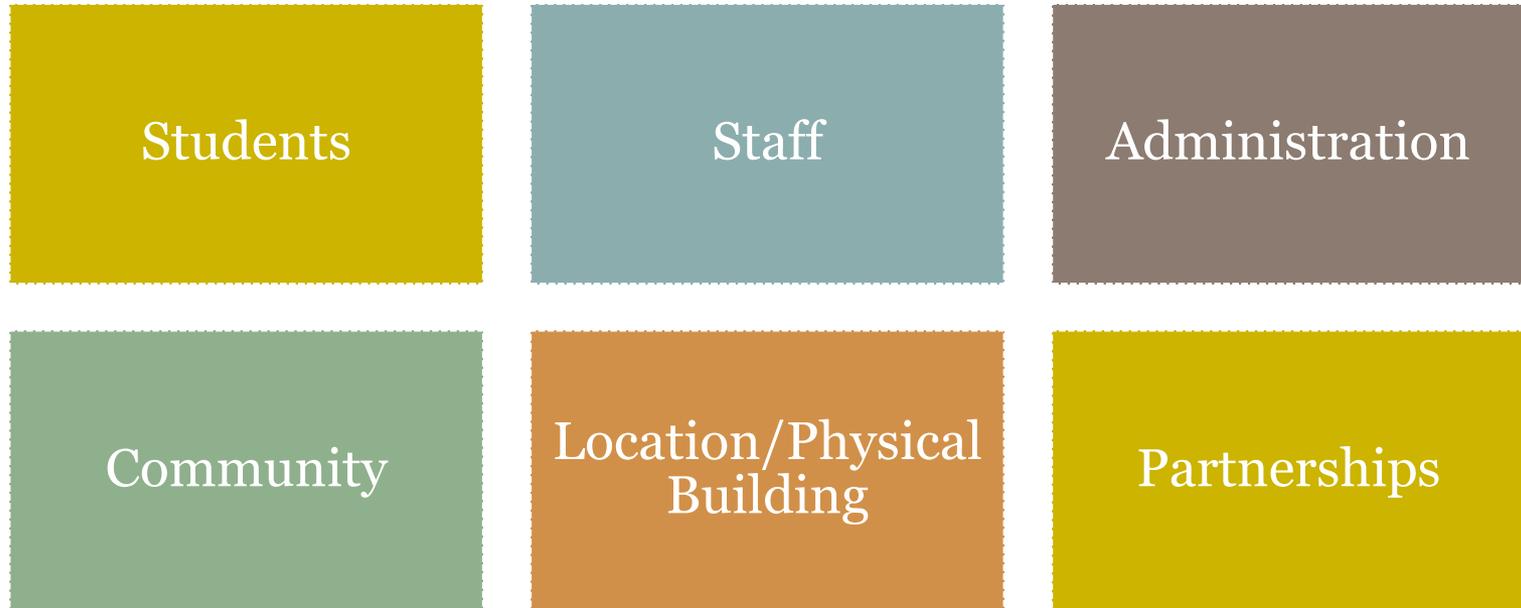
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- Which schools are “good?”
- Which schools are “bad?”
- Which schools need to improve?
- Where are our best teachers?
- Should a failing school be closed?
- What school is right for my child?
- What schools serve the highest need students?
- How do we allocate resources to schools appropriately?

Use relative comparisons
between schools

Understanding School Performance in Context

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**“CETERIS PARIBUS”
OTHER THINGS EQUAL**

Assessing School Performance for DISTRICT Decision-Making

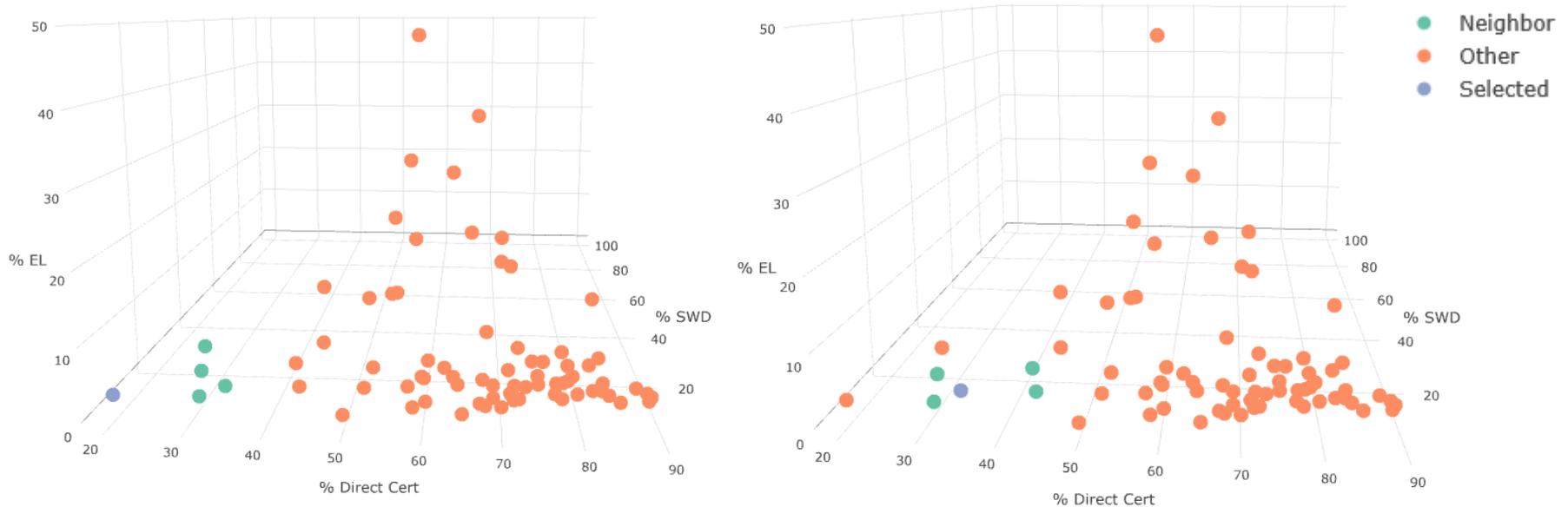
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- **Operator Renewal**
 - **Started use of comparison groups based on ED rate in determination of PARCC performance**
- **Teacher and Principal Evaluation**
 - **Started use of Nearest Neighbor groups to calculate school performance measure (SPM) score as a component of evaluation**

Visual Representation: Nearest Neighbors Based on Indicators of Economic Disadvantage, SWD, and EL

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- The nearest neighbors (green) are the four schools that are closest to the selected school (blue).
- **Groups are unique for each school: the selected school on the left is not a nearest neighbor to the selected school on the right.**



Assessing School Performance for STATE Decision-Making

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- **ESSA State Report Cards**
 - *Often utilize a straightforward percentile rank with cutoffs; agnostic to student characteristics*
 - **Maryland: Used to identify schools in need of improvement (bottom 5% of Title 1 schools)**
 - Overall: Comprehensive Support and Improvement (CSI)
 - By Student Group: Targeted Support and Improvement (TSI)

* This is only a sample. The actual report card released by Maryland will look different.

Maryland Report Card Overall: Prototype

Sample School Name
2016-2017 School Report



Sample School Name
Grade Levels: 09-12
County: Frederick

Quick view
percentage

How did my school do overall?

INDICATOR	POSSIBLE POINTS	EARNED POINTS
Academic Achievement	30	23
Graduation Rate	15	10
Progress in Achieving English Language Proficiency	10	6
Readiness for Post-Secondary Success	10	7
School Quality and Student Success	35	25
		71

Factors that are measured

Total possible points may vary by school

Percent

FINAL - PUBLIC REPORT - FOR PUBLIC RELEASE

November 13th, 2018



Shepard Hills Elementary
Oak Creek-Franklin Joint | Public - All Students
School Report Card | 2017-18 | Summary



School Grading Report Card 2017 **Certified**

V Sue Cleveland High

District: Rio Rancho Public Schools

Grade Range: 9-12 Code: 83011

Final Grade 2017

A

Overall Score 76.35

Current Standing	C - State benchmark established in 2012	Possible Points	This School Earned
Are students performing on grade level? Did they improve more or less than expected?		30	B
School Improvement		10	B
Improvement of Higher-Performing Students		10	B

	School Score	Max Score	K-5 State	K-5 Max
hievment	70.2/100	66.0/100		
Age Arts (ELA) Achievement	34.1/50	32.2/50		
Math Achievement	35.1/50	33.8/50		
wth	63.2/100	66.0/100		
Age Arts (ELA) Growth	31.1/50	33.0/50		
Math Growth	32.1/50	33.0/50		
ps	85.8/100	69.6/100		
Age Arts (ELA) Achievement Gaps	43.9/50	36.2/50		
Math Achievement Gaps	41.9/50	33.4/50		
Math Gaps	NA/NA	NA/NA		
nd Postsecondary Readiness	89.6/100	87.4/100		
Math	NA/NA	NA/NA		
Reading	75.8/80	74.8/80		
English Language Arts (ELA) Achievement	13.8/20	12.6/20		
Mathematics Achievement	NA/NA	NA/NA		

A Tale of Two Districts

State report cards tell a story



Two districts with the same overall grade – that means they’re the same, right?

Wrong.

The details matter. Take a deeper look and you’ll see these report cards tell different stories. Each district has its own strengths and weaknesses, and the report cards help us have important discussions about them.

What are we doing well? Where do we need to improve? Knowing these things can drive improvement in our schools and benefit each of Ohio’s 1.7 million schoolchildren.

ESSA and Methods of School Evaluation

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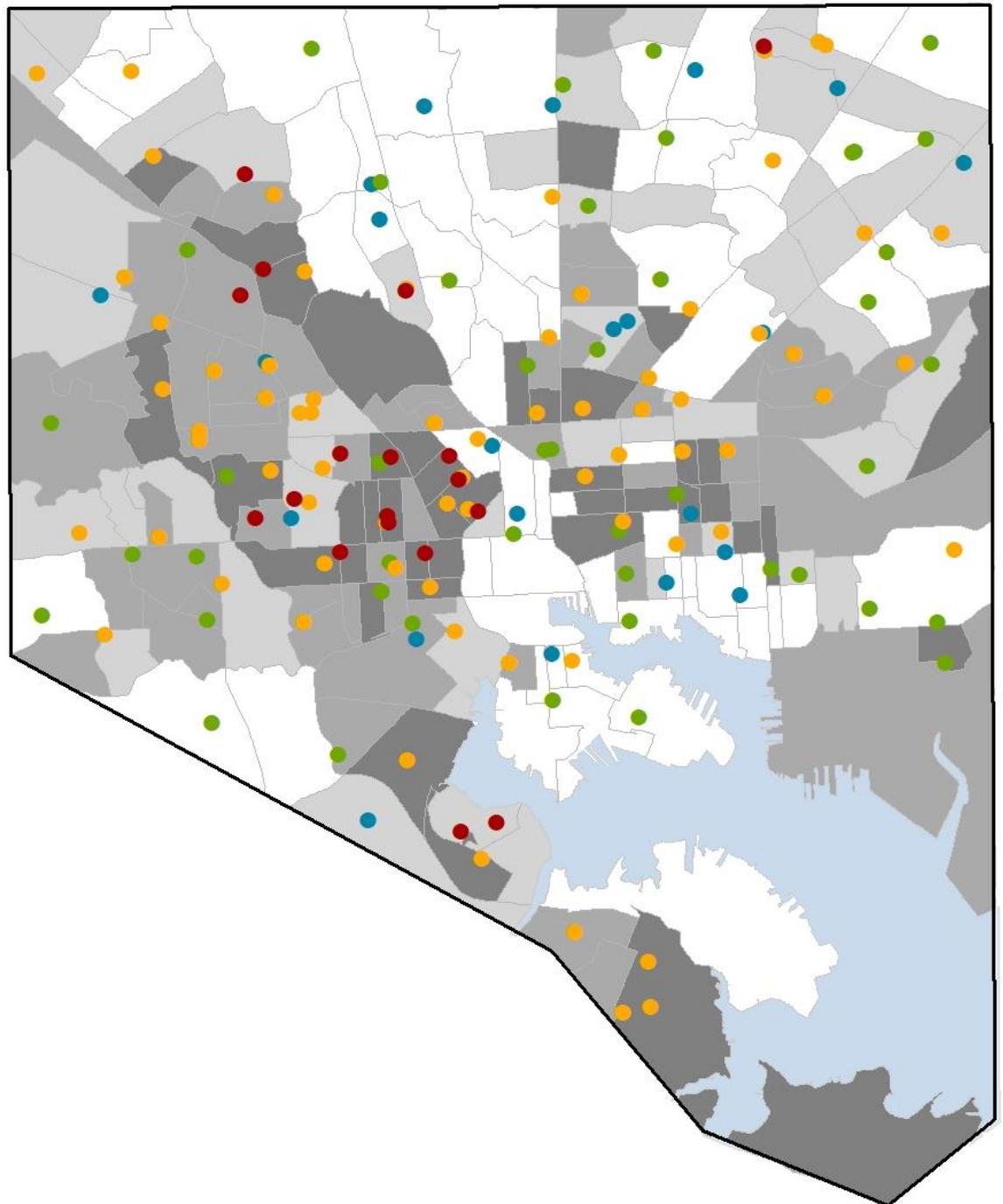
- Generally consist of percentile ranks, often with cutoffs for high and low performance
 - **Grades (A, B, C, D, F)**
 - **Star Ratings (1, 2, 3, 4, 5)**
 - **Performance Level Descriptors (Effective, Not Effective)**
- Judge the summative result of a school: the additive effects of all inputs (students, staff, programs, etc.)
- Do not often consider perspective or context
 - **If you identify a school for improvement – can you also identify what needs to improve?**
 - **Improvement relies on students and staff, not test scores and attendance**

Star Ratings

- 1 Star
- 2 Star
- 3 Star
- 4 + 5 Stars

Childhood Poverty Rates

- 0% - 13%
- 14% - 33%
- 34% - 50%
- 51% - 81%

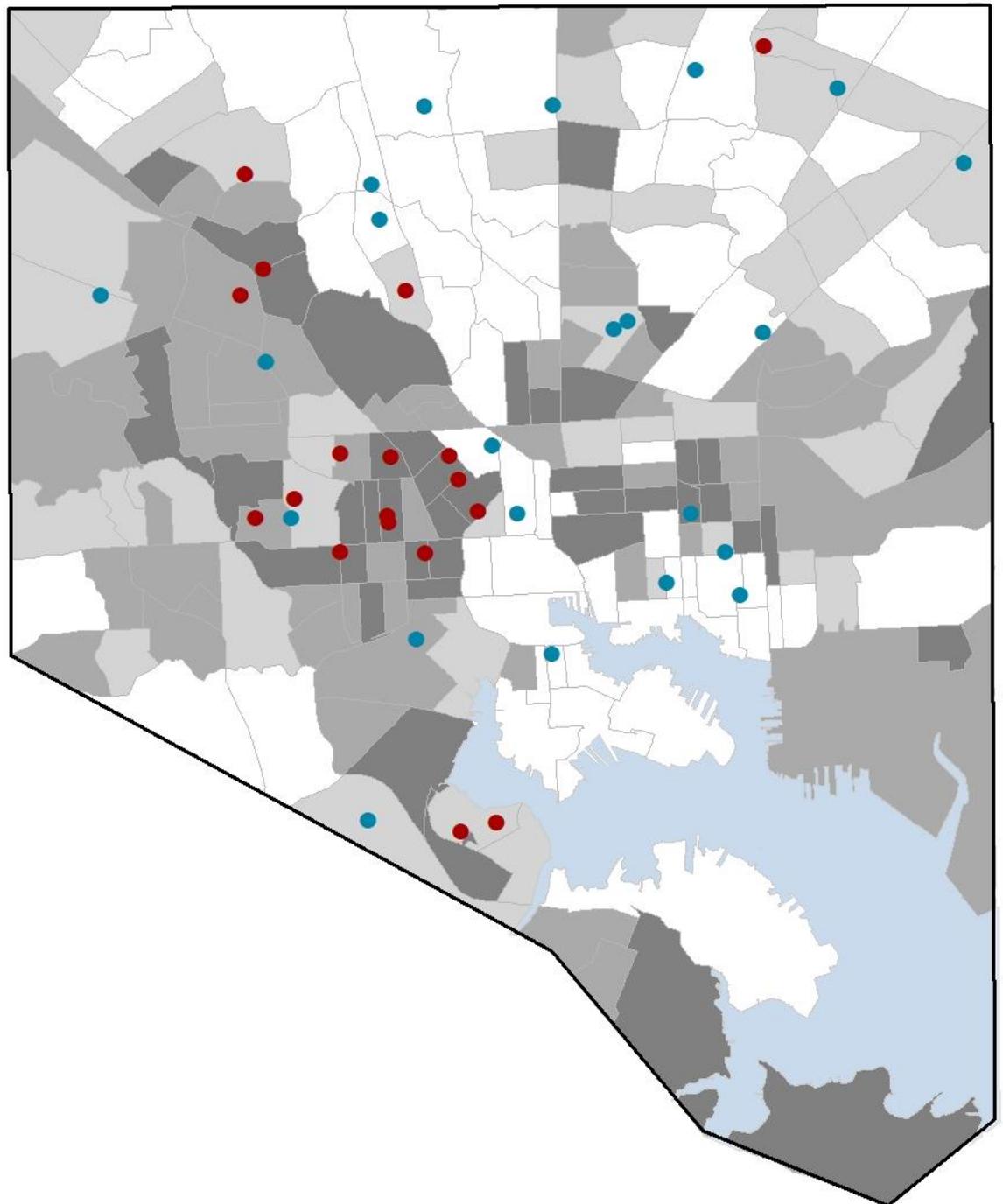


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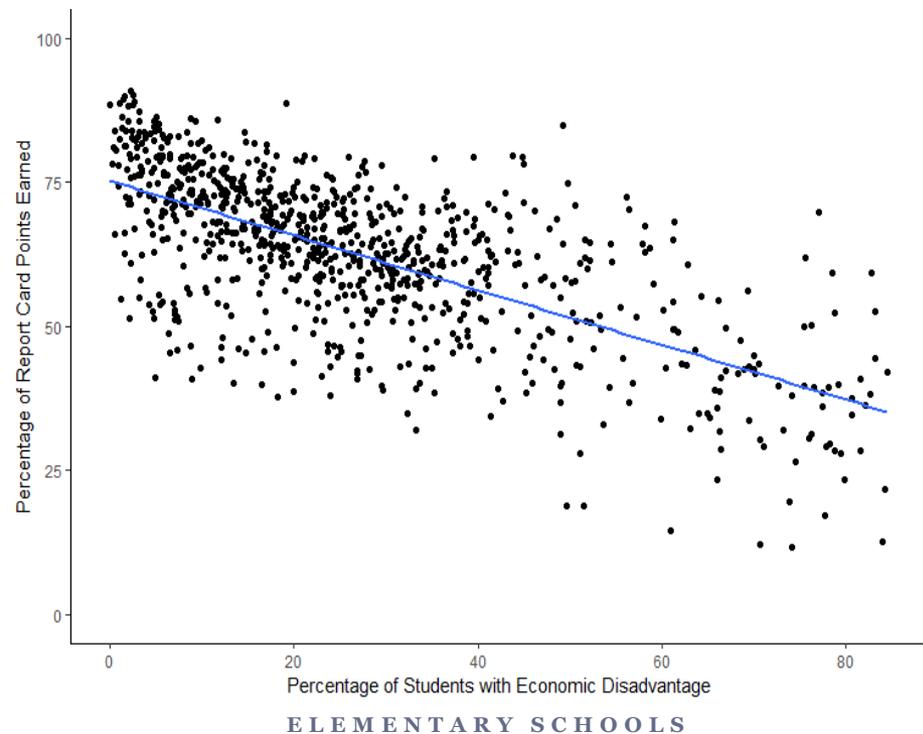


Measuring School Effectiveness with Context

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- The relationship between academic achievement and poverty is one of the most consistent findings in education research.
- ESSA Report Card ratings reinforce the influence of poverty rather than capturing the value added by educators in light of different student populations.

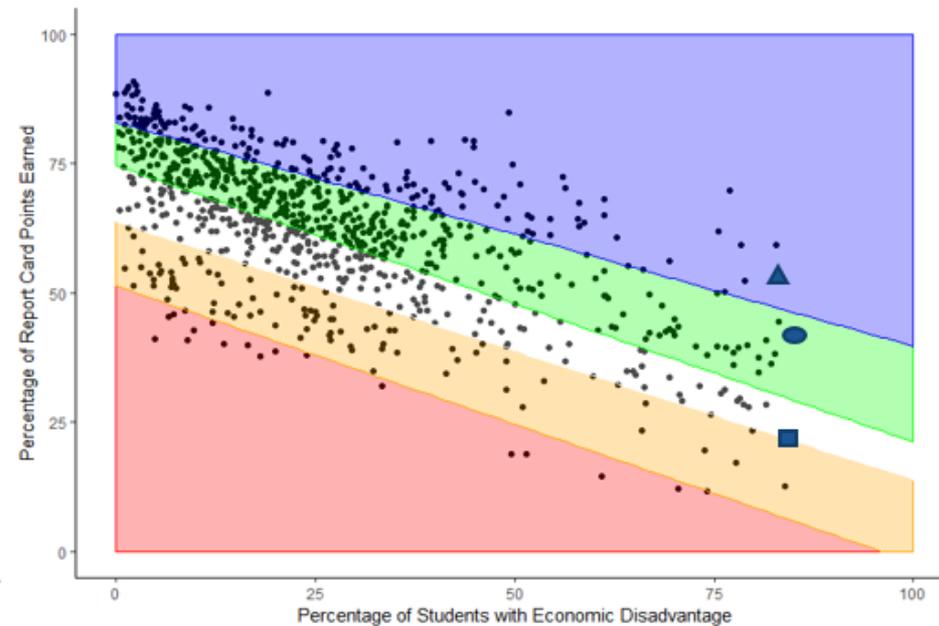
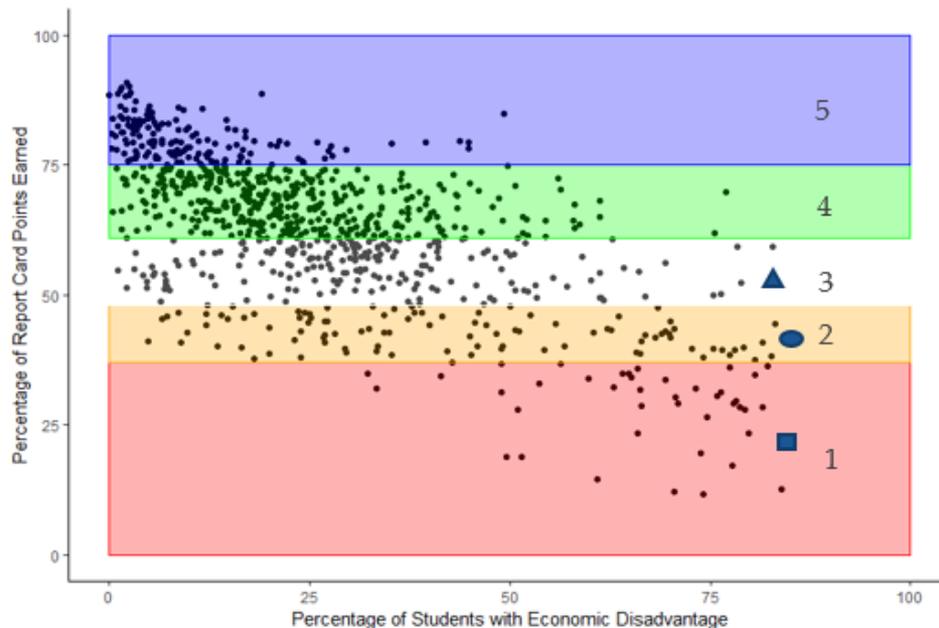
Maryland Report Card Performance and Student Economic Disadvantage



Adjusting for Economic Disadvantage

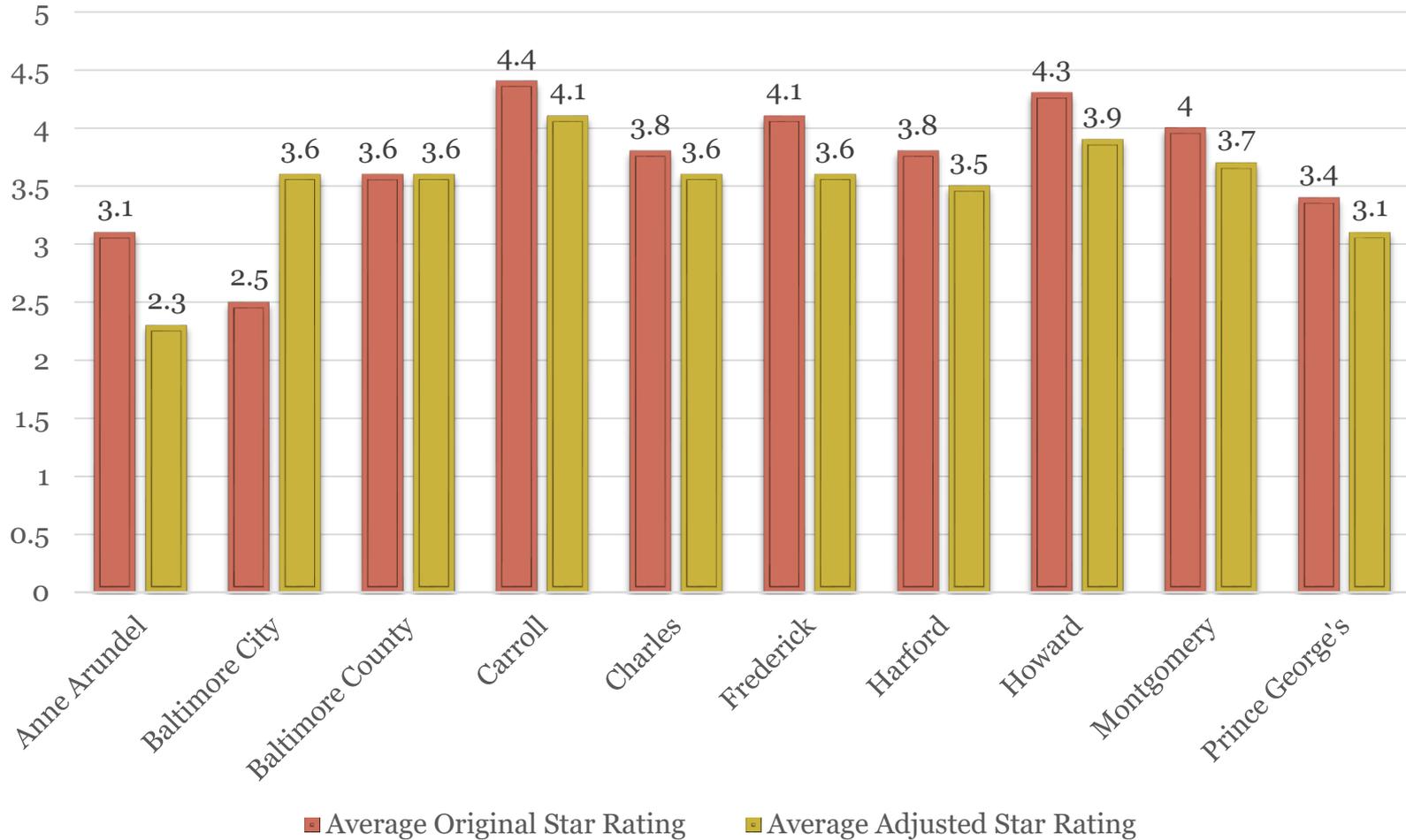
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- Adjusting for the correlation between Maryland Report Card points earned and economic disadvantage rates demonstrates the impact of poverty on MSDE star ratings
- Used quantile regression (*R Package: quantreg*) to estimate rating cutoffs and reassign new ratings



Context Matters

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<https://baltimore-berc.org/wp-content/uploads/2019/06/EquitableReportCardsJune2019.pdf>

Using Poverty Data for School Improvement

- A substantial proportion of the Maryland Report Card ratings is explained by economic disadvantage, and the public release of low star ratings may cause an increase in concentrated poverty.
- **In the last decade, the availability of school ratings has increased disparities in housing values and income distributions as neighborhoods with low ratings lose high-income and college-educated residents.**
- Controlling for economic disadvantage helps identify schools that are making strides in high concentrations of poverty, to better understand results in terms of educator impact and to connect schools to develop intervention plans or professional development.

Final Thoughts

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1. Education data is always nuanced and contextual
 - ✦ What should be considered?
 - ✦ What should not be considered?
 - ✦ An “A+” or “5 stars” does not mean perfection
2. Connections between data sets are vitally important
 - ✦ Do not work in a vacuum
3. Mixed methods: different types of data and perspectives are almost always required to answer questions
 - ✦ Use qualitative and quantitative data to assess programs
 - ✦ Attack problems in creative ways and think outside of the box
4. The complexity is what makes the work interesting!!!

Where can I find all this data?

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1. Maryland Report Card, Data Downloads section
<http://reportcard.msde.maryland.gov/Graphs/#/DataDownloads/datadownload/3/17/6/99/XXXX>
2. Baltimore City Schools Website
<https://www.baltimorecityschools.org/data>
3. MSDE Food and Nutrition Website
<http://marylandpublicschools.org/programs/Pages/School-Community-Nutrition/FreeReducedPriceMealStatistics.aspx>

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