

Round Rock ISD

Staffing Evaluation and Analysis

Presented By:

GIBSON

AN EDUCATION CONSULTING & RESEARCH GROUP

March 8, 2018 Board Workshop

Today's Agenda

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- About Gibson
- Project Objectives, Scope and Timeline
- Approach and Methodology
- Assessment Summary
 - Non-school staffing
 - School staffing
 - Master schedules

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About Gibson

About Gibson

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- Gibson's mission is *to better the lives of students by providing exemplary educational consulting and research services that make educational systems more efficient and effective.*
- We specialize in solving complex problems within the K-12 public education industry:
 - ✓ Organizational, staffing, and efficiency analysis
 - ✓ Technology integration and dashboard development
 - ✓ Internal audit
 - ✓ Research and program evaluation
- We have conducted similar projects for other large school systems: Hillsborough County Public Schools (210K students), Fairfax County Public Schools (180K students), Clark County School District (310K students), Tucson Unified School District (49K students).

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Project Objectives, Scope and Timeline

Project Objectives

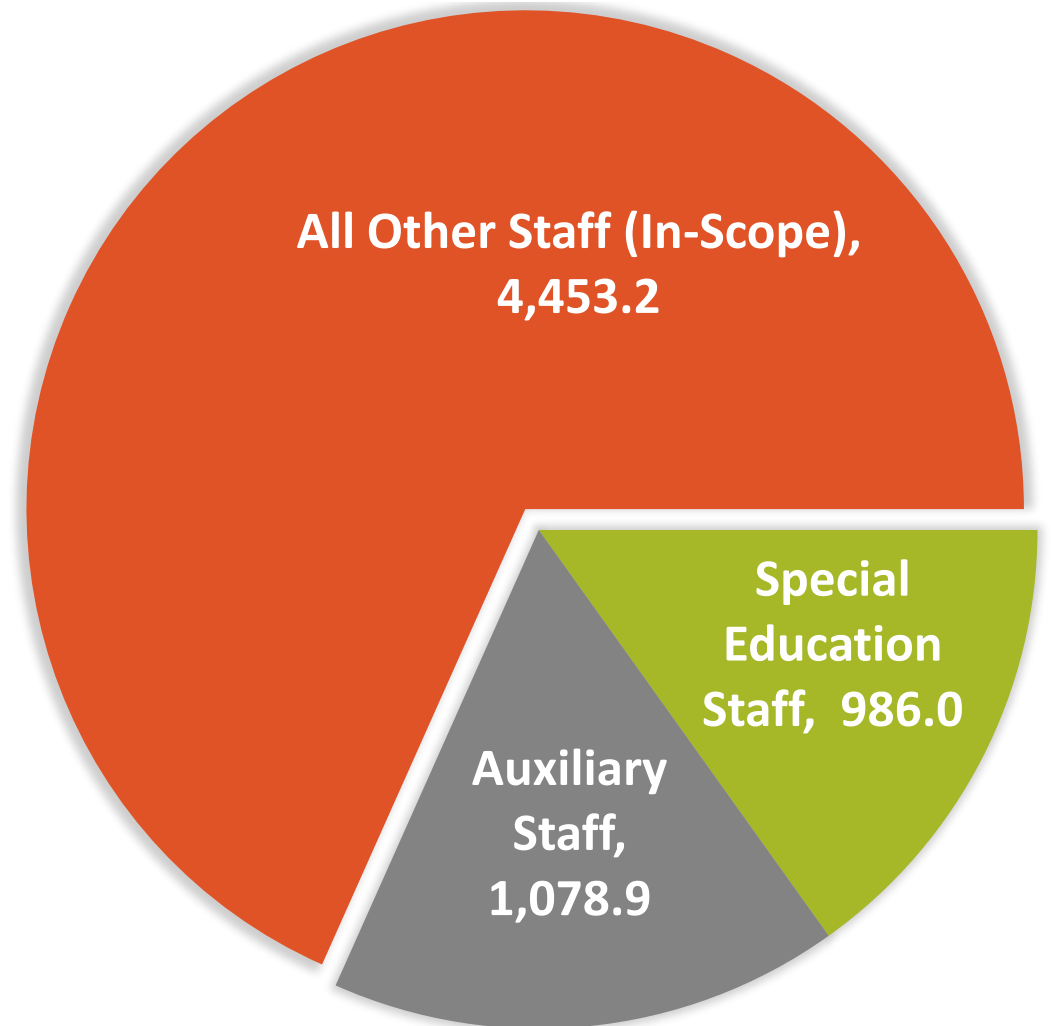
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- To evaluate RRISD staffing trends and comparisons to benchmarks to determine the district's alignment with peer districts or other applicable guidelines or standards for staffing.
- This study looked only at staffing levels, not the underlying causes or drivers of staffing levels, such as board policies, academic programming, process inefficiencies, or under-utilization of technology.
- Accordingly, this study does not make specific recommendations to increase or reduce staff levels, but rather points to where savings opportunities may exist.

Project Scope

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- Includes all school-based and non-school staff, with some exclusions:
 - Special Education staff
 - Most auxiliary staff within Division of Operations
 - Custodial Services
 - Maintenance and Grounds
 - Construction
 - Food Services
 - Transportation



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Approach and Methodology

Summary of Gibson's Activities

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- Conducted project kick-off meeting with district leadership.
- Conducted weekly status meetings with project sponsors.
- Conducted 48 individual and small group interviews.
- Visited 7 schools (Gattis ES, Kathy Caraway ES, Linda Herrington ES, Noel Grisham MS, PFC Robert P Hernandez MS, Cedar Ridge HS, McNeil HS).
- Collected and analyzed RRISD data.
- Collected and analyzed benchmark district data.
- Synthesized analysis into a final report and presentation deliverables.

Analytical Framework

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- Staff Ratio Analysis to compare RRISD staffing levels relative to student enrollment over time.
- Benchmarking Analysis to compare RRISD staffing ratios and to peer districts using primarily TEA data.
- Organizational Analysis to assess overall staffing levels, spans of control, and logical alignment of key functions.
- Course Data Analysis to examine school master schedules, average class sizes, and teacher class loads.

Source Data for Analysis (6 years)

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- Staffing Data (position file, position vacancies, job descriptions, organizational charts, employee demographics, staffing formula allocation worksheets)
- School Data (enrollment data, enrollment projections, school demographics)
- Financial Data (expenditures)
- Benchmark District Data (TEA PEIMS role ID, TEA TAPR reports, district and school websites, staffing formula guidelines)
- Master Course Schedule Data (student and teacher courses, district course catalogue)
- Other Relevant Data (departmental workload metrics, district strategic plan, district improvement plan)

Benchmark District Comparisons

District	# Students	# Staff	Student-Staff Ratio	% Economically Disadvantaged	% Special Education
Austin	82,766	11,447.0	7.2	53.3%	10.4%
Clear Creek	41,679	4,897.5	8.5	28.4%	9.6%
Conroe	59,489	7,266.0	8.2	35.8%	7.8%
Katy	75,231	9,573.3	7.9	28.8%	9.3%
Klein	51,650	6,694.6	7.7	40.7%	8.4%
Leander	38,130	4,698.0	8.1	18.9%	10.4%
Lewisville	53,182	6,477.7	8.2	32.4%	10.4%
Pflugerville	24,562	3,096.5	7.9	48.4%	10.2%
Plano	53,931	6,796.5	7.9	28.7%	10.4%
Round Rock	48,142	6,344.6	7.6	25.9%	9.1%

Source: Texas Education Agency, 2016-17.

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Assessment Summary

Summary of Gibson's Staffing Evaluation and Analysis

- Staff levels have increased relative to the student population over the past five years; RRISD also has more staff relative to its student population in comparison to benchmark districts.
- Much of the increase in non-school staff is due to programmatic intent; overall, departments appear to be appropriately staffed.
- Increase in school-based staffing appears to be driven by:
 - Staffing allocation formulas that have changed and result in higher allocations for some positions; are not consistently applied; and allocate more resources than benchmark districts do.
 - School master schedules that allow for 2 planning periods; have teachers teaching less than a full class load, and have very small class sizes in some subjects and grades.

RRISD Context - Enrollment

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- Since 2013, student enrollment overall has increased 6.9 percent – most of which has been at high schools.
- Over this same time period, the district added three new schools to its portfolio.
- Within school levels, there have been wide variations in student enrollment patterns – some schools have seen large increases while others have seen large decreases, particularly at elementary schools.

RRISD Context - Enrollment

- In general, small schools are getting smaller and large schools are getting larger.

Elementary Schools

School Size Bucket	2012-13 Average School Size	2012-13 Schools	2017-18 Average School Size	2017-18 Schools
<400	366	2	359	3
401-600	495	8	486	10
601-800	700	15	723	13
801-1000	869	8	858	5
>1,000	n/a	0	1,124	3
Total	671	33	676	34

Middle Schools

School Size Bucket	2012-13 Average School Size	2012-13 Schools	2017-18 Average School Size	2017-18 Schools
<700	693	1	671	3
701-800	783	1	737	1
801-900	870	2	894	1
901-1,000	951	1	950	1
>1,000	1,236	5	1,306	5
Total	1,035	10	1,011	11

High Schools

School Size Bucket	2012-13 Average School Size	2012-13 Schools	2017-18 Average School Size	2017-18 Schools
<300	127	1	225	2
301-2,000	n/a	0	n/a	0
2,001-2,500	2,348	2	n/a	0
2501-3,000	2,713	3	2,670	4
>3,000	n/a	0	3,329	1
Total	2,160	6	2,066	7

RRISD Context - Staffing

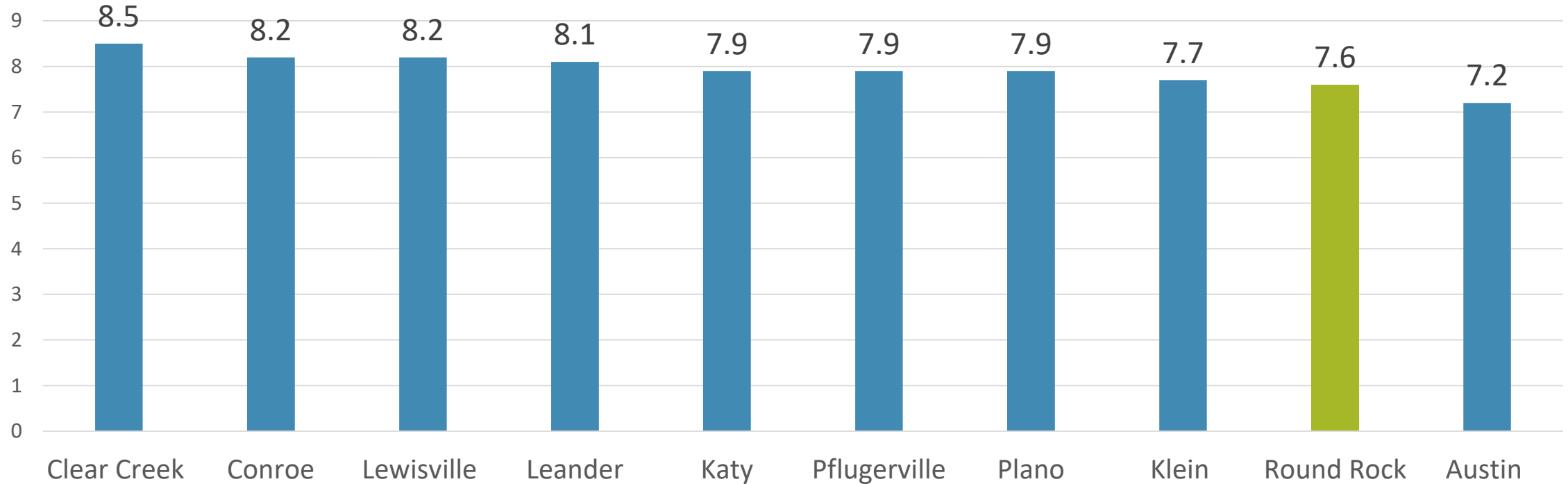
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- Excluding out-of-scope positions, RRISD had 4,453.2 FTE staff positions, which is an increase of 13.6 percent since 2012-13.
- The increase in the number of district FTEs has outpaced the increase in student enrollment, evidenced by a 5.9 percent decrease in the student-staff ratio.

Metric	2012-13	2017-18	Δ
Total Enrollment	45,452	48,578	6.9%
Total Staff FTE	3,921.7	4,453.2	13.6%
Student-Staff Ratio	11.6	10.9	-5.9%

RRISD Context - Staffing

Student-Staff Ratio
(PEIMS Data)

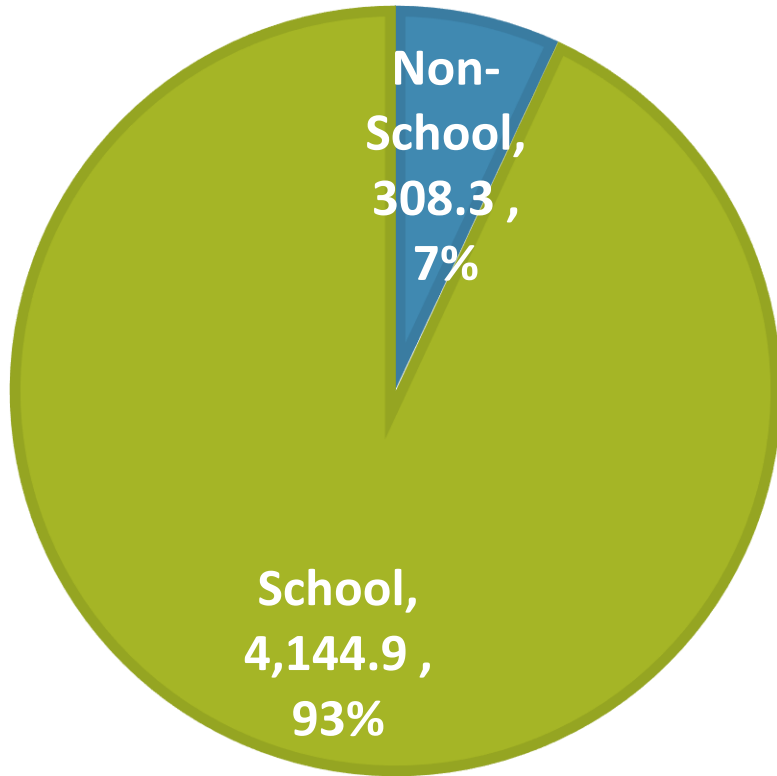


Non-school vs. School-based Positions

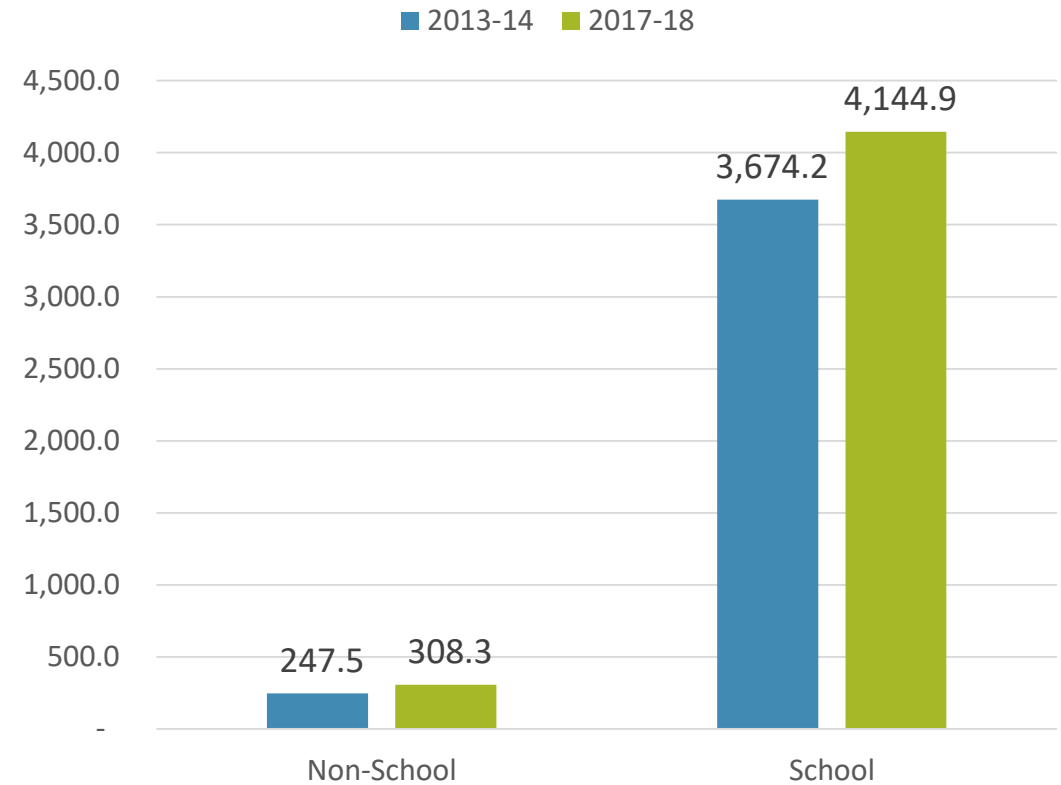
- **Non-school positions** include all in-scope staff that are physically located at the district's central office support facilities, or any staff that may be physically located at schools but provide support to schools on an itinerant basis:
 - Superintendent, division chiefs, program directors, central office administrative support staff, learning community area superintendents and directors, social workers, and a small number of itinerant teachers.
- **School-based positions** include all other in-scope positions in the district:
 - Principals, assistant principals, teachers, educational assistants, school administrative support staff, instructional coaches, etc.

Non-school vs. School-based Positions

Non-School vs. School Staff, 2017-18



2012-13 vs. 2017-18



FTE Δ	60.8	470.7	531.5
% Δ	24.6%	12.8%	13.6%

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Non-school Staffing

Non-school Staffing

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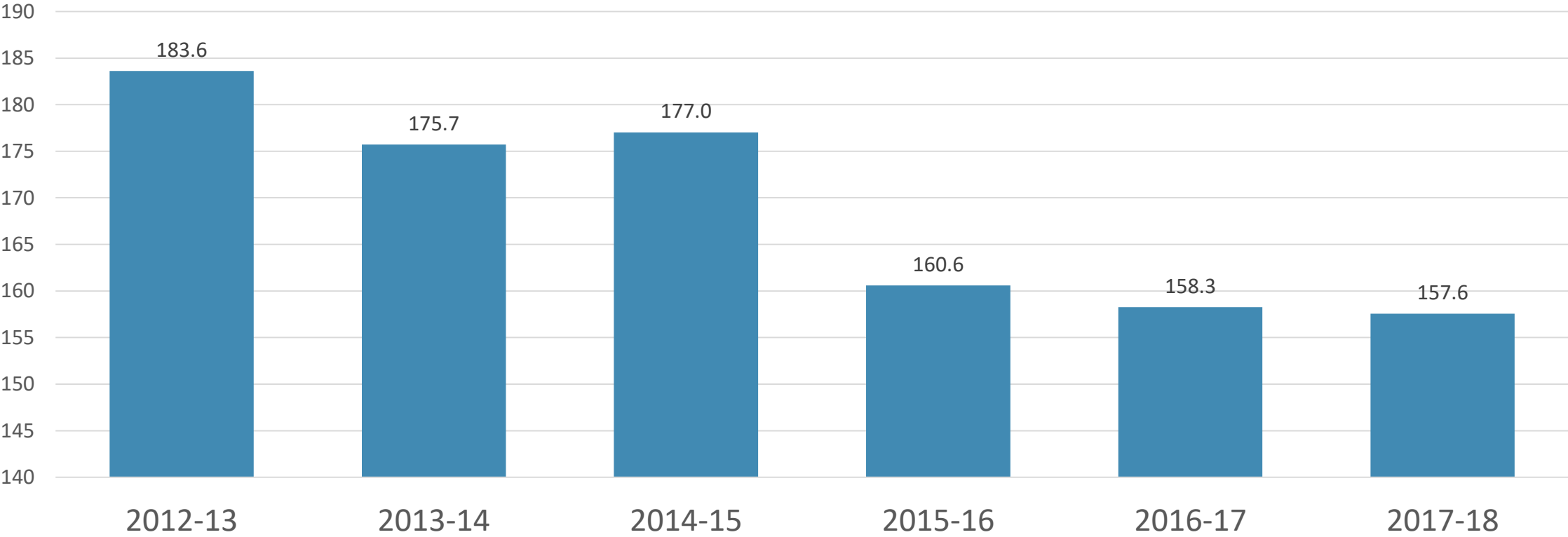
- Teaching and Learning/Schools and Innovation
- Business and Financial Services
- Technology Information Services
- Human Resources Services
- Other Departments

Keep in mind...

- Actual, not budgeted, positions were used to perform the analysis.
- Actual FTEs are reported to PEIMS.
- For smaller organizational units, actual numbers may have fluctuated when in fact budgeted positions did not.
- Not an issue for larger units because of larger FTE numbers and the smaller impact of a position vacancy.
- Potential savings were estimated based on average salaries plus 15% benefits.

Staffing ratio decreased 14.2%

Non-School Student-Staff Ratio, 2017-18



Enrl.	45,452	46,458	47,013	47,564	47,992	48,578
FTE	247.5	264.4	265.6	296.2	303.2	308.3

Teaching and Learning/Schools and Innovation

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- These two units underwent a major reorganization last year.
- Combined, staff levels in Teaching and Learning and Schools and Innovation increased 37.3 FTEs, from 102.4 FTEs in 2012-13 to 139.7 FTEs in 2017-18, or 36.4%.
- The majority of the increase (27 FTEs) was due to child care assistant positions related to the tuition-based employee child care program held in conjunction with the Teen Parent Child Development Program.

Business and Financial Services

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- Includes financial services, payroll and benefits, purchasing and materials management, and business systems.
- RRISD implemented new ERP system during past three years, but provided no backfill positions for implementation.
- 8 FTE positions added since 2012-13, an increase of 15%, although position vacancies overstate the increase.
- Current staff levels in line with peers and national benchmarks.

Technology and Information Services

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- Increased 7.3 positions since 2012-13, from 44.7 FTEs to 52 FTEs, or 16.3%.
- Position increases related to technology project management, PEIMS, and the reallocation of positions for technology infrastructure to accommodate growth.
- Technology spending per student in line with national benchmarks.
- State peer comparisons of limited value due to major differences in reporting.

Human Resource Services

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- Human Resources also did not backfill positions during new ERP system implementation.
- Increase of 1.0 FTE, from 18.5 FTEs in 2012-13 to 19.5 FTEs in 2017-18, or 5.4%.
- Human Resources cost per employee has increased only 3.6% in past five years.
- Among peers, RRISD ranks 5th out of 8 districts in terms of staffing efficiency.

Other Departments

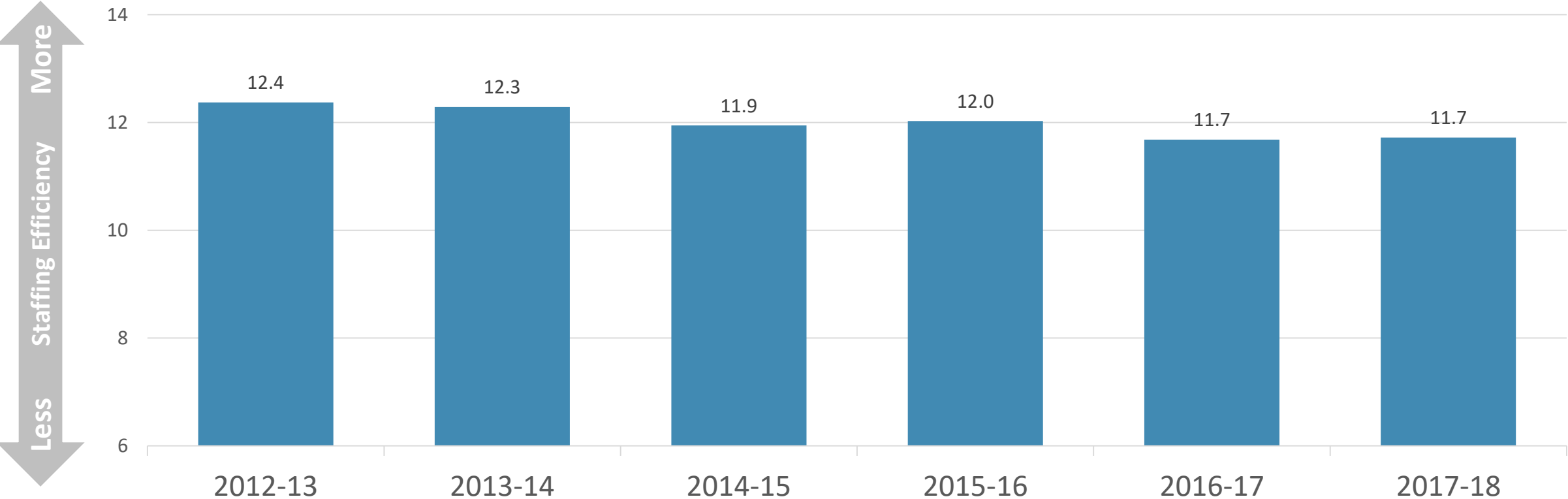
- General Counsel's Office staffing increased due to bringing much of legal work in-house; offset by significant decrease in contracted legal services.
- Communications and Community Relations increased 5.0 FTEs since 2012-13 due to additions for video services, graphics, and marketing.
- Assessment and Accountability staff levels (11.0 FTEs) have remained relatively flat and are consistent with peer staff levels.
- Board Office, Superintendent Office and Internal Audit have all remained at or below 3.0 FTEs.
- Administrative support positions increased from 27.6 FTEs to 34.1 FTEs; current levels appear to be in line with current standards based on ratio of support positions to supervisory staff.

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School-based Staffing

Staffing ratio decreased 5.3%

School-based Student-Staff Ratio, 2017-18



Enrl.	45,452	46,458	47,013	47,564	47,992	48,578
FTE	3,674.2	3,780.8	3,936.3	3,954.6	4,108.8	4,144.9

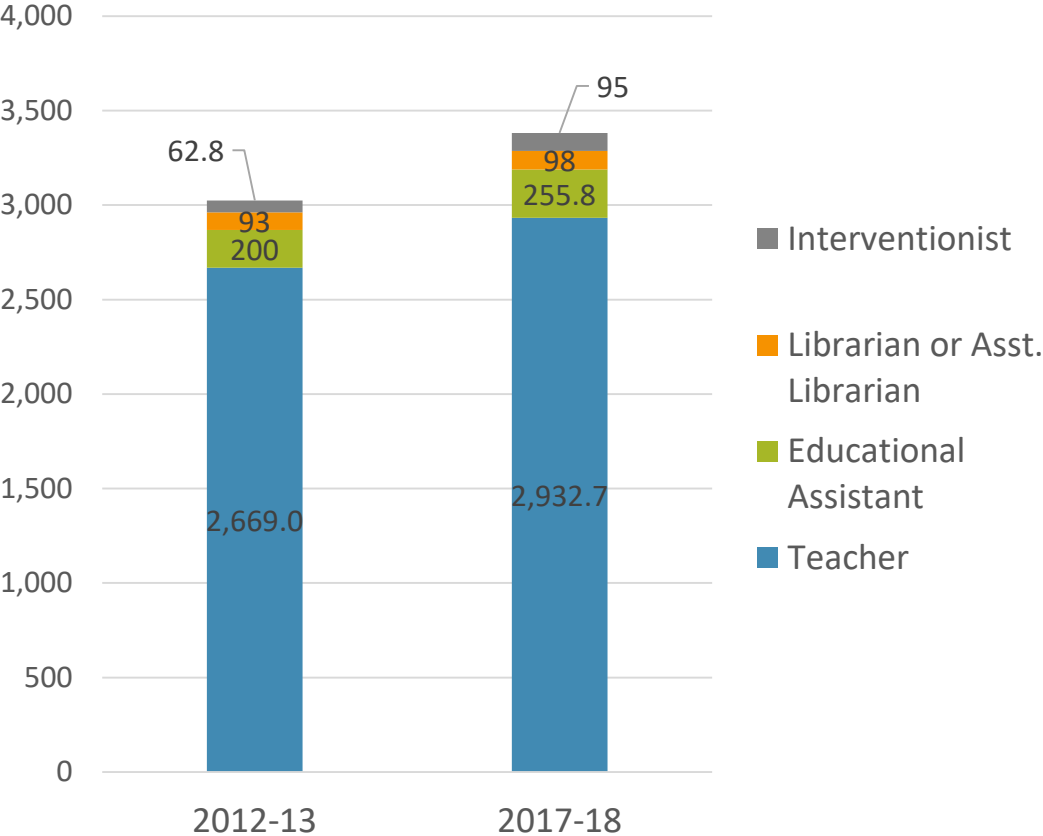
School-based Staff by Position Type

- School Leadership and Administrative Staff positions had the highest percentage increase, while Instructional Staff account for the majority of the staff increase (75.8%).

Position Type	2012-13	2017-18	FTE Δ	% Δ	FTE Δ %
Instructional Staff	3,024.8	3,381.5	356.7	11.8%	75.8%
Administrative Staff	186.5	231.0	44.5	23.9%	9.5%
Student Services Staff	201.3	212.3	11.0	5.5%	2.3%
School Leadership	132.0	166.0	34.0	25.8%	7.2%
Instructional Program Support Staff	129.6	154.1	24.5	18.9%	5.2%
Grand Total	3,674.2	4,144.9	470.7	12.8%	100.0%

Instructional staff increased 11.8% (356.7 FTE)

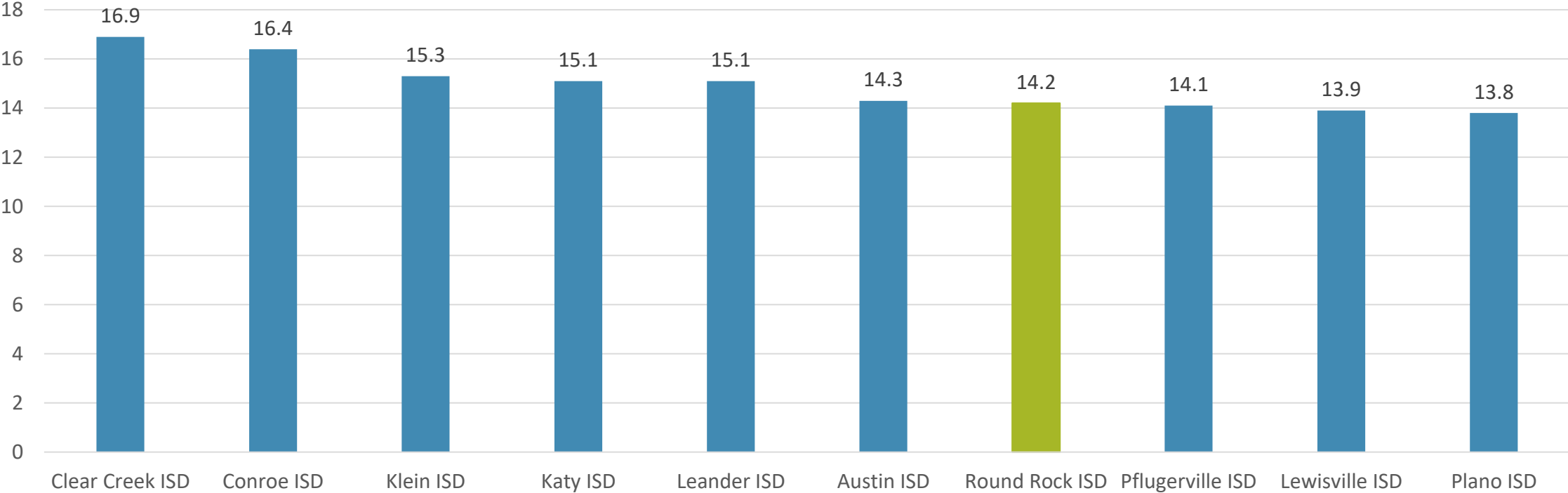
Instructional FTE



Position Type	FTE Δ	% Δ	FTE Δ %
Teacher	263.7	9.9%	73.9%
Educational Assistant	55.8	27.9%	15.6%
Librarian or Library Asst.	5.0	5.4%	1.4%
Interventionist	32.2	51.3%	9.0%
Total	356.7	11.8%	100.0%

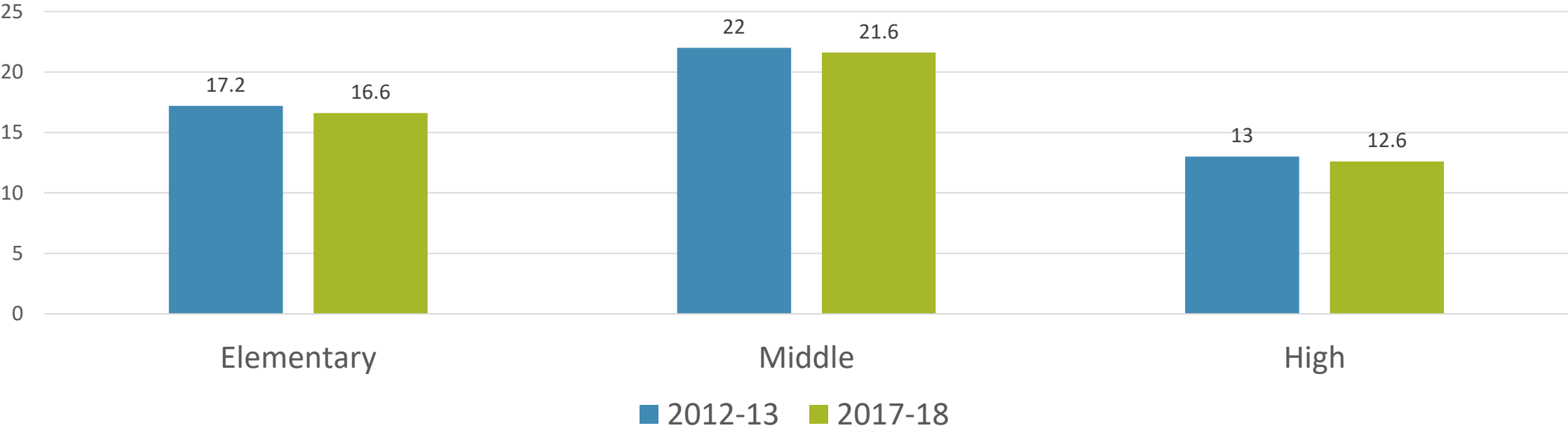
RRISD has a lower student-teacher ratio than most of the benchmark districts

Student-Teacher Ratio, 2016-17
(PEIMS Data)



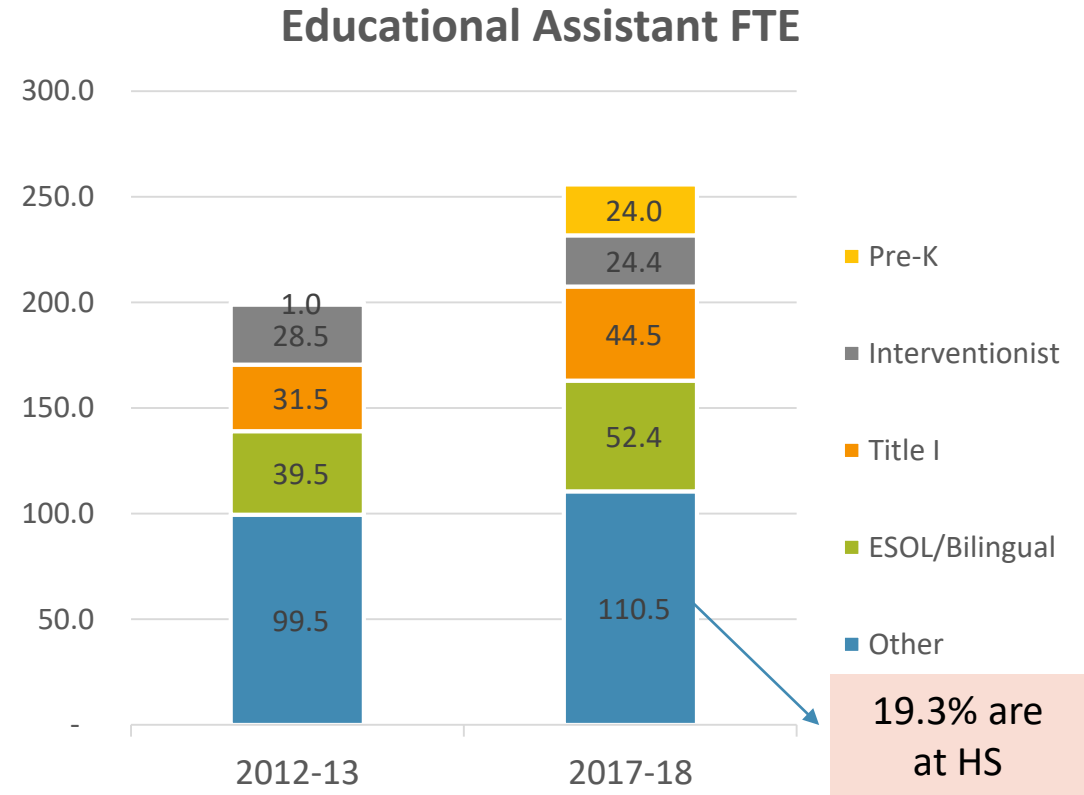
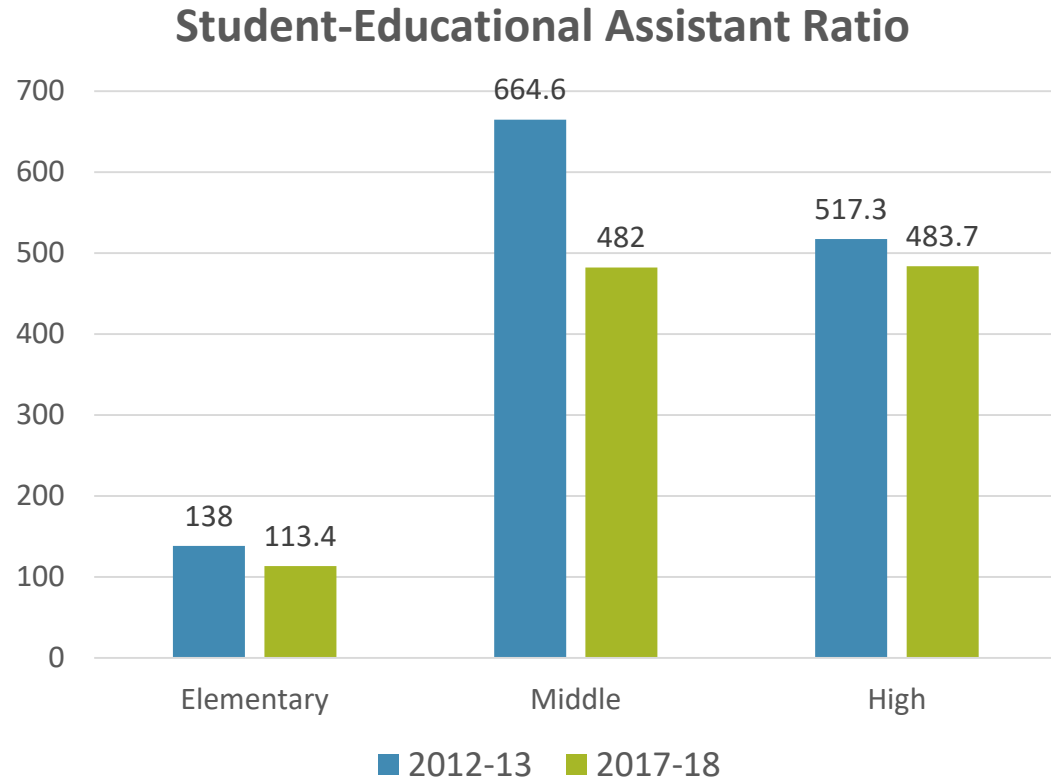
Student-teacher ratio decreased at every level – largely impacted by school master schedules

Student-Teacher Ratio by School Level



Enrl % Δ	3.8%	7.5%	11.6%
FTE Δ	94.5	79.6	89.6
% Δ	7.3%	13.5%	11.3%
FTE Δ %	35.8%	30.2%	34.0%

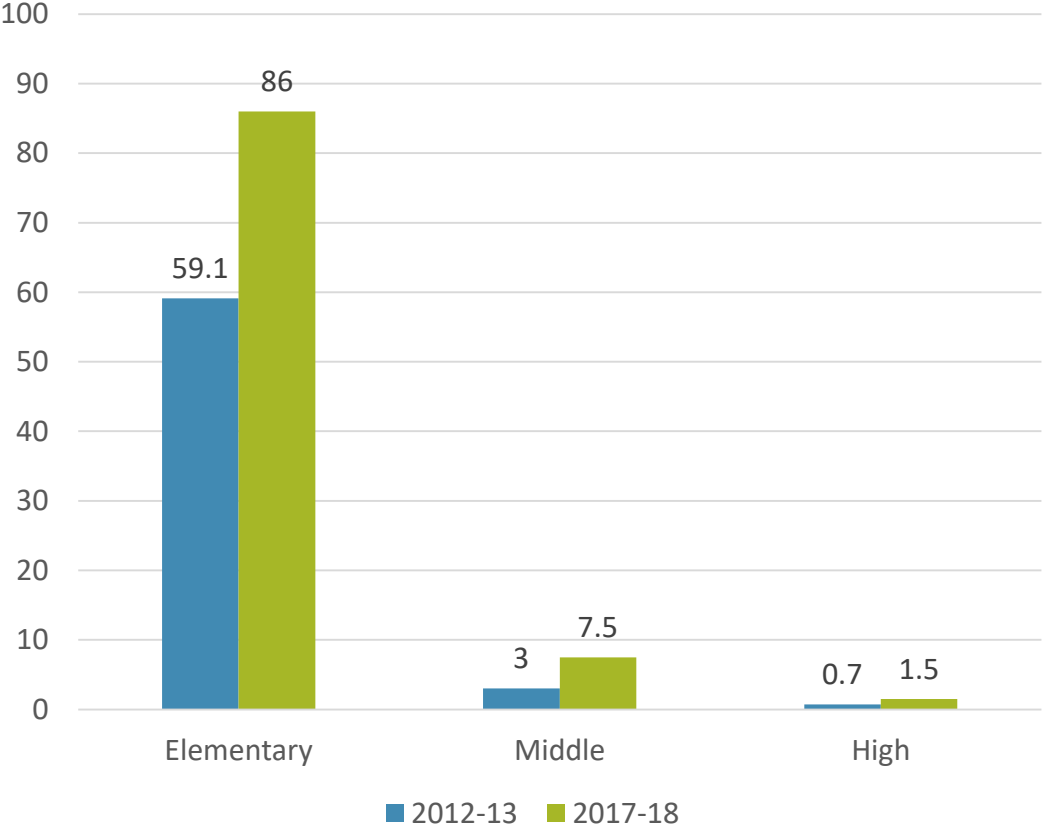
Most of the 55.8 FTE increase in Educational Assistants is explained by programmatic choices



- However, Educational Assistant positions are allocated through the administrative “support staff” formula, making it difficult to determine the appropriateness of current staffing levels.

Interventionist positions at non-Title I ES exceed staffing formula by a total of 16.5 FTE

Interventionist FTE



Elementary Schools (Non-Title I)	Interventionist FTE
Formula Allocation	33.0
Interventionist FTE	49.5
Over Formula	16.5
Savings Potential*	\$910 thousand

- Interventionists are allocated to ES based on school size; formula does not allocate to MS or HS, and RRISD should explore allocations to these schools as well.

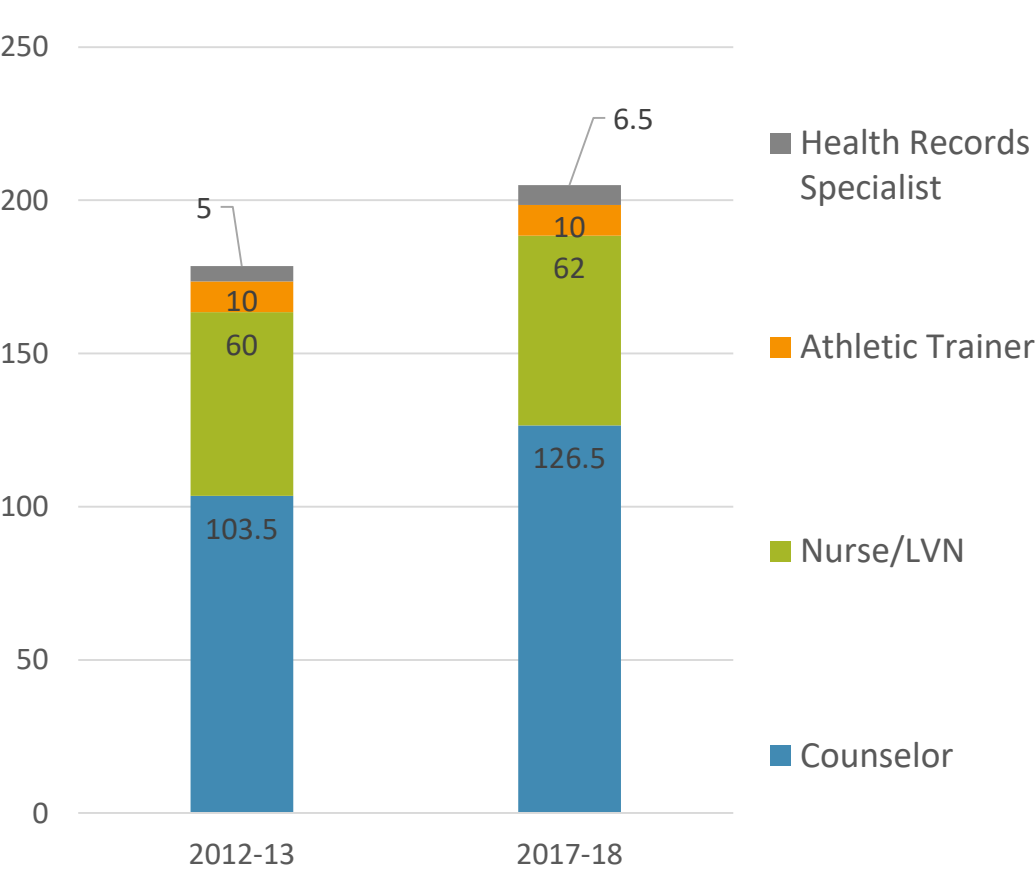
RRISD Administrative Staff formulas generally result in higher FTE allocations than benchmark districts

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- Administrative staff is broadly defined by the district; “support staff” includes several positions which are not administrative support (e.g., Educational Assistants, Library Assistants). Separate formulas should drive administrative support and instructional assistants.
- Compared to benchmark districts, RRISD allocation formulas result in higher FTE allocations at all ES and larger MS, and comparable allocations for smaller MS and HS. This may provide savings opportunities.
- RRISD should re-engineer manual processes to reduce work demands of administrative staff and evaluate options to consolidate school administrative support offices.

Student Services staff increased 5.5% (11 FTE)

Student Services FTE

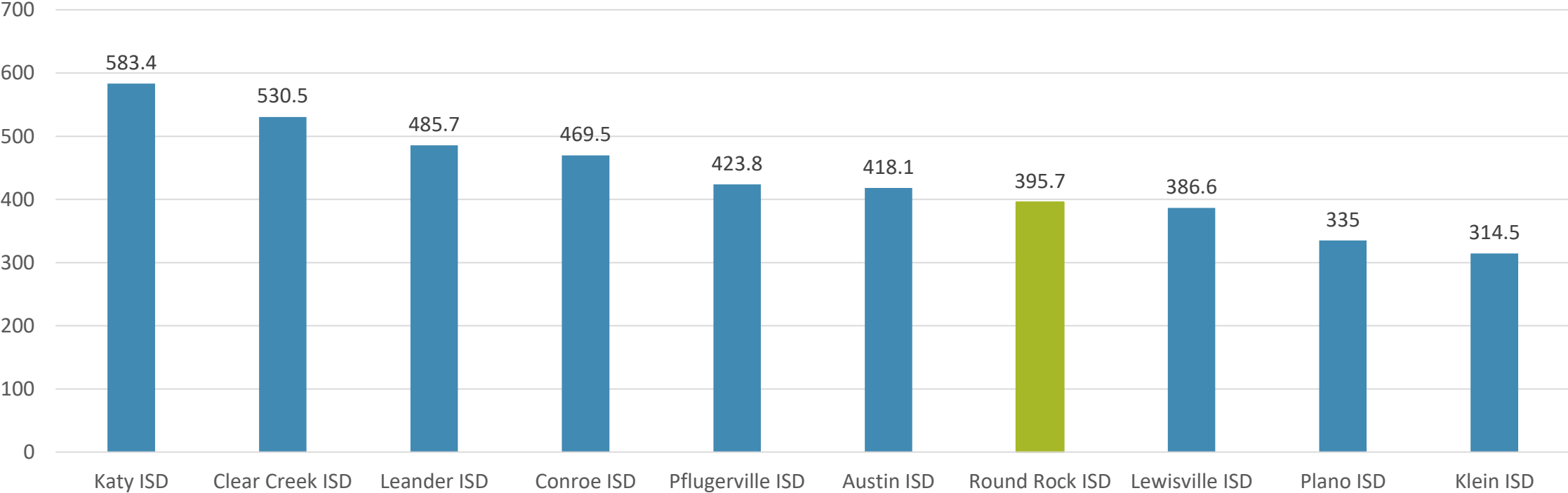


Position Type	FTE Δ	% Δ	FTE Δ %
Counselor	23.0	22.2%	209.1%
Nurse/LVN	2.0	3.3%	18.2%
Athletic Trainer	-	0.0%	0.0%
Health Records Specialist	1.5	30.0%	13.6%
Attendance Officer	(1.0)	-20.0%	-9.1%
Other Student Services Staff*	(14.5)	-81.5%	-131.8%
Total	11.0	5.5%	100.0%

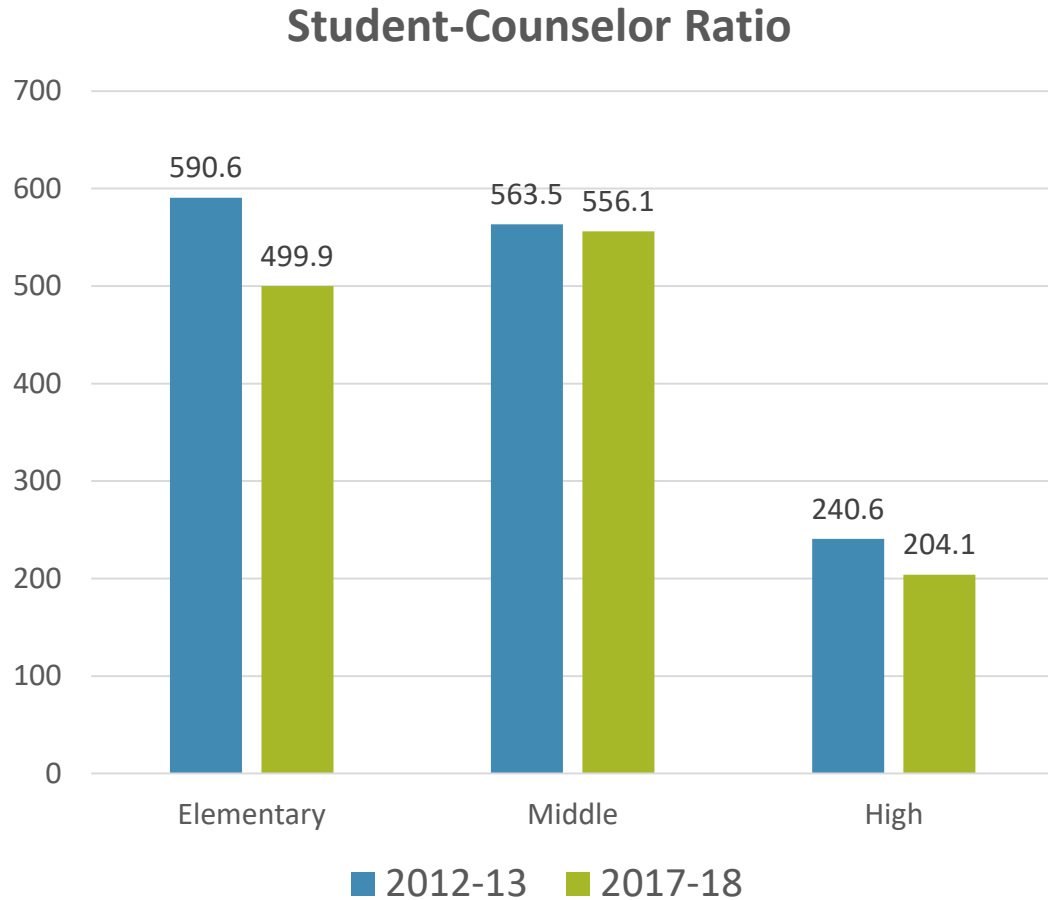
*Other Student Services staff includes Diagnostician, Social Worker, LSSP, Family Specialist, and Child Care Assistant.

RRISD has a lower student-counselor ratio than most of the benchmark districts

Student-Counselor Ratio, 2016-17 (PEIMS Data)



Counselor positions exceed staffing formula by a total of 10.5 FTE

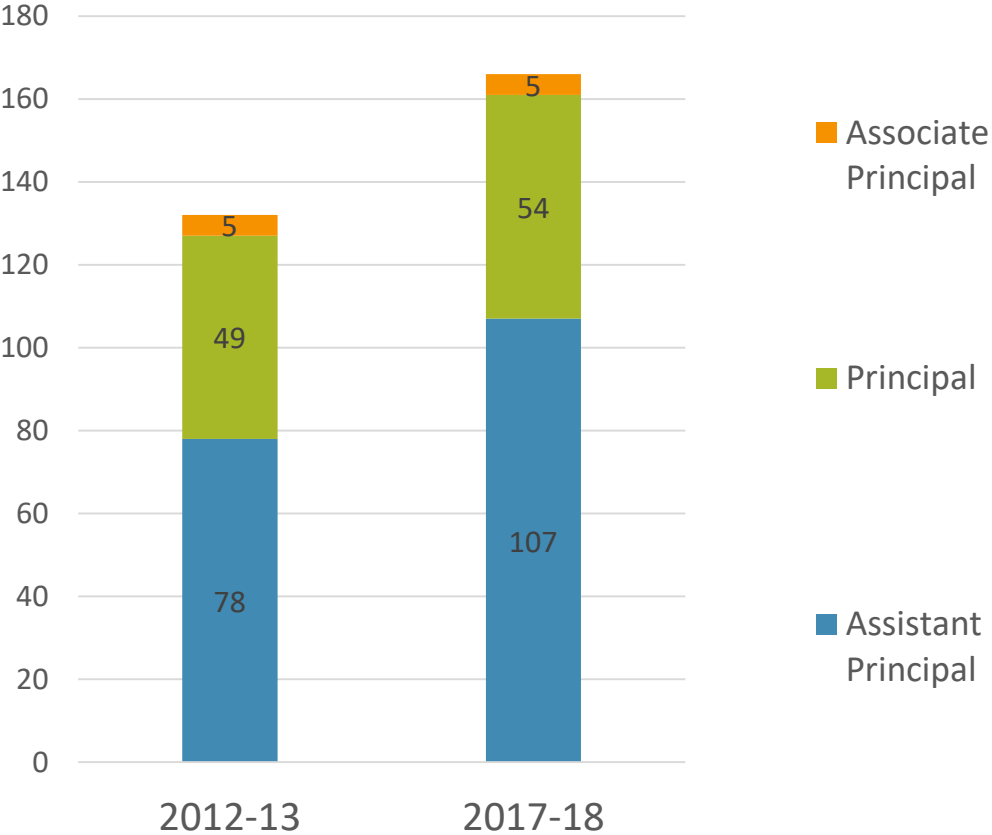


- 1.5 FTE increase at ES is attributed to change in allocation formula in 2017-18 (2.0 for 1,000+); but ES are 8 FTE above current formula.
- Part of increase in HS Counselor FTE is attributed to addition of HS Allotment allocation in 2015-16; but HS are 2.5 FTE above current formula.

Schools	Counselor FTE
Formula Allocation	116.0
Counselor FTE	126.5
Over Formula (ES and HS)	10.5
Savings Potential	\$663 thousand

School Leadership staff increased 25.8% (34 FTE), driven by increase in Assistant Principal positions

School Leadership FTE



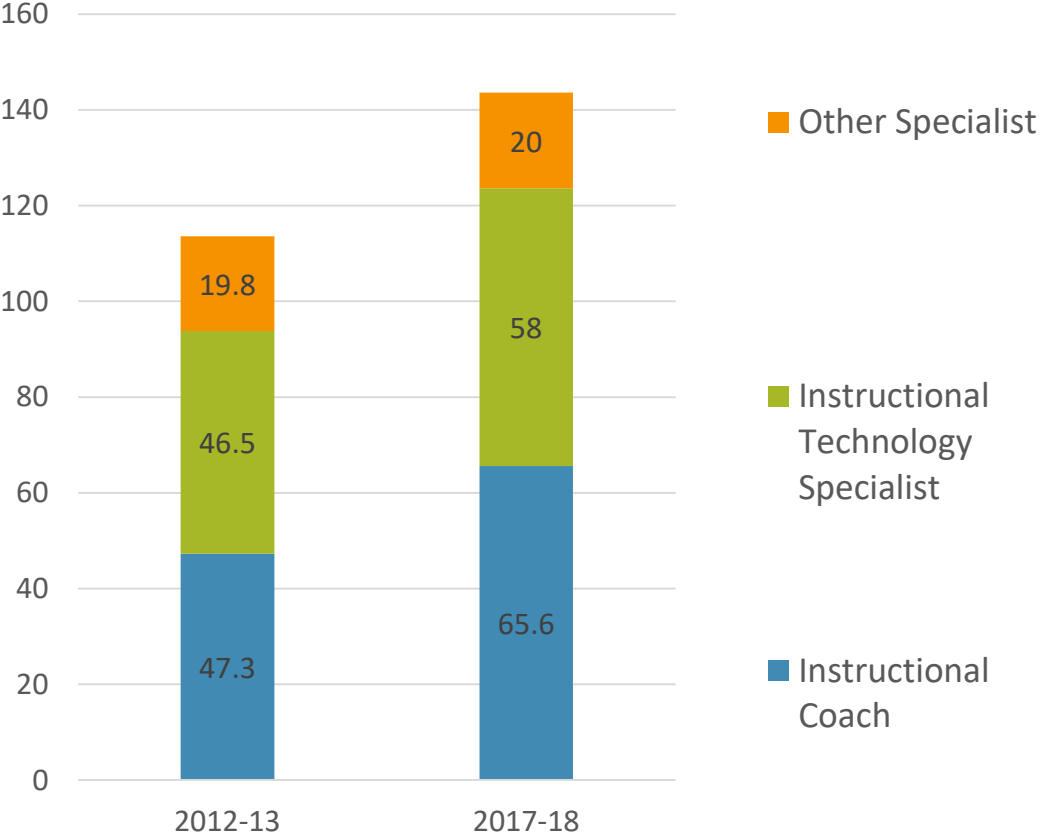
Position Type	FTE Δ	% Δ	FTE Δ %
Assistant Principal	29.0	37.2%	85.3%
Principal	5.0	10.2%	14.7%
Associate Principal	-	0.0%	0.0%
Total	34.0	25.8%	100.0%

Schools	Assistant Principal FTE
Formula Allocation	88.0
Assistant Principal FTE	107.0
Over Formula (ES and HS)	19.0
Savings Potential	\$1.5 million

- Allocation of Assistant Principal positions exceed formula by 19 FTEs.

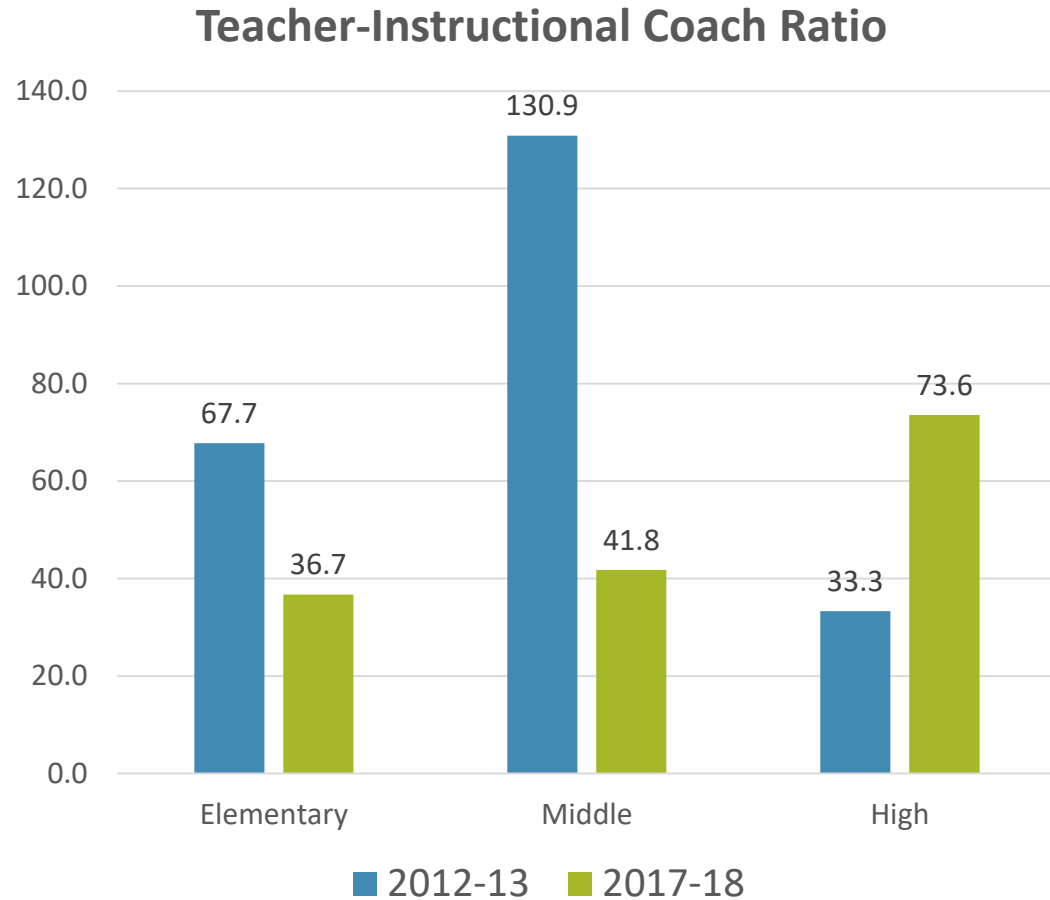
Instructional Program Support staff increased 18.9% (24.5 FTE), driven by Instructional Coaches and ITS positions

Instructional Program Support FTE



Position Type	FTE Δ	% Δ	FTE Δ %
Instructional Coach	18.3	38.6%	74.7%
Instructional Technology Specialist	11.5	24.7%	47.0%
Other Specialist	0.2	1.0%	0.8%
Program Director/Coordinator	(5.5)	-34.4%	-22.5%
Total	24.5	18.9%	100.0%

Allocation of Instructional Coaches should align to district priorities



- Distribution of Instructional Coaches has shifted away from HS to ES and MS.
- Instructional Coaches are allocated to schools at discretion of Area Directors.
- Allocation of Instructional Coaches should support the district's priorities and be routinely evaluated for effectiveness.

ITS allocation formula is driving large workload inequities across schools

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- ITS staff spend a significant portion of their time performing job duties for which they are over-qualified (e.g., Level 1 technical support).
- RRISD should revisit overall approach to providing technology support to schools:
 - Change the ITS staff allocation formula from a fixed allocation to each campus to variable (based on the number of teachers) to each learning community.
 - Create a Level 1 technical support position and make variable allocation (based on the number of devices) to each learning community; create Level 1 manager position to oversee.
 - Estimated net fiscal impact: \$1.5 million savings.

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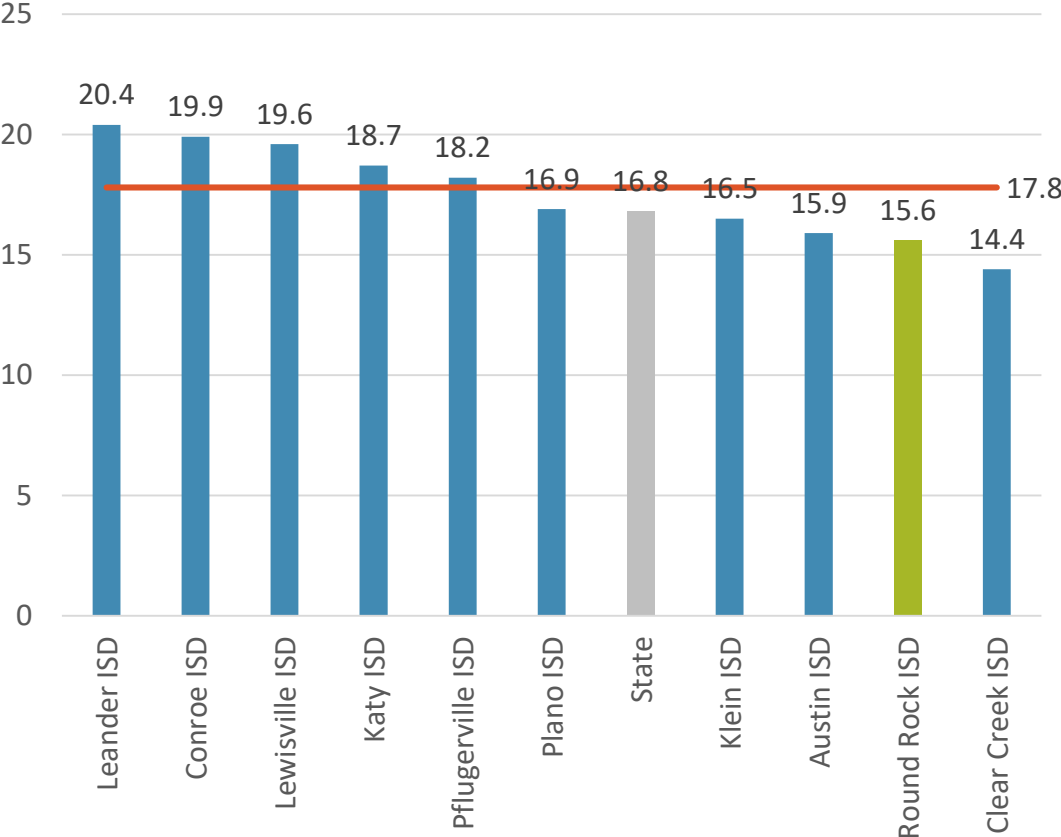
Master Schedules

Master Schedules

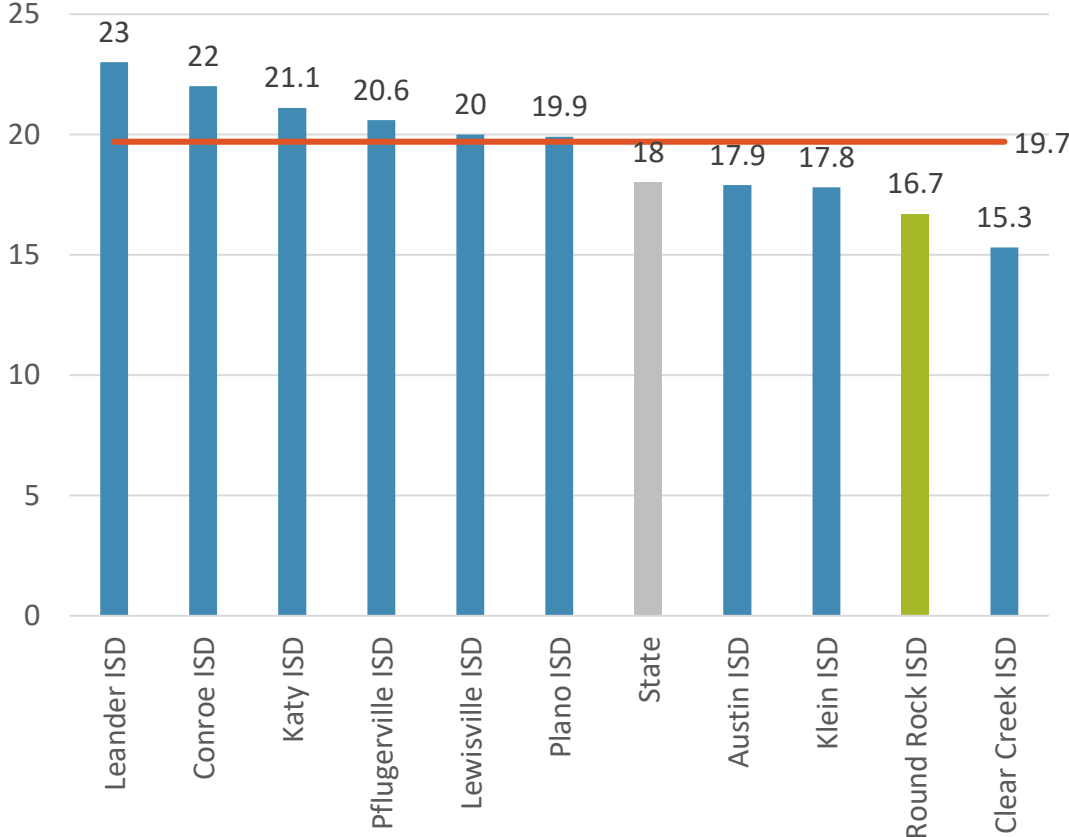
- A school's master schedule defines which teachers meet with which students, for how long, and about which subjects.
- There are myriad schedule solutions that schools can use to meet their instructional priorities.
- Gibson analysis included the district's 2017-18 master course schedule data for elementary, middle and high schools.
- The analysis examined average class sizes and teacher class loads.

HS class sizes are lower than both the state and benchmark district averages

ELA



Math



— Benchmark district average

Districts vary in approach to HS scheduling – 4x4 generally yields lower average student-teacher ratio

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District	# of High Schools	Master Schedule	Student-Teacher Ratio ¹ (All Schools)
Clear Creek ISD	6	7 Period Traditional	16.9
Conroe ISD	12	Both	16.4
Klein ISD	6	7 Period Traditional	15.3
Katy ISD	9	7 Period Traditional	15.1
Leander ISD	6	4x4 A/B Block	15.1
Austin ISD	16	4x4 A/B Block	14.3
Round Rock*	5	4x4 A/B Block	14.2
Pflugerville ISD	6	4x4 A/B Block	14.1
Lewisville ISD	5	4x4 A/B Block	13.9
Plano ISD	4	7 Period Traditional	13.8

*Excludes Early College and Success HS

¹ 2016-17

Gibson analyzed the 3 most common types of schedules

4x4 A/B Block Schedule

Block/Day	M (A)	T (B)	W (A)	Th (B)	F (A)	M (B)
Block 1	1	2	1	2	1	2
Block 2	3	4	3	4	3	4
Block 3	5	6	5	6	5	6
Block 4	7	8	7	8	7	8

7-Period Traditional Schedule

Period/Day	M	T	W	Th	F
Period 1	1	1	1	1	1
Period 2	2	2	2	2	2
Period 3	3	3	3	3	3
Period 4	4	4	4	4	4
Period 5	5	5	5	5	5
Period 6	6	6	6	6	6
Period 7	7	7	7	7	7

Modified Block Schedule

Block/Day	Period/Day	M (A)	T (B)	W (A)	Th (B)	F (A)	M (B)
Block 1	Period 1	1	1	1	1	1	1
	Period 2						
Block 2	Period 3	2	2	2	2	2	2
	Period 4						
Block 3	Period 5	3	4	3	4	3	4
	Period 6						
Block 4	Period 7	5	6	5	6	5	6
	Period 8						
Block 5	Period 9	7	8	7	8	7	8
	Period 10						

Comparison of Schedules

Metric	Alternating A/B Block	Traditional 7-period	Modified Block 2 (2 Double Block)
Number of Student Periods	8	7	10
Maximum Number of Credits	32	28	32
Teaching Periods	6	6	8
Teacher Prep Time per Week	95 min/day or 475 min/week	55 min/day or 275 min/week	75 min/day or 375 min/week

RRISD could achieve cost savings by moving the 5 HS to a traditional or modified block schedule

- Gibson compared the actual number of general education teachers currently at each high school campus to the number of teachers required for each scheduling option.

High School	# Teachers (Actual)	Traditional		Modified 2	
		Required	Δ	Required	Δ
Cedar Ridge	155	132.4	-22.6	141.9	-13.1
McNeil	166	136.8	-29.2	146.6	-19.4
Round Rock	184	156.9	-27.1	168.1	-15.9
Stony Point	164	142.6	-21.4	152.8	-11.2
Westwood	158	131.2	-26.8	140.5	-17.5
Total HS	827	699.9	-127.1	749.9	-77.1
Savings Potential		\$7 million		\$4.2 million	

What the research says about block scheduling...

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- The effects on student achievement are mixed.
- Some research suggests reduction in disciplinary referrals.
- No conclusive impact on attendance.
- Possible positive effects on varied instructional approaches.

With current schedule, 20.5% of HS teachers are teaching < full class load (i.e., 6 periods)

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High School	Total Gen Ed. Teachers	# Teachers Teaching < 6 Periods	% Teaching < 6 Periods
Cedar Ridge	160	24	15.0%
McNeil	166	46	27.7%
Round Rock	188	22	11.7%
Stony Point	165	37	22.4%
Westwood	158	43	27.2%
Total	837	172	20.5%

- There is a 16 percentage point difference between schools with the lowest and highest percent of teachers teaching less than a full class load.
- Gibson calculated the number of additional teaching positions that could potentially be eliminated by increasing the teacher class load to 6.
- If class loads were increased so that high school teachers were teaching at least 6 periods per day, RRISD could realize a potential savings of \$2.6 million.

5.5% of all HS classes have 10 or fewer students, and 13.1% have 15 or fewer students

- Core classes represent one-third of all classes with <10 students and 44.6% of all classes with less than 15 students.

School	Core	Non-Core	Support & Enrichment	Unprepped	Total
Cedar Ridge	37	24	1	2	64
McNeil	23	32	3	89	147
Round Rock	12	17	4	-	33
Stony Point	57	36	4	86	183
Westwood	34	16	9	8	67
Total	163	125	21	185	494

- RRISD should investigate opportunities to consolidate or eliminate low enrollment courses: make some teachers itinerant; offer some on-line classes through university partnerships; reevaluate offering every academy program at every high school.

45% of MS teachers are teaching less than a full class load (i.e., 6 periods)

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- One-half of all middle schools have more than 60 percent of teachers teaching less than a full load.

Middle School	Total Gen Ed. Teachers	# Teachers Teaching < 6 Classes	% Teaching < 6 Classes
C. D. Fulkes	52	34	65.4%
Canyon Vista	82	18	22.0%
Cedar Valley	79	18	22.8%
Chisholm Trail	62	49	79.0%
Deerpark	60	51	85.0%
Hernandez	55	15	27.3%
Hopewell	67	43	64.2%
James Walsh	89	16	18.0%
Pearson Ranch	47	9	19.1%
Ridgeview	80	50	62.5%
Total	673	303	45.0%

- If class loads were increased so that MS teachers were teaching at least 6 periods per day, RRISD could realize a potential savings of \$3.7 million.

Average ES class sizes are below allocation formulas in every grade level, most significantly in Pre-K

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Metric	PK	K	1	2	3	4	5	Total
Total Students	765	3,406	3,555	3,556	3,706	3,717	3,713	22,418
Total HR Teachers	55	181	187	184	200	193	179	1,179
Average Class Size	13.9	18.8	19.0	19.3	18.5	19.3	20.7	19.0
Allocation Ratio	22	22	22	22	22	22	25	-
Δ Allocation Ratio	-8.1	-3.2	-3.0	-2.7	-3.5	-2.7	-4.3	-27.5

- Due primarily to economies of scale, school size strongly influences staffing efficiency.
- 17 ES have average homeroom class sizes below the current average of 19 (4 of these ES have >600 students).
- RRISD should revisit the district's portfolio of schools and consider closing and/or consolidating the smallest ES where enrollment is projected to decline.
- Increasing average class sizes at schools below the current average of 19 could realize a potential savings of \$2.8 million.

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Questions