

EXHIBIT G

Analyses of the Uniform Rate of Taxation (URT) and School Finance Equity

Mark Fermanich, APA June 8, 2020

Presentation Topics

- An examination of the URT
 - Also, excess mills above the 25 mill URT rate
- An analysis of the equity of the state's school finance system
 - Focus on specific educational resources such as teacher qualifications and before/after school programs, and educational outcomes
 - Examine variation across wealth quintiles

Uniform Rate of Taxation

The Uniform Rate of Taxation Overview

- The URT is used to calculate the local share of foundation funding for school districts. By law the URT is set at 25 mills.
- The difference in revenue (if any) between what is raised locally by 98% of the URT X local assessed value and the foundation amount is provided in the form of state aid to districts.
- Local voters may approve additional maintenance & operations (M&O) mills above 25 mills in an election. These funds are discretionary.
- Local voters may also approve up to 3 mills of additional dedicated
 M&O funding to be used for specific purposes.

The Uniform Rate of Taxation Overview

- In FY 2018-19 the 25 mill URT (at 98%) raised approximately \$1.2 billion.
- The per ADM amount ranged from \$572 to \$6,781 (the foundation amount in 2018-19).
- The full M&O mill rate including voter approved additional mills – ranged from 25 to 34.9 mills. The average M&O mill rate was 25.69 mills.

Increasing the URT

- Increasing the URT will change the state's state/local foundation revenue shares. The amount of change will depend on how much the URT is increased. As of 2018-19 the average local share was 39.5% compared to a state share of 60.5%.
- The local share ranged from 8.4% to 100%. State share from 0% to 91.6%.
- The value of additional levy revenue from 1.0 mill ranged from \$14,128 to \$3.8 million across districts.

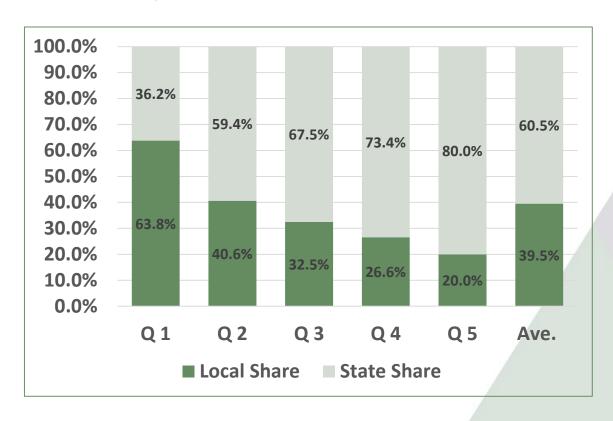
Change in State/Local Foundation Shares by Wealth Quintile with 1 Mill Increase in URT

- Using 2018-19 data, a 1 mill increase in the URT would raise an estimated additional \$49.3 million in local foundation revenues.
- The state average state/local share would change from 39.5% local / 60.5% state to 41.1% local / 58.9% state.

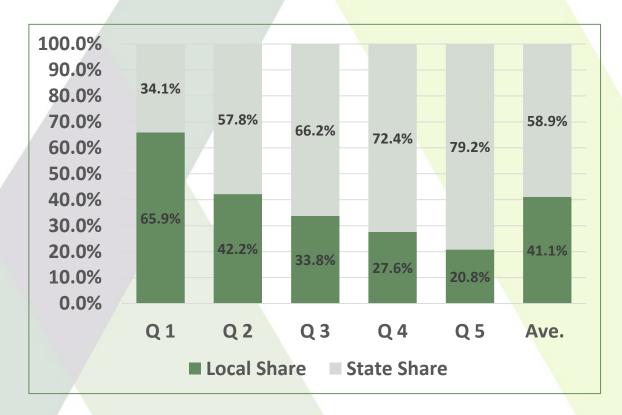
	Current	25 Mills	+ 1 Mill to 26 Mill		
Quintile	Local Share	State Share	Local Share	State Share	
Q 1	63.8%	36.2%	65.9%	34.1%	
Q 2	40.6%	59.4%	42.2%	57.8%	
Q 3	32.5%	67.5%	33.8%	66.2%	
Q 4	26.6%	73.4%	27.6%	72.4%	
Q 5	20.0%	80.0%	20.8%	79.2%	
Ave.	39.5%	60.5%	41.1%	58.9%	

Change in State/Local Foundation Shares by Wealth Quintile with 1 Mill Increase in URT

State/Local Share at Current 25 Mills



State/Local Share at 26 Mills



Increasing the URT

 A 1 mill increase in the URT would increase local property tax foundation revenues per ADM (and decrease state revenues by the same amount) by an average of \$107 per ADM. By wealth quintile the changes would be:

- Q 1: \$144 per ADM

− Q 2: \$110 per ADM

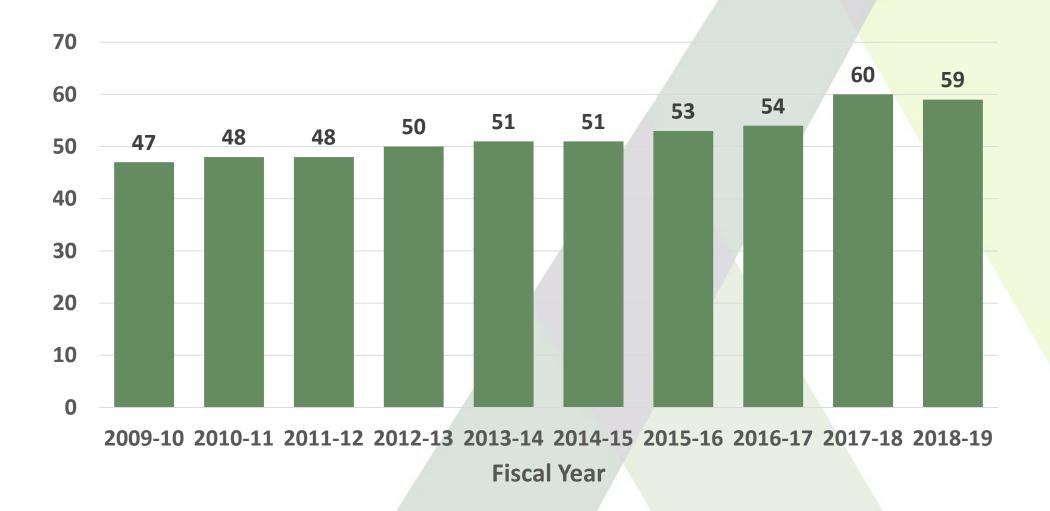
– Q 3: \$88 per ADM

- Q 4: \$54 per ADM

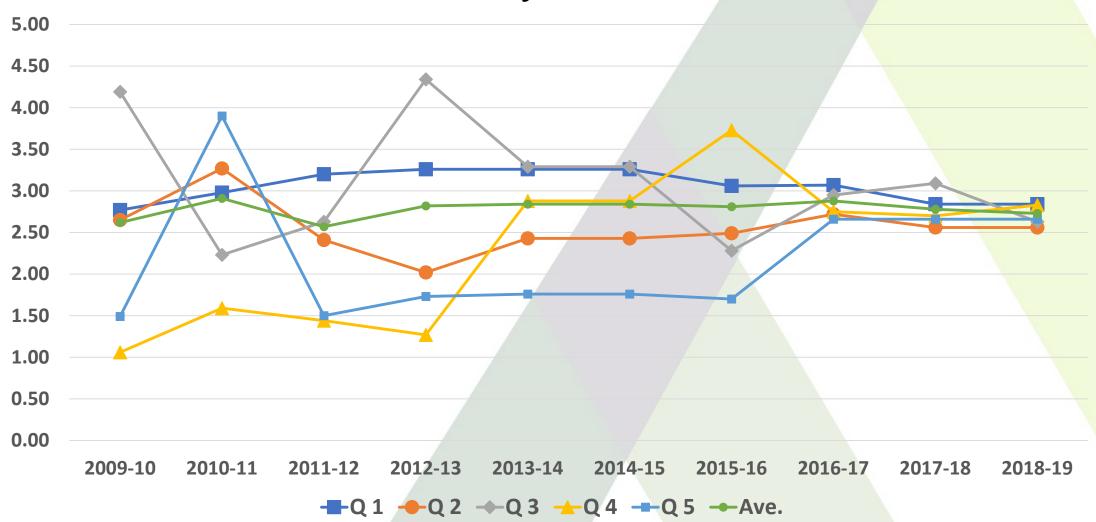
Excess Maintenance & Operations Mills

- In 2018-19, 59 of the 235 districts raised additional discretionary mills above the 25 mill URT.
- This additional millage ranged from 0.10 mills to 9.90 mills. The average additional millage was 2.73 mills.
- A total of 10 districts raised additional dedicated M&O mills.
 These ranged from 0.90 mills to 3 mills the statutory limit.
- The correlation coefficient between local wealth per ADM and excess M&O mills was 0.229. The correlation between excess M&O revenue per ADM and local wealth was 0.424, both below the generally accepted equity benchmark of 0.50

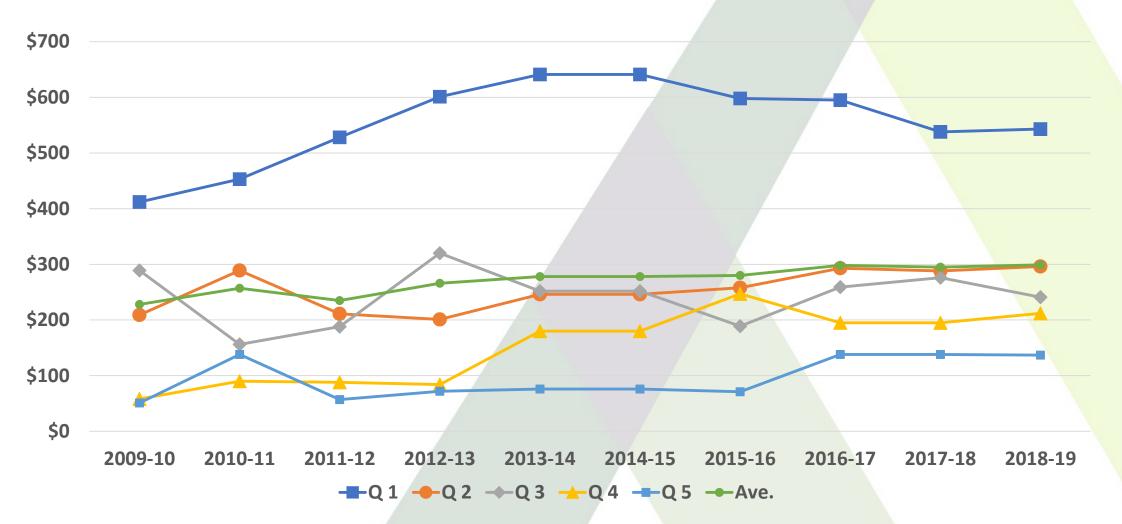
Number of Districts with Excess M&O Mills



Average Excess M&O Mill Rates: Overall and by Wealth Quintile



Average Excess M&O Revenue Per ADM: Overall and by Wealth Quintile



School Funding Equity

Equity Analysis Approach to Date

- Because the Bureau of Legislative Research recently examined the equity of the school finance system using traditional equity study methods, we do not duplicate that work here.
- Instead, we examined how equitably certain educational inputs and outcomes were distributed across districts with varying levels of local wealth.
- In addition to basic equity measures such as the correlation coefficient and coefficient of variation, we compare these resources and outcomes across wealth quintiles.

Horizontal Equity and Fiscal Neutrality

 BLR equity study examining foundation and property tax funding per ADM and foundation plus targeted categorical funding per ADM found that the school finance system is quite equitable.

	Foundation and Property Tax Funding				Foundation Plus Other Targeted Categorical Funding			
	2014 2015 2016				2014	2015	2016	
Horizontal Equity								
Mean	\$7,098	\$7,333	\$7,392		\$7,878	\$8,107	\$8,188	
Restricted Range	\$2,073	\$1,852	\$1,700		\$2,487	\$2,371	\$2,563	
Coefficient of Variation	0.19	0.17	0.16		0.15	0.16	0.15	
McLoone Index	0.955	0.963	0.969		0.948	0.954	0.958	
Gini Coefficient	0.055	0.056	0.040		0.060	0.060	0.058	
Fiscal Neutrality								
Correlation Coefficient	0.83	0.89	0.88		0.78	0.85	0.83	

Source: Bureau of Legislative Research, Equity of Revenues and Expenditures in Arkansas School Districts. September 2017

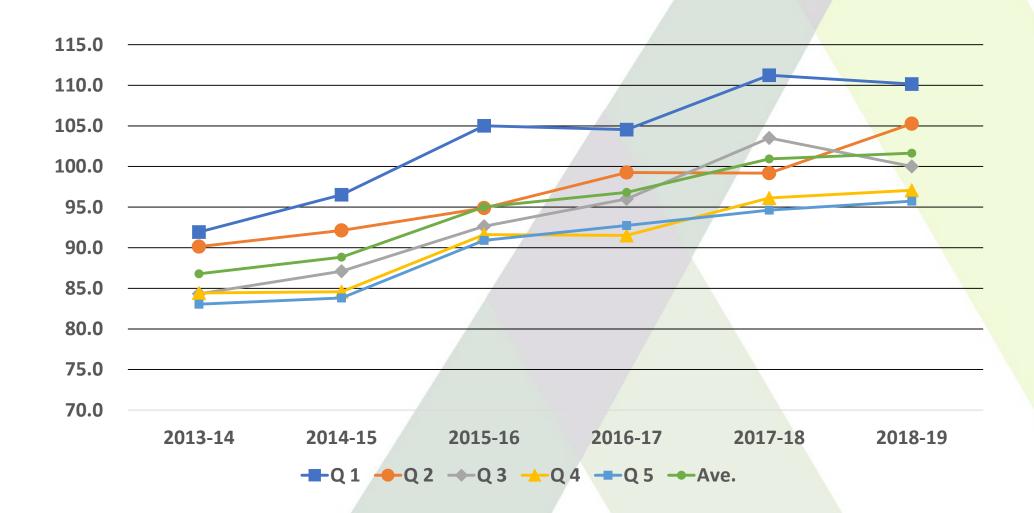
Personnel Resources

- The study team examined:
 - Teachers per 1,000 students
 - Administrators per 1,000 students
 - Percent of teachers with MAs
 - Teachers' average years of experience
 - Teacher/classroom average salaries
 - Administrator average salaries

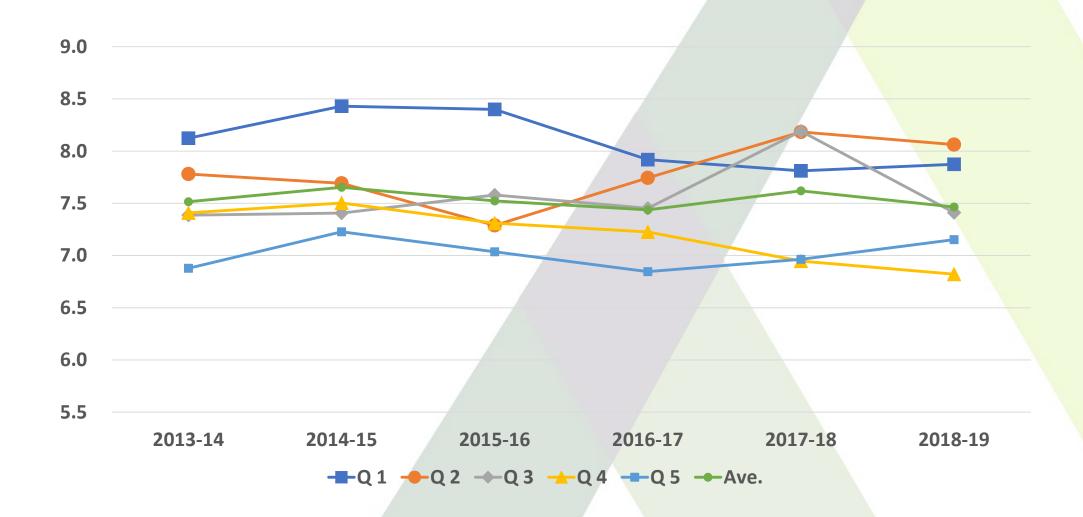
Equity Statistics for Personnel Resources

Variable	Statistic	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
	Mean	86.8	88.8	95.0	96.8	100.9	101.6
Teachers per 1,000 students	Coefficient of Variation	0.206	0.238	0.286	0.300	0.304	0.312
	Correlation Coefficient	0.239	0.272	0.236	0.211	0.208	0.200
Administrators per 1,000 students	Mean	7.5	7.7	7.5	7.4	7.6	7.5
	Coefficient of Variation	0.328	0.339	0.322	0.298	0.368	0.297
	Correlation Coefficient	0.117	0.172	0.195	0.192	0.139	0.170

Teachers per 1,000 Students by Wealth Quintile



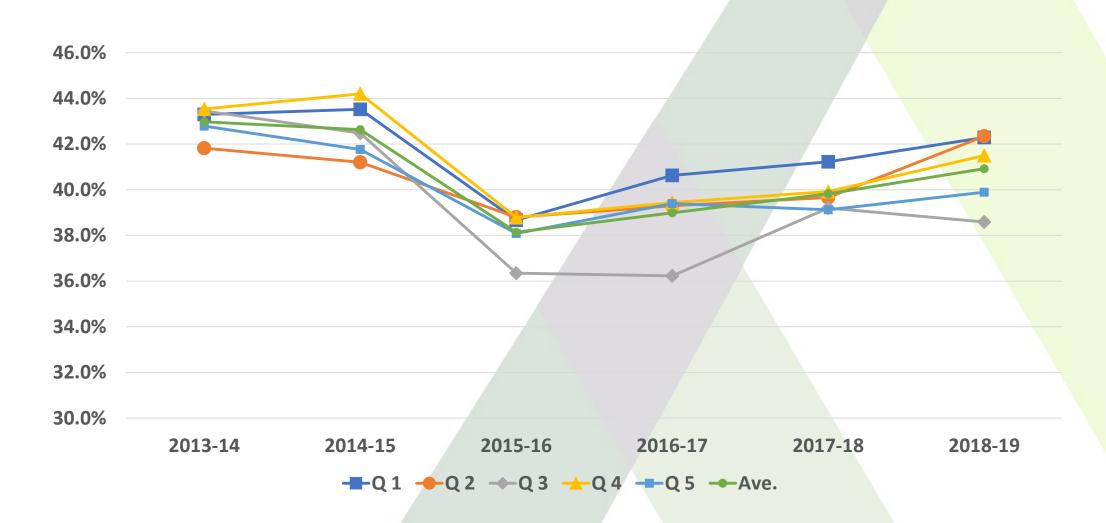
Administrators per 1,000 Students by Wealth Quintile



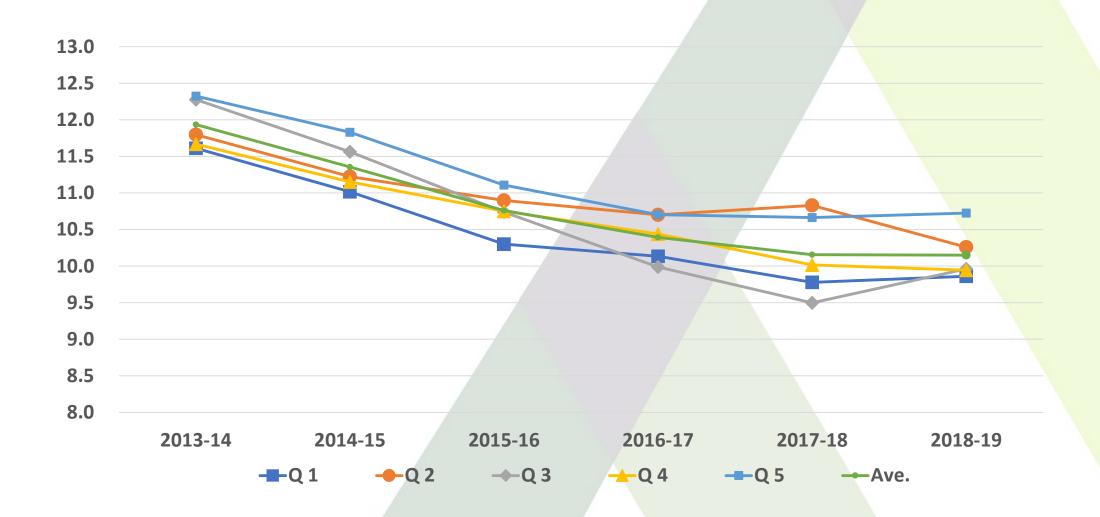
Equity Statistics for Personnel Resources

Variable	Statistic	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Percent Teachers with MA	Mean	43.0%	42.6%	38.1%	39.0%	39.8%	40.9%
	Coefficient of Variation	0.288	0.301	0.287	0.281	0.274	0.271
	Correlation Coefficient	0.011	0.016	0.013	0.035	0.026	0.086
Teacher Average Years of Experience	Mean	11.9	11.4	10.8	10.4	10.2	10.2
	Coefficient of Variation	0.201	0.224	0.244	0.254	0.271	0.263
	Correlation Coefficient	-0.111	-0.098	-0.112	-0.083	-0.074	-0.062

Percent of Teachers with MA by Wealth Quintile



Teachers' Average Years of Experience by Wealth Quintile

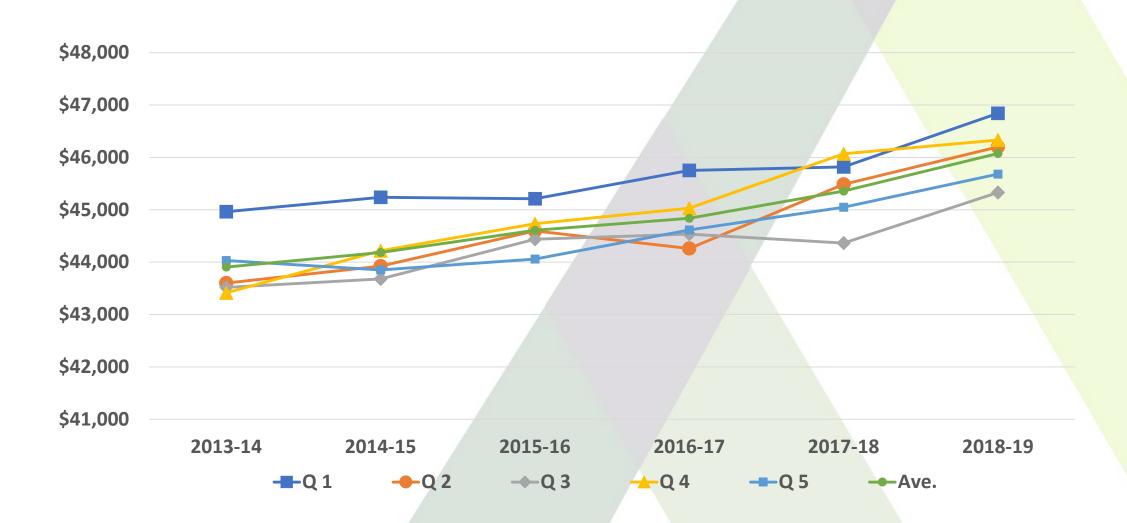


Equity Statistics for Personnel Resources

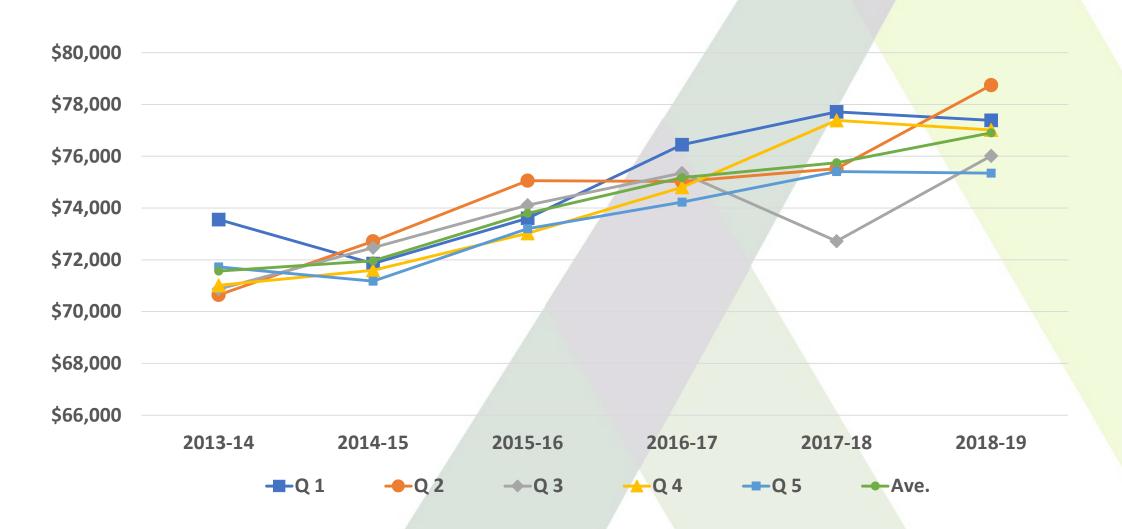
Variable	Statistic	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Average Teacher (Classroom) Salaries ¹	Mean	\$43,906	\$44,184	\$44,608	\$44,838	\$45,357	\$46,076
	Coefficient of Variation	0.104	0.105	0.105	0.108	0.103	0.097
	Correlation Coefficient	0.009	0.038	0.013	0.032	0.051	0.056
	Mean	\$71,565	\$71,960	\$73,799	\$75,173	\$75,750	\$76,902
Average Administrator Salaries	Coefficient of Variation	0.123	0.139	0.124	0.122	0.138	0.115
	Correlation Coefficient	0.083	0.038	0.058	0.078	0.073	0.068

¹Classroom staff includes teachers, librarians and counselors

Average Teacher (Classroom) Salary by Wealth Quintile



Average Administrators Salary by Wealth Quintile



Program Resources

- The study team examined:
 - Percent of students taking AP courses in high school
 - Percent of students taking computer science courses in high school
 - Percent of a district's schools offering before school programs
 - Percent of a district's schools offering after school programs
 - Percent of a district's schools offering summer school programs

Program Resources Summary Statistics

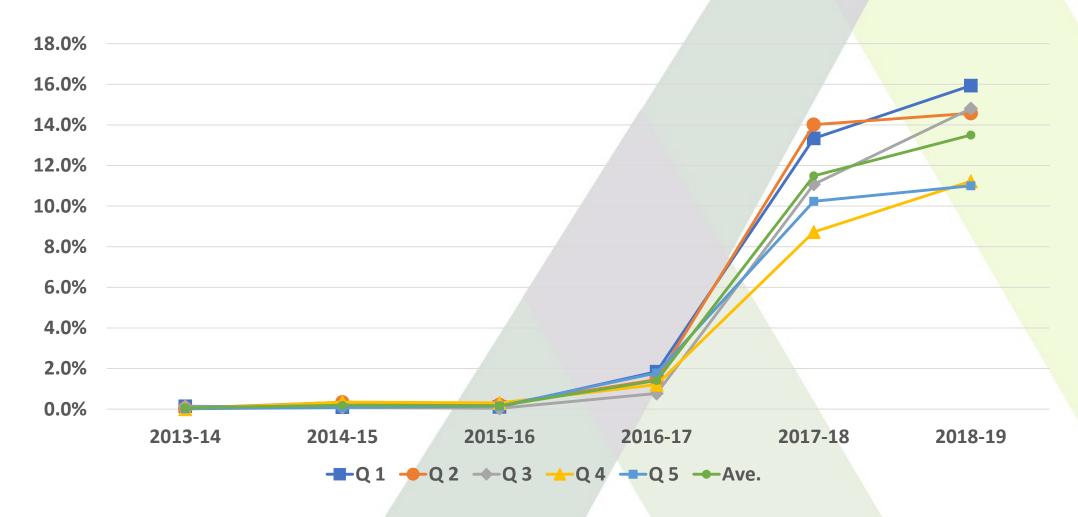
Variable	Statistic	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
	Mean	20.8%	29.7%	29.2%	37.5%	36.8%	37.5%
Percent of Students Taking AP Courses	Coefficient of Variation	0.588	0.610	0.609	0.654	0.659	0.669
	Correlation Coefficient	0.110	-0.054	-0.059	-0.013	0.010	0.059
Percent of Students Taking Computer Science Courses	Mean	0.1%	0.3%	0.3%	1.4%	10.1%	12.4%
	Coefficient of Variation	7.57	4.37	4.15	2.31	1.16	1.06
	Correlation Coefficient	0.026	-0.034	-0.050	-0.002	0.141	0.155

Percent of Students Taking AP Courses in High School by Wealth Quintile



Note: Counts are not unduplicated counts

Percent of Students Taking Computer Science Courses in High School by Wealth Quintile

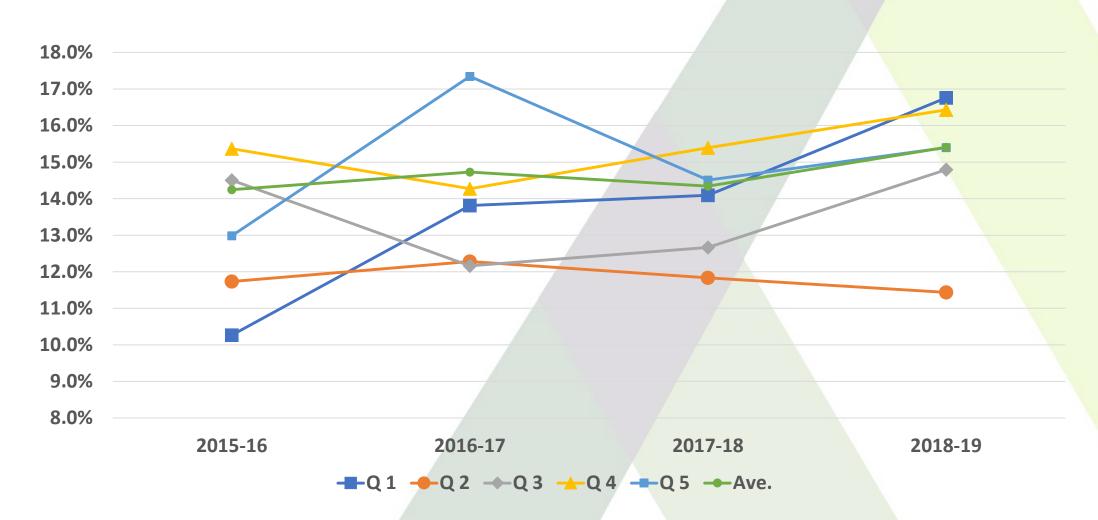


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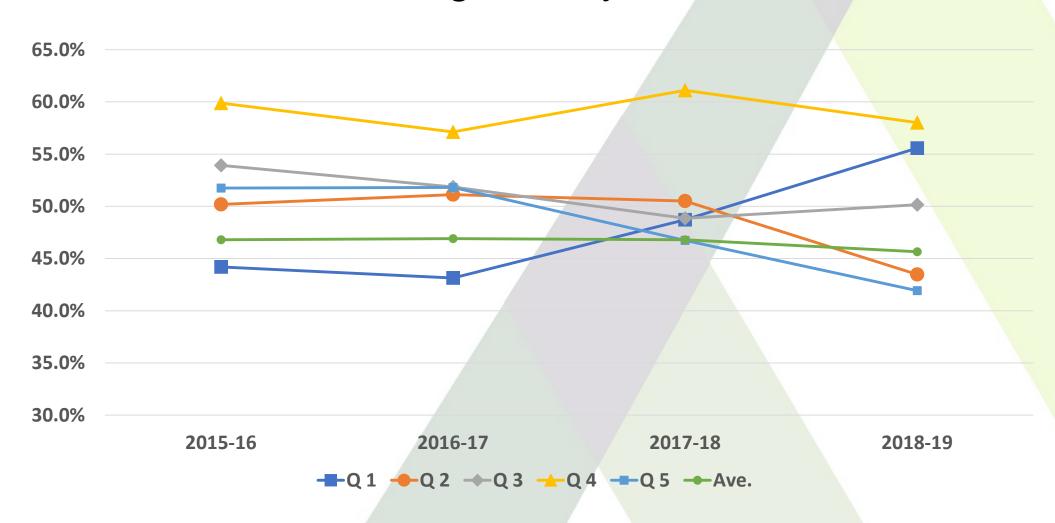
Program Resources Summary Statistics

Variable	Statistic	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Percent of	Mean	NA	NA	14.2%	14.7%	14.3%	15.4%
District Schools Offering Before	Coefficient of Variation	NA	NA	1.83	1.79	1.76	1.76
School Program	Correlation Coefficient	NA	NA	-0.080	0.017	-0.009	0.008
Percent of	Mean	NA	NA	46.8%	46.9%	46.8%	45.6%
District Schools Offering After	Coefficient of Variation	NA	NA	0.795	0.804	0.789	0.800
School Program	Correlation Coefficient	NA	NA	-0.148	-0.087	-0.038	0.059
Percent of	Mean	NA	NA	29.7%	29.8%	28.6%	30.2%
District Schools Offering Summer School Program	Coefficient of Variation	NA	NA	1.251	1.241	1.174	1.106
	Correlation Coefficient	NA	NA	-0.075	-0.079	-0.023	0.010

Percent of District Schools Offering Before School Programs by Wealth Quintile



Percent of District Schools Offering After School Programs by Wealth Quintile



Percent of District Schools Offering Summer School Programs by Wealth Quintile



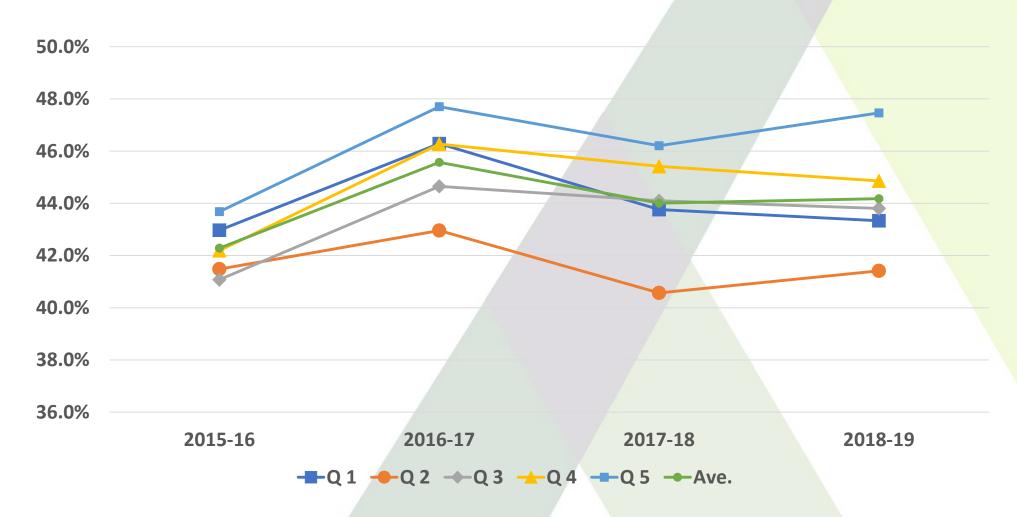
Educational Outcomes

- The study team examined:
 - Percent of students in all grades meeting or exceeding standards on the ACT Aspire math assessment.
 - Percent of students in all grades meeting or exceeding standards on the ACT Aspire literacy assessment.
 - Counts of disciplinary actions per 100 students.

Educational Outcomes Summary Statistics

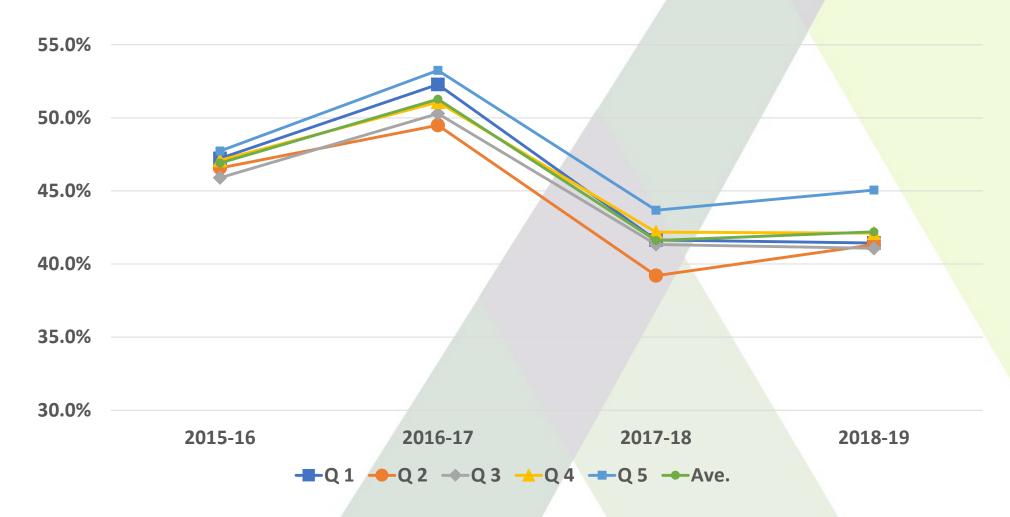
Variable	Statistic	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
ACT Aspire	Mean	NA	NA	42.3%	45.6%	44.0%	44.2%
Math: Percent of Students	Coefficient of Variation	NA	NA	0.255	0.254	0.276	0.278
Meeting/Exceeding Standards	Correlation Coefficient	NA	NA	-0.017	-0.040	-0.064	-0.093
ACT Aspire	Mean	NA	NA	46.9%	51.3%	41.6%	42.2%
Literacy: Percent of Students	Coefficient of Variation	NA	NA	0.224	0.216	0.266	0.264
Meeting/Exceeding Standards	Correlation Coefficient	NA	NA	0.033	0.020	-0.023	-0.069
	Mean	28.8	34.5	36.2	34.7	35.0	34.4
Disciplinary Actions per 100 Students	Coefficient of Variation	1.05	0.928	0.950	0.896	0.861	0.867
	Correlation Coefficient	-0.025	0.009	0.040	0.038	0.106	0.071

Percent of Students Meeting/Exceeding Standards on ACT Aspire Math Assessment by Wealth Quintile



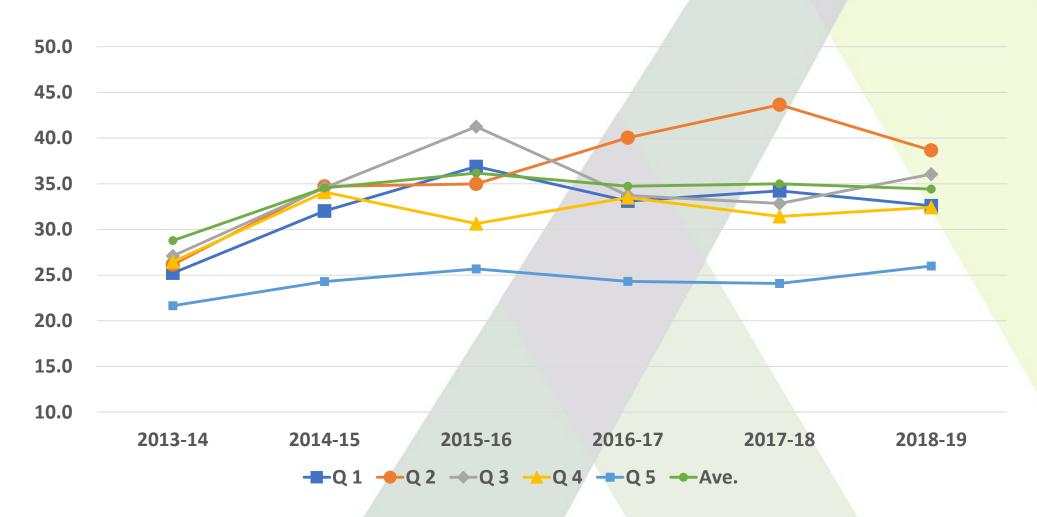
^{*}Includes all grades

Percent of Students Meeting/Exceeding Standards on ACT Aspire Literacy Assessment by Wealth Quintile



^{*}Includes all grades

Disciplinary Actions Per 100 Students by Wealth Quintile



^{*}Includes expulsions, out-of-school suspensions and in-school suspensions.

Questions?