Phase I Global Data Scan and Overall Efficiency Report

for the School District of Lee County

PREPARED AND SUBMITTED BY:

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Chapter 1 – Introduction

Gibson Consulting Group (Gibson) was engaged by the School District of Lee County (Lee County) to conduct an *Educational and Operational Efficiency Audit* to assess the efficiency and effectiveness of the district's major operations and programs. Phase I of this work was to conduct a global data scan of district efficiency and develop an efficiency report card for each major program, administrative and operational area.

Major district-level observations made as a result of this work include the following:

- Lee County is slightly more efficient than it was five years ago. The ratio of total students to total staff has increased slightly since 2012-13, indicating that staff growth has been less than enrollment growth. This is a primary indicator of efficiency, as staff costs represent more than 80 percent of total operating costs.

- When compared to the state average, Lee County is more efficient based on most measures. When compared to its peer districts, Lee County ranks in the middle on efficiency on most measures.

- Several efficiency best practices were noted in several departments, most having to do with management practices and the implementation or increased use of technology.

- Certain factors appear to be inhibiting optimum efficiency at Lee County, including small schools, in-house development of many software applications, and the continued use of manual, paper-intensive processes in several areas.

Individual departments at Lee County range from below average to above average efficiency, and there are both positive and negative efficiency trends among departments. Within a department, there are also ranges of efficiency levels and trends among sub-units. These are noted throughout the report.

The remainder of this chapter provides a profile of Lee County, describes its current efforts in efficiency measurement, and discusses the approach in conducting the Phase I Data Scan and Overall Efficiency Review.

District Profile

Lee County is a fast-growing school district and currently has approximately 81,000 students (excluding charter schools). It is ninth largest[1] school district in the State of Florida. Figure 1 presents Lee County's enrollment growth over the past five years. Since 2012-13, enrollment has grown 8.6 percent. With the exception of comparisons to Florida peer districts using state reported data, charter school information is excluded from the analysis contained in this report since Lee County is not responsible for – nor has any direct control over – their operating efficiency.

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[1] State of Florida Department of Education *Student Enrollment* obtained from "PK-12 Data Portal", March 2018

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Figure 1. Lee County Student Enrollment, 2012-13 to 2016-17
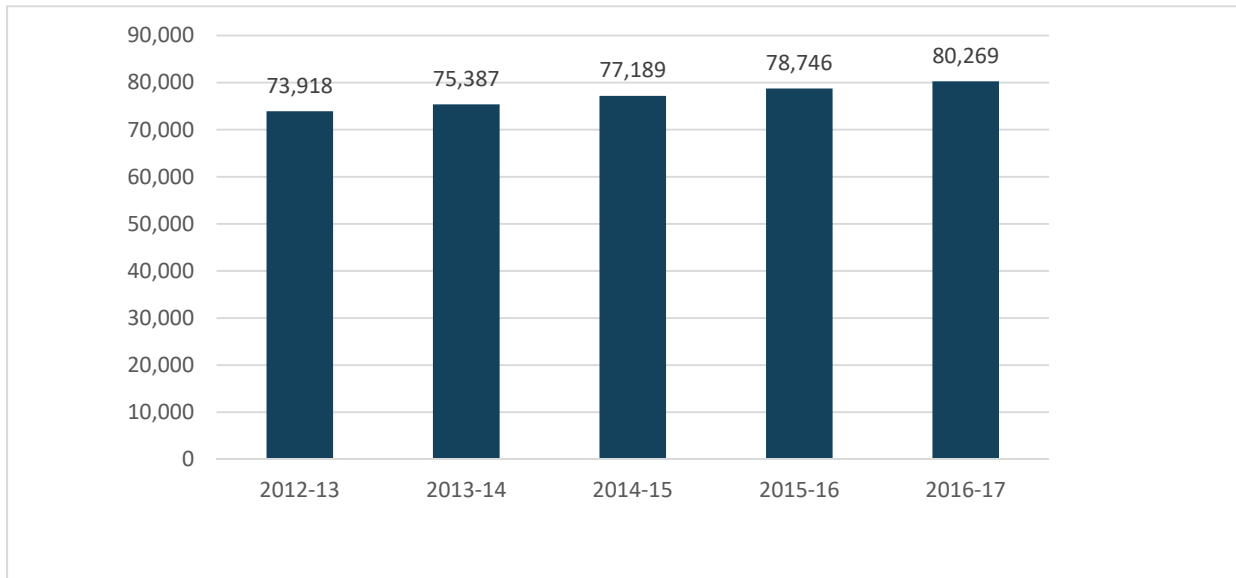
Source: State of Florida Department of Education *Student Enrollment* obtained from "PK-12 Data Portal", March 2018

The district's staff count has also increased but at a slower pace. Figure 2 presents Lee County's staff full-time equivalents (FTEs) from 2012-13 to 2016-17, showing a 3.5 percent increase over the five-year period.

Figure 2. Lee County Staff FTEs, 2012-13 to 2016-17
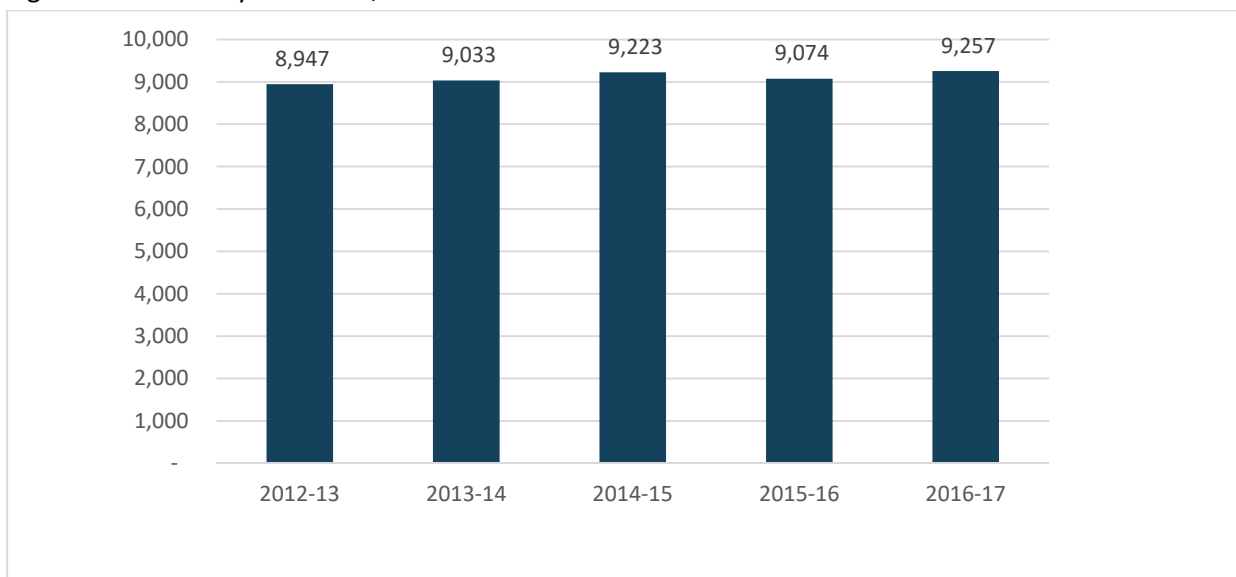
State of Florida Department of Education *Student Membership / Full-Time Staff in Traditional and Charter Schools* Fall 2012 – Fall 2016, January 2018

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Figure 3 presents Lee County operating expenditures (non-charter school) from 2012-13 and 2016-17. Total operating expenditures increased steadily since 2012-13, rising 12 percent in that period.

Figure 3. Lee County Operating Expenditures, 2012-13 to 2016-17
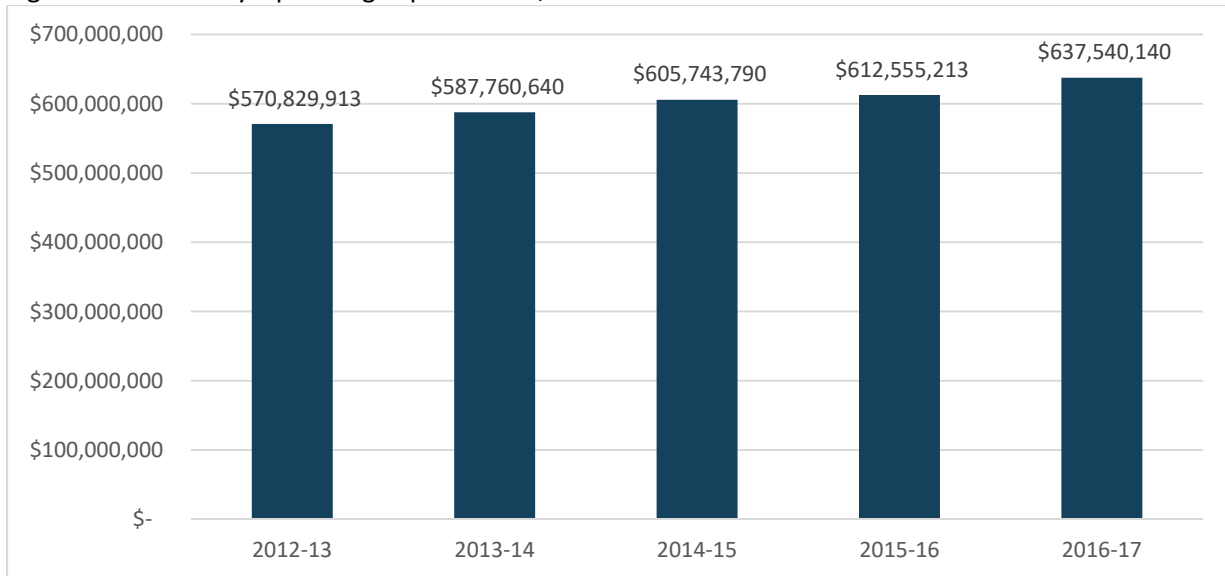
Source: School District of Lee County (SDLC) expenditure information, January 2018

Existing Efficiency Measurement Practices and Reporting

In 2015-16, Lee County engaged with ActPoint to identify Key Performance Indicators for each non-instructional area. ActPoint is also the contractor that develops a report each year for the Council of Great City Schools (COGCS) called *Managing for Results*. This report contains self-reported district efficiency and effectiveness measures based on COGCS standard definitions. Each year, member school districts of the COGCS voluntarily report the underlying data to the COGCS to support the development of metrics and the calculation of averages for comparison. The report contains valuable benchmark comparisons for use in evaluating an individual school system's operational efficiency and effectiveness. Shortly after this report is released, ActPoint provides a separate report to Lee County showing the results of each selected Lee County measure and how it compares to other districts reporting to COGCS.

The district's current efforts at efficiency measurement are commendable in that they represent a desire to know more about spending levels and represent an important first step in collecting the data and comparing results. However, the current approach applied by Lee County does not go far enough in supporting a complete assessment of operating efficiency. Below are limitations of the current approach:

- Overall, there are 445 measures – it is difficult to discern which ones are more important in evaluating overall departmental efficiency.

- The report contains only data; there is no underlying analysis of the data or explanation of variances.

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- The report contains only the most recent year's information; there is no trend analysis to show district improvement or decline in efficiency.

- There are limited school efficiency measures (e.g., custodial staff, food services staff, and safety staff).

- The information is dated – COGCS reports are released in the fall of each year and contain information that is a year and a half old. This is a normal time lag for reporting such data as school districts generally do not report expenditure data to the state until the following school year.

- Information is not consistently used, and it is up to the Lee County department leader on how to use it.

Lee County needs to more clearly communicate its efficiency status to its board, parents and other community members. Later in 2018, a sales tax election is planned, and Lee County wants to be able to demonstrate that it: (1) operates efficiently in all areas or (2) does not operate efficiently in all areas but has identified those areas and is taking action on them.

Because of the limitations of its prior efficiency work, and the importance of demonstrating efficiency to the board and community, Lee County contracted with Gibson Consulting Group, Inc. (Gibson) to conduct an *Educational and Operational Efficiency Audit* to assess the efficiency and effectiveness of the district's major operations and programs. This work is to be completed in two phases:

- *Phase I: Data Scan and Overall Efficiency Report (January – June 2018)* – develop a high-level efficiency report card for all major academic, administrative and operational areas.

- *Phase II: Detailed Efficiency Audit for Select Departments (Fiscal Year 2019 and beyond, as needed)* – conduct detailed assessments of academic, administrative or operational areas to identify specific recommendations to improve efficiency.

Phase I Methodology

This report contains the results of Phase I. The objective of this phase was to rank departmental efficiency based on trend and peer analyses of efficiency measures corroborated with interviews with Lee County management.

Six peer districts were selected for comparison. Three of the peers, Duval County, Polk County and Osceola County were selected based on enrollment size and choice school percentage, as these two aspects can greatly impact the comparability of the selected measures. Dade County, Broward County and Hillsborough County were selected because they are considered best practice districts and, because they are larger, should show higher efficiency levels due to economies of scale. Comparisons were also made to state averages and COGCS benchmarks where possible.

There are several factors that affect the comparability of efficiency measures to peer districts:

- Market conditions/pricing – salary levels, electricity rates and other prices may vary depending on economic conditions in the respective geographic regions of Florida.

- Availability of funds – school systems generally spend what they receive, and some school districts receive more per student than others.

- Organizational definitions and alignments – some expenditures and staffing may be reported differently by other school systems simply because they are organized differently.

- Different programs and initiatives – some districts may choose to make investments that adversely affect their efficiency but may have future financial and/or academic returns on investment.

- Data accuracy – while expenditure and student data are subject to audit, many of the other data elements used to calculate efficiency measures are not subject to the same data validation processes.

As a result of these factors, valuable insights can be made from comparative and trend data, but not definitive conclusions. It is important to read the results of this report in this context.

Gibson commenced work in December 2017, developing a list of potential efficiency measures and scheduling departmental interviews. The preliminary measures list was created based on Gibson's previous experience in performing efficiency reviews. An initial data request was sent to Lee County management in December 2017, with information provided by the district in December 2017 and January 2018. The measures list drove the efficiency report card design and development, which summarizes the impacts of trend and peer analyses.

Gibson began data analysis in January 2018 to develop interview questions and calculate trends and peer/benchmark comparisons for the selected measures. In late January 2018, Gibson conducted a site visit at Lee County, and interviewed district and department leaders to better understand the current state of the District and to ascertain best practices or areas of improvement.

After the interviews, Gibson modified the measures list based on interviewee input and availability of data. This list was sent to management and approved in February 2018. Remaining trends and peer comparisons were calculated during March and April 2018. Efficiency was then assessed for each defined function based on trend analysis, peer comparison, other benchmark comparisons, and corroborating information from interviews with district management.

A draft report was compiled and sent to district management in May 2018. Management provided feedback and comments in early June 2018. Gibson incorporated these comments and provided a final report in July 2018.

The following sections present an efficiency report card for each major area assessed. At the beginning of each section, a color-coded report card summary is presented to communicate overall efficiency levels.

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Figure 4 presents a legend for the symbols and colors applied in the report card summary. In some instances, high measures reflect higher efficiency while for other measures a higher level indicates less efficiency. The symbol indicates the direction of a positive or negative variance, if any, and the color indicates higher (green) or lower (red) efficiency. In each section the report card summary is followed by major observations and a conclusion regarding efficiency based on the information collected.

Figure 4. Efficiency Report Card Legend

Indicator	Definition
⇧	Denotes a positive trend increase in an efficiency measure
⇧	Denotes a negative trend increase in an efficiency measure
⇩	Denotes a positive trend decrease in an efficiency measure
⇩	Denotes a negative trend decrease in an efficiency measure
✚	Denotes a favorable peer comparison
▭	Denotes an unfavorable peer comparison
═	Denotes a neutral trend movement or peer comparison
*	Comparison not available

The remainder of the report presents the efficiency measures used for each major program, administrative, and functional area, in the following chapters:

2. General District Management
3. School Management
4. Human Resources
5. Business Services
6. Facilities Management
7. Technology Management
8. Food Services Management
9. Transportation Management

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Chapter 2 – General District Management

Background

General district management includes global efficiency by district leaders as well as central administration efficiency, which includes central office administration and program leaders, and central office and school clerical staff. Overall, Lee County is average with respect to general management efficiency both in terms of operating trends and compared to peer comparison districts. Figure 5 includes the efficiency report card for general district management.

Figure 5. Efficiency Report Card, General District Management

| Measure	Trend	Peer Comparison	Comments
Students to FTEs	⬆	=	This is a global efficiency measure. Student enrollment is outpacing total staff size, increasing efficiency year over year. Lee County staff counts are growing at a slower pace than student growth, indicating greater staff efficiency. The district is close the peer district average with respect to general management efficiency.
Students to Non-Teaching FTEs	=	=	This is an overall efficiency measure related to non-teaching staff. The ratio increased between 2012-13 and 2014-15 (indicating lower efficiency), then decreased through 2016-17, and now approximates the peer average.
Central Administration and Instructional Leadership Expenditure per Pupil	=	▭	This is a cost efficiency measure for the central administration. Lee County has a neutral trend but negative peer comparison. Relative to its peers, Lee County spends more on administration.
Central Administration and Instructional Leadership Expenditure Percentage	=	▭	This is different way to view administrative cost efficiency. Lee County has neutral trend but negative peer comparison. Relative to its peers, Lee County spends a higher percentage on administration.
Total FTEs per Clerical FTE	=	=	This is a clerical staffing efficiency measure. The Department has neutral trend and peer comparisons, implying neither a favorable nor unfavorable staffing efficiency.
Percentage of Employees Funded by Grants	=	*	A high percentage of grant funded employees generally aligns with the percentage of economically disadvantaged students. Lee County's percentage has remained steady and below 10 percent.

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Major Observations

Since staffing costs represent more than 80 percent of a district's operating expenditures, staff efficiency is the most important measure for overall district efficiency. The ratio of total students to total staff (including teaching staff) measures overall staff efficiency. The ratio of students to non-teaching staff measures the overall efficiency of district administration and operations. The higher the ratio, the higher the efficiency.

Figure 6 presents the ratio of students to non-teaching FTEs and the ratio of students to total FTEs from 2012-13 to 2017-18. In 2017-18, Lee County's ratio of students to total staff FTEs is 8.5, up from 8.3 in 2012-13, reflecting an overall efficiency increase of 2.4 percent. The ratio of students to non-teaching staff has shown a similar pattern, increasing from 19.9 to 20.2 during the six-year period, or 1.5 percent. Maximum staff efficiency occurred in 2015-16, when the total staff and non-teaching staff ratios were 8.7 and 21.3, respectively.

Figure 6. Student-Staff and Student-Non-Teaching Staff Ratios, 2012-13 to 2017-18
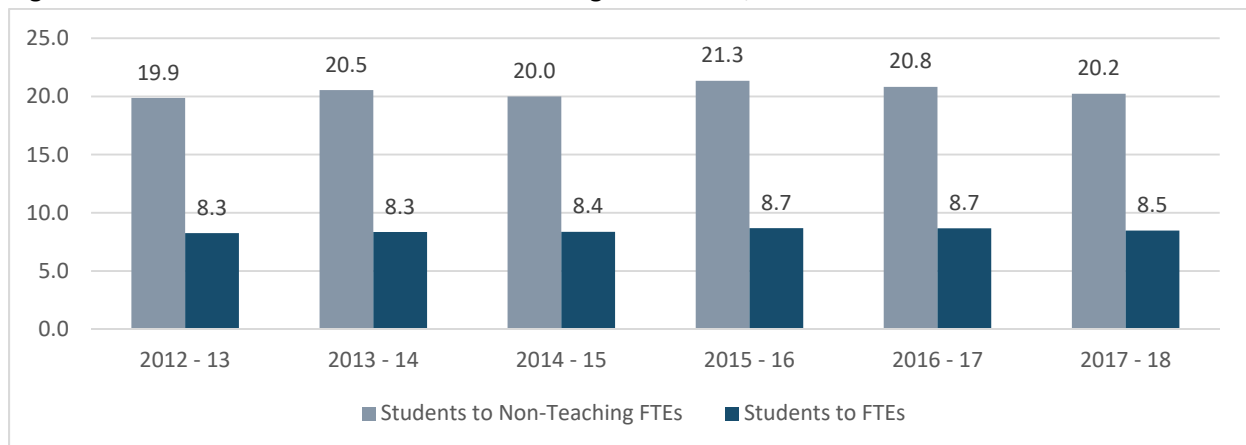
Source: State of Florida Department of Education Enrollment Data obtained from "PK-12 Data Portal", March 2018; SDLC provided staffing data, January 2018

When compared to its Florida peers, Lee County ranks in the middle for both measures. However, it is important to note that Dade County and Duval County's non-teaching staff ratio is significantly higher than the peer districts, suggesting the use of outsourcing for at least one major function[2]. Outsourcing functions reduces staff counts which in turn increases the ratio. Lee County ranks third highest in efficiency among its peers for the total staff ratio and shows higher staff efficiency than the state average for both measures.

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[2] Gibson was able to confirm through publicly available sources that Duval County Public Schools outsources transportation.

Figure 7 presents the ratio of total students to total staff and total students to non-instructional staff for the most recent year available, 2015-16. The measures for Lee County are different from those above because of different data definitions applied by the Florida Department of Education (DOE).

Figure 7. Student-Staff and Student-Non-Instructional Staff Ratios, Lee County and Peer Districts, 2015-16
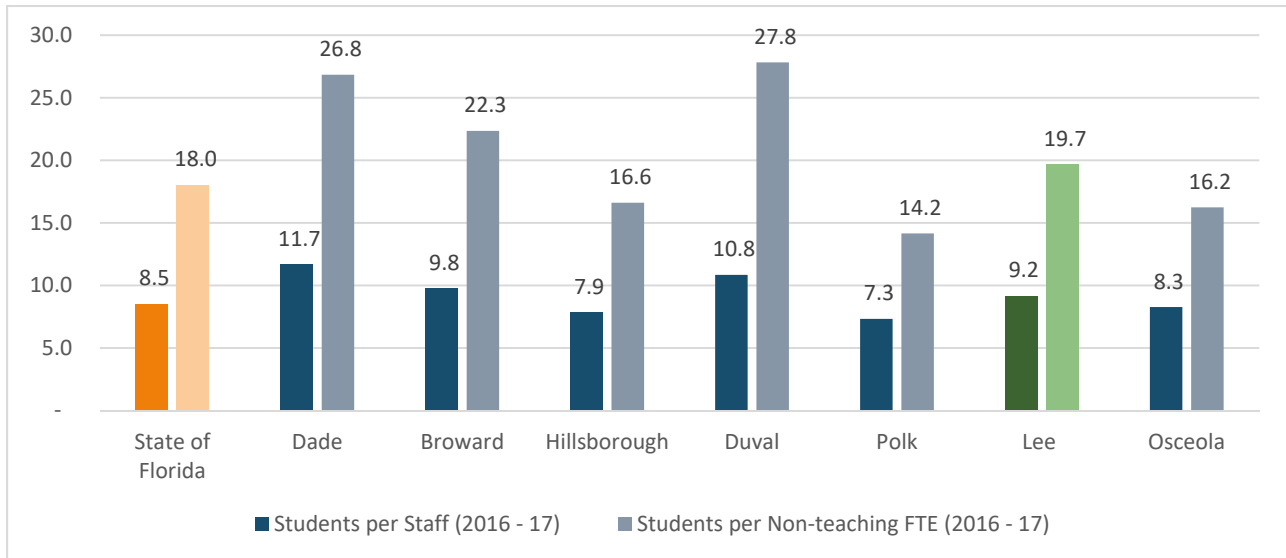

Source: State of Florida Department of Education Enrollment Data obtained from "PK-12 Data Portal", March 2018; State of Florida Department of Education *Full Time Staff 2016-17*, March 2018

Note: Peer comparisons are calculated utilizing full enrollment and staffing figures provided by the state, and include charter schools.

Central administration and instructional leadership expenditures represent central office administrative staffing and related expenditures, including the superintendent's office, curriculum and instruction, financial management, and human resources management. These expenditures exclude central office operational areas such as facilities management, transportation, and food services, as well as school leadership areas, such as principal and assistant principal expenditures. Figure 8 presents central administration and instructional leadership expenditures per student for 2012-13 through 2016-17, showing a 5 percent increase during this time, or an average of just over 1 percent annually.

Figure 8. Lee County Central Administration and Instructional Leadership Expenditures per Student, 2012-13 to 2017-18
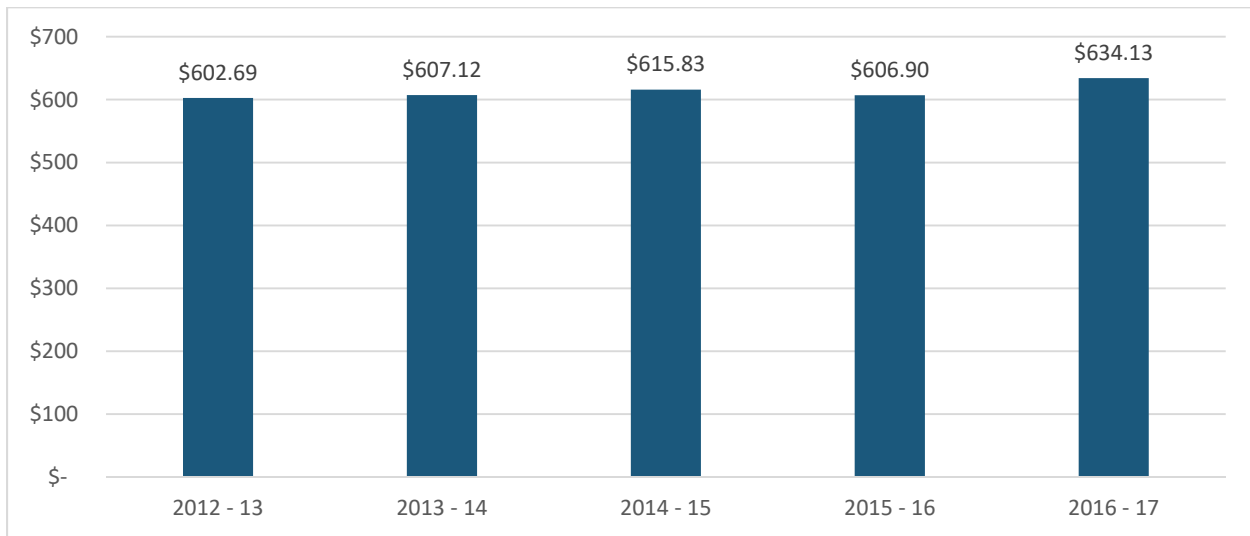
Source: SDLC provided expenditure data, January 2018; State of Florida Department of Education Enrollment Data obtained from "PK-12 Data Portal", March 2018

Compared to its peer districts, Lee County ranks on the high end of central administration and leadership expenditures per student. These data, combined with the results in Figure 7, indicate that Lee County spends more on non-staff expenditures for central administration and instructional leadership than its peers. Lee County is in line with the overall state average however. Figure 9 presents central administration and instructional leadership expenditures per student for Lee County, its peer districts, and the state average for 2015-16, the most recent data available from the Florida DOE.

Figure 9. Central Administration and Instructional Leadership Expenditures per Student, Lee County, Peer Districts, and State Average, 2015-16
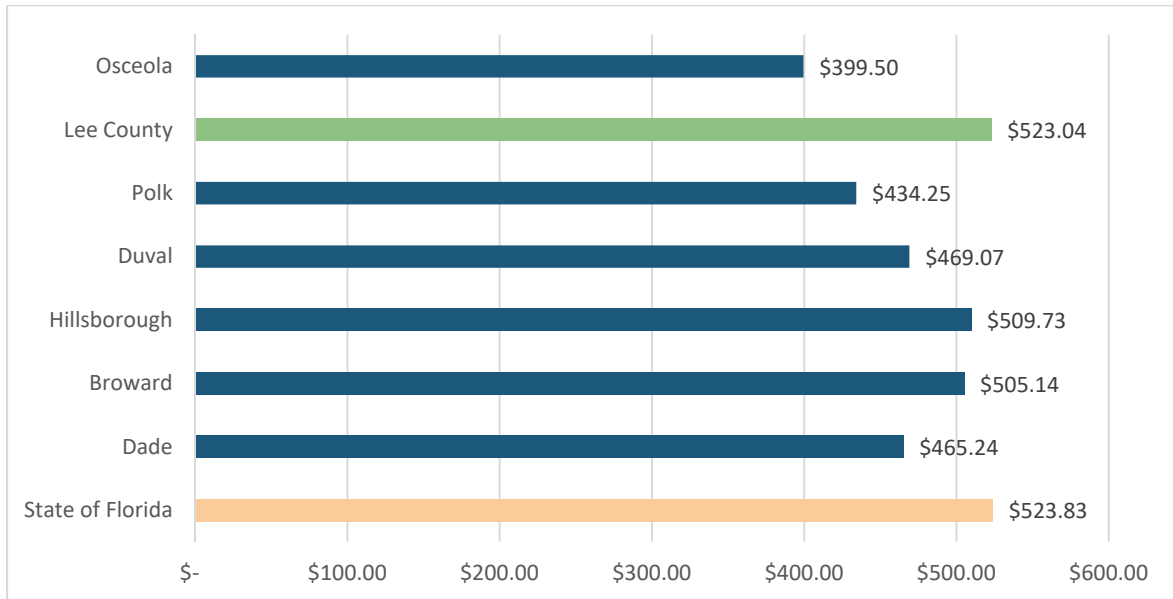
Source: State of Florida Department of Education *2015-16 Revenue and Expenditures*, March 2018; State of Florida Department of Education Enrollment Data obtained from "PK-12 Data Portal", March 2018.

Note: Peer comparisons are calculated utilizing full enrollment and expenditure figures, inclusive of charter. This results in inconsistencies with trend data points.

Conclusion

The metrics discussed above provide a fairly neutral efficiency ranking for general district management. Global district staffing efficiency measures are improving slightly and are consistent with the peer and state averages. However, there are likely opportunities to increase district management efficiency overall and in central administration/instructional leadership (non-staff expenditures) in particular.

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Chapter 3 – School Management

Background

Lee County operates 78 schools comprised of 49 elementary schools, 16 middle schools, and 13 high schools. Approximately 7,000 school-based personnel are tasked with teaching and providing support services to approximately 81,000 students.

This section of the report focuses primarily on school staffing ratios, as staffing costs represent the vast majority of expenditures at the school. Staffing "efficiency" in school management is viewed differently from operational areas in several respects. For example, smaller class sizes may reflect an intentional practice or policy of maintaining smaller class sizes. A class size of 40 students may be efficient from a resources standpoint, but student learning may be jeopardized as classes become larger. State laws also impact how large a class can be for certain grade levels, thus limiting the efficiency.

School staffing levels are determined through the Lee County District Resource Allocation (DRA) guidelines. The guidelines prescribe student-based formulas for certain positions such as teachers, academic coaches, and counselors, and square footage-based formulas for custodians. The DRA also has a "flexible DRA allocation" that is applied to certain positions as a group, and school principals are free to allocate staff among budget support staff, administrative staff, and additional instructional staff. Some school-based positions, including the school principal, school secretary and food service staff are not funded through the DRA.

The Efficiency Report Card for school management is included in Figure 10. This card indicates how the department is trending and how it compares to peers. Overall, Lee County's school management is less efficient than it was five years ago and compares unfavorably to its peers.

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Figure 10. Efficiency Report Card, School Management

Measure	Trend	Peer Comparison	Comments
Pupil-Teacher Ratio	(neutral)	(neutral)	This is an instructional staffing efficiency measure. Lee County has a neutral trend but shows a lower pupil-teacher ratio than most of its peers.
Pupil-Aide Ratio	(down)	(neutral)	This is another instructional staffing efficiency measure. The downward trend indicates that the growth rate of aides in Lee County outpaces enrollment growth.
Aides-Total Staff Percentage	(up)	(neutral)	This is different view of aide efficiency. The upward trend indicates that the growth rate of aides in Lee County outpaces total staff growth. The district's percentage rate is also higher than its peers.
Pupil-Counselor Ratio	(down)	(plus)	This is a staff efficiency ratio for school counselors. The downward trend indicates that the growth rate of counselors in Lee County outpaces enrollment growth, although the district compares favorably to its peers.
Pupil-Psychologist Ratio	(up)	(plus)	This is a staff efficiency ratio for school psychologists. The upward trend indicates that the growth rate of psychologists in Lee County lags enrollment growth. Lee County is efficiently staffed compared to its peers.
Average Teacher Class Load	(down)	*	This is class planning measure that indicates the average number of teaching periods per teacher in a day. The downward trend indicates that, on average, teachers are spending a smaller amount of their workday instructing.
Number of Unique Students Enrolled in Virtual Classes	(up)	*	Virtual classes are an avenue for delivering effective instruction at a lower cost per pupil. The upward trend in virtual class enrollment allows for greater cost efficiencies.

Major Observations

This section presents the major observations with respect to school management efficiency. As seen in Figure 11, school expenditures have steadily increased since 2012-13, from $439.9 million to $505.7 million, an increase of 15.0 percent. The increased spending appears to be due primarily to staff growth, as the staff full-time equivalent (FTE) count in schools increased from 6,905 to 7,484, an increase of 8.4 percent.

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Figure 11. Historic School Expenditure and FTE Count, 2012-13 to 2016-17
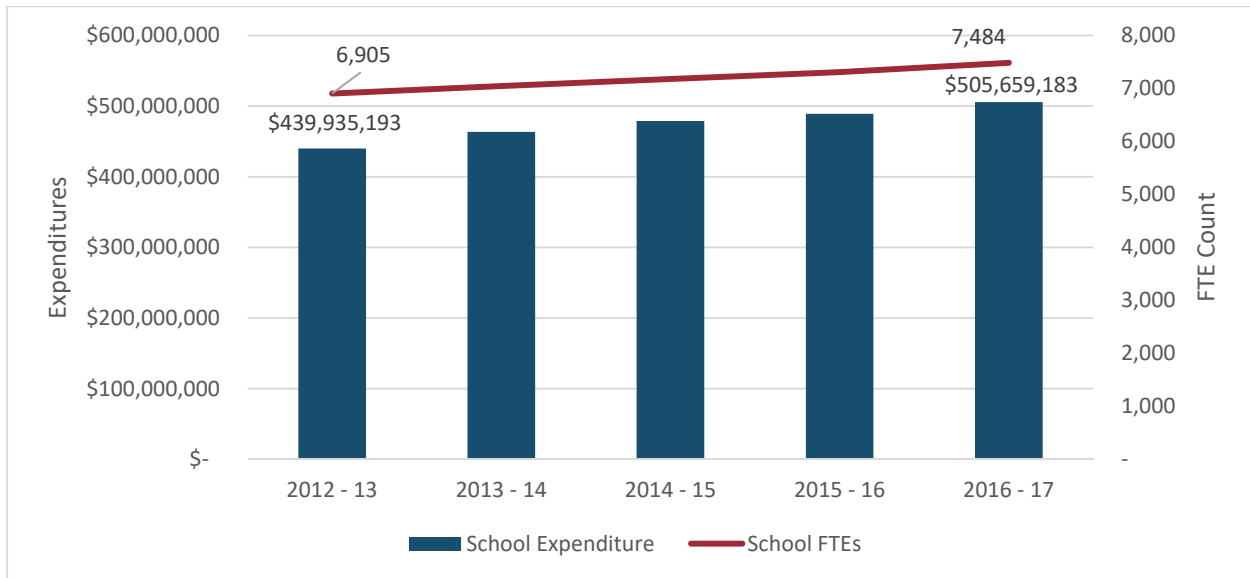
Source: SDLC provided expenditure and staffing information, January 2018.

The student-teacher ratio is the most commonly recognized efficiency measure for educational programs. Lee County's student-teacher ratio has increased slightly over the past six years, from 15.6 to 16.3. Figure 12 presents the district's student-teacher ratio since 2012-13. The higher ratios over the past three years suggest that the district is slightly more efficient in its teacher staffing than prior years.

Figure 12. Lee County Public Schools' Student-Teacher Ratio, 2012-13 to 2017-18
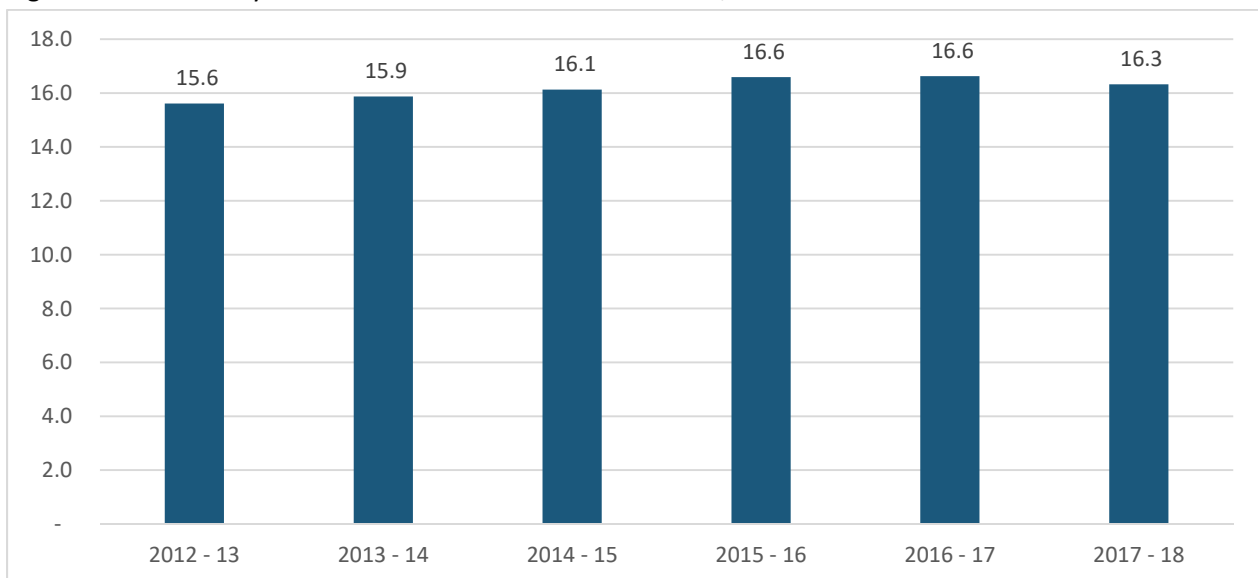
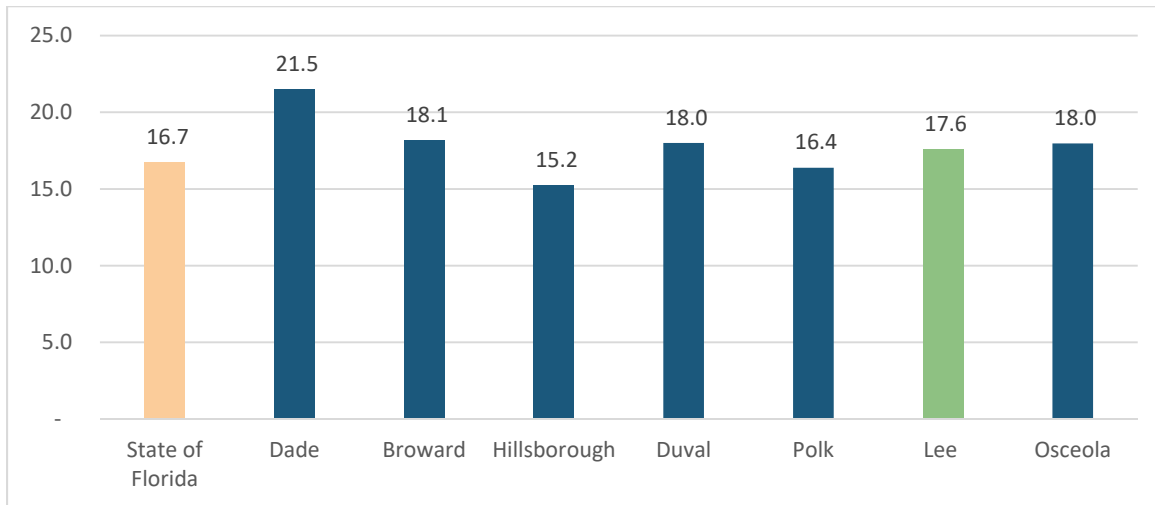Source: State of Florida Department of Education *Student Membership / Full-Time Staff in Traditional and Charter Schools* Fall 2012 – Fall 2016, January 2018; SDLC provided staffing data, January 2018; State of Florida Department of Education Enrollment Data obtained from "PK-12 Data Portal", March 2018.

Note: Based on district data provided; pupil-teacher ratios calculated by the Florida DOE are defined differently.

Figure 13 compares the Lee County student-teacher ratio (based on the state definition) to the state average and peer districts for 2016-17. When compared to the state average and Florida peer districts, Lee County is above the state average (indicating higher efficiency levels) but ranked fourth of seven peer districts (indicating slightly lower efficiency levels). For the peer districts of similar size (Duval, Polk, and Osceola) Lee County ranks third out of four districts, but is very near the average (mean) of all four districts.

Figure 13. Student-Teacher Ratio, Comparison to State Average and Peer Districts, 2016-17

Source: State of Florida Department of Education Enrollment Data obtained from "PK-12 Data Portal", March 2018; State of Florida Department of Education *Full Time Staff 2016-17*, March 2018

Note: Student-teacher ratios calculated by the Florida DOE are based on different definitions that what could be applied using Lee County historical.

At the school level, student-teacher ratios vary by school type and in some cases school size. Figure 14 shows the student-teacher ratio for each elementary school over the past five years. Each point represents a school, and the line represents the average for that year. There are several observations that can be made when reviewing this information:

- There is a wide range of elementary school size in Lee County, from less than 200 students to more 1,100 students.

- There appears to be some relationship between school size and the student-teacher ratio, as the ratios are generally lower for smaller schools and higher for larger schools. The smallest Lee County School has the lowest student-teacher ratio and the second largest school has the highest.

- The dispersion of student-teacher ratios ranges from less than 12 to almost 17 in 2012-13 and increases over time. In 2016-17, the student-teacher ratio ranges from 11 to over 18. This may reflect changing needs at specific campuses but could also represent possible inefficiencies in teacher resource allocations.

▪ The increase in the average pupil-teacher ratio for elementary schools mirrors that of the district has a whole, increasing through 2015-16 and declining in 2016-17.

Figure 14. Elementary School Student-Teacher Ratio, 2012-13 to 2016-17
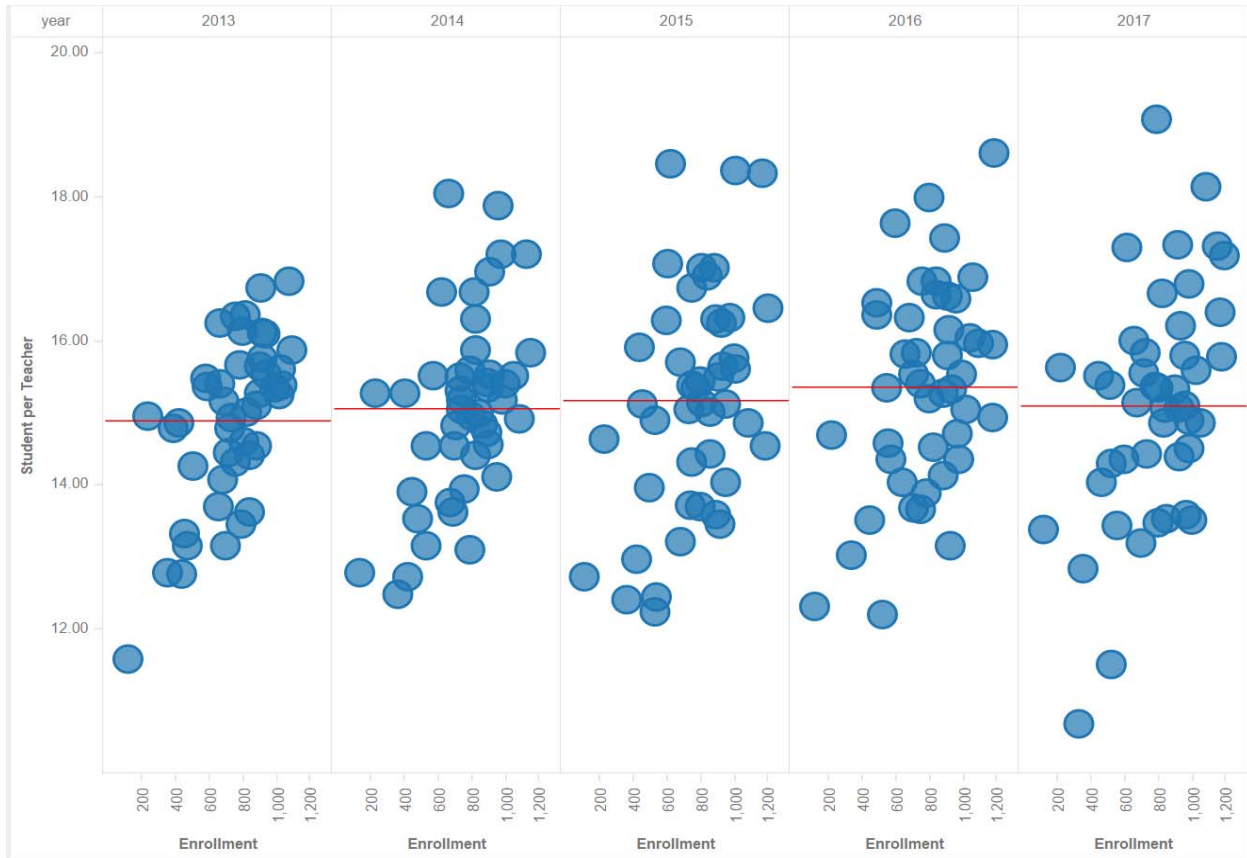
Source: State of Florida Department of Education Enrollment Data, March 2018; SDLC provided staffing data, January 2018

For Lee County middle schools, the relationship between student-teacher ratio and school size is not as clear. Figure 15 presents the student- teacher ratio for each middle school over the past five years. Below are observations related to the middle school ratios:

▪ The overall trend for middle schools (red lines) shows an increase in the student-teacher ratio each year, indicating more efficient use of teacher resources.

▪ There is one small middle school with less than 600 students; the remaining middle schools are in the 800 to 1,300 student range in 2016-17.

▪ The smallest middle school experienced a significant increase in the student-teacher ratio in 2015-16 compared to prior years, and in 2016-17 there were no middle schools with a student teacher ration less than 15.

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▪ There does not appear to be a relationship between school size and the student-teacher ratio at middle schools. The data points are more vertically oriented, and some smaller middle schools have a higher student-teacher ratio and some larger schools have a lower student-teacher ratio. Generally, as school enrollment increases, economies of scale allow a more efficient use of staff resources. This does not appear to be the case for Lee County middle schools.

Figure 15. Middle School Student-Teacher Ratio, 2012-13 to 2016-17

Source: State of Florida Department of Education Enrollment Data, March 2018; SDLC provided staffing data, January 2018

Figure 16 presents the student-teacher ratios at the high school level. The most significant characteristic of this chart is that the dispersion of the school ratios around the mean has tightened substantially. In 2015-16, the range was 17 to 22; in 2016-17 the range was 18 to 20.5. The overall averages depicted by the red lines are fairly consistent with the overall district trends, showing a decline in 2016-17 indicating lower staff efficiency than in the prior year.
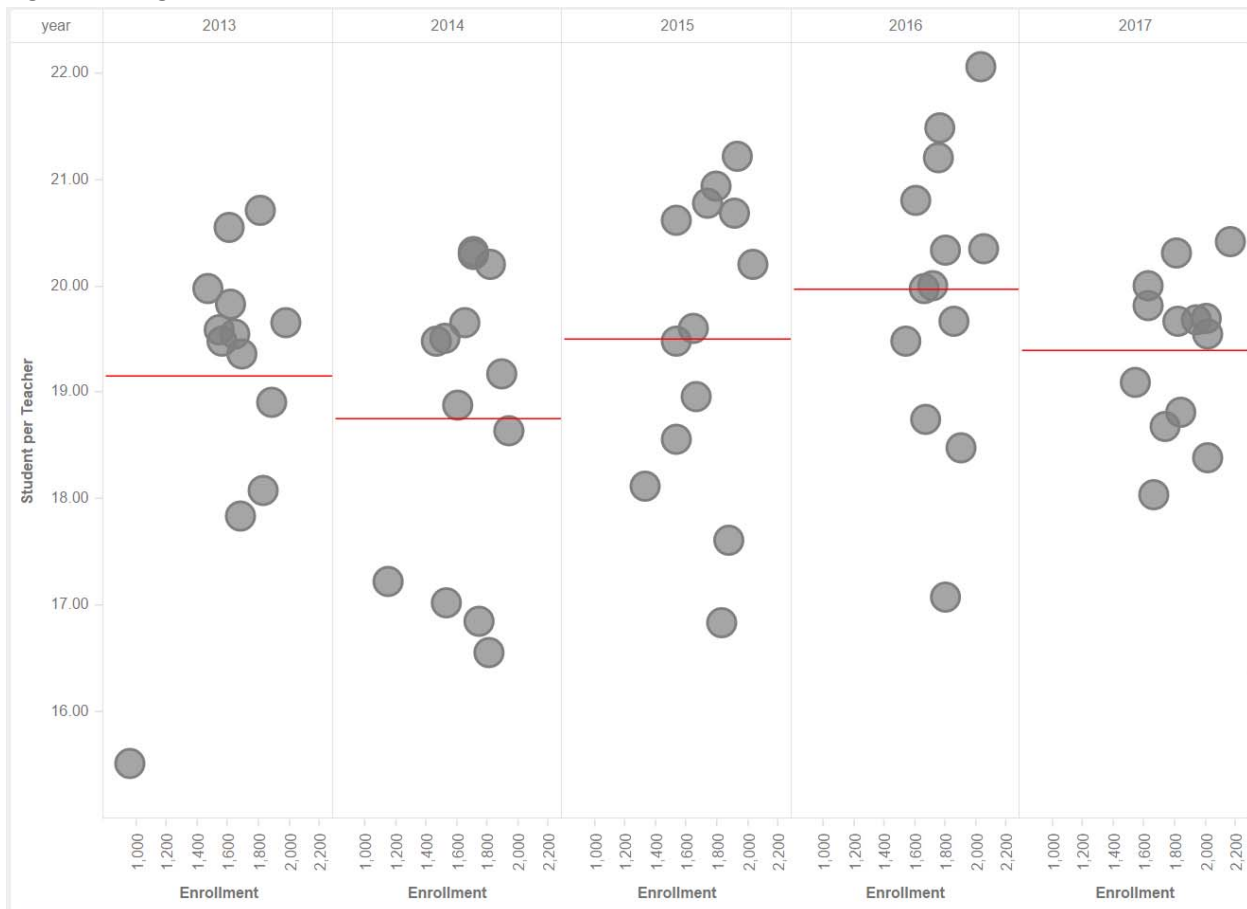
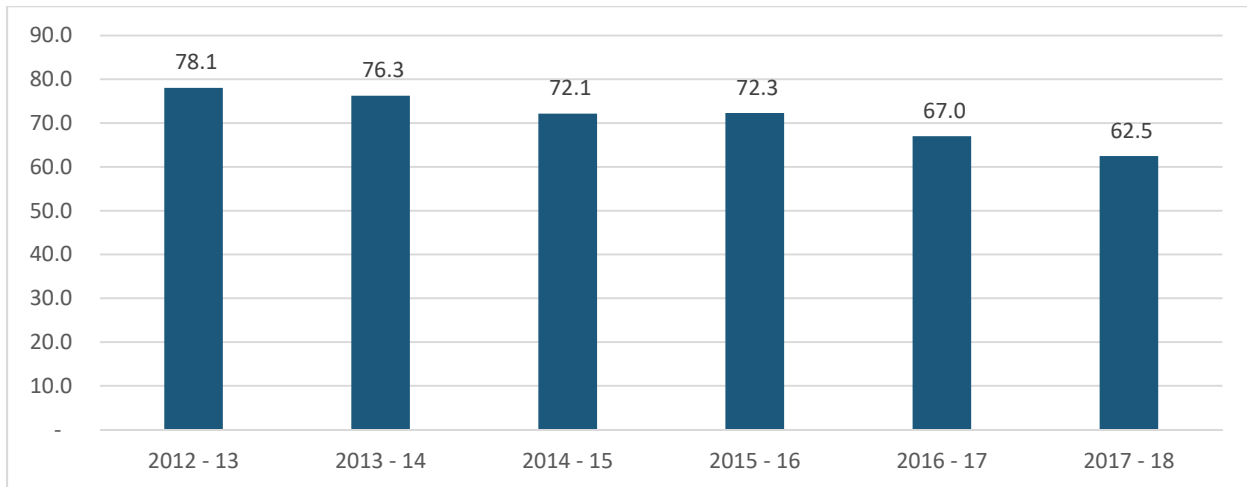Figure 16. High School Student-Teacher Ratio, 2012-13 to 2016-17

Source: State of Florida Department of Education Enrollment Data, March 2018; SDLC provided staffing data, January 2018

Possible factors that could be contributing to current pupil-teacher ratios at Lee County include staffing formulas and their application, the number of small schools, special or unique programming, the number of secondary course offerings, more teacher planning time than peers, and less efficient scheduling practices. Since teacher staffing is the largest staffing category and represents approximately 50 percent of all school district staffing, small changes in the pupil-teacher ratio can yield significant fiscal impacts.

Aides also represent a significant portion of instructional staffing. Figure 17 presents the student-aide ratios for Lee County since 2012-13. The ratio has steadily dropped from 78.1 in 2012-13 to 62.5 in 2017-18, a reduction of 20 percent. This means that Lee County has 20 percent more aides relative to its student population than it did six years ago.

Figure 17. Lee County Student-Aide Ratios, 2012-13 to 2017-18

Source: State of Florida Department of Education Enrollment Data, March 2018; SDLC provided staffing data, January 2018

Note: Based on district data provided; student-aide ratios calculated by the Florida DOE are defined differently.

Figure 18 compares the Lee County student-aide ratio for 2016-17 to the state average and Florida peer districts. Lee County is below the state average (indicating more aides relative to the student population) and ranks fourth out of the seven peers in aide staffing efficiency. The district ranks second among the similar sized peers (Duval, Polk and Osceola counties).

Figure 18. Student-Aide Ratio, Comparison to State Average and Peer Districts, 2016-17
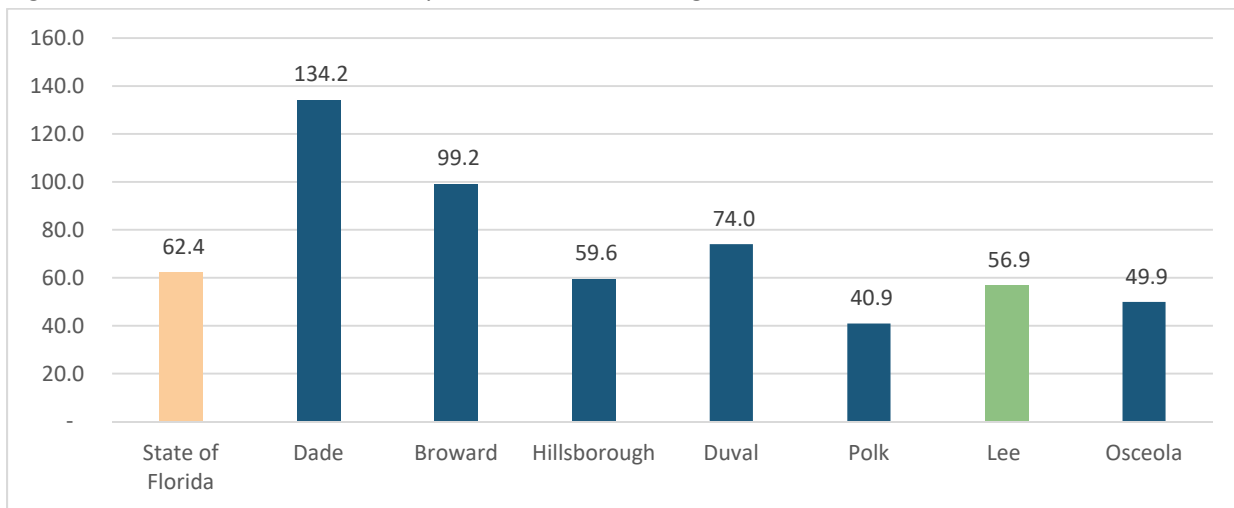
Source: State of Florida Department of Education Enrollment Data obtained from "PK-12 Data Portal", March 2018; State of Florida Department of Education *Full Time Staff 2016-17*, March 2018

Note: Peer comparisons are calculated inclusive of charter campuses based on state data. Thus, differences between trend analysis figures and peer comparisons will occur.

Possible causes of a lower student-aide ratio could include more ESE aides or other special program aides, or a change in instructional strategy.

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Online instruction allows school districts to provide more course offerings in an efficient manner, as some elective courses do not attract enough students to support an efficient mode of instruction. Lee County tracks part-time and full-time enrollment (unduplicated count) in online courses. Figure 19 presents enrollment in online courses for 2013-14 through 2017-18 (8 months). Part-time enrollment in online courses has increased since 2013-14, while full-time enrollment has remained fairly flat.

Figure 19. Lee County Full-time and Part-time Enrollment in Online Courses, 2013-14 to 2017-18
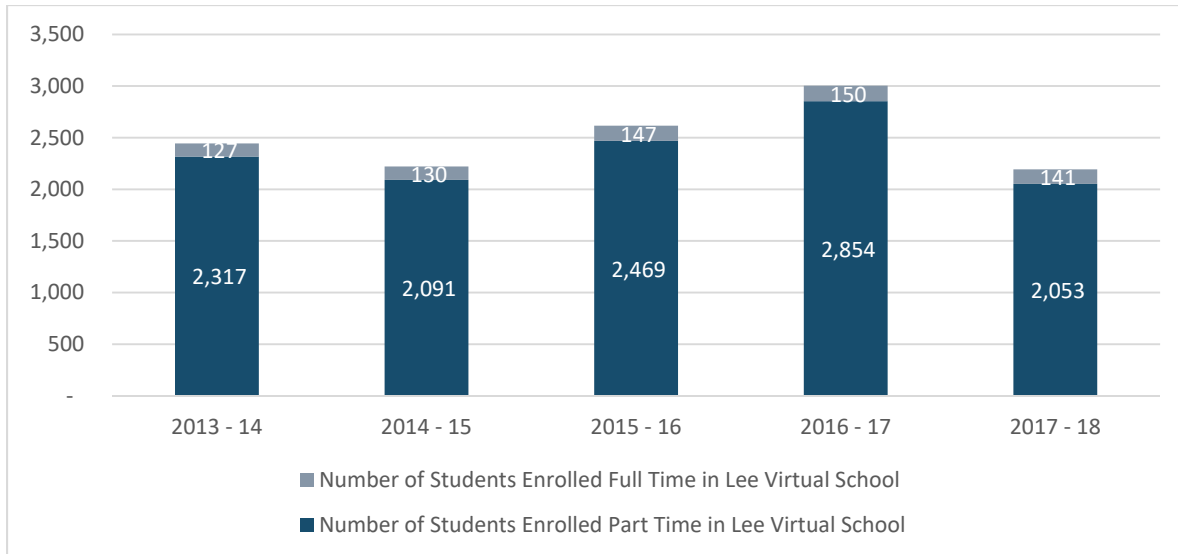
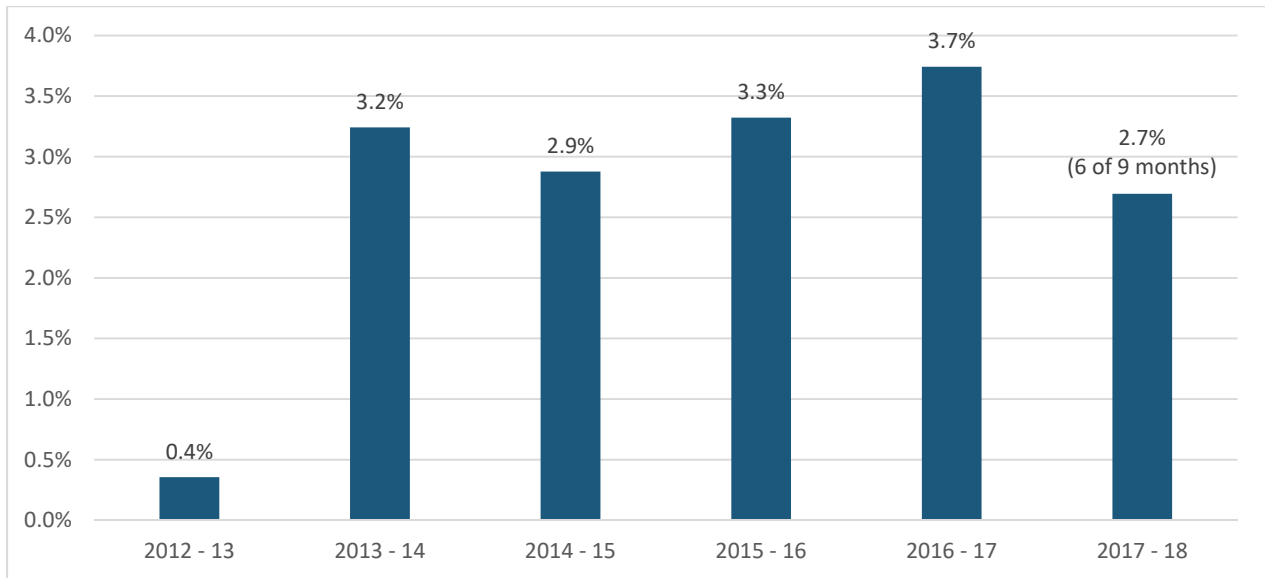Source: SDLC provided virtual school enrollment data, March 2018; State of Florida Department of Education Enrollment Data obtained from "PK-12 Data Portal", March 2018

Note: 2017-18 represents 8 months of the school year

Figure 20 shows the percentage of students enrolled in one or more online courses from 2012-13 to 2017-18 (8 months). The enrollment percentage has increased substantially since FY 2012-13.

Figure 20. Percentage of Students Enrolled in Online Courses, 2012-13 to 2017-18

Source: SDLC provided virtual school enrollment data, March 2018;

Note: 2017-18 represents 8 months of the school year

Online instruction will become an increasingly attractive option for school systems as the technology progresses.

Other staff efficiency measures, such as those for school counselors, show that Lee County has fewer counselors relative to its student population than all of its peers and the state average. While this may reflect a staffing "efficiency," additional analysis should be conducted by the district to ensure that their counselors are not performing clerical activities and are focused primarily on student counseling activities.

Lee County also ranks higher on the efficiency scale for school pyschologists. This appears to be due, at least in part, to the use of itinerant staffing whereby a single psychologist position supports multiple schools.

Conclusion

The metrics discussed above and drive lower efficiency ranking for School Management overall. Based on the trend and peer data, there may be opportunities to increase the efficiency of school management in the following areas:

- Teacher staffing in elementary and middle schools
- Aide staffing
- Where feasible, consider consolidating smaller schools into larger ones.

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Chapter 4 – Human Resources

Background

Human Resource (HR) management involves recruitment, selection, hiring, development, compensation (salary and benefits), retention, evaluation, and promotion of personnel within the division, and compliance with equal employment opportunity statutes and other federal and state laws. While HR departments are not large in terms of staffing, it is an important area to examine because 75 percent or more of operating expenditures are devoted to salaries and benefits.

As of 2018, the Lee County HR Department is comprised of 71 positions, which are resonsible for recruiting qualified employees, as well as managing professional development, insurance and benefits, compensation, and personnel issues for approximately 9,600 FTE's.

The Efficiency Report Card for HR is presented in Figure 21. This card indicates how the department is trending and how it compares to peers. The HR function in Lee County is less efficient than it was five years ago.

Figure 21. Efficiency Report Card, Human Resources

Measure	Trend	Peer Comparison	Comments
Ratio of Total Staff to HR Staff	⬇	*	This is a staffing efficiency measure. The lower the measure the lower the efficiency. Lee County's decreasing ratio indicates that the HR staff growth rate is exceeding the total staff growth rate, reflecting declining efficiency.
HR Cost per District FTE	⬆	✚	This is an overall efficiency measure for HR. HR expenditures per District FTE has increased, indicating declining efficiency. Lee County's measure approximates the COGCS lower quartile for 2015-16, but the level has increased significantly since then and is likely closer to the median.
Teacher Turnover Rate	⬆	*	This is an overall efficiency measure for HR. Employee turnover is costly, as it requires increased effort to recruit and train new teachers. The teacher turnover rate has increased steadily over the past five years, which can result in cost inefficiencies within HR.
Non-Teacher Turnover Rate	⬆	*	This is an overall efficiency measure for HR. Employee turnover is costly, as it requires increased effort to recruit and train new teachers. The teacher turnover rate has increased steadily over the past five years, which can result in cost inefficiencies within HR.
New Teacher (1 year or less) Turnover Rate	═	*	This is an overall efficiency measure for HR. A high rate can point to onboarding dissatisfaction and results in inefficiencies. The rate has remained steady over the past five years.

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Measure	Trend	Peer Comparison	Comments
New Teacher (2 years or less) Turnover Rate	⬆	*	This is an overall efficiency measure for HR. A high rate can point to onboarding dissatisfaction and results in inefficiencies. The rate has increased over the past five years, pointing to potentially inefficient hiring practices or professional development.
Percentage of Teacher Positions Filled on First Day of Class	⬆	*	This is another staffing efficiency measure. HR is nearing 100% of teacher positions filled on the first day of class, which is a strong indication of a quick turnaround from offer to acceptance.
Workers Compensation Claim per FTE	⬆	*	This is a cost efficiency measure. Workers compensation claims have increased over the past five years, potentially due to a lack of claim investigation and prevention work. Without allocating resources to these functions, claims cost will continue to increase.
Average Teacher Absences per Teacher (in days)	⬇	*	This is a cost efficiency measure. Substitute teachers are costly to employ. A decreasing absence rate is a good indicator of increasing cost efficiency.
Benefits Cost as a Percentage of Wages	=	✚	This is a cost efficiency measure. The benefit percentage has remained flat over the past five years. A large change in benefits brings increases not only benefit expense but also utilizes resources for negotiations.

Major Observations

This section presents the major observations regarding HR efficiency. Figure 22 provides the HR departmenal expenditure and staffing trend since fiscal year (FY) 2013. Total HR expenditures increased 61 percent since 2012-13, from $3.3 million to $5.3 million. During the same time period, HR Department staffing increased 23 percent, from 46 FTEs to 59 FTEs.

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Figure 22. Lee County HR Expenditure and FTE Count, 2012-13 to 2016-17
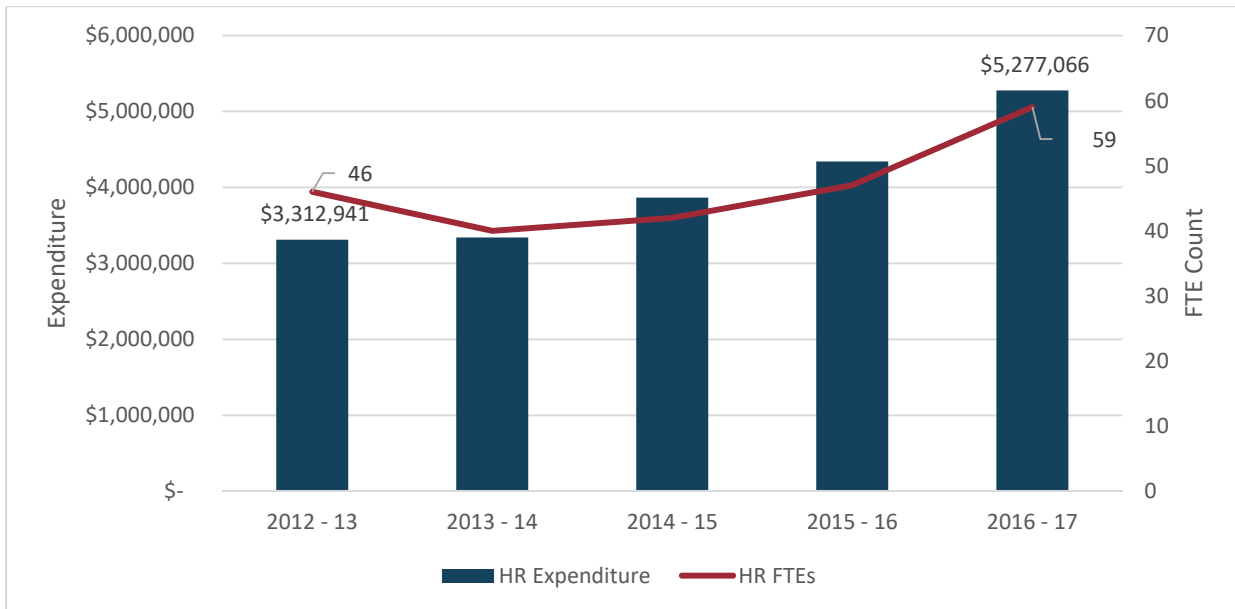
Source: SDLC provided expenditure and staffing data, January 2018
Note: Lee County Insurance Expenditures of $15,462,285 were deducted from HR Department Expenditures of $20,152,837 to be comparable to COGCS benchmarks (that does not include those expenditures).

The most commonly applied measure in determining the efficiency of an HR function is the ratio of total employees to total HR staff FTEs. Lee County's ratio has been declining since 2013-14, with an uptick in 2017-18. This indicates lower efficiency levels since 2013-14. Figure 23 present the ratio of total district FTEs to total HR staff FTEs from 2012-13 to 2017-18.

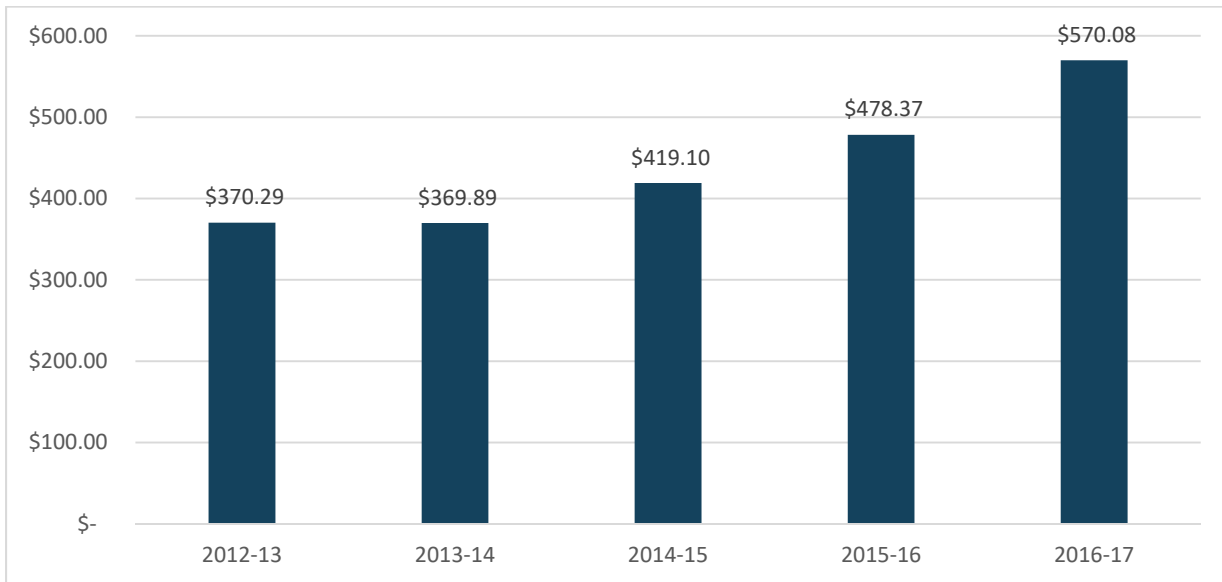Figure 23. Ratio of District FTEs to HR Department FTEs, 2012-13 to 2017-18
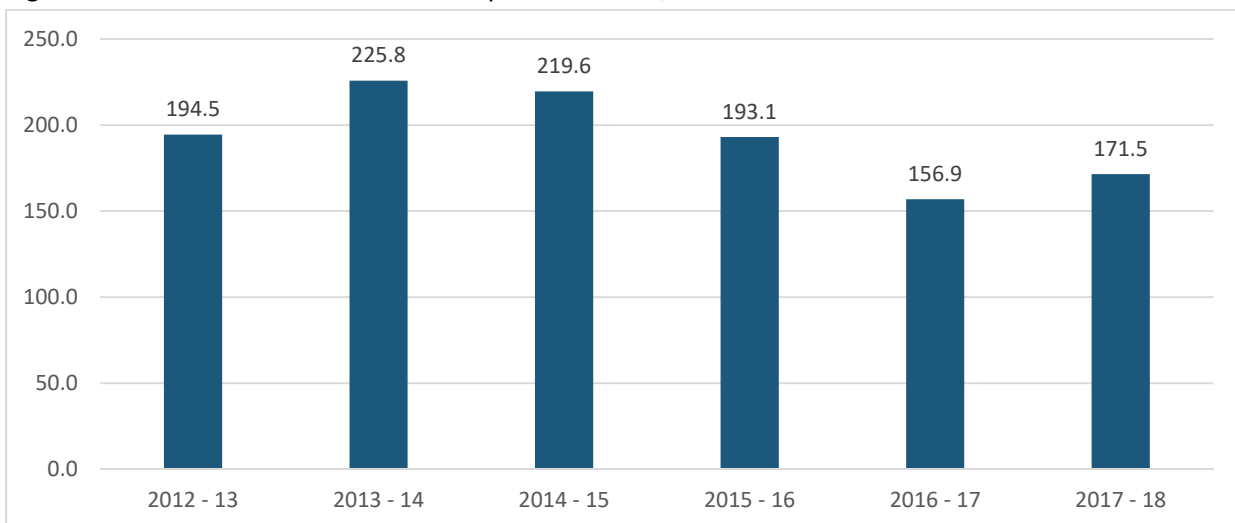
Source: SDLC provided staffing data, January 2018.
Note: Professional Development was reorganized under the Human Resource Department in 2017-18. As such, the 15 FTEs assigned to this group have not been included in this ratio.

Figure 24 presents Lee County's HR Department Cost per district FTE. This trend shows a 54 percent increase in HR expenditures per district FTE since 2012-13.

Figure 24. Lee County HR Cost per District FTE, 2012-13 to 2017-18

Source: SDLC provided expenditure and staffing data, January 2018.
Note: Professional Development was reorganized under the Human Resource Department in 2017-18. As such, the corresponding expenditure has not been included in this metric.

Figure 25 compares Lee County's HR Cost per district FTE to the COGCS quartiles for 2015-16, the most recent data available. This shows that Lee County's measure is closest to the COGCS lower quartile.

Figure 25. HR Cost per District FTE, Lee County and COGCS Averages, 2015-16
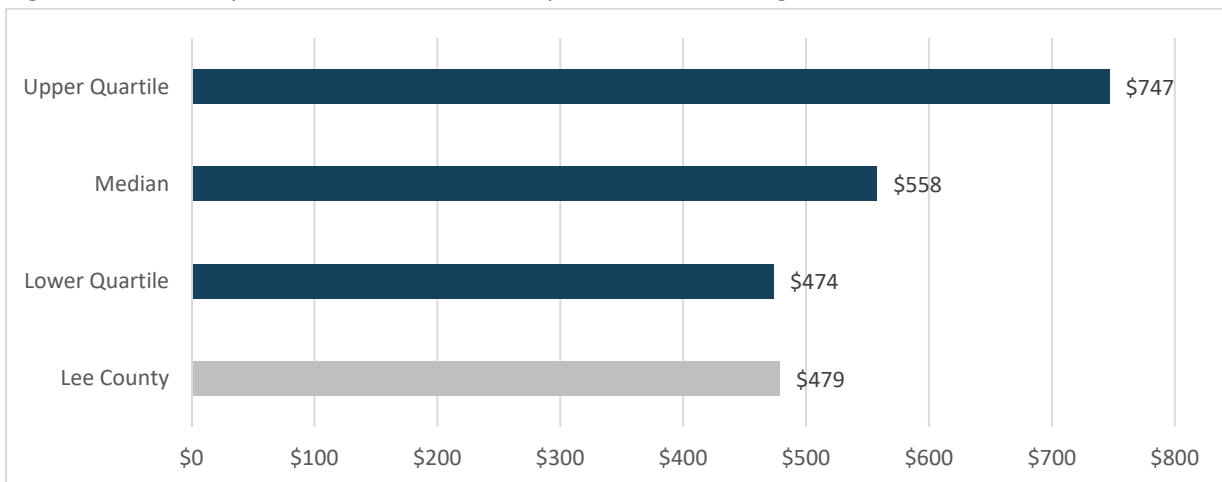
Sources: Council of Great City School *Managing for Results*, November 2017; Lee County Staffing Extract
Note: Lee County Insurance Expenditures of $15,462,285 were deducted from HR Department Expenditures of $20,152,837 to be comparable to COGCS benchmarks (that does not include those expenditures).

Turnover measures for teaching and non-teaching staff are both trending up at Lee County, and turnover can have a profound effect on operating efficiency because of less experienced and less trained staff. Figure 26 presents the turnover rates for teacher and no-teacher positions since 2012-13.

Figure 26. Lee County Teacher and Non-Teacher Turnover Rates, 2012-13 to 2016-17
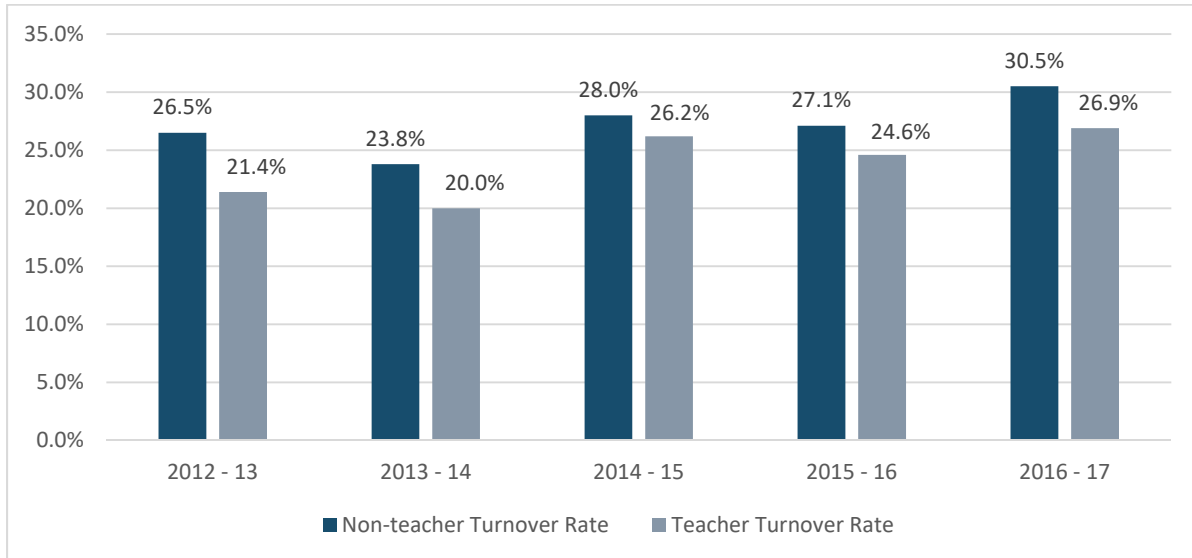
Source: SDLC provided turnover data, March 2018.

Turnover rates for new teachers are also trending up. Figure 27 presents 1-year and 2-year (cumulative) turnover rates for new Lee County teachers since 2013-14.

Figure 27. Lee County New Teacher Turnover Rates, 1-year and 2-year (cumulative), 2013-14 to 2016-17
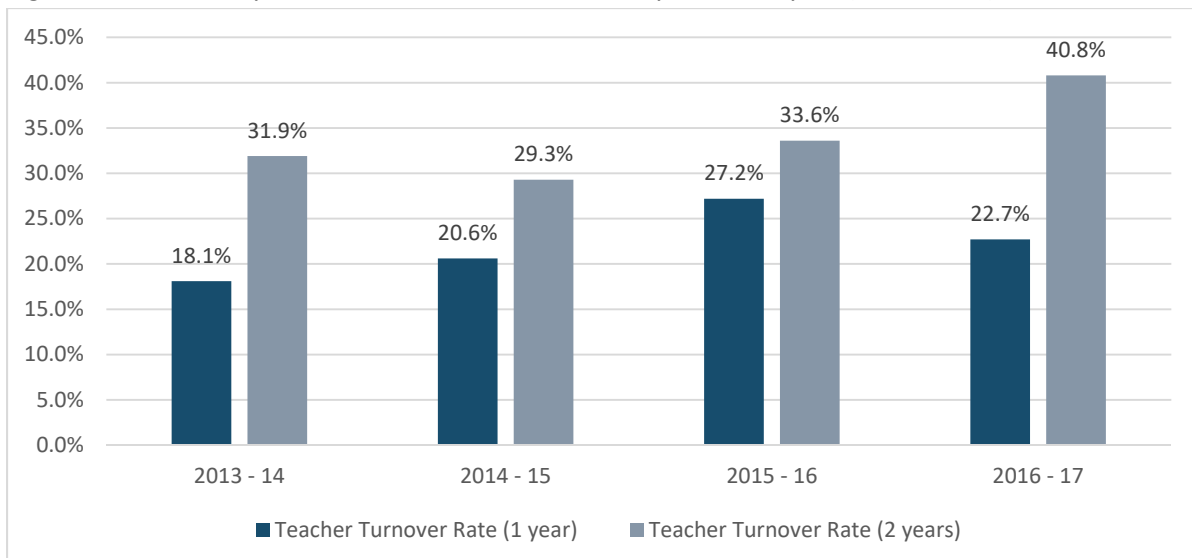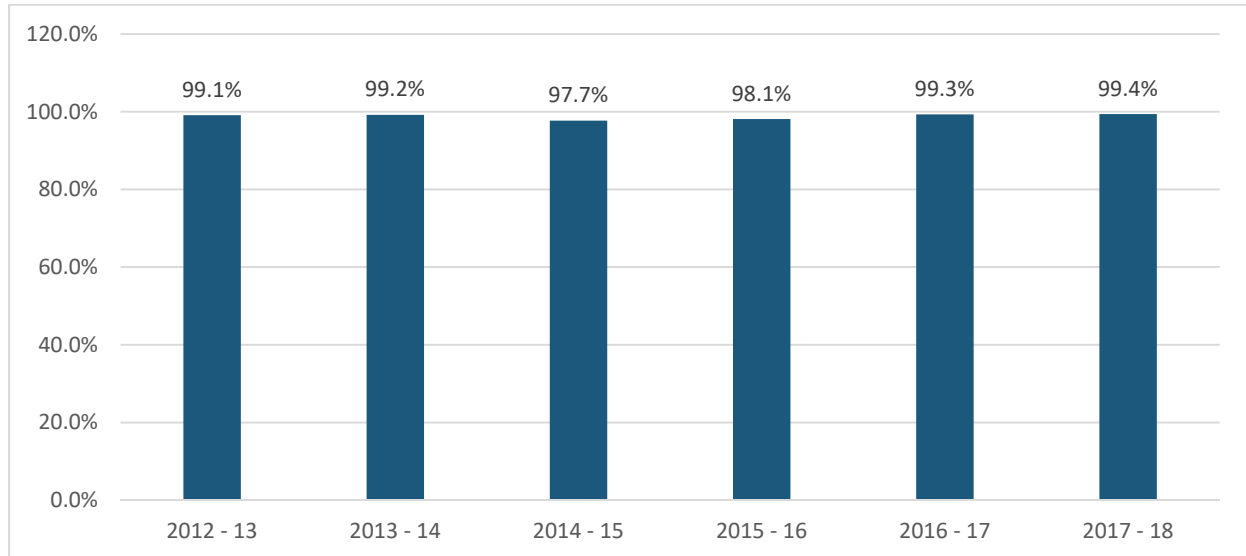

Source: SDLC provided turnover data, March 2018.

Other measures point to efficient HR operations. The HR Department has been successful in increasing the percentage of filled teacher positions on the first day of school, which has a direct impact on the

efficiency of instructional delivery and school operations at the beginning of the year. Figure X shows that the percentage, after dropping from 99.1 percent to 97.7 percent, has increased to 99.4 percent in 2017-18. Figure 28 presents the percentage of teacher positions filled on the first day of school.

Figure 28. Percentage of Filled Teacher Positions on First Day of School, 2012-13 to 2017-18

Source: SDLC provided position fill data, March 2018.

Average teacher absences per teacher has dropped slightly in recent years, resulting in a positive impact on teaching efficiency by having more time in the classroom and minimizing substitute costs. Figure 29 presents average absences per teacher for 2014-15 to 2016-17.

Figure 29. Average Absences per Teacher, 2014-15 to 2016-17
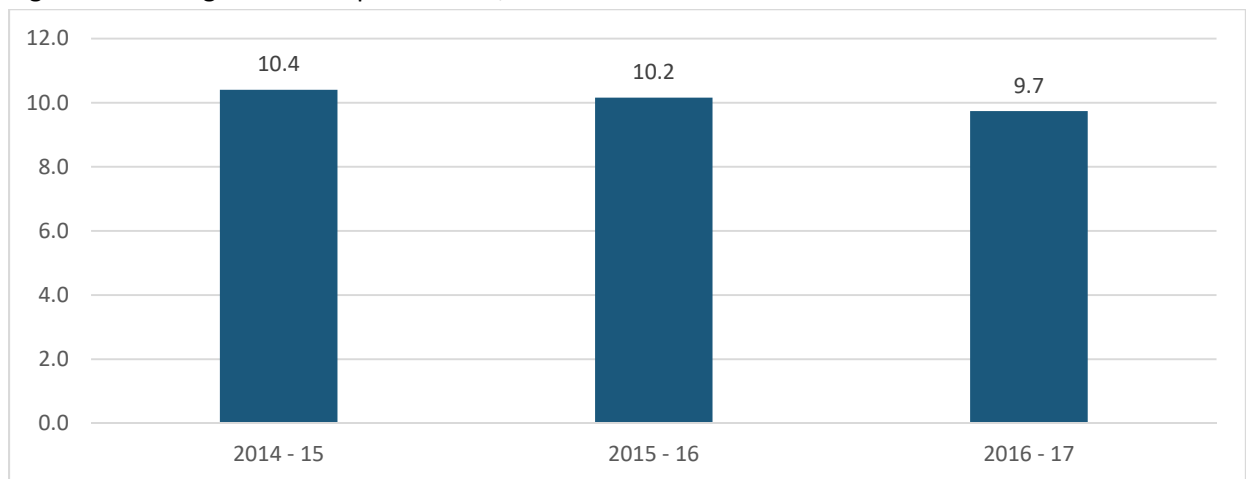
Source: SDLC provided teacher absence data, March 2018.

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Conclusion

The metrics discussed above and the review team's findings during a site visit drove a below average efficiency ranking for the Human Resources Department.

However, many best practices were identified within Human Resources:

- Performance measures are actively tracked and action plans are developed to increase efficiency

- Data triangulation of exit interviews are performed in an effort to reduce turnover

- The implementation of Laserfiche drastically reduced the amout of paper utilized in the department.

- Professional development has been reorganized under Human Resources to address the increasing turnover rates.

The overall efficiency of the department is largely trending in the wrong direction but steps are already underway to address many of these trends, as evidenced in the best practices listed above.

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Chapter 5 – Business Services

Background

School districts must practice sound financial management to maximize the effectiveness of limited resources and to plan for future needs. Effective financial management ensures that internal controls are in place and operating as intended, technology is maximized to increase productivity, and that reports are generated that help management monitor progress against financial goals.

Business services is comprised of the following functions: internal audit, budget, warehouse operations, financial accounting and property records, payroll, procurement services, and food and nutrition services. For the purpose of this report, Business Services efficiency is measured in three primary areas – accounting, payroll, and procurement. Food Services is discussed separately and is excluded from any discussion and figures below.

The Effiency Report Card for Business Services is included in Figure 30. This card indicates how the department is trending and how it compares to peers. Business Services is more efficient than five years ago but compares unfavorably to Lee County peers and industry averages.

Figure 30. Efficiency Report Card, Business Services

Measure	Trend	Peer Comparison	Comments
Accounts Payable			
Number of Invoices Processed per Accounts Payable (AP) FTE	⇑	▬	This is an accounts payable efficiency measure. Lee County has experienced positive efficiency trends but does not compare favorable to the COGCS benchmark measures.
Payroll			
Number of Paychecks Processed per Payroll FTE	⇓	▬	This is an overall efficiency measure for payroll and shows both declining efficiency and lower efficiency than the COGCS benchmark measures.
Number of Off Cycle Payments	⇓	*	This is an efficiency measure for payroll. Off cycle payments occur outside of the expected bi-monthly payroll payments. A trend of declining off- cycle payments indicates greater efficiency.
Payroll Expenditure per Payroll FTE	⇑	*	This is an overall efficiency measure for payroll. The cost of payroll services on a per employee basis has increased over the past five years, indicating declining efficiency.
Payroll Cost per Paycheck	⇑	▬	This is another overall efficiency measure for payroll. The payroll cost per paycheck has increased over the past five years, indicating lower efficiency. Lee County's measure also does not compare favorably to the COGCS benchmark measures.

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Measure	Trend	Peer Comparison	Comments
Overtime as a Percentage of Salaries and Wages	⬆	*	This is a measure that is captured by payroll but relates to departmental efficiency. Lee County's overtime percentage has been increasing, indicating declining efficiency by paying more overtime.
Purchasing			
School Purchase Orders per School FTE	⬇	*	This is an overall efficiency measure for purchasing. While a declining measure would normally indicate lower efficiency, this measure appears to be declining to the increased use of P-Cards for purchases (see separate measure below).
Procurement Cost per Purchase Order	⬆	*	This is an overall efficiency measure for purchasing. The cost of purchase order has increased since FY 2013-14. Again, this is likely due to the lower number of purchase orders due to the increased use of P-Cards.
Average Value of Purchase Orders Processed	⬆	*	This is an overall efficiency measure for purchasing. Since more small-item purchasing is done with P-Cards, the average value of remaining PO's is increasing.
Number of P-Card Transactions	⬆	*	This is an overall efficiency measure for purchasing. The number of P-Card transactions have increased over the past five years, indicating greater efficiency.

Major Observations

This section presents the major observations with respect to Business Services efficiency. In 2016-17, Business Services had 73.0 FTEs, up from 71.0 FTEs in 2012-13, an increase of 2.8 percent, while total expenditures increased from $4.9 million in 2012-13 to $5.4 million in 2016-17, and increase of 11.8 percent. Figure 31 provides the expenditure and staffing trends for Business Services, (excluding food services) for 2012-13 to 2016-17.

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Figure 31. Historic Business Services Expenditure and FTE Count, 2012-13 to 2016-17
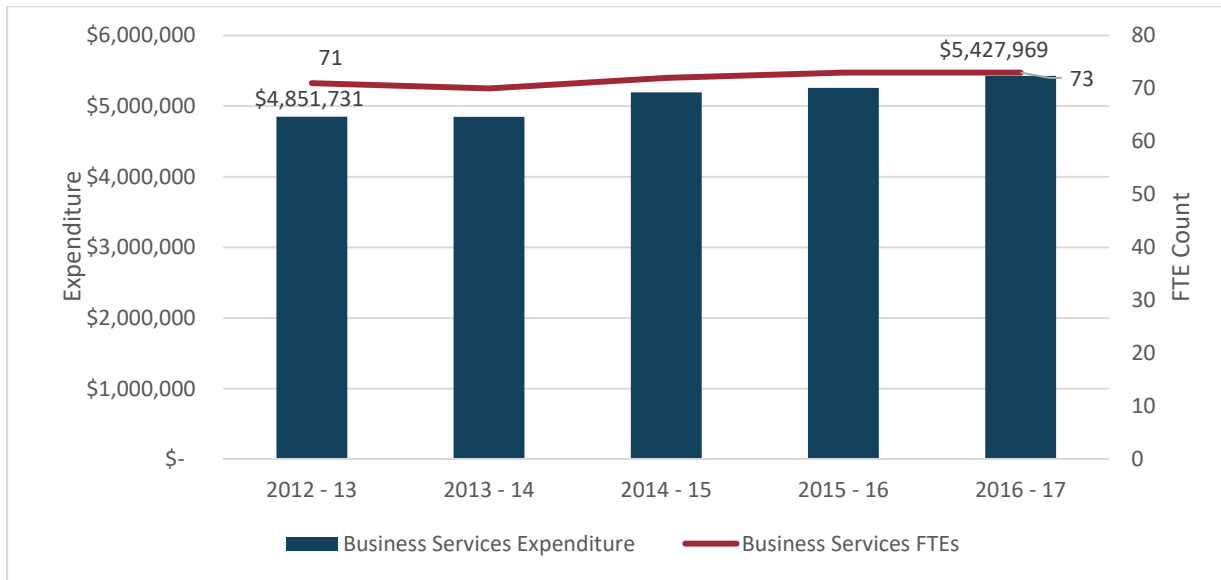
Source: SDLC provided expenditure and staffing data, January 2018.

Accounts Payable

Accounts payable (AP) involves the process through which vendor invoices are approved and payments are made. This is typically the largest of all the accounting functions. Other activities, including general accounting, budgeting, grant reimbursements and other activities support the accounting function, but there are no relevant efficiency benchmarks – peer district or COGCS – to which a comparison can be made. COGCS benchmarks relate more to the relative effectiveness or financial stability of a school system, and the Florida DOE does not track any business services efficiency measures.

The primary indicator for Accounts Payable efficiency is the number of invoices processed per accounts payable staff FTE. Since 2012-13, Lee County has experienced fluctuations up and down, but overall has shown a 47 percent improvement in processing efficiency. Figure 32 presents Lee County invoices processed per AP staff FTE from 2012-13 to 2016-17. The higher the measure, the higher the efficiency.

Figure 32. Lee County Invoices Processed per FTE, 2012-13 to 2016-17
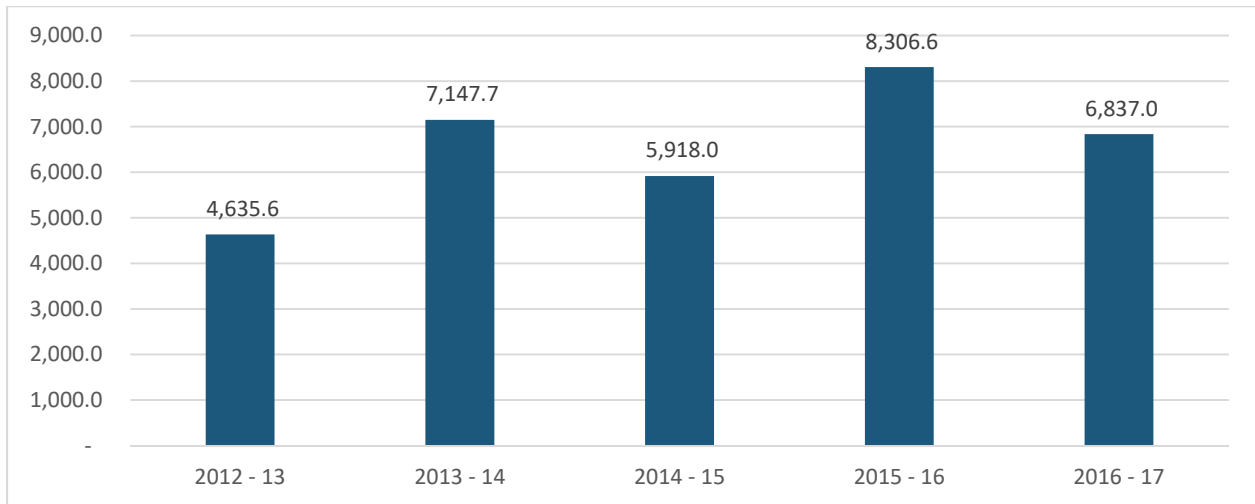
Sources: SDLC provided invoice data, March 2018.

Upon comparison to COGCS quartile averages, however, Lee County's measure for 2015-16 is between the lower quartile and median measure, and closer to the lower quartile. Figure 33 compares Lee County's Invoices Processed per FTE to the COGCS quartiles for 2015-16.

Figure 33. Invoices Processed per FTE, Lee County and COGCS Averages, 2015-16
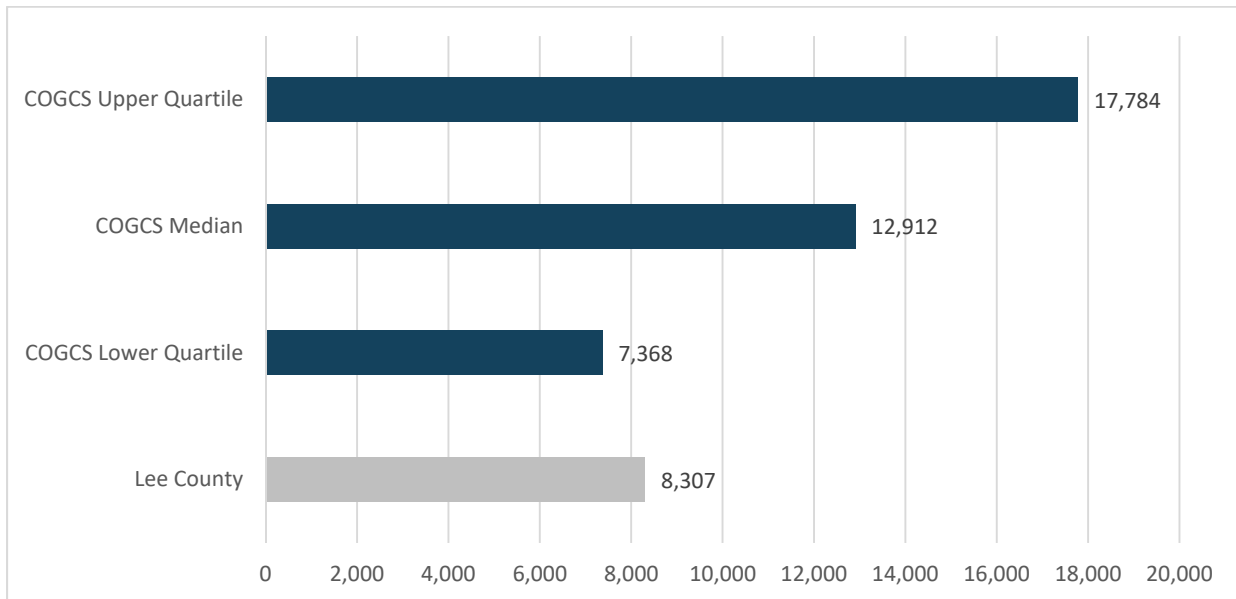
Source: Council of Great City School *Managing for Results*, November 2017
Note: COGCS per-month measures were multiplied by 12 to compare to Lee County's annual metric
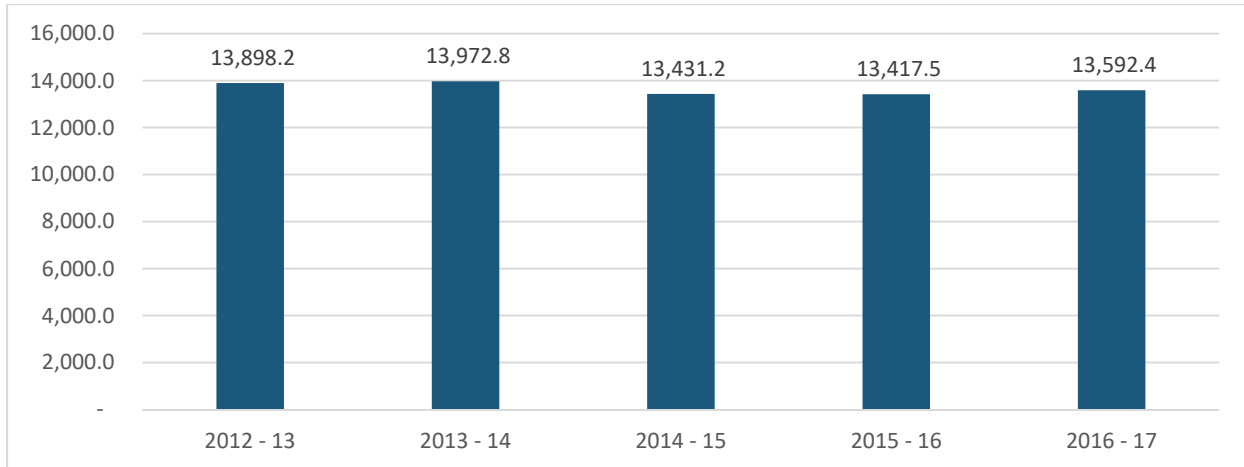
Payroll

The payroll area has struggled with the implementation of the new financial systems perhaps more than any other department. Like other departments during the initial phases of implementation, processes were not re-engineered to take advantage of the new technological and functional capabilities. As a result,

processes did not become more efficient and in some cases became less efficient. The Payroll Department is currently working to re-engineer processes, maximize the use of the information system functionality, and improve operating efficiency.

Two major indicators of payroll efficiency are payroll checks processed per (payroll staff) FTE and payroll cost per check. Figure 34 presents Lee County's payroll cost per check since 2012-13. This measure shows slightly declining efficiency over time.
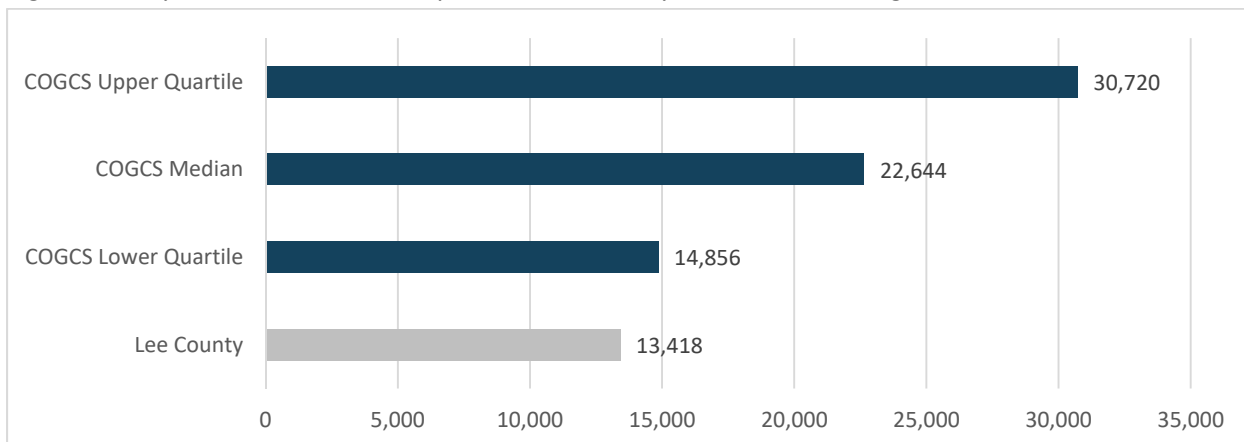
Figure 34. Lee County Payroll Checks Processed per FTE, 2012-13 to 2016-17

Sources: SDLC provided staffing data, January 2018; SDLC provided payroll data, March 2018.

Figure 35 compares Lee County's measure to the quartile averages of the Council of Great City Schools for 2015-16, the most recent data available. Lee County's measure is below the COGCS lower quartile, reflecting lower efficiency.

Figure 35. Payroll Checks Processed per FTE, Lee County and COGCS Averages, 2015-16


Source: Council of Great City School *Managing for Results*, November 2017
Note: COGCS per-month measures were multiplied by 12 to compare to Lee County's annual metric

Figure 36 presents Lee County's payroll cost per pay check since 2012-13, reflecting an increase (efficiency reduction) of 14.7 percent during this time.

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Figure 36. Lee County Payroll Cost per Pay Check, 2012-13 to 2016-17
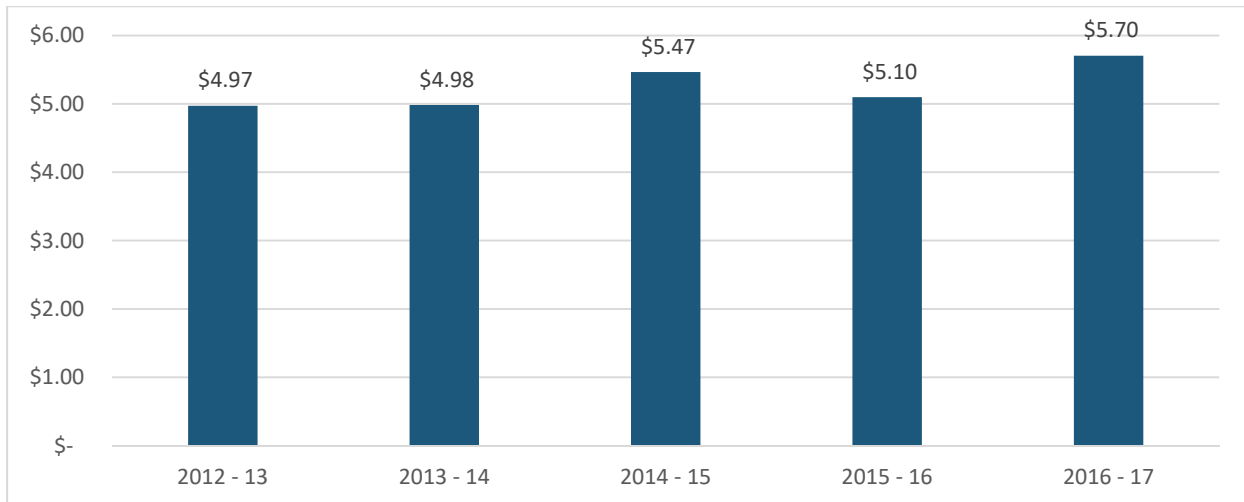
Sources: SDLC provided expenditure data, March 2018; SDLC provided payroll data, March 2018.

Figure 37 compares Lee County's measure to the COGCS quartiles for 2015-16 and reflects a higher cost per check than the COGCS upper quartile.

Figure 37. Payroll Cost per Pay Check, Lee County and COGCS Averages, 2015-16
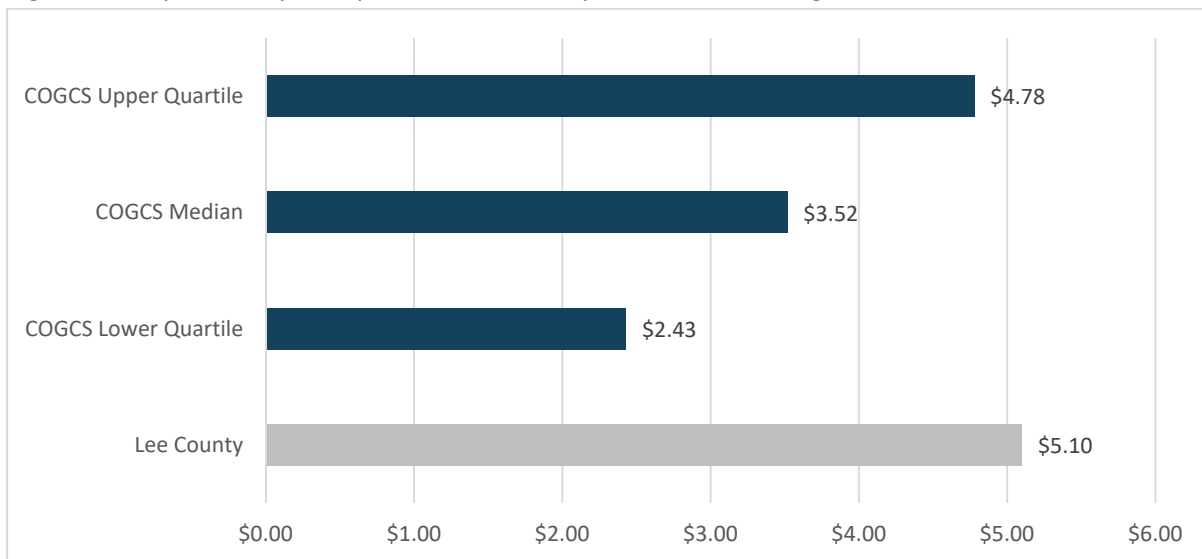
Source: Council of Great City School *Managing for Results*, November 2017

These indicators suggest that the Payroll Department has more work to do as Lee County's more recent measures (2016-17) show even lower efficiency than the prior year compared to the COGCS data.

Purchasing

The evolution of the Procurement Card, or P-Card, has dramatically increased opportunities for higher efficiency levels in purchasing. The P-Card is a credit card that has more accounting controls and capabilities than a regular credit card. These controls can limit the amount, frequency and location of

spending by staff for lower cost items. Before P-Cards, purchase orders were issued for most if not all procurement transactions, regardless of size. P-Cards have been in use at Lee County for more than a decade, and new information system functionality supporting paperless purchasing also appears to be supporting higher efficiency levels. Figure 38 presents the P-Card transaction volumes since 2012-13, reflecting a consistent and steady increase in the use of P-Cards.

Figure 38. Lee County P-Card Transaction Volumes, 2012-13 to 2016-17
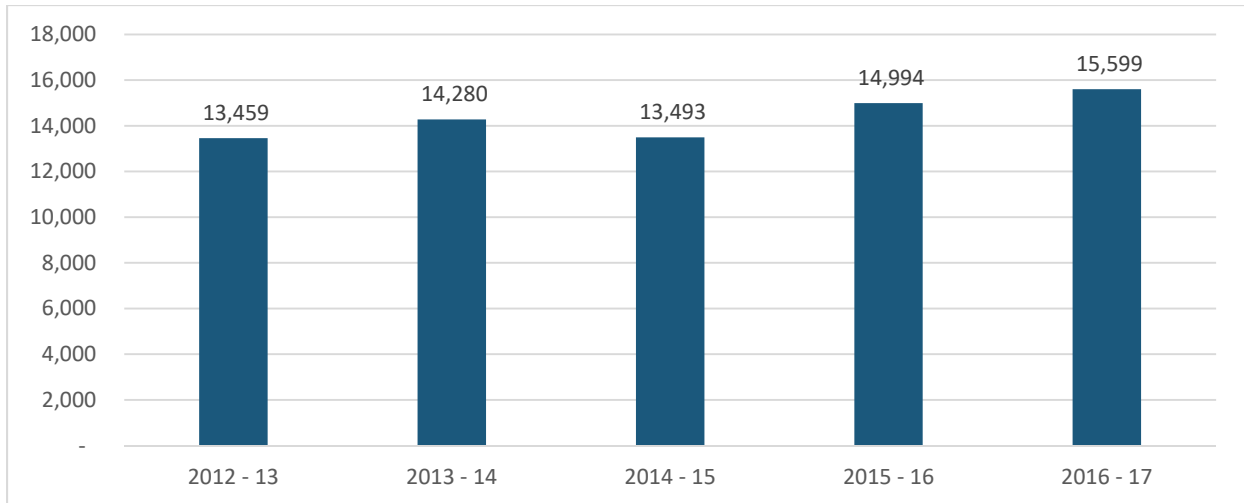
Source: SDLC provided P-card data, March 2018.

Figure 39 presents the average value of purchase orders (PO) processed since 2012-13, showing fairly consistent increases, and significant increases over the past two years. In addition to the increased use of P-Cards, the recent increases are likely affected by the district's construction program, which generally have higher value purchase orders.

Figure 39. Average Value of Purchase Orders Processed, 2013-14 to 2017-18
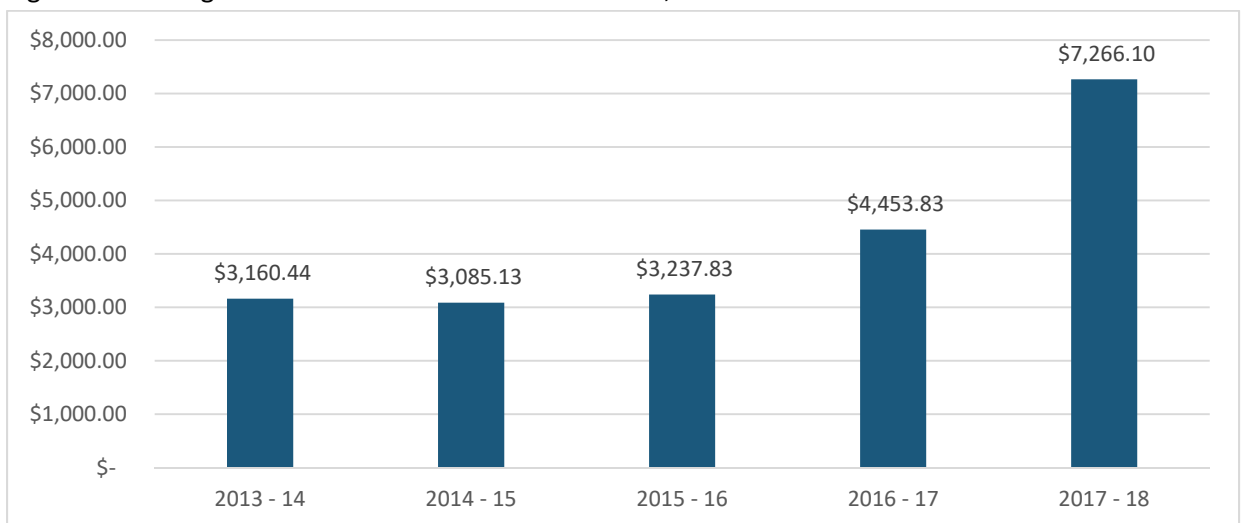
Source: SDLC provided purchase order data, March 2018.

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Lee County compares favorably to the COGCS quartile averages for procurement staffing efficiency. Figure 40 compares the ratio of total district FTEs to procurement FTEs for 2015-16. The higher the ratio, the higher the efficiency. Lee County's ratio of 1,052 is in between the COGCS median and upper quartile amount, indicating above average efficiency.

Figure 40. Total District FTEs to Procurement FTEs, Lee County and COGCS Averages, 2015-16
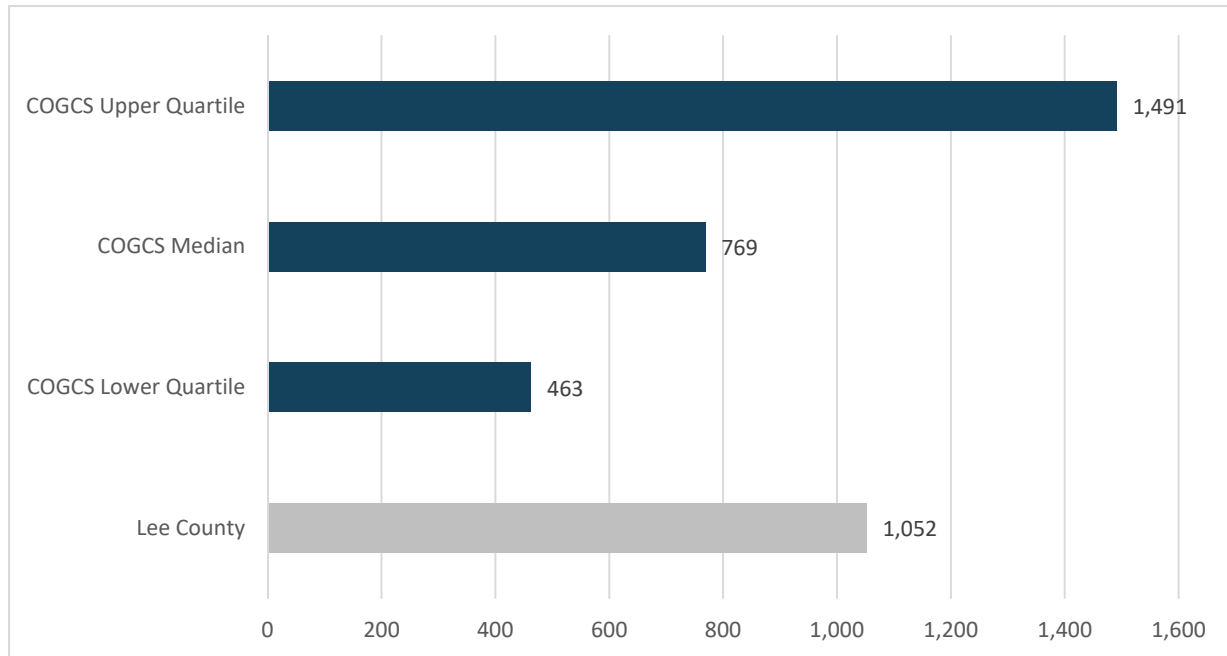
Source: ActPoint KPI Report, 2017

The purchasing measures above indicate positive efficiency trends and favorable efficiency comparisons against available benchmarks.

Conclusion

The metrics discussed above and observations made during the site visit resulted in a mixed review overall for the Business Services Department. Purchasing efficiency is above average; accounts payable efficiency is below average, and payroll efficiency is considerably below average.

This notwithstanding, several best practices were identified within Business Services:

- 95 percent of invoices are received electronically
- Direct deposit is mandatory for all employees
- The purchasing process is largely paperless
- P-Card use is high

However, these best practices are somewhat overshadowed by certain inefficiencies. Off-cycle pay runs are used for too many activities, such as termination, new employee training, and bonus pay. Additionally, the payroll process relies on manual data manipulation outside of the automated payroll processing

system, to process components of pay that are not programmed into the system. Separately, from a school business staffing perspective, each school is allocated a bookkeeper, regardless of size. As evidenced by the declining purchase orders at a school level, and the existence of very small elementary schools, the need of a full-time or part-time bookkeeper may not be necessary at all schools.

Chapter 6 – Facilities Management

Background

School facilities should be designed and maintained to support a safe and functional environment to support student learning. Having suitable facilities requires sound planning, which is made possible through the ongoing measurement of school capacity and the projection of student enrollment. Ongoing facilities management activities to operate and sustain this investment includes building maintenance, custodial services, and energy management.

Lee County's facilities footprint is significant, with 13.2 million square feet spread among 133 schools and other facilities on more than 3,200 acres. Table 41 presents a profile of Lee County's facilities and acreage.

Table 41. Facilities and Acreage Profile

Category	Count	Square feet	Acreage
Public school buildings	87	12,597,289	2,075
Support or Administrative	15	586,407	162
Vacant	31	-	980
Total	**133**	**13,183,696**	**3,217**

Source: Lee County School / Land Inventory Report

The Effiency Report Card for Facilities is presented in Figure 42. This report card indicates how the department is trending and how it compares to peers with respect to maintenance, custodial services, and facility utilization/energy use. Facilities management at Lee County is neither more nor less efficient than five years ago but compares favorably to Lee County peers and industry averages.

It is important to note that while some measures may indicate lower efficiency, lower spending may indicate facilities neglect. Facilities management is one of the areas commonly cut when budgets are tight, and what may appear to be an efficient operation may reflect facilities that are under-maintained. It is important to review efficiency measures for facilities management in this context.

Figure 42. Efficiency Report Card, Facilities Management

| Measure	Trend	Peer/Industry Standards Comparison	Comments
Maintenance			
Maintenance Cost per Square Foot	⬆	➕	This is an overall efficiency measure for building maintenance but can also be an effectiveness measure if the district does not spend enough to maintain the facilities. Lee County's measure has increased in recent years but compares favorably to its peers.

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Measure	Trend	Peer/Industry Standards Comparison	Comments
Square Feet per Maintenance Staff	⬇	▬	This is a maintenance staff efficiency or coverage measure. Lee County's measure shows declining efficiency over time, and the district is currently below industry standards for coverage.
Percentage of Preventative Maintenance Work Orders	⬇	*	This is an efficiency measure in that the higher the preventive maintenance, the lower the reactive maintenance, which is more expensive. Preventative maintenance at Lee County – like many school systems – is low and has continually decreased over the past five years.
Custodial			
Custodial Cost per Square Foot	⬆	✚	This is an efficiency measure for custodial staffing. In light of the neutral staffing efficiency (see following measure), this trend may indicate higher non-staff costs or higher pay rates at Lee County.
Square Feet per Custodian	═	✚	This is an overall staff efficiency measure for custodial services. The trend has remained neutral for Lee County, but the district above industry standards and higher than the median COGCS level.
Buildings			
Square Feet per Student	⬇	═	This is an overall efficiency measure for facilities utilization. The square footage per student has consistently decreased over the past five years, indicating that school space is being used more efficiently. Lee County also consistent with its peers for this measure.
Total Facility Occupancy to Capacity Ratio	⬆	✚	This is another measure of facility utilization. Lee County shows increasing capacity/efficiency over the past five years, and compares favorably to its peers
Percentage of Portable Classroom Square Feet to Total Square Feet	⬇	✚	This is an efficiency measure for facilities planning in that higher portable percentages indicate either insufficient permanent space or the poor allocation of existing space. Portables are more expensive to clean and less energy efficient than permanent classrooms. Lee County has a very low portables percentage and compares favorably to its peers.
Utilities Cost per Square Foot	⬇	✚	This is an overall efficiency measure for utilities spending. The decreasing per square foot cost of utilities shows increasing efficiency and a favorable comparison to its peers.

For the purpose of this efficiency report card, facilities management is comprised of three identifiable segments – building utilization, facilities maintenance, and custodial services. These are discussed further below.

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Major Observations

Lee County employs approximately 742 personnel to clean, maintain, and secure these school and administrative buildings, and personnel costs represent the largest portion of facilities. Figure 43 presents a five-year history of Lee County staffing and expenditures for facilities management.

Figure 43. Historic Custodial, Maintenance, and Utility Expenditure and FTE Count, 2012-13 to 2016-17
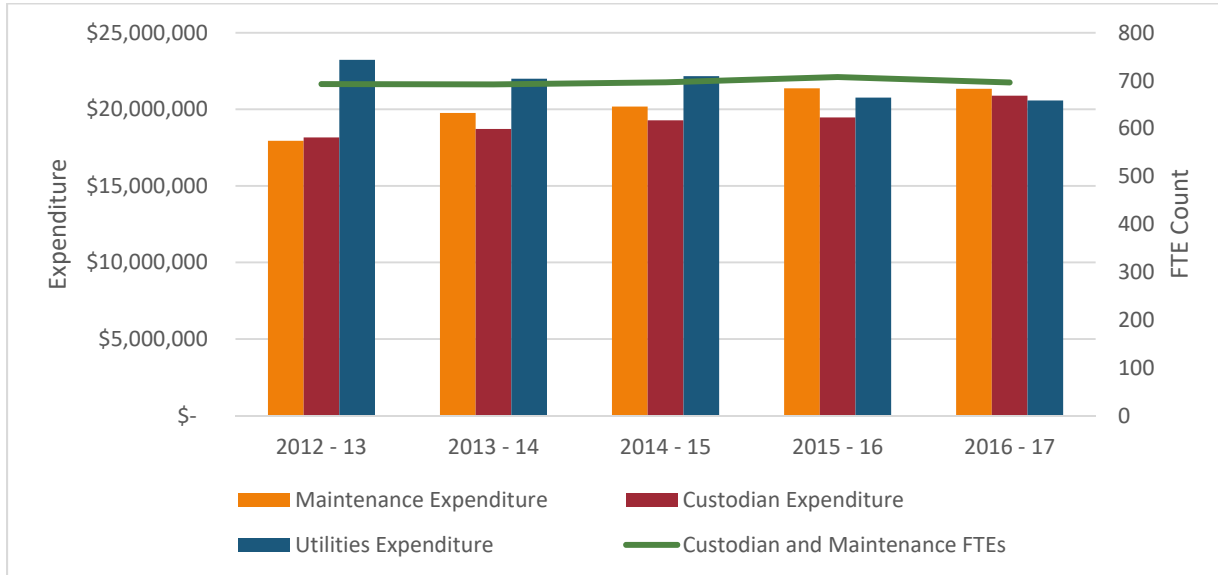
Source: SDLC provided expenditure and staffing data, January 2018.

During 2016-17, Lee County spent $21.3 million on maintenance, $20.9 million on custodial services, and $20.6 million on utilities. Since 2012-13, utilities expenditures have continually decreased, while maintenance and custodian expenditures have increased. The headcount for maintenance and custodial work has remained relatively steady, ranging from 692 in FY 2012-13 to 696 in 2016-17, with a slight but temporary increase in 2015-16 to 706.

Building Utilization

Building/school utilization measures the efficient use of facilities. Lee County has 133 buildings, of which 87 are schools. This section focuses on the use of school space.

Figure 44 presents the square footage of all buildings since 2012-13 for Lee County. The total building space has decreased slightly since FY 2013.

Figure 44. Total Square Feet of Space, 2012-13 to 2016-17
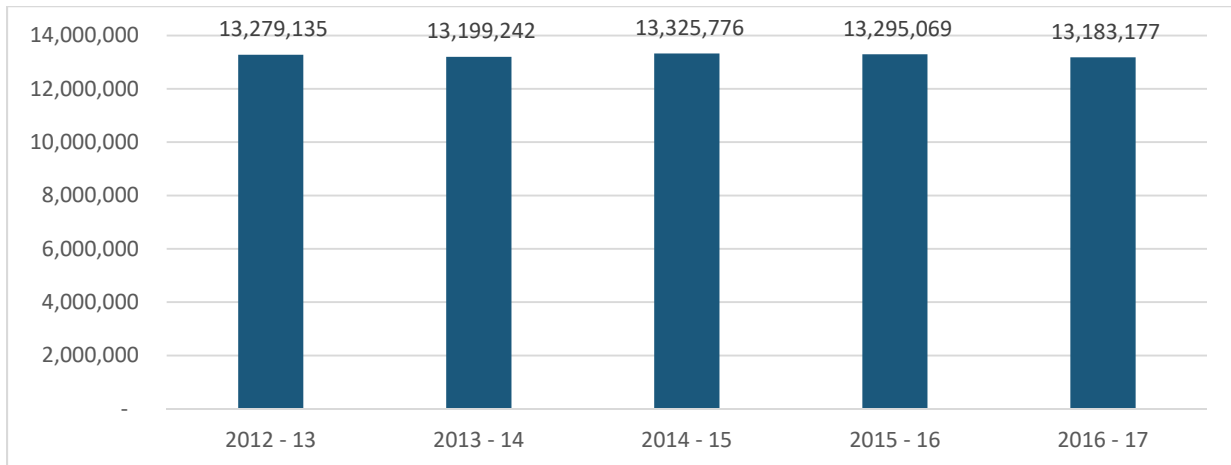
Source: FY 2017 SDLC *Comprehensive Annual Financial Report*, December 2017

Because student enrollment increased by 8.6 percent during the same time period, Lee County's use of space has become more efficient. Figure 45 shows that the school square footage per student has steadily decreased over the past five years, from 170.2 square feet to 156.8 square feet, or a decline of approximately 8 percent.

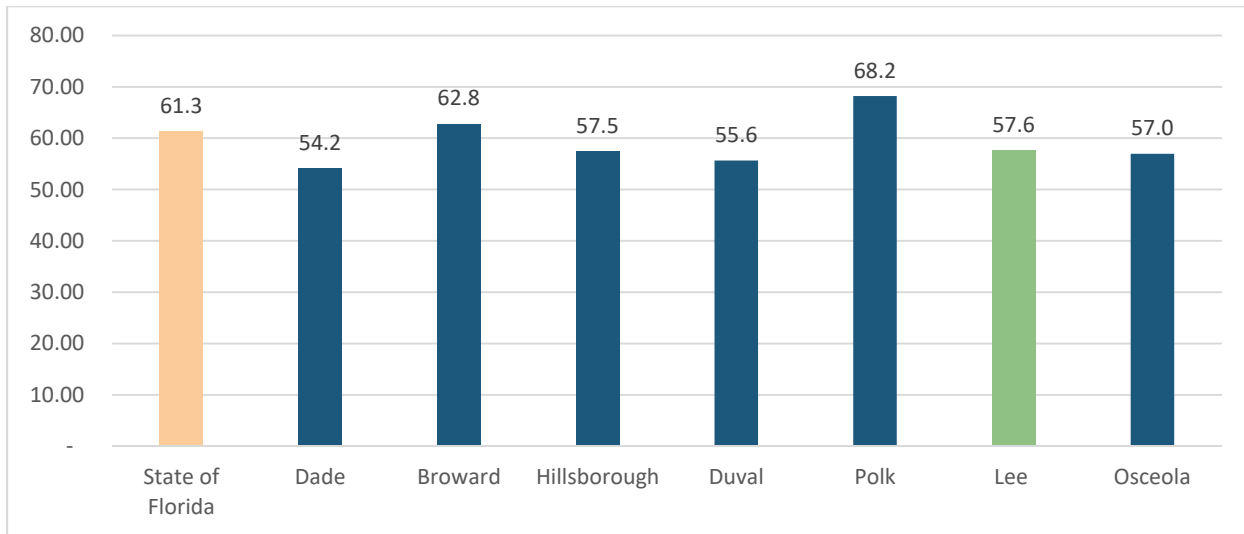Figure 45. Square Feet per Student, 2012-13 to 2016-17
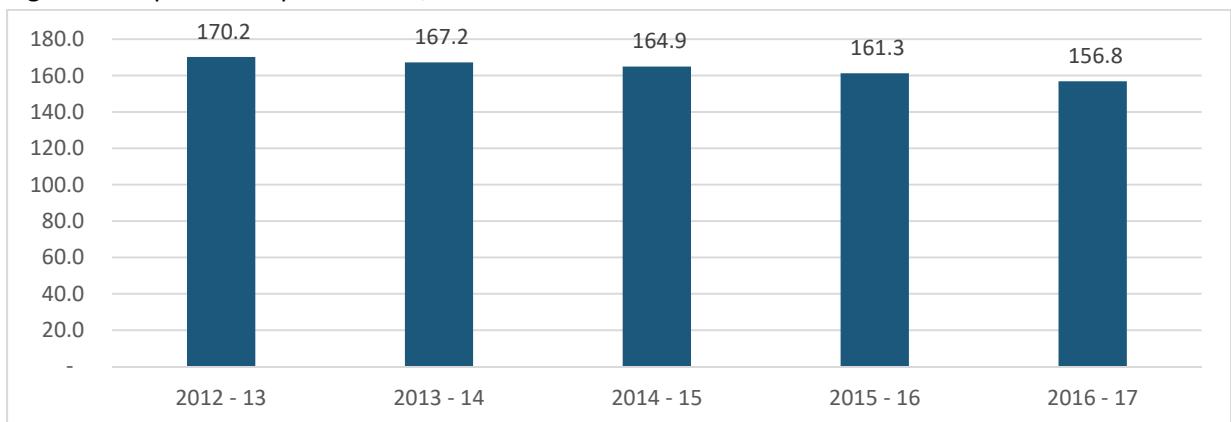
Source: FY 2017 SDLC *Comprehensive Annual Financial Report*, December 2017; Florida Department of Education Enrollment Data, June 2017.

The Florida Department of Education tracks instructional space per student, a subset of overall space usage. Figure 46 provides the instructional space per student for Lee County and its peers. Instructional space is defined as "any student-occupied space with or without assigned capacity used primarily by students to create or foster learning experiences."[1] Lee County is close to the median efficiency level among peer districts, and is below the state average, indicating higher space utilization or efficiency.

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[1] Florida Department of Education, Office of Educational Facilities, *State Requirements for Educational Facilities 2014*.
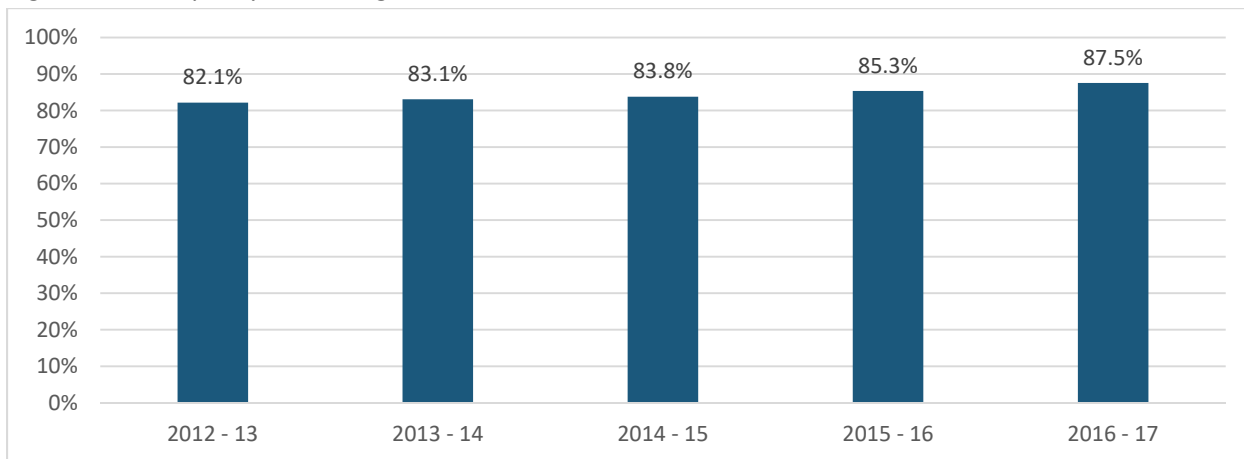
Figure 46. Instructional Space per Student, Comparison to State Average and Peer Districts, 2016-17

Source: Florida Department of Education *State Inventory of School Houses*, June 2017; Florida Department of Education Enrollment Data, June 2017.

Figure 47 includes the occupancy data for Lee County since 2012-13. Occupancy has steadily increased over the past five years from 82 percent to 88 percent, an increase of 7 percent. This also illustrates increased efficiency in space utilization.

Figure 47. Occupancy Percentage, 2012-13 to 2016-17

Source: FY 2017 SDLC *Comprehensive Annual Financial Report*

Figure 48 provides the peer and state data for occupancy. Relative to its peers, Lee County has a higher occupancy percentage than all peer districts and the state average.
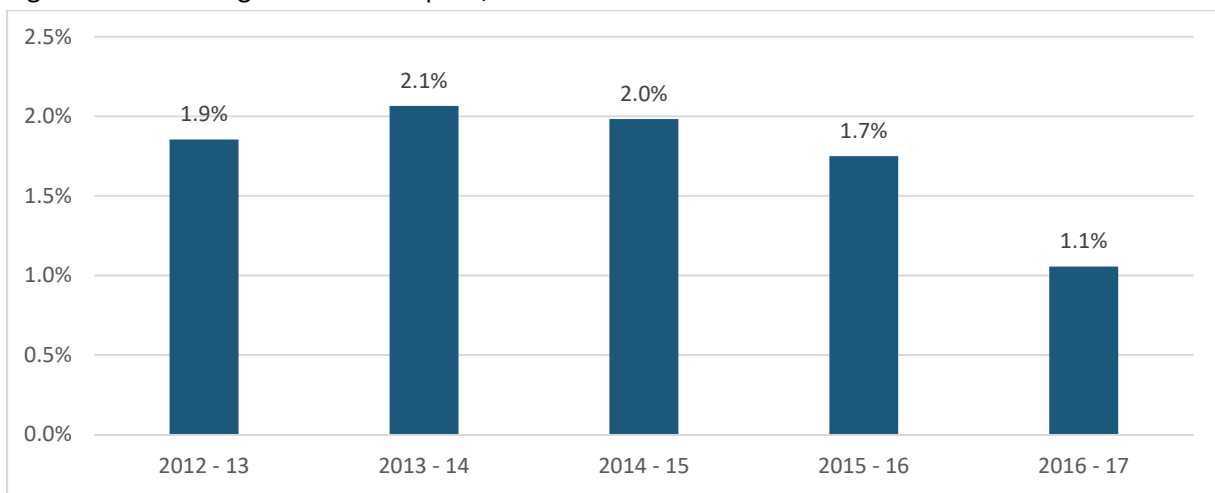
Figure 48. Occupancy Percentage, Comparison to State Average and Peer Districts, 2016-17
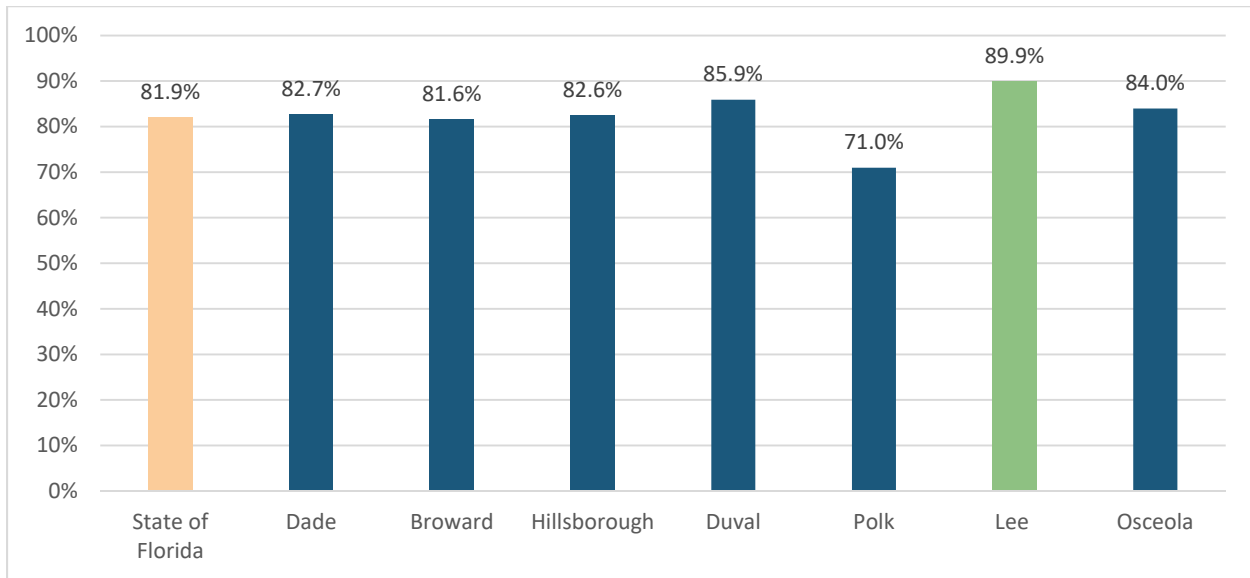
Source: Florida Department of Education *State Inventory of School Houses*, June 2017; Florida Department of Education Enrollment Data, June 2017.

Figure 49 provides the percentage of portable space for Lee County. Portable buildings are generally more expensive to clean and less efficient for utilities. Over the past four years, Lee County's use of portables has decreased from 2.1 percent of total space to 1.1 percent, representing increased efficiency.

Figure 49. Percentage of Portable Space, 2012-13 to 2016-17

Source: FY 2017 SDLC *Comprehensive Annual Financial Report*; Building data provided by SDLC Facilities Department, April 2018.

Figure 50 provides the percentage of portable instructional space for Lee County and its peers. Relative to its peers, Lee County has a favorable comparison, having a lower percentage than all but one of the peer districts. Lee County is well below the state average of 3.7 percent as well.

Figure 50. Percentage of Portable Instructional Space, Comparison to State Average and Peer Districts, 2016-17
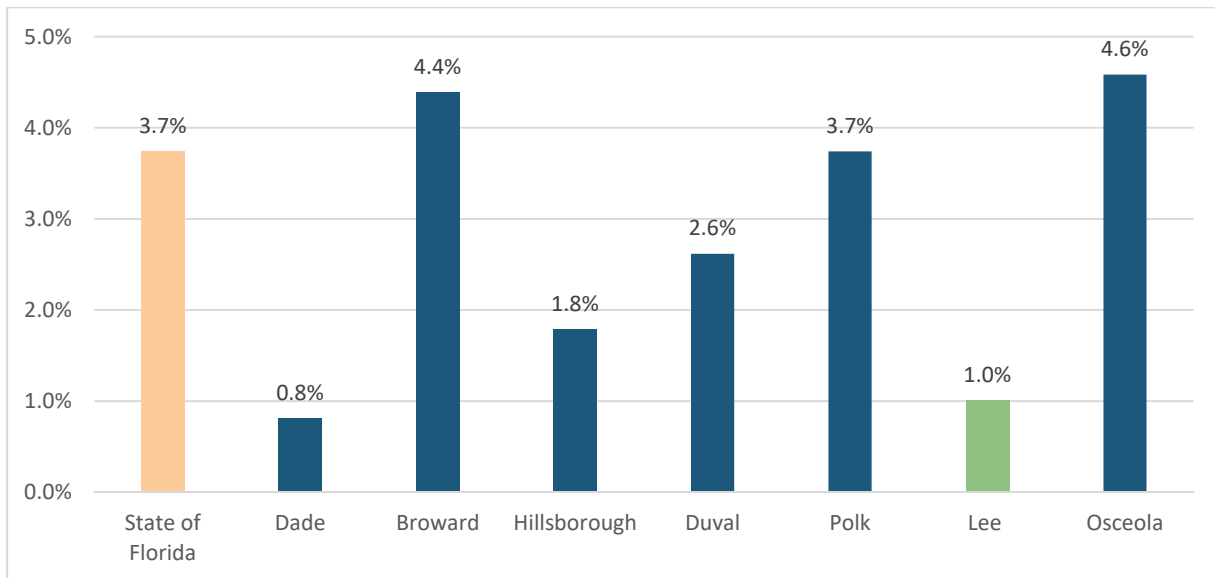
Source: Florida Department of Education *State Inventory of School Houses*, June 2017
Note: The peer comparisons were calculated utilizing state available information, which only included instructional square footage, resulting in a difference between the trend and peer measures for Lee County.

Overall, Lee County is trending in the right direction in space utilization and is more efficient in its use of space than its peers.

Facilities Maintenance

An effective maintenance program will save school districts money in the long run by extending the useful lives of assets and reducing time spent on repairs or corrective/reactive maintenance. Maintenance efficiency can be affected by several variables, including the age and condition of facilities, the degree of preventive versus reactive/preventive maintenance, and the application of efficient processes and information systems to support the efficient allocation of maintenance staff.

There are two measures that measure the overall efficiency of a maintenance program: maintenance cost per square foot and square feet per maintenance staff. Figure 51 presents the maintenance cost per square foot for Lee County, showing that maintenance costs have increased 18.5 percent from 2012-13 ($1.35 per square foot) to 2016-17 ($1.60 per square foot).
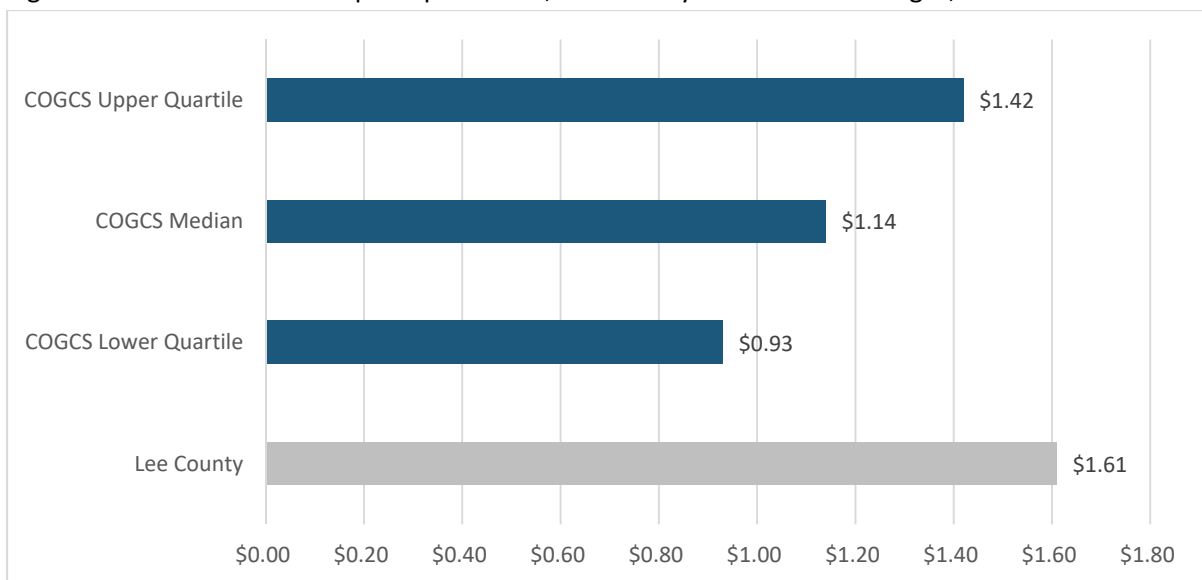
Figure 51. Maintenance Cost per Square Foot, 2012-13 to 2016-17
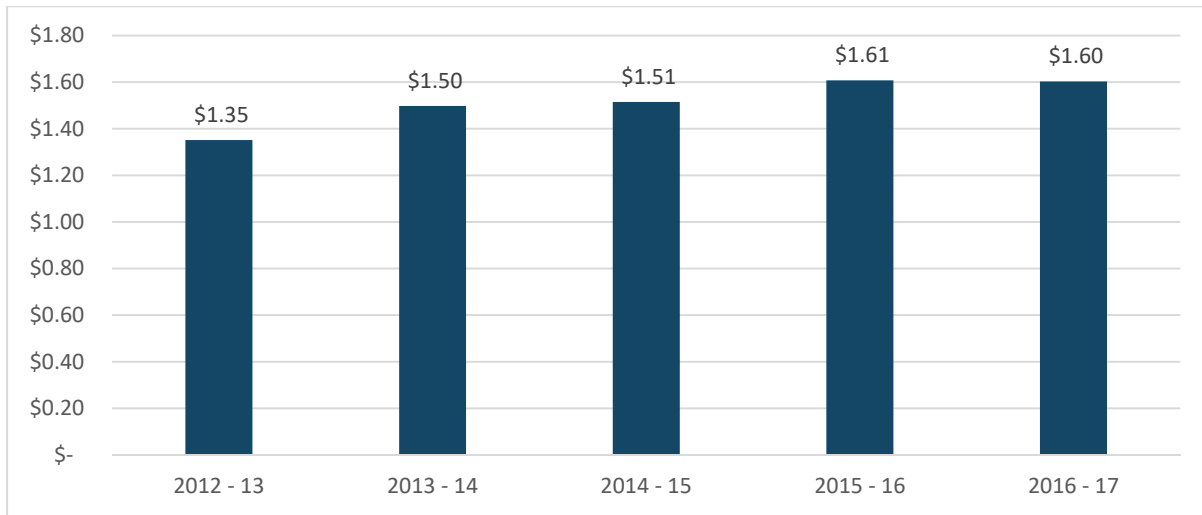
Source: SDLC provided expenditure data, February 2018; FY 2017 SDLC *Comprehensive Annual Financial Report*, December 2017

Lee County's maintenance cost per square foot is above the COGCS benchmark averages, indicating lower efficiency. Figure 52 compares Lee County to the COGCS quartiles for 2015-16. Lee County's measure of $1.61 per square foot is above the COGCS upper quartile.

Figure 52. Maintenance Cost per Square Foot, Lee County and COGCS Averages, 2015-16


Source: Council of Great City School *Managing for Results*, November 2017
Note: The COGCS measure is for routine maintenance only.

When compared to the state average and peer set (Figure 53), Lee County has a lower cost per square foot than four counties and the state average. Amongst comparable sized peers, Lee County has a neutral comparison. It is important to note that the state calculation is different from the district's calculation in

that only expenditures recorded under the Maintenance of Plant Department are applied. As a result, Lee County's peer measure is different from its trend measure.

Figure 53. Maintenance Cost per Square Foot, Comparison to State Average and Peer Districts, 2016-17
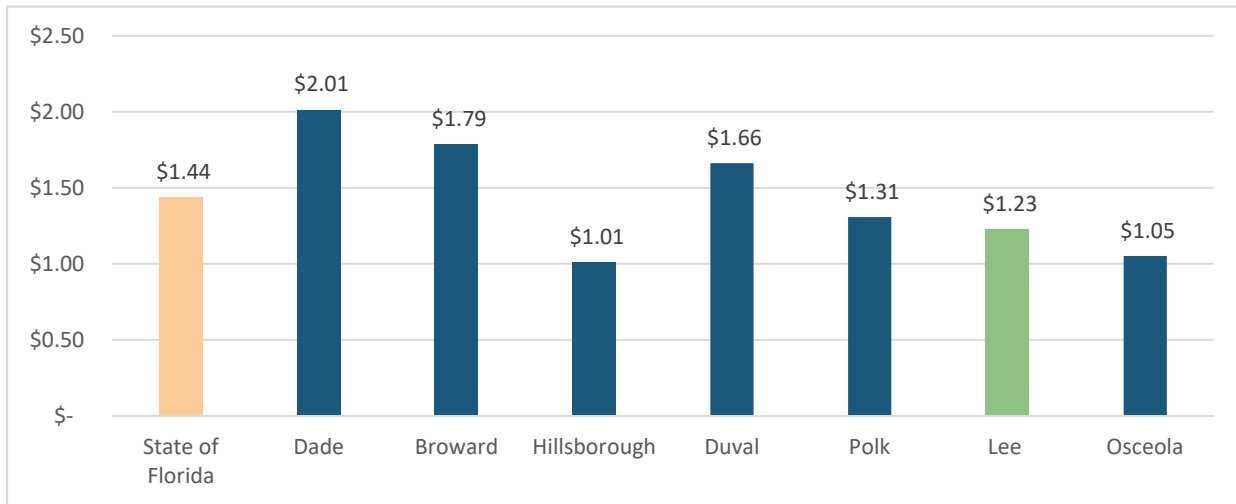

Source: State of Florida Department of Education *Annual Financial Report*, September 2017; Florida Inventory of School Houses *Total Space*, June 2017.
Note: Peer comparisons are calculated utilizing state available data, resulting in a variance between Lee County's trend and peer calculations.

Another overall efficiency measure for facilities management is the square feet per maintenance staff FTE. Figure 54 provides the coverage per maintenance worker over the past five years. Since 2012-13 the amount of maintenance area covered by a maintenance worker has decreased slightly (less than 4 percent over five years). A decrease in this measure generally suggests a slight decline in efficiency.

Figure 54. Square Feet per Maintenance FTE, 2012-13 to 2016-17
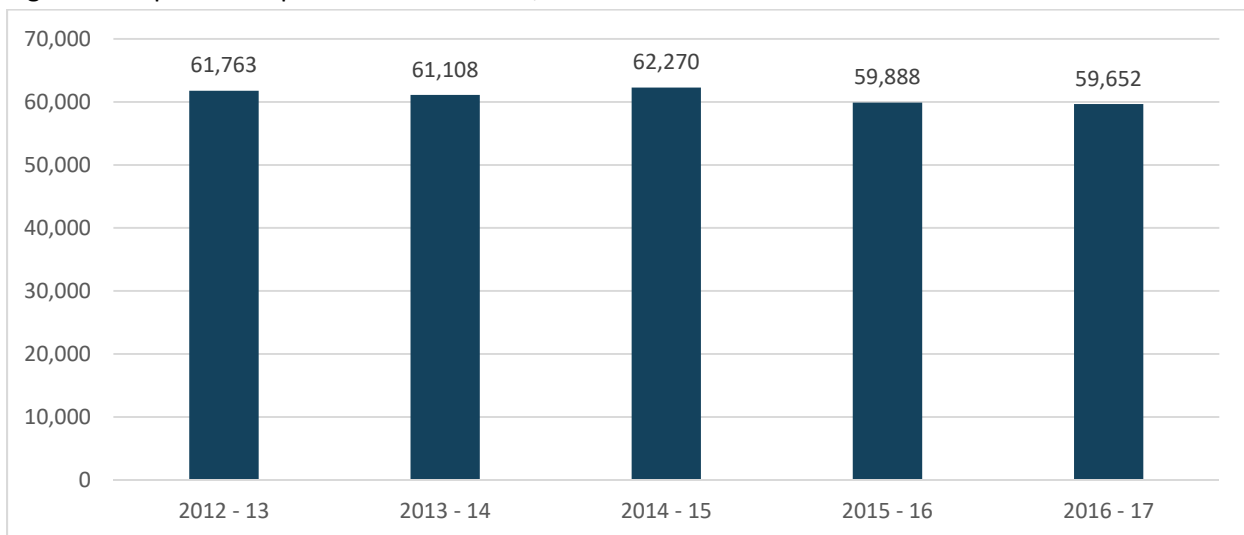
Source: FY 2017 SDLC *Comprehensive Annual Financial Report*, December 2017; SDLC provided staffing information, February 2018.

While there is a wide range of industry standards and benchmarks applied for determining the most appropriate and efficient coverage, maintenance coverage of 70,000 to 75,000 square feet per maintenance FTE is a benchmark for efficient districts that apply higher levels of preventive maintenance. Lee County's measure is below this range. Peer and state average comparisons of this measure are unavailable. Overall, the efficiency measures for maintenance suggest that there is room for improvement.

Custodial Services

Well-performing custodial services ensures that schools and other facilities are clean and ready for use each day. There are several factors that can affect the efficiency of custodial services:

- The age and condition of the facility
- The type of facility (permanent or portable)
- The type of flooring (tile or carpet)
- The availability and proper use of efficient cleaning equipment
- Acceptable and consistently applied cleaning standards and frequencies
- Custodial work schedules and the allocation between day and night shifts
- Use of full-time and part-time custodial positions
- Adequate custodial supervision and training

In 2016-17 Lee County spent approximately $21 million in FY 2017, or approximately $1.58 per square foot on custodial services.

Two key measures are utilized to gauge the efficiency of custodial services: custodial cost per square foot and square feet per custodian. As evidenced in Figure 55, the cost of cleaning per square foot at Lee County has increased steadily over the past five years, from $1.37 to $1.58 per square foot, or approximately 15 percent.

Figure 55. Custodial Cost per Square Feet, 2012-13 to 2016-17
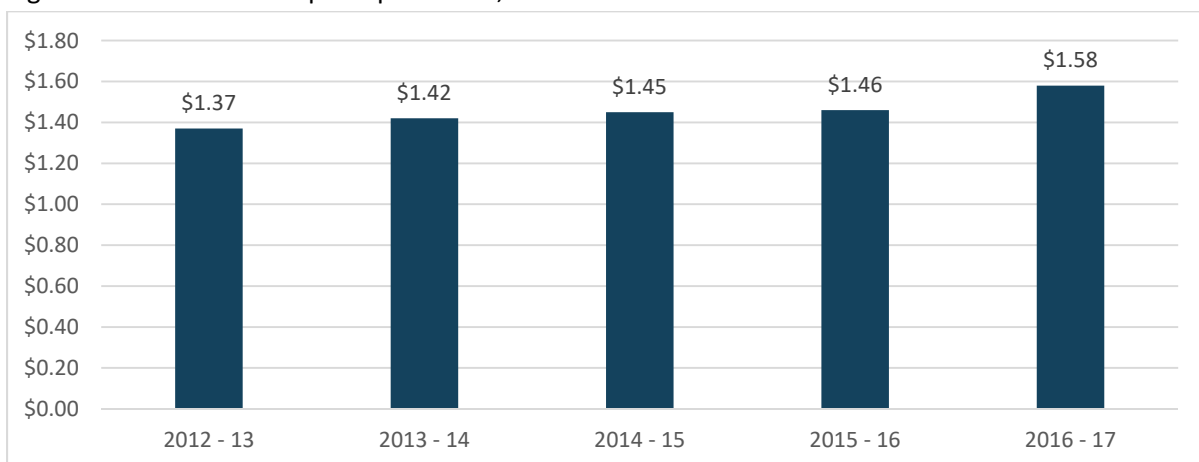
Source: SDLC provided expenditure data, February 2018; FY 2017 SDLC *Comprehensive Annual Financial Report*, December 2017

Figure 56 compares Lee County to the COGCS benchmarks for custodial cost per square foot. When compared to the COGCS quartiles, Lee County's 2015-16 measure is between the lower quartile and median, indicating above average efficiency.

Figure 56. Custodial Cost per Square Foot, Lee County and COGCS Averages, 2015-16
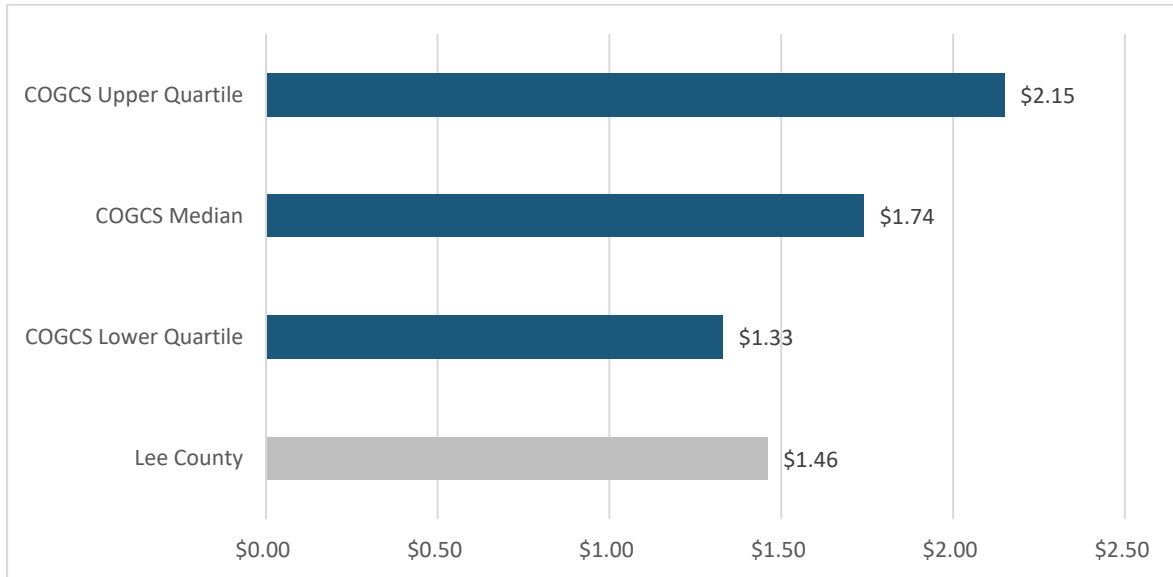

Source: Council of Great City School *Managing for Results*, November 2017

A contributing factor to lower overall costs is staffing productivity. As seen in Figure 57, the amount of square footage covered by each custodian has remained steady over the past five years, hovering around 27,700 square feet. Industry standards suggest that a custodian (night shift of uninterrupted cleaning) should be able to clean 28,000 to 31,000 square feet.[1] Combined with a core day shift staff, the aggregate standard coverage ranges from 23,000 to 26,000 square feet per FTE custodian, as indicated by the red lines on Figure 57. Lee County's overall coverage is above this range, indicating higher efficiency.

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[1] *Planning Guide for Maintaining School Facilities*, School Facilities Maintenance Task Force, National Forum on Education Statistics, and the Association of School Business Officials International, February 2003

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Figure 57. Square Feet per Custodian, 2012-13 to 2016-17
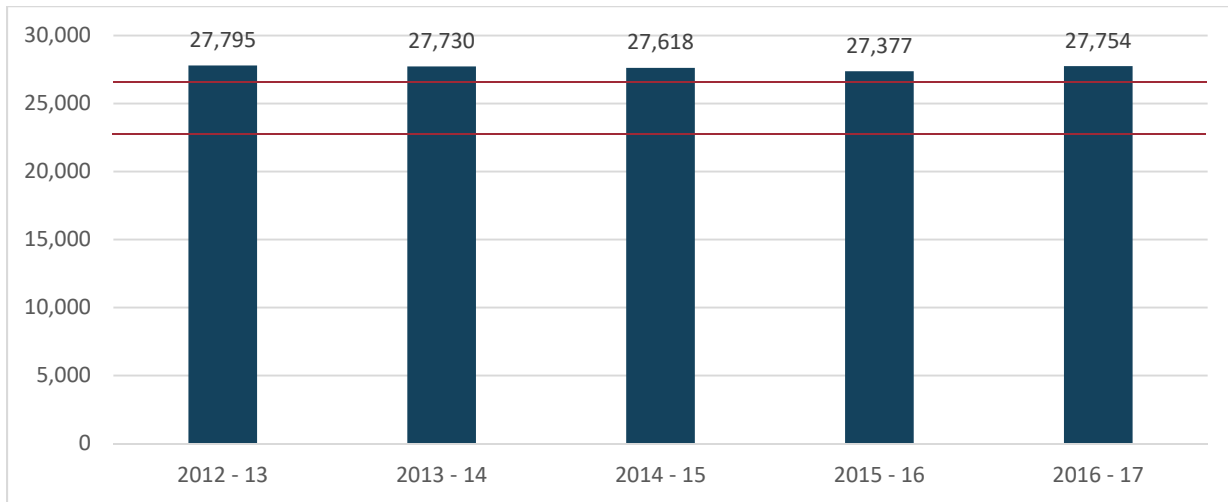
Source: FY 2017 SDLC *Comprehensive Annual Financial Report*, December 2017; SDLC provided staffing information, February 2018.

When compared to the COGCS quartiles, Lee County's 2015-16 measure is between the median and upper quartile, also indicating above average efficiency.

Figure 58. Square Feet per Custodian, Lee County and COGCS Averages, 2015-16
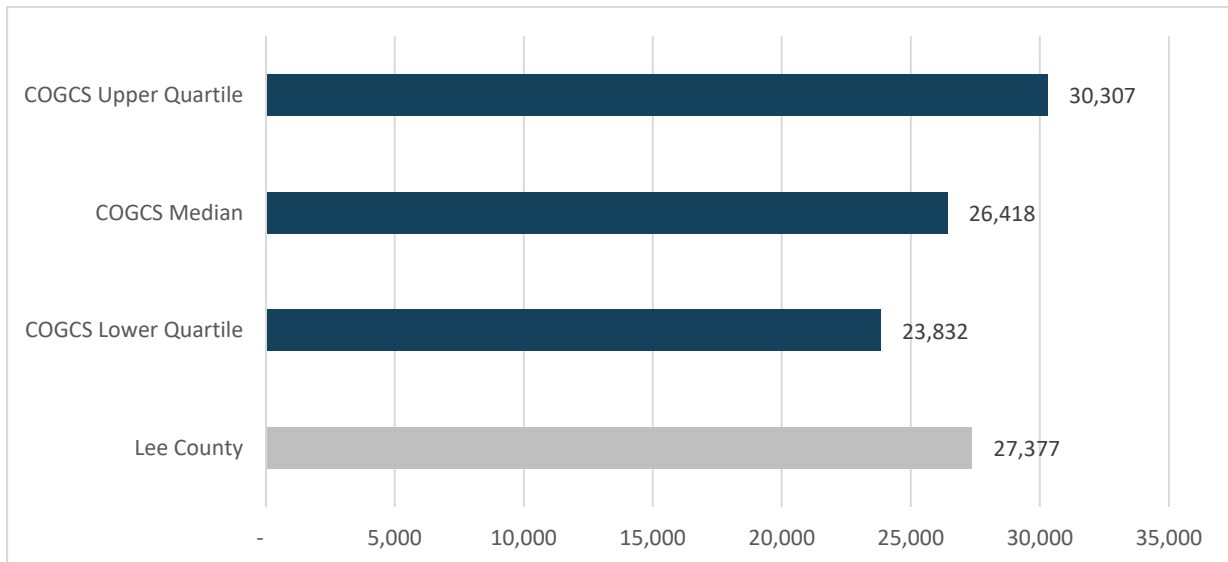
Source: Council of Great City School *Managing for Results*, November 2017

Overall, the custodial services function is operating efficiently, although opportunities for improvement may exist on individual campuses.

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Conclusion

The metrics discussed above and observations made during the site visit resulted in a mixed review overall for the Facilities function. Maintenance efficiency is below average; custodial efficiency is above average, and building utilization is above average.

This notwithstanding, several best practices were identified within Facilities:

- Just in Time inventory processing is utilized to reduce unnecessary stock levels
- Work orders and construction modification are largely paperless
- GPS tracking is utilized for all facility vehicles

However, these best practices are somewhat overshadowed by certain inefficiencies. Including low levels of preventive maintenance and the distribution of building supervisors at each school regardless of size. As evidenced by the existence of very small elementary schools, the need of a full-time or part-time building supervisor may not be necessary at all schools.

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Chapter 7 – Technology Management

Background

The use of technology drives efficient work processes by eliminating manual, paper intensive activities. It also supports an efficient and more individualized mode for student learning. As a result, funds dedicated to technology can generate a financial and/or academic return on its investment. The efficiency of a technology function is largely dependent on the number and type of computer devices, the sophistication of infrastructure, and the use of efficient processes to provide technical support to school and adminsitrative staff.

The Efficiency Report Card for Technology is presented in Figure 59. This report card indicates how the department is trending and how it compares to peers. Technology is more relative to the number of computer devices it support and compares favorably to industry averages for technology spending.

Figure 59. Efficiency Report Card, Technology

Measure	Trend	Peer Comparison	Comments
Devices			
Students per Instructional Device	*	✛	This is a general efficiency measure for instructional technology. Lee County's measure has reached its goal of a 1-1 student to device ratio, indicating optimum efficiency for individualized instruction and testing.
Average Age of Student Devices	*	✛	This is a general efficiency measure. Newer computers are more application ready than older models and generally require less upkeep. Lee County's average device age is low due to its recent and significant purchase of instructional computer devices.
Staff Utility			
Ratio of Total Students to Technology Staff	=	*	This is an overall staffing efficiency measure for technology relative to the student population. Lee

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Measure	Trend	Peer Comparison	Comments
			County's measure has remained stable.
Ratio of Total Students to Instructional Technology Staff	=	*	This is an overall staffing efficiency measure for instructional technology relative to the student population. Lee County's measure has remained stable.
Ratio of Total Employees to Technical Support Staff	⬇	*	This is an overall staffing efficiency measure for technology support staff relative to the employee FTEs and shows a declining efficiency trend at Lee County.

Major Observations

Lee County employs approximately 176 Technology related personnel. Of this total, 161 positions are in non-instructional roles, of which 85 are campus-based. In recent years, Lee County has aggresively pursued a one-to-one student to computer ratio, meaning that each student has an instructional computer. This has driven a 33 percent increase in budgeted expenditures from 2013 to 2018. Figure 60 provides the historic expenditure and staffing information for the Technology department. Instruction-related technology expenditures have steadily increased from 2012-13, from $6.2 million to $7.7 million, or an increase of 24 percent. During that same time period, administrative technology spend has seen a smaller increase (6 percent), from $5.4 million to $5.7 million. Staff counts, however, have remained flat during this time period.

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Figure 60. Historic Instruction and Administrative Technology Expenditure and FTE Count, 2012-13 to 2016-17
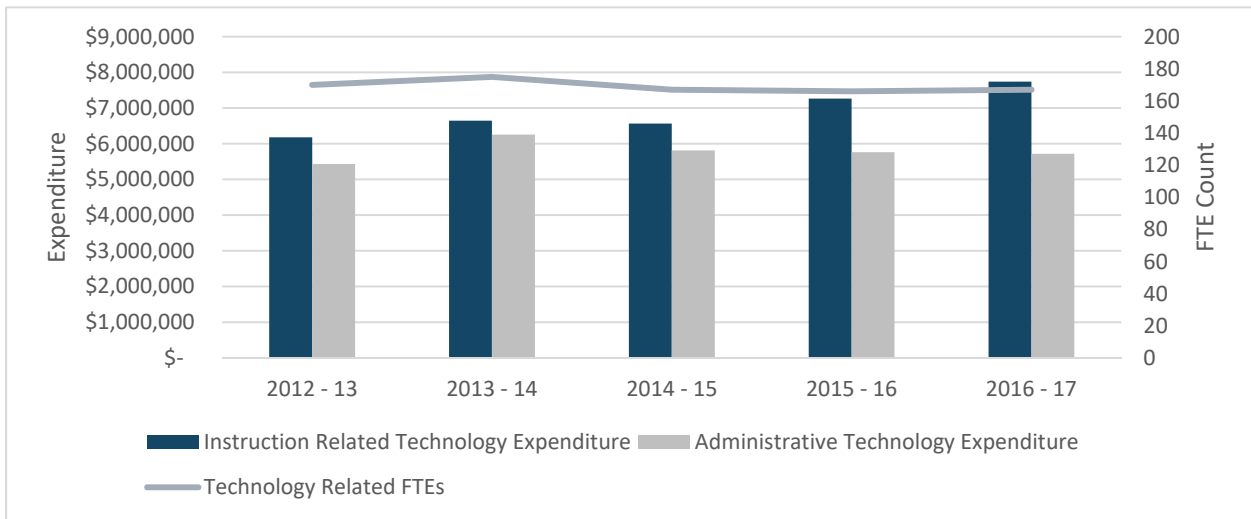
Source: SDLC provided expenditure and staffing information, January 2018.

Lee County's technology spending per student reflects an overall efficiency level relative to the student population. The district compares favorably on this measure to the COGCS benchmarks. Figure 61compares Lee County's technology spending per student to the COGCS averages. Lee County is just below the lower quartile indicating greater efficiency.

Figure 61. Technolgy Spending per Student, Lee County and COGCS Averages, 2015-16
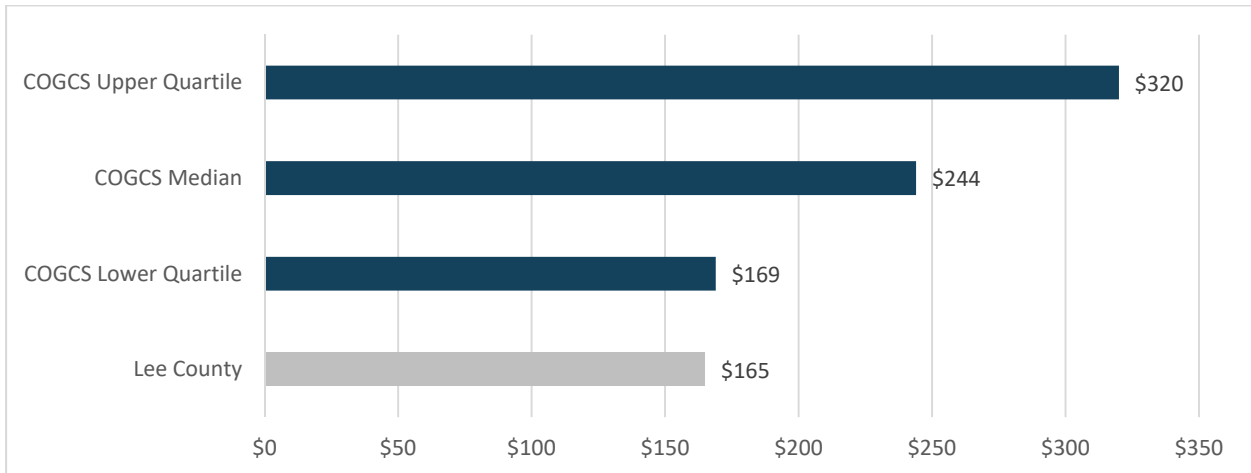
Source: Council of Great City School *Managing for Results*, November 2017

The remaining sections discuss the efficiency of two components of technology: computer devices and staffing utilization.
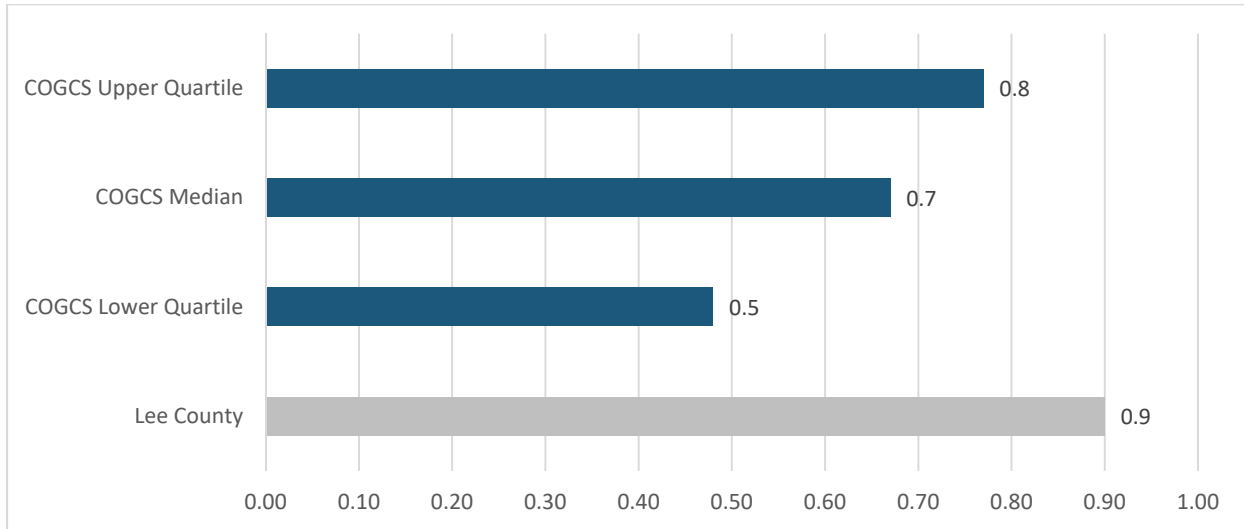
Computer Devices

Two key measures are used to assess the use and efficiency of computer devices: Students per instructional device and average age of student devices. Lee County has significantly increased the

number of instructional computer devices in recent years. In 2017-18 the District achieved its goal of a one-to-one student to device ratio.

Figure 62 compares the inverse of this ratio – instructional devices per student - to the COGCS benchmarks for 2015-16. The lower the ratio, the higher level of student computing. Relative to industry averages, Lee County's ratio of 0.9 devices per student in 2017-18 is in the highest quartile of the COGCS measure. Historic device data was not available for this analysis.

Figure 62. Instructional Devices per Student, Lee County and COGCS Averages, 2015-16
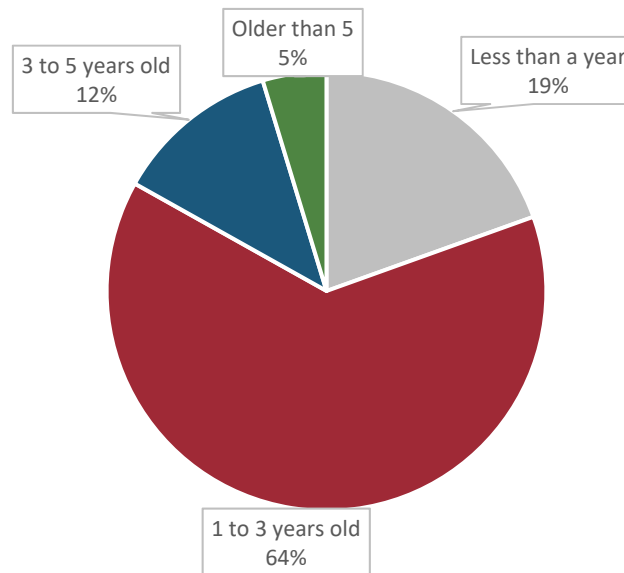

Source: Council of Great City School *Managing for Results*, November 2017
Note: The Lee County figure of 0.9 is for 2017-18. Historic device data was unavailable for use.

The average age of computer devices is a driver for the level of technical support. The older the device, the more support is needed. Significant device purchases in 2013-14 through 2015-16 have decreased the average device age. Overall, the average age sits at 2.2 years, less than the average expected life of a device. Figure 63 provides a distribution of the age of current computer devices.

Figure 63. Age Distribution of Computer Devices, 2017-18

Source: Lee County Technology Asset List, January 2018

Lee County's average device age is significantly lower than the COGCS benchmarks. Figure 64 shows the COGCS quartiles for 2015-16 and Lee County average age of devices for 2017-18. Historic Lee County device data was unavailable. Relative to COGCS, Lee County is in the lower quartile of COGCS comparisons, a positive sign.

Figure 64. Average Age of Devices, Lee County and COGCS Averages, 2015-16
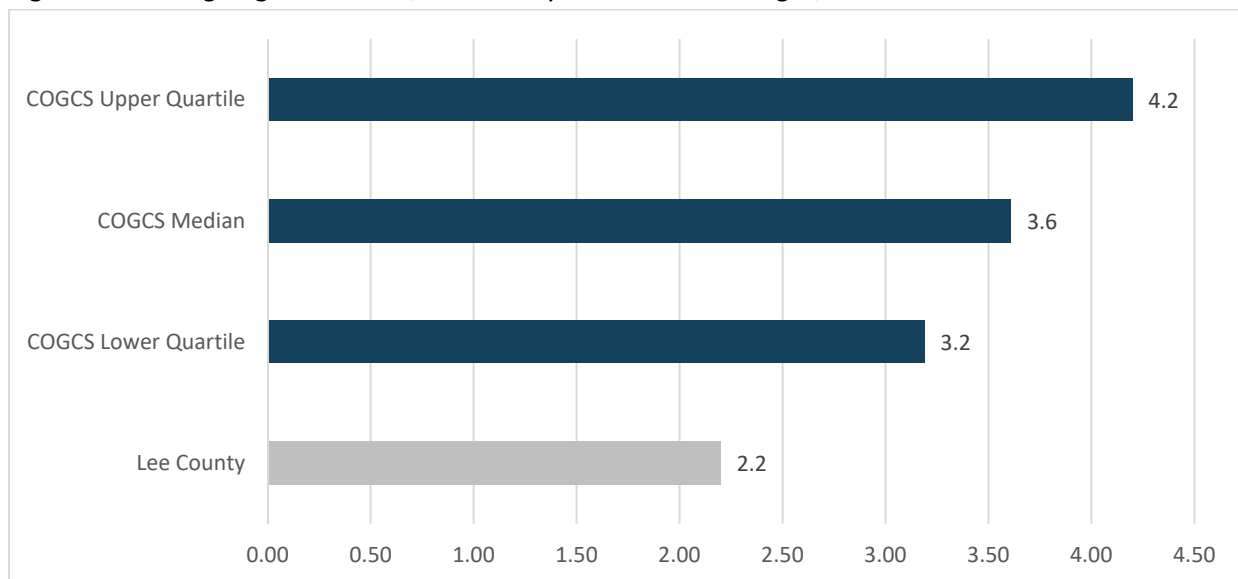
Source: Council of Great City School *Managing for Results*, November 2017
Note: The Lee County figure of 2.2 is for 2017-18. Historic device data was unavailable for use.

As evidenced in the graphs above, Lee County has achieved a one-to-one student to device ratio through an aggressive growth strategy. The age of the devices is currently healthy but should continue to be monitored over the next few years.

Staff Utilization

Three key measures are used to determine technology staffing efficiency: the number of devices per FTE technical support staff, the ratio of total students to technology staff, and the ratio of total employees to technical support staff.

Since 2012-13, the number of devices supported by each technical support staff has increased substantially. This increase is primarily due to the one-to-one purchase initiative. The newer devices require much less maintenance, so the technical support staff has not needed to grow.

Figure 65 provides the ratio of total students to technology staff for Lee County. The number of students per each technology FTE has slightly increased over the previous six years, from 435 in 2012-13 to 463 in 2017-18, an increase of 6 percent. This represents a small increase in staff utilization, as student enrollment is outpacing the technology staff growth.

Figure 65. Ratio of Total Students to Technology Staff, 2012-13 to 2017-18
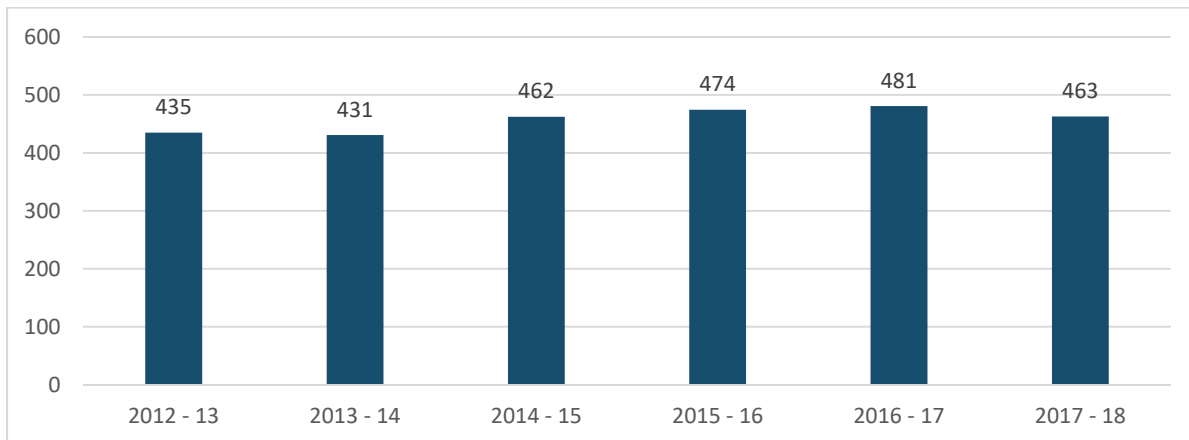
Source: SDLC provided staffing information, January 2018; Florida Department of Education Enrollment Data, March 2018.

Figure 66 provides the ratio of total employees to technical support staff. The number of Lee County employees per technical support staff has steadily decreased each year, from 107 in 2012-13 to 92 in 2017-18, and decline of 14 percent. The growth in the tech support group has outpaced overall staff growth. This is expected due to the significant increase in computer devices.

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Figure 66. Ratio of Total Employees to Technical Support Staff, 2012-13 to 2017-18
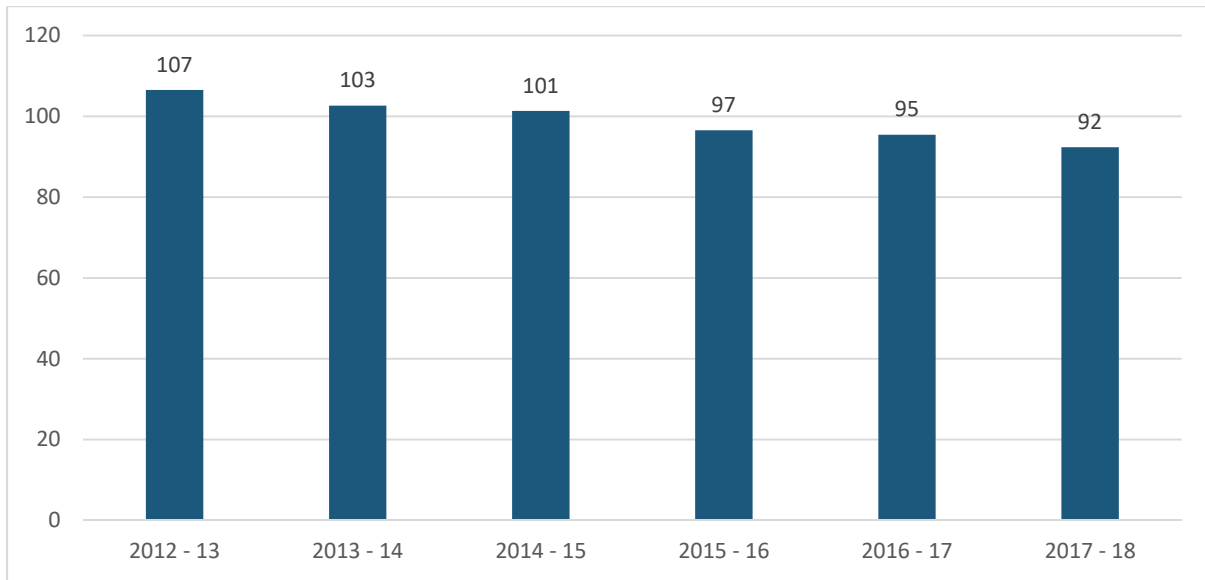
Source: SDLC provided staffing information, January 2018

The graphs above illustrate that staff utility has increased overall during the previous six years. The one-to-one initiative has increased the staffing efficiency.

Conclusion

The metrics discussed above and our observations during the site visit resulted in a positive review for the Technology Department. Device efficiency is above average and staffing efficiency is above average.

Several best practices were identified within Technology:

- An open, communicative environment is present and encouraged across departmental groups
- Vendor negotiation tactics have resulted in significant cost savings
- Jira project management software is utilized, which provides transparency and better project tracking
- Project teams are agile in nature and can be quickly reprioritized to meet a pressing need.

Some inefficient practice regarding technology were discovered through interviews:

- The current student information system is outdated. Management intends to build a new student information system in-house, which would result in costly development and ongoing maintenance costs.
- PeopleSoft, the district's financial and human resources system, was not properly configured when it was installed and has not been fully implemented across the organization. This results in

individual department inefficiencies, such as a reliance on manual processes and increased technical support.

- School technical support is largely decentralized, which could result in duplication of work and administrative tasks.

- Some instructional software purchases are de-centralized, reducing the possibility for economies of scale.

Chapter 8 – Food Services Management

Background

The primary mission of a school division's food service program is to provide an appealing and nutritionally-sound breakfast and lunch to students. In addition, these meals should be provided to the students in a safe, clean and accessible environment. Food services should also be efficient, achieving a sufficient surplus sufficient to cover capital equipment replacement needs and the allocation of costs incurred on its behalf by the General Fund.

The Effiency Report Card for Food Services is presented in Figure 67. This card indicates how the department is trending and how it compares to peers. Overall, Food Services is less efficient than five years ago but is at or above efficiency when compared favorably to per peer districts and industry standards.

Figure 67. Efficiency Report Card, Food Services

Measure	Trend	Peer Comparison	Comments
Productivity			
Meals per Labor Hour	=	=	This is a staff efficiency measure for food services. Lee County has a neutral trend and is in line with peer average and industry standards for staffing.
Cost Efficiency			
Food Cost as a Percentage of Total Food Service Expenditure	=	*	This is a cost efficiency measure for food purchases. Lee County has a neutral trend.
Food Service Expenditure per Pupil	⬆	✚	This is an overall efficiency measure for food services relative to student enrollment. Lee County has shown increasing per student costs but compares favorably to its peers.
Food Service Expenditure per Meal Equivalent	⬆	✚	This is another overall cost efficiency measure for food services relative to the number of meals served. Lee County shows higher expenditures per meal equivalent, indicating lower efficiency than five years ago but compares favorably to COGCS.
Food Cost per Meal Equivalent	⬆	✚	This is a cost efficiency measure for food purchases. Lee County's measure shows an increasing trend in food cost per meal equivalent over the past five years but compares favorably to COGCS.
Food Labor Costs as a Percentage of Total Food Service Expenditure	⬇	*	This is a staffing efficiency measure for food services. Lee County's measure shows a declining trend indicating higher staffing efficiency. The corresponding decrease in this measure and the increase in the food cost per meal equivalent suggest a reallocation of funds from staffing to food.
Net Profit (loss) of Food Service Department Excluding Capital Purchases	⬇	=	This is a general efficiency measure for Food Services. Lee County shows declining profitability, but levels commensurate with peer districts.

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Major Observations

The Food Service Department of Lee County is tasked with providing breakfast and lunch for the students of Lee County. During 2016-17, 14.5 million meals were served across Lee County with the assistance of 179 staff. Approximately 95 percent of the meals served were free or reduced price to the students. Figure 68 provides the historic expenditure and staffing data for Food Services.

Figure 68. Historic Food Service Expenditure and FTE Count, 2012-13 to 2016-17
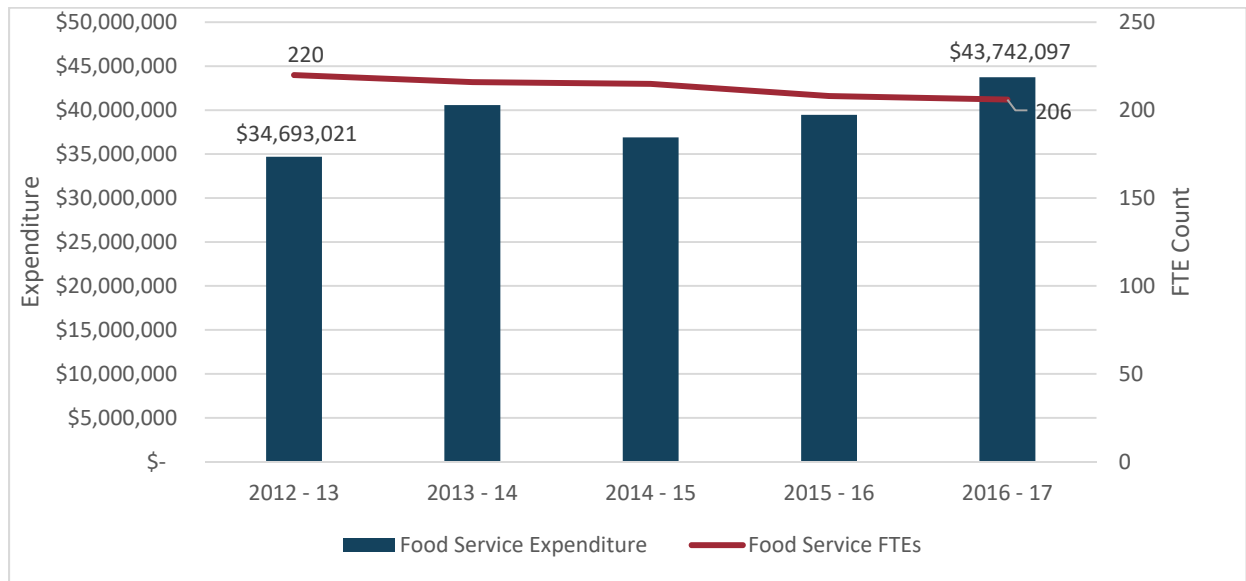
Source: SDLC provided expenditure and staffing information, January 2018.

In 2016-17, Lee County spent $43.7 million in food services, and increase of 26 percent since 2012-13. Noticeable spikes in 2013-14 and 2016-17 resulted from capital acquisitions. During the five-year span, staffing levels have decreased from 220 in 2012-13 to 206 in 2016-17, a reduction of 6 percent.

The following sections discuss food services efficiency with respect to staff productivity and cost efficiency.

Staff Productivity

Within Food Services, the primary measure of productivity is meals per labor hour (MPLH). This measure can be influenced by many variables, such as changing participation rates, staffing allocations, menu offerings, and the configuration of school cafeterias. Figure 69 tracks the movement of MPLH over five years. Lee County's MPLH has decreased slightly from 17.43 in 2012-13 to 17.32 in 2016-17, or approximately 1 percent.
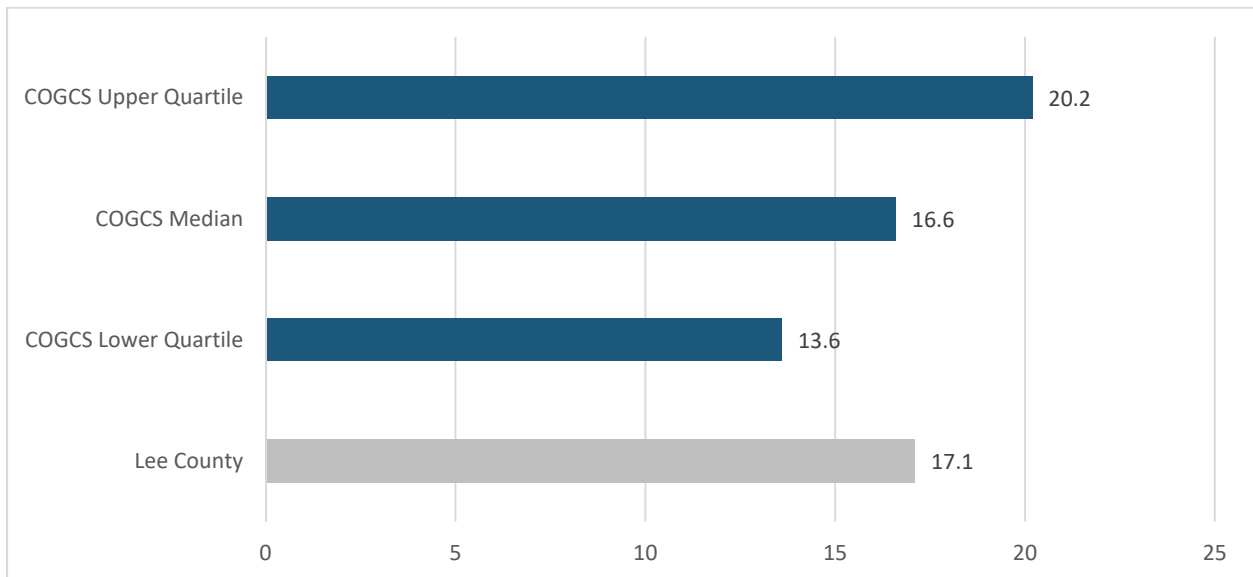
Figure 69. Meals per Labor Hour, 2012-13 to 2016-17
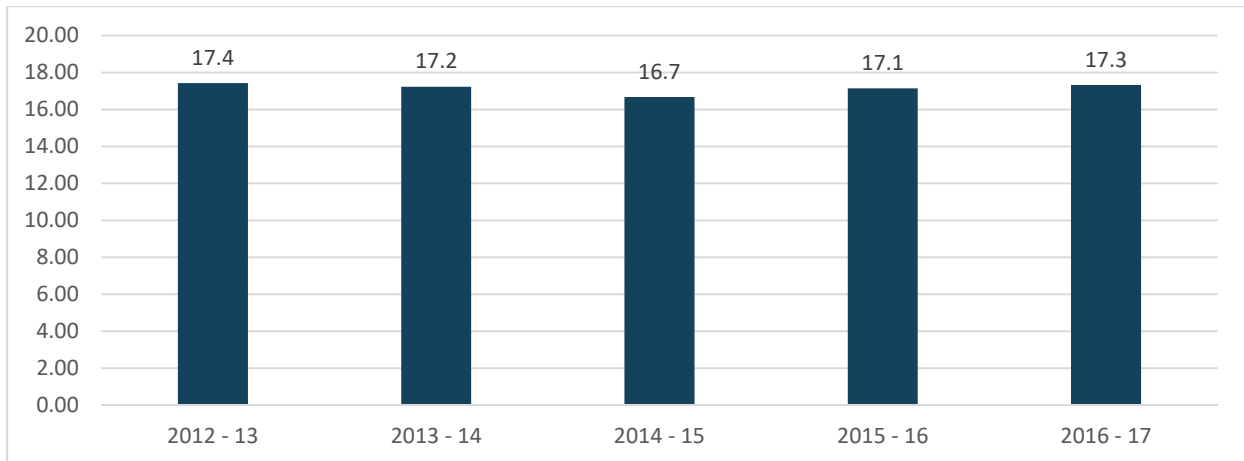
Source: SDLC provided meal information, January 2018.

Figure 70 compares Lee County Meals per Labor Hour to the COGCS benchmarks. Lee County is above average, sitting between the median and upper quartile.

Figure 70. Meals per Labor Hour, Lee County and COGCS Averages 2015-16

Source: Council of Great City School *Managing for Results*, November 2017

Industry standards for this measure are different based on the number of meal equivalents per day (generally driven by the student enrollment of the school) and range from 15 meal equivalents to 23 meal equivalents per day. Lee County is within this range albeit in the lower half. This may be due to several schools in Lee County that have low student enrollment.

Cost Efficiency

The primary cost drivers within Food Services are food and labor costs. Four measures are key in understanding the cost efficiency of Food Services: food service expenditures per pupil, food service expenditures per meal equivalent, food cost per meal equivalent, and allocated indirect costs.

Figure 71 shows the trend of Lee County's food service expenditure per pupil. Overall, the cost per student has increased $404.43 in 2012-13 to $471.96 in 2016-17, an increase of 17 percent.
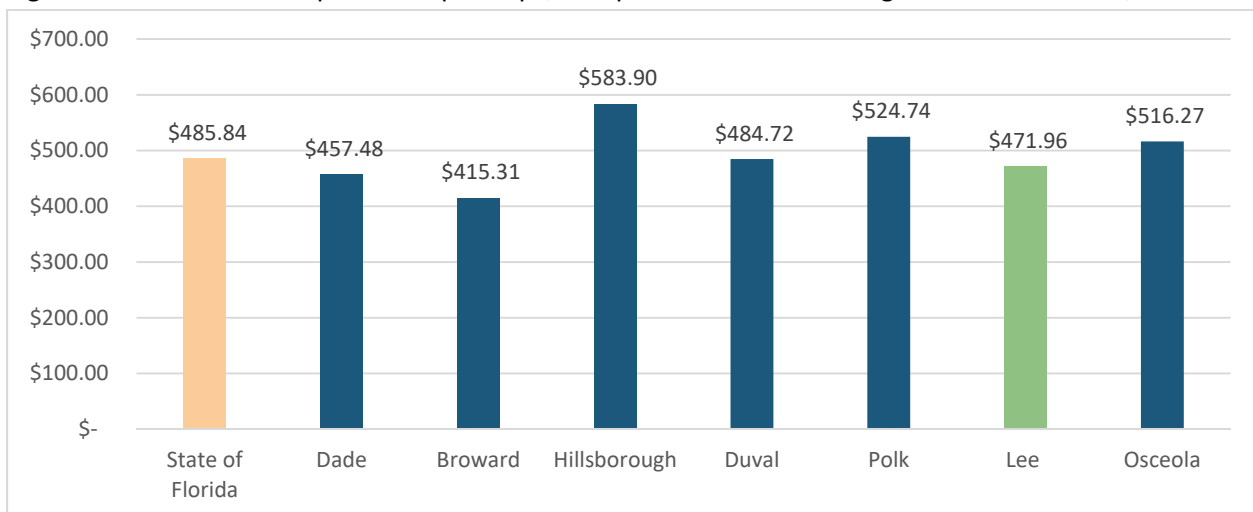
Figure 71. Food Service Expenditure per Pupil, 2012-13 to 2016-17
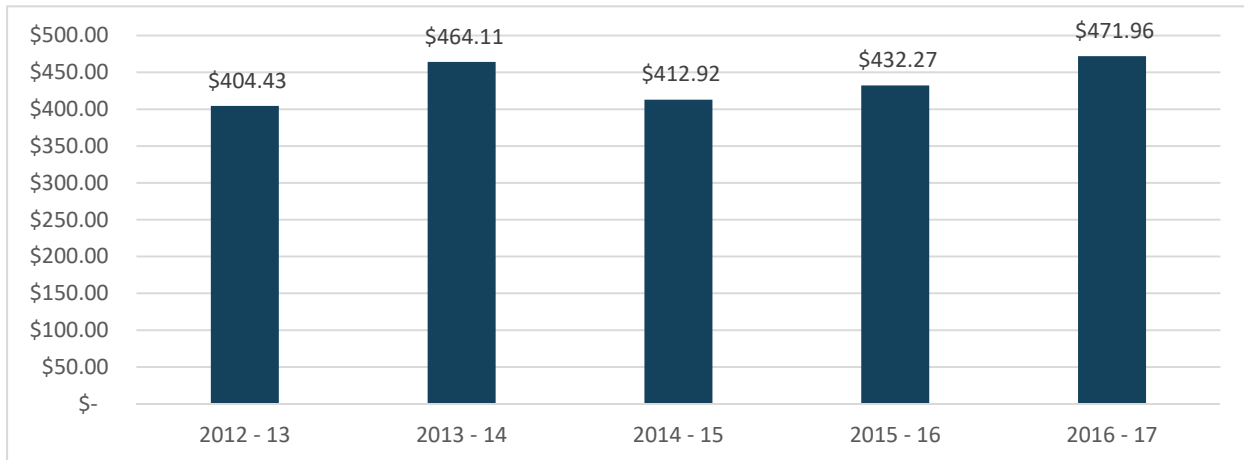
Source: SDLC expenditure data, January 2018; Florida Department of Education Enrollment Data, March 2018.

Relative to its peers, as indicated on Figure 72, Lee County has a favorable comparison. Lee County spends less per student than four peer districts, including all three of the peers closest in size. Lee County is also below the state average amount of $485.84 per student.

Figure 72. Food Service Expenditure per Pupil, Comparison to State Average and Peer Districts, 2016-17

Source: State of Florida Department of Education *Annual Financial Report*, September 2017; State of Florida Department of Education Enrollment Data, March 2018.

A similar measure is the food service expenditure per meal equivalent. Three breakfasts equal one meal equivalent, while one lunch equals one meal equivalent. Figure 73 shows the trend for this measure. The expenditures per meal equivalent increased from $2.91 in 2012-13 to $3.34 in 2016-17, an increase of 15 percent over the five- year period.
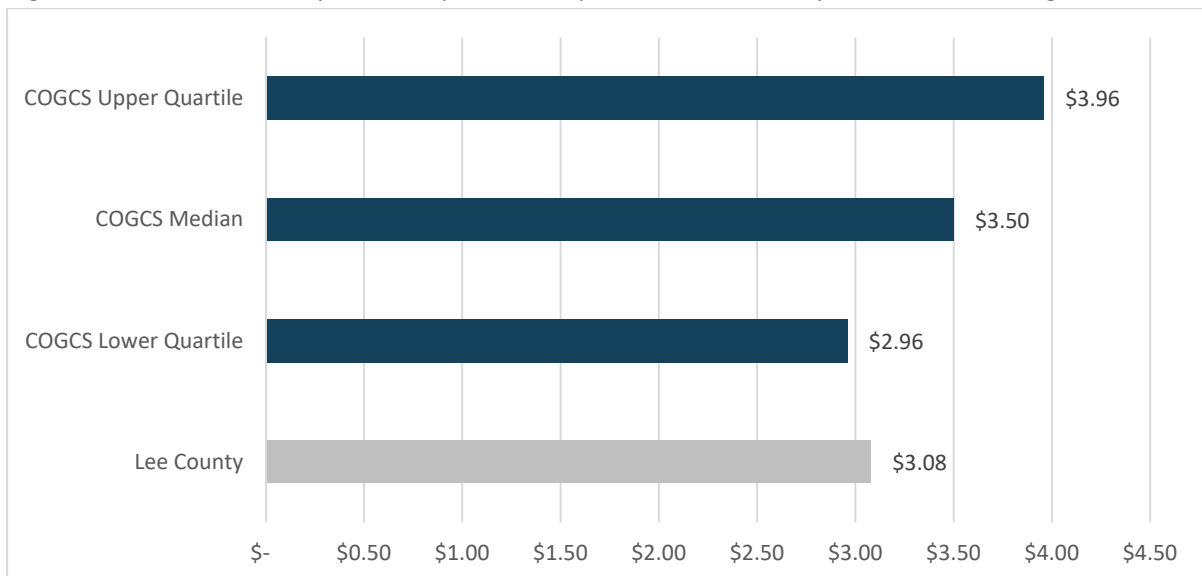
Figure 73. Food Service Expenditure per Meal Equivalent
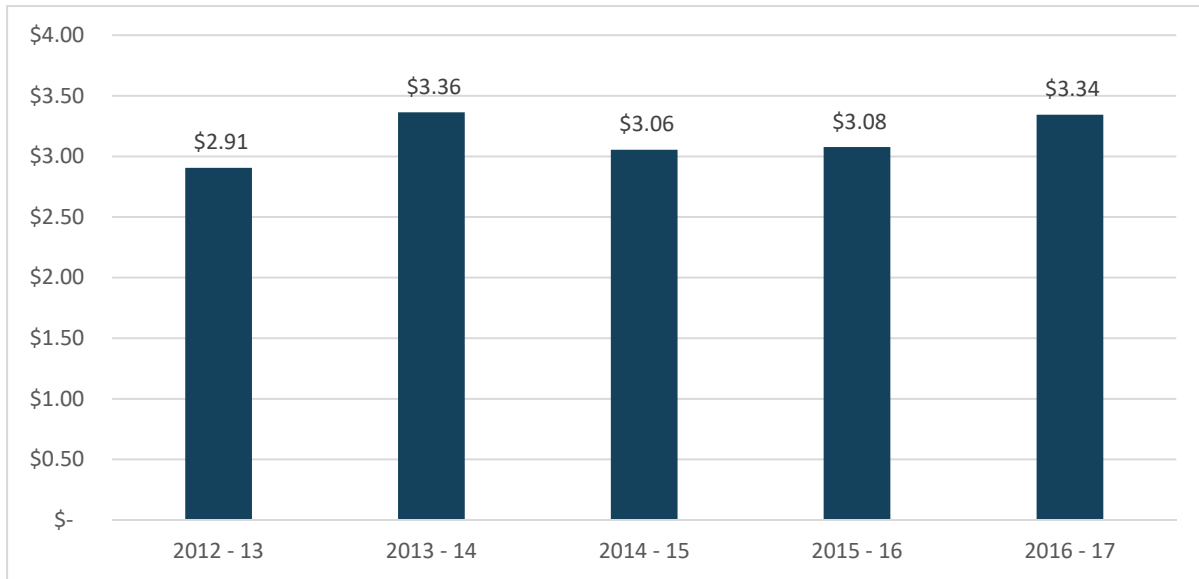
Source: SDLC expenditure data, January 2018; SDLC provided meal information, January 2018

As seen in Figure 74, relative to COGCS benchmarks, Lee County ranks above average, with a measure between the COGCS lowest quartile and the median.
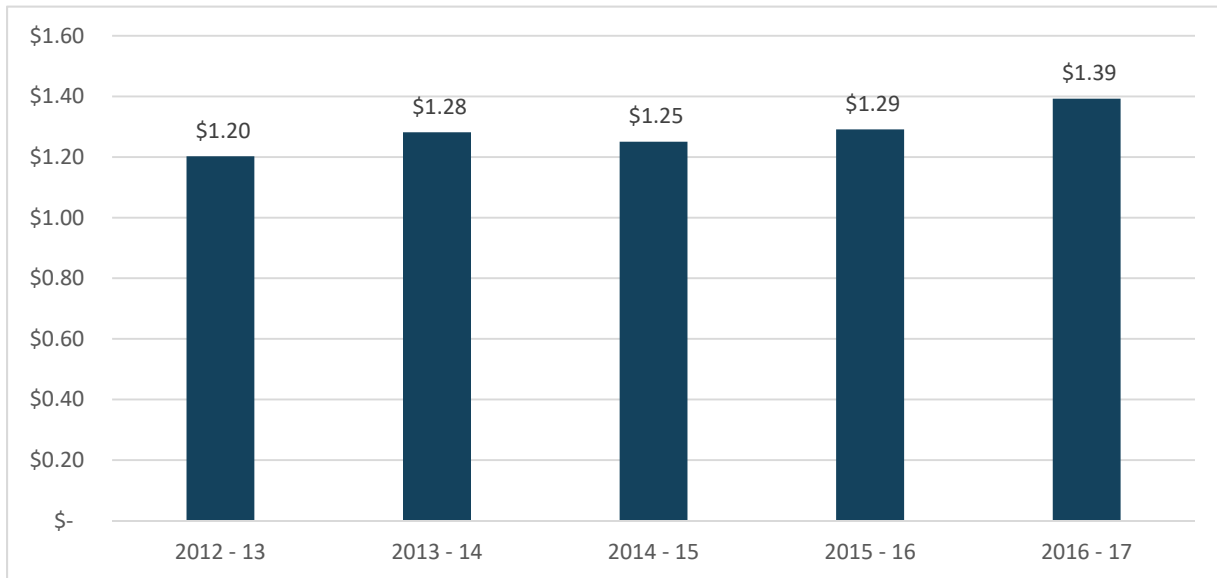
Figure 74. Food Service Expenditure per Meal Equivalent, Lee County and COGCS Averages 2015-16

Source: Council of Great City School *Managing for Results*, November 2017; SDLC provided expenditure and meal information

Figure 75 presents the food cost per meal equivalent. Food costs per meal equivalent have increased from $1.20 in 2012-13 to $1.39 in 2016-17, an increase of 16 percent over the five-year period.

Figure 75. Food Cost per Meal Equivalent

Source: SDLC expenditure data, January 2018; SDLC provided meal information, January 2018

Figure 76 compares Lee County's food cost per meal equivalent to the COGCS benchmarks. Lee County ranks below the lowest quartile average, indicating greater efficiency with respect to food purchases.

Figure 76. Food Cost per Meal Equivalent, Lee County and COGCS Averages, 2015-16
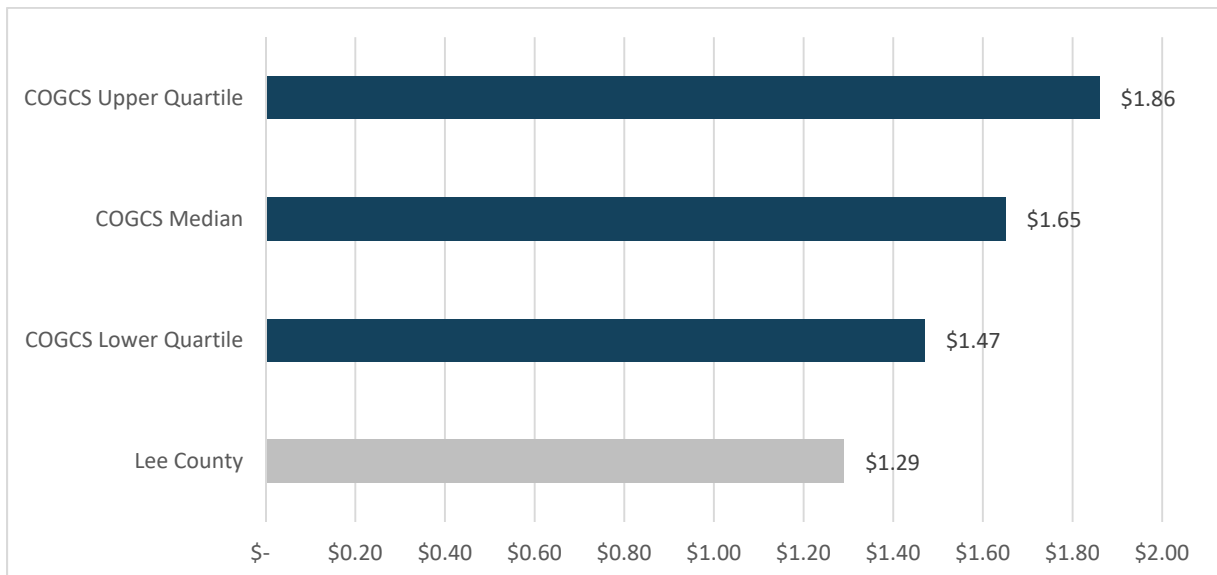
Source: Council of Great City School *Managing for Results*, November 2017; SDLC provided expenditure and meal information

An efficient Food Service department should be self-sustaining, in this instance meaning that all allowable costs are allocated from the general fund to the department. Certain costs, such as utilities expenditures,

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custodial costs, pest control, and waste management are incurred by the General Fund but benefit the food service operation. School districts can recover these costs through an allocation to food services, and the financial performance of the food service operation should be sufficient to absorb these costs.

As seen in Figure 77, the indirect costs allocated by the District have increased from $571,223 in 2012-13 to $739,430 in 2016-17, an increase of 29 percent. During interviews it was learned that this allocation does not include all expenditures that could be allocated, such as utility costs.

Figure 77. Allocated Indirect Costs, 2012-13 to 2016-17
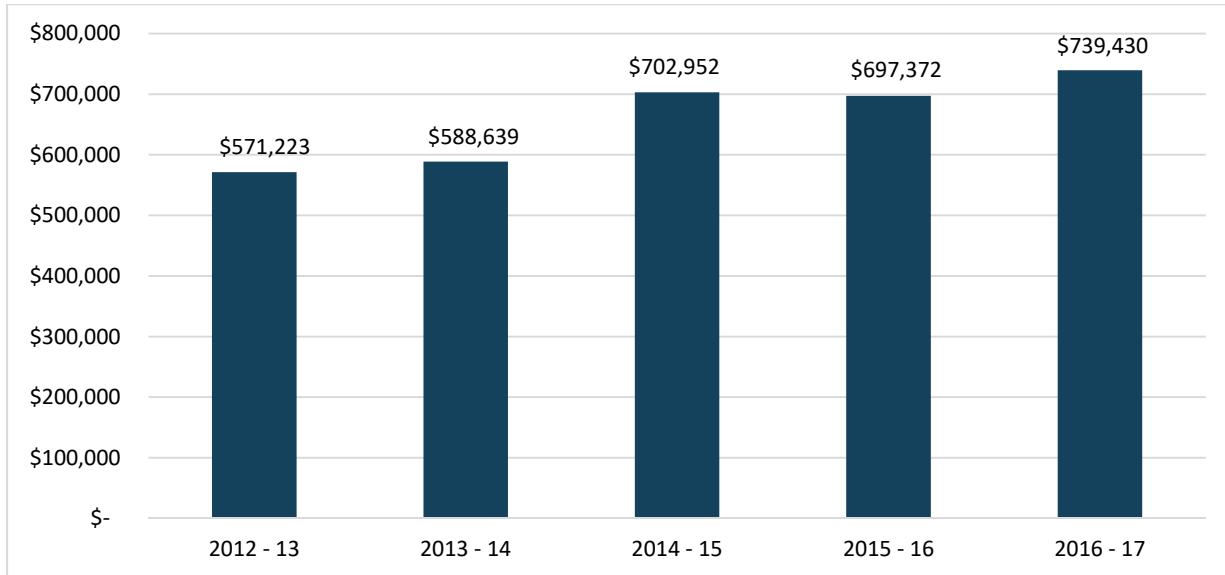
Source: SDLC expenditure data, January 2018

Upon learning of the additional potential for cost recovery, Lee County increased the allocation to the General Fund by applying its unrestricted indirect cost rate, which includes all applicable costs. The allocation is expected to exceed $2 million a year, yielding an additional General Fund benefit of approximately $1.25 million annually.

Conclusion

The metrics discussed above and our observations during the site visit resulted in a largely favorable review for the Food Services department. Staff productivity is slightly above peers and slightly below the industry standards, and overall cost efficiency is above average. While some efficiency opportunities may exist, the Food Services area appears to be able to absorb the additional indirect cost allocation.

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Chapter 9 – Transportation Management

Background

The Lee County Transportation Department is responsible for the transport of approximately 54,000 daily riders over an area spanning 6,183 miles. This is accomplished by utilizing a fleet of approximately 870 buses split across three transportation zones. The geography of the county provides a unique challenge for the transportation department, as certain schools and residential areas are isolated and cumbersome to travel to, particularly during tourist season.

The Effiency Report Card for Transportation is presented in Figure 78. This card indicates how the department is trending and how it compares to peers. The Transportation Department is more efficient than five years ago and compares favorably to peer and state averages.

Figure 78. Efficiency Report Card, Transportation

Measure	Trend	Peer Comparison	Comments
Cost Efficiency			
Cost per Mile	⬆	═	This is an overall cost efficiency measure for transportation relative to the miles driven. The Department is experiencing increasing cost per mile, indicating lower efficiency, but has a neutral peer comparison for the measure.
Cost per Rider	═	✚	This is another overall cost efficiency measure for Transportation relative to the number of riders. The department's trend for this measure is neutral but compares favorably to its peers.
Maintenance Cost per Bus	⬆	*	This is a maintenance efficiency measure for school buses. The negative trend of increasing maintenance cost per bus could indicate an aging fleet.
Maintenance Cost per Mile	⬆	*	This is another maintenance efficiency measure for school buses. The negative trend of increasing maintenance cost per mile could similarly indicate an aging fleet.
Route Efficiency			
Miles per Rider	⬇	═	This is a measure of routing efficiency. The positive trend indicates the shortening of routes, which is increases departmental efficiency. Lee County's measure is also in line with its peers.
Average Daily Routes per Bus	═	▬	This measures the utilization of buses and route efficiency. There has not been a significant movement in average daily routes per bus over the past five years.
Maximum Length of Rider Time	═	*	This is a measure of efficiency from the student's perspective, as well as an indicator of routing efficiency. There have been increases and decreases in this measure over the past five years, resulting in a neutral trend overall.

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Measure	Trend	Peer Comparison	Comments
Average Rider Time	⬇	*	This is a similar measure of efficiency from the student's perspective, as well as an indicator of routing efficiency. The positive trend indicates that students are on the bus for a shorter period of time.
General Efficiency			
Accidents per 100,000 Miles	⬆	*	This is an efficiency measure as well as an effectiveness measure. The negative trend could indicate increased costs for repairs, maintenance, and citations.
Percentage of Courtesy Riders	⬇	✚	This is an overall efficiency measure for transportation relative to board policy. The positive trend indicates that fewer ineligible riders, those living within two miles of the school, are receiving transportation services. This is an efficient practice at Lee County, particularly in relation to its peers.
Average Daily Ridership Percentage	═	✚	This measure is important for understanding the dependence of students on transportation services of the Department. The majority of students at Lee County are daily bus riders, and the district provides services to a larger percentage of its student population than its peers. The combination of this measure with the above cost measures indicate higher efficiency levels.

Major Observations

Lee County has shown a minor increse in transportation spending over the past five years. Figure 79 presents the expenditure data for Lee County since 2012-13.

Figure 79. Historic Transportation Expenditure, 2012-13 to 2016-17
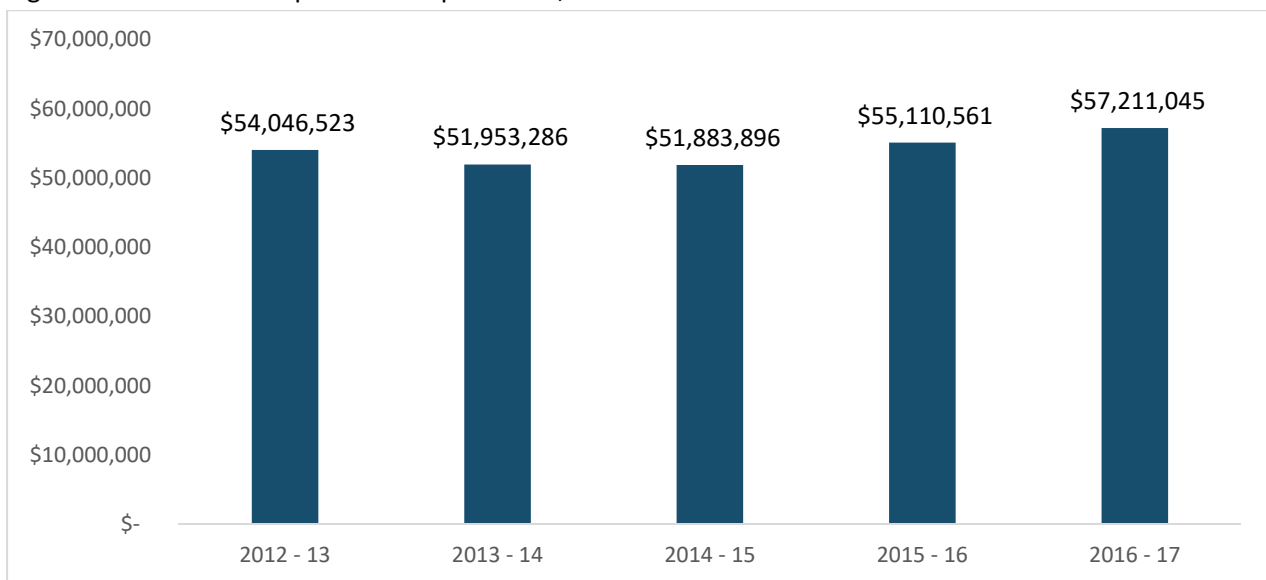
Source: State of Florida Department of Education *School District Transportation Profiles for School Years 2012 – 2016*, January 2018; SDLC provided transportation and expenditure data, January 2018

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As shown in Figure 79 above, the expenditures have increased from $54.0 million in 2012-13 to $57.2 million in 2016-17, an increase of 6 percent.

The following sections discuss Lee County's transportation efficiency in terms of overall cost efficiency and routing efficiency.

Cost Efficiency

The primary cost drivers within Transportation are labor, fuel, and maintenance. Three key measures can be applied to determine how efficient costs are managed: cost per mile, cost per rider, and maintenance cost per mile. Figure 80 provides the transportation cost per mile for Lee County since 2012-13. Transportation cost per mile traveled has increased from $3.56 in 2012-13 to $4.46 in 2016-17, an increase of 25 percent.
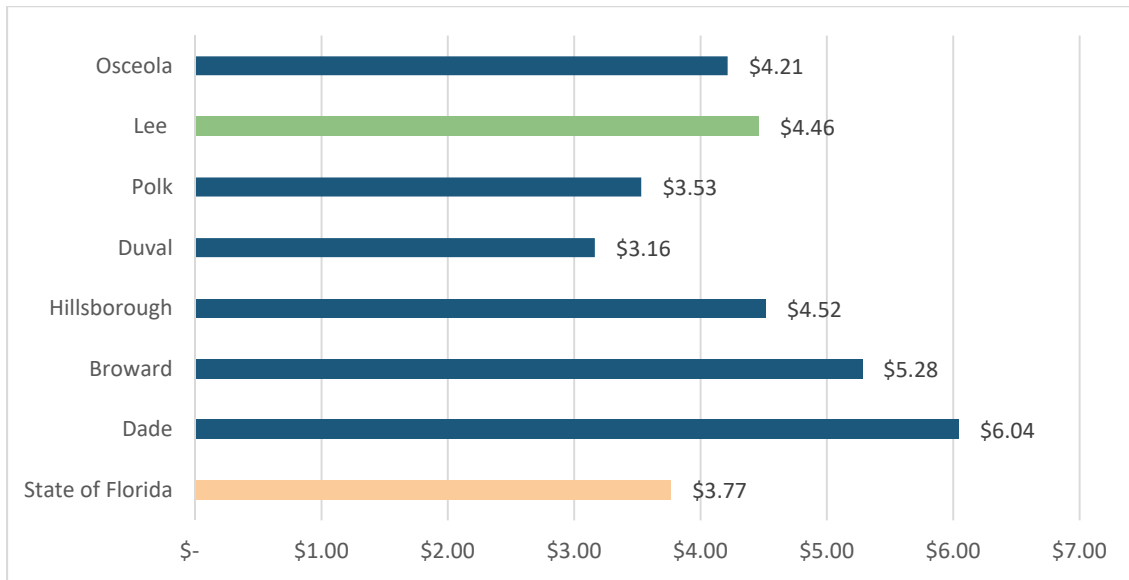
Figure 80. Cost per Mile, 2012-13 to 2016-17
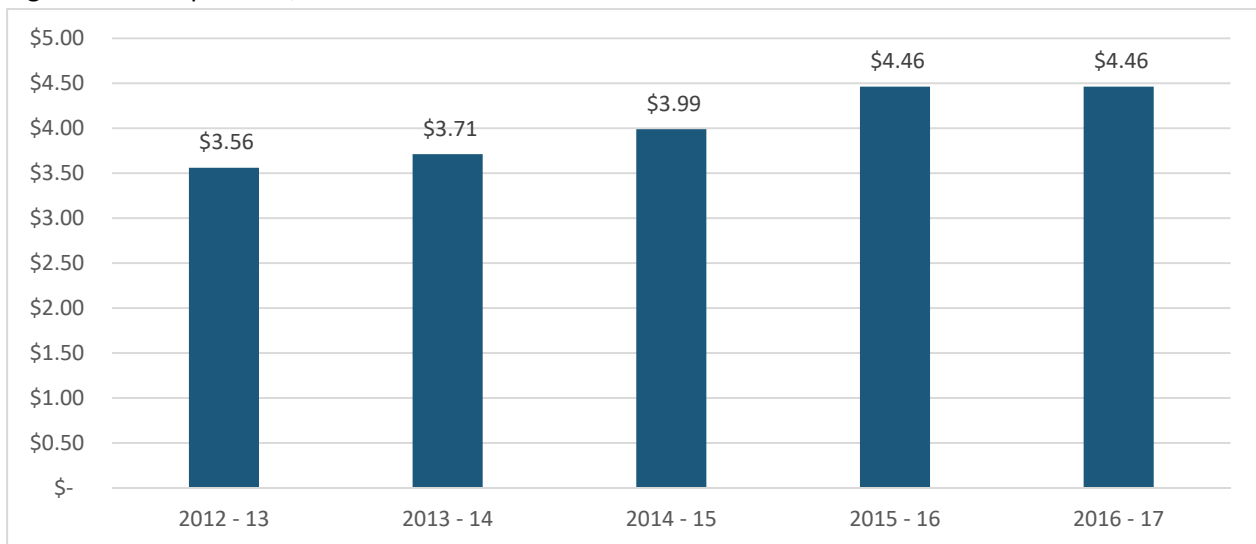
Source: State of Florida Department of Education *School District Transportation Profiles for School Years 2012 – 2016*, January 2018; SDLC provided transportation and expenditure data, January 2018

Figure 81 provides the peer and state measures for transportation cost per mile. Relative to its peers, Lee County has a lower cost per mile than three counties, but a higher cost per mile than each of its comparable sized peers. Given the geographical challenges in Lee County, a neutral peer comparison is not a significant mark of inefficiency.
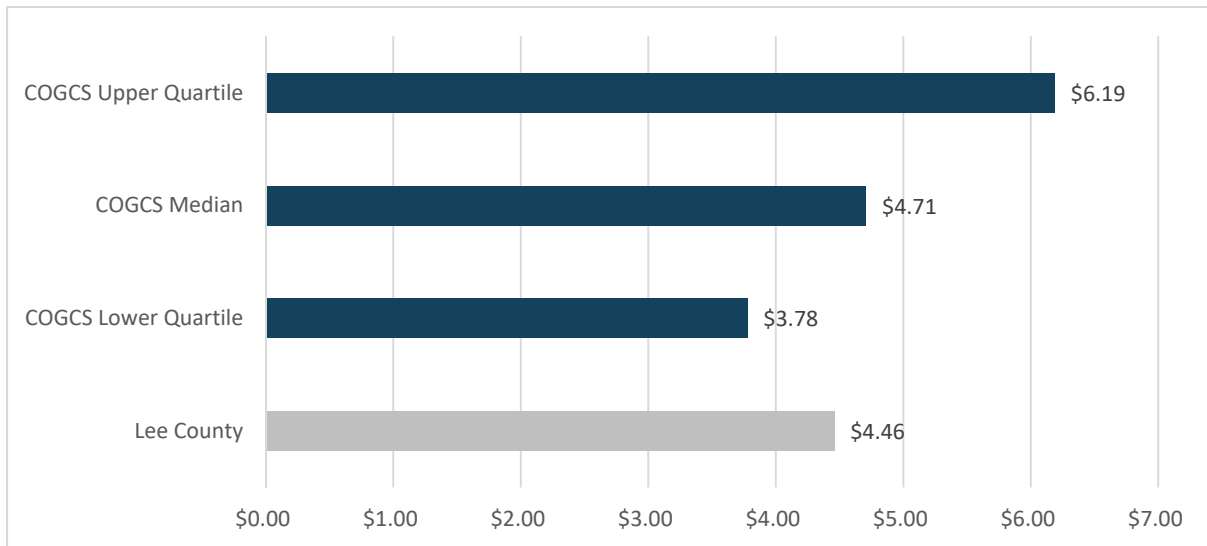
Figure 81. Cost per Mile, Comparison to State Average and Peer Districts, 2015-16

Source: State of Florida Department of Education *School District Transportation Profiles for School Year 2015–16*, January 2018

Figure 82 compares Lee County's transportation cost per mile to the COGCS benchmarks. Lee County measure is in between the COGCS lower quartile and median, indicating above average efficiency.

Figure 82. Cost per Mile, Lee County and COGCS Averages 2015-16
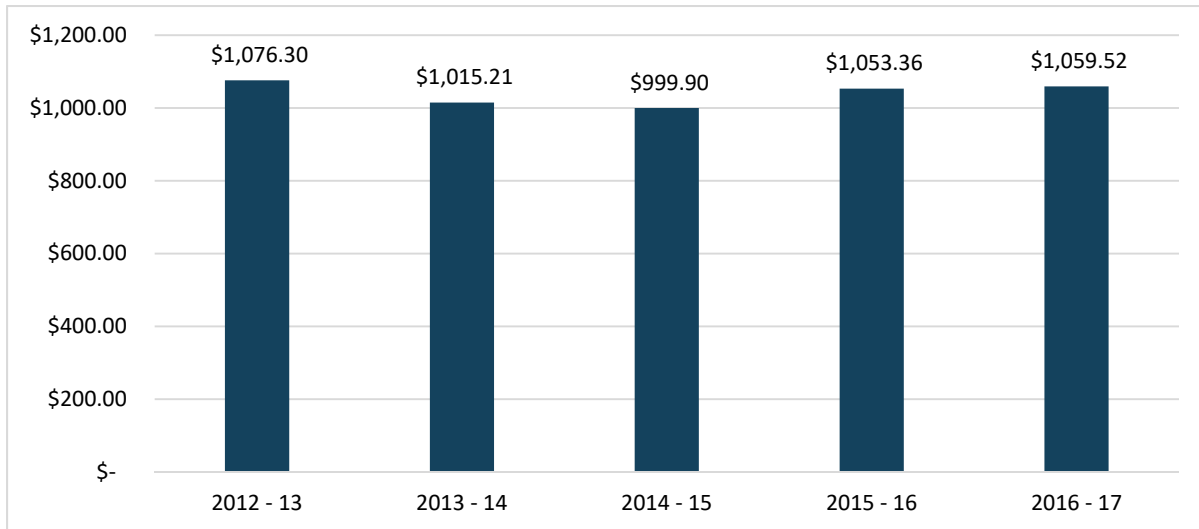

Source: Council of Great City School *Managing for Results*, November 2017; State of Florida Department of Education *School District Transportation Profiles for School Year 2015 – 2016*, January 2018

When viewed together, the trend, peer comparison, and COGCS comparison show above average efficiency for the cost per mile measure.

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Figure 83 shows the Lee County transportation cost per rider trend over five years. Lower spending per rider indicates a more efficient operation. Overall, the cost per rider has declined from $1,076.30 in 2012-13 to $1,059.52 in 2016-17, and reduction of 2 percent. Reductions occurred in 2013-14 and 2014-15, but thereafter increased in 2015-16 and 2016-17.
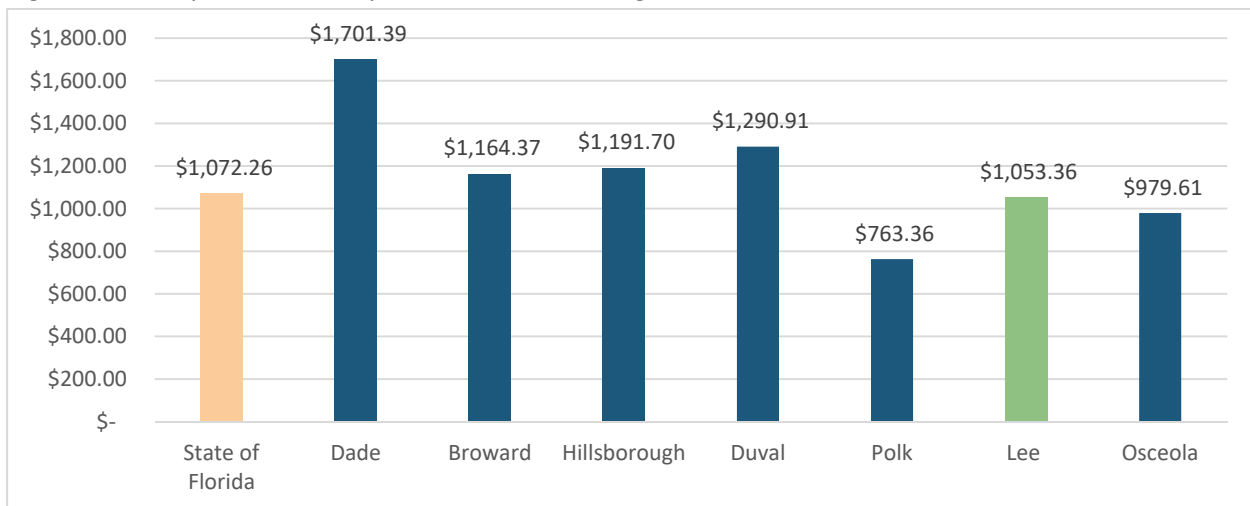
Figure 83. Cost per Rider, 2012-13 to 2016-17

Source: State of Florida Department of Education *School District Transportation Profiles for School Years 2012 – 2016*, January 2018; SDLC provided transportation and expenditure data, January 2018

Figure 84 presents the peer and state transportation cost per rider measures. Relative to its peers, Lee County has a lower cost per rider than four counties, including one of its comparable sized peers. Lee County's cost per rider is also lower than the state average. This implies a favorable relative efficiency.
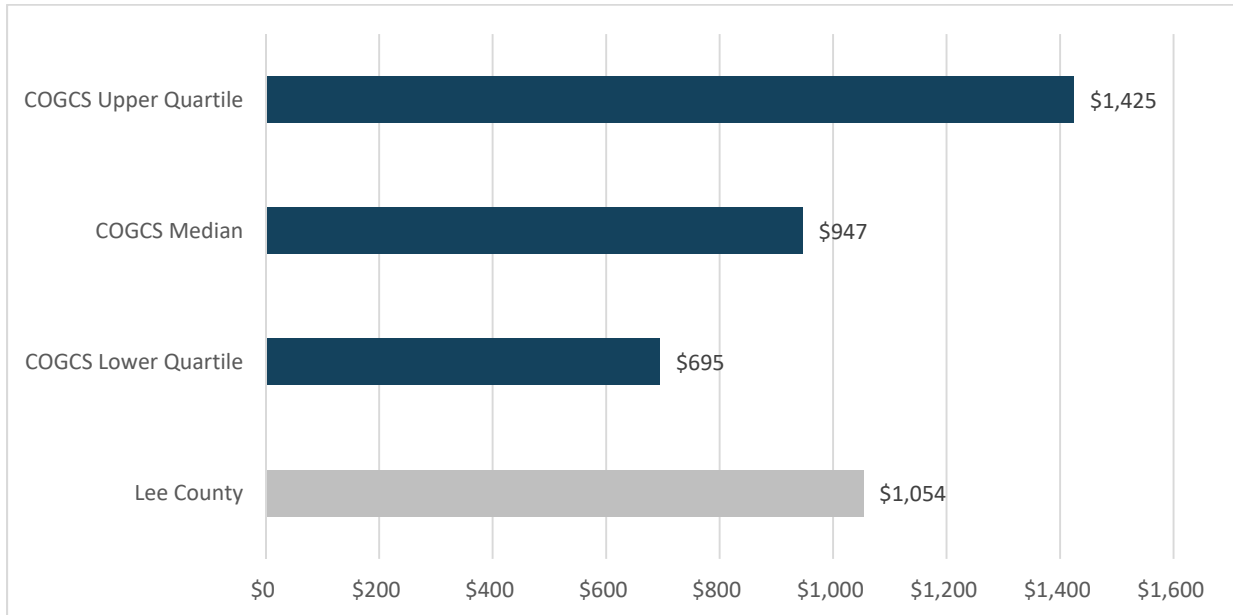
Figure 84. Cost per Rider, Comparison to State Average and Peer Districts, 2015-16

Source: State of Florida Department of Education School District Transportation Profiles for School Year 2015 – 2016, January 2018

Figure 85 compares Lee County's transportation cost per rider to the COGCS benchmarks. Lee County's measure is in between the COGCS median and upper quartile, indicating below average efficiency.

Figure 85. Cost per Rider, Lee County and COGCS Averages 2015-16
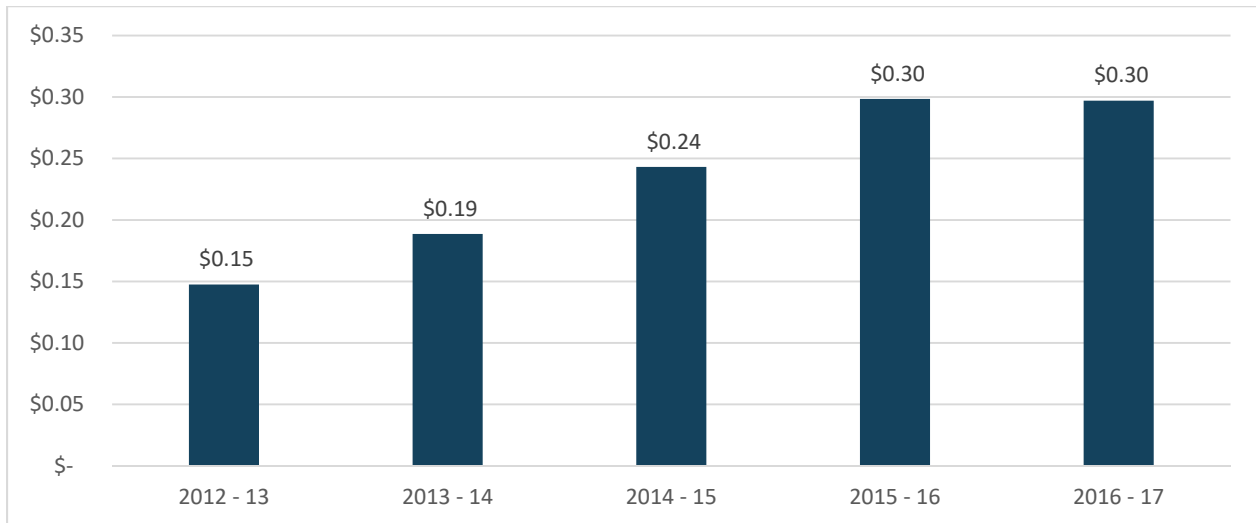

Source: Council of Great City School *Managing for Results*, November 2017; State of Florida Department of Education *School District Transportation Profiles for School Year 2015 – 2016*, January 2018

When viewed together, the trend, peer comparison, and COGCS comparison show a neutral efficiency for cost per rider.

Bus maintenance is an importance aspect of proper transportation management. Preventive maintenance is generally less expensive than repairs and can extend the useful life of the vehicles. Figure 86 presents the Lee County maintenance cost per mile over a five-year period. The maintenance cost per mile increased from $0.15 in 2012-13 to $0.30 in 2016-17, an increase of 100 percent.

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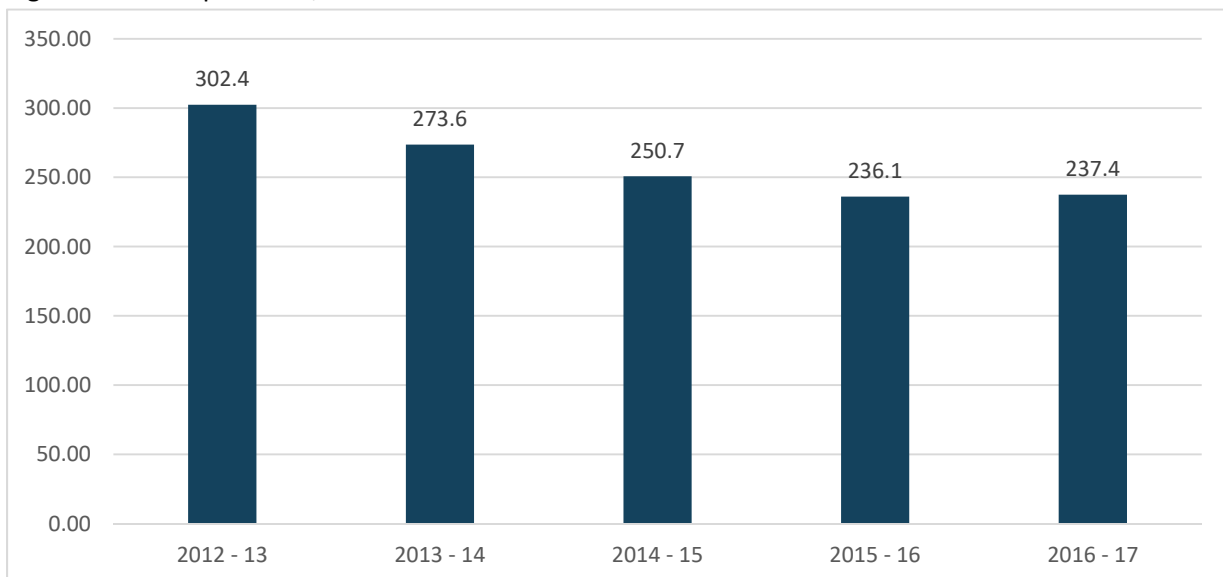Figure 86. Maintenance Cost per Mile, 2012-13 to 2016-17

Source: State of Florida Department of Education *School District Transportation Profiles for School Years 2012 – 2016*, January 2018; SDLC provided transportation and expenditure data, January 2018

Route Efficiency

Well-planned bus routes can provide cost savings and extend the useful life of buses. Three key measures are used to analyze route efficiency: Miles per rider, average daily bus routes per bus, and average rider time. Figure 87 provides the miles per rider measure since 2012-13. During that time, the average miles per rider decreased from 302 to 237, a reduction of 22 percent. This indicates higher routing efficiency.
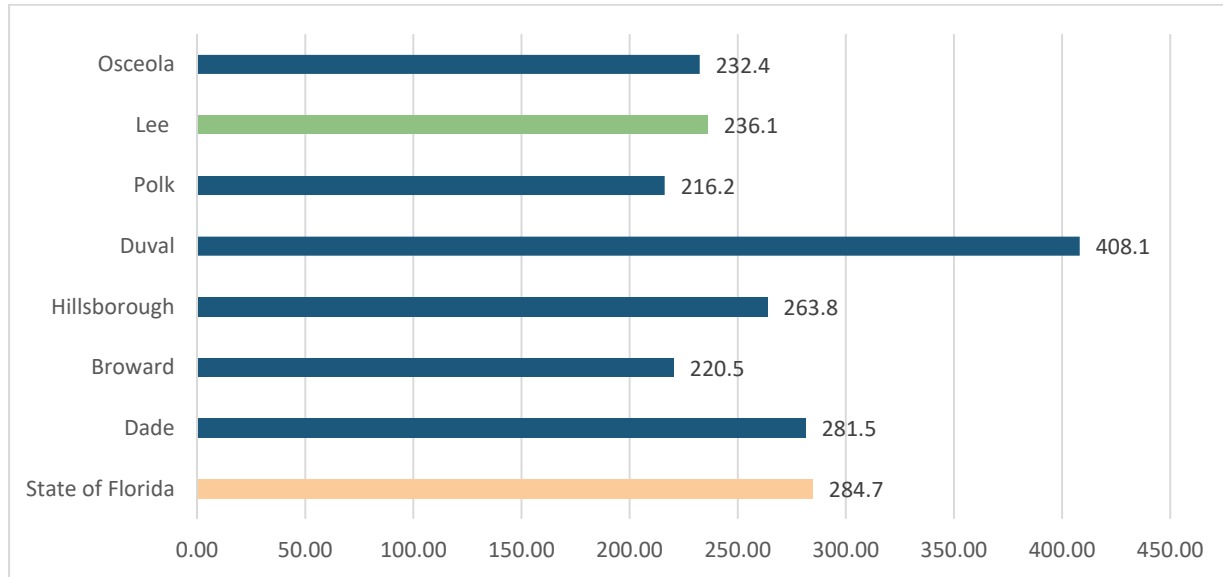
Figure 87. Miles per Rider, 2012-13 to 2016-17

Source: State of Florida Department of Education *School District Transportation Profiles for School Years 2012 – 2016*, January 2018; SDLC provided transportation and expenditure data, January 2018

As shown in Figure 88, when compared to its peers, Lee County has a neutral comparison – ranked fourth out of seven districts, indicating average efficiency. Lee County's measure is markedly lower than the state average however.
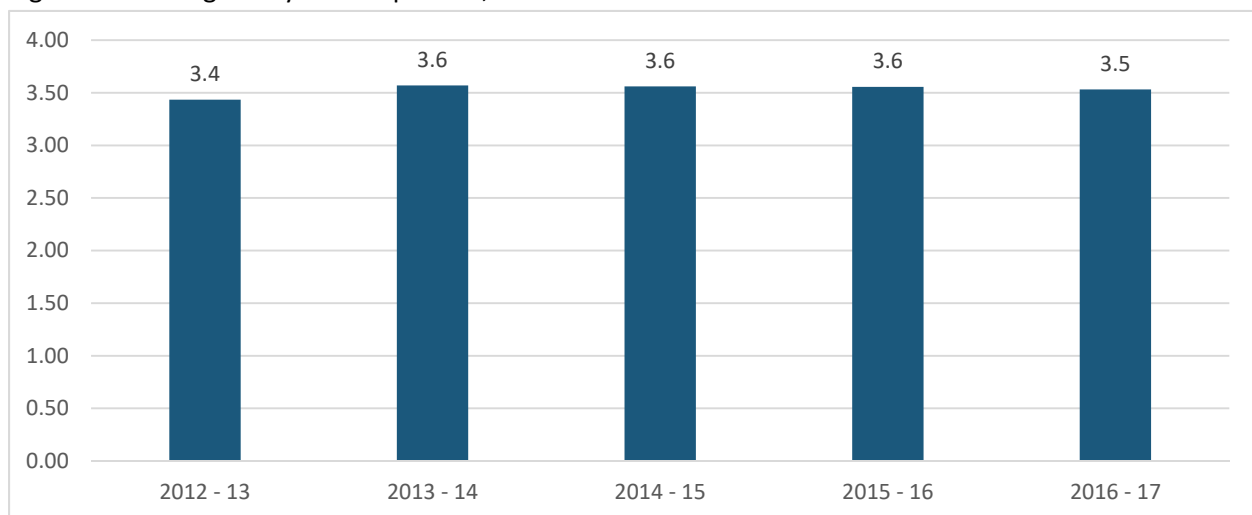
Figure 88. Miles per Rider Comparison to State Average and Peer Districts, 2015-16

Source: State of Florida Department of Education *School District Transportation Profiles for School Year 2015 – 2016*, January 2018

Bus utilization is an important factor driving route efficiency. The average daily routes per bus can indicate if too many buses are used or if route planning is effective. Figure 89 presents average daily routes per bus trend information. The number of average daily bus routes has increased from 3.4 in 2012-13 to 3.5 in 2016-17, an increase of 3 percent. This demonstrates a slight efficiency gain over the five-year period.
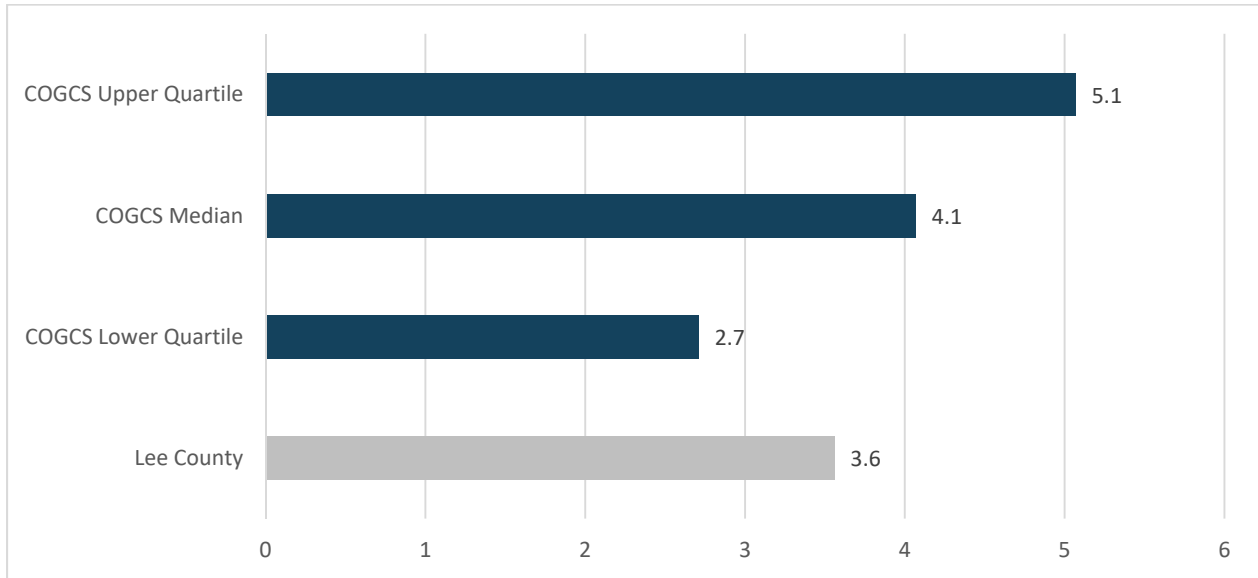
Figure 89. Average Daily Routes per Bus, 2012-13 to 2016-17

Source: State of Florida Department of Education *School District Transportation Profiles for School Years 2012 – 2016*, January 2018; SDLC provided transportation and expenditure data, January 2018

Figure 90 compares Lee County to the COGCS benchmarks. Lee County' average daily routes are in between the COGCS lower quartile and median value, indicating below average efficiency.

Figure 90. Average Daily Routes, Lee County and COGCS Averages 2015-16

Source: Council of Great City School *Managing for Results*, November 2017; State of Florida Department of Education *School District Transportation Profiles for School Year 2015 – 2016*, January 2018

Average daily ride time, as indicated in Figure 91, has decreased from 33.4 minutes in 2012-13 to 31.7 minutes in 2016-17, a reduction of 5 percent. This is a positive indication of increasing route efficiency, as students are spending less time on a bus each day.

Figure 91. Average Daily Ride Time in Minutes, 2012-13 to 2016-17
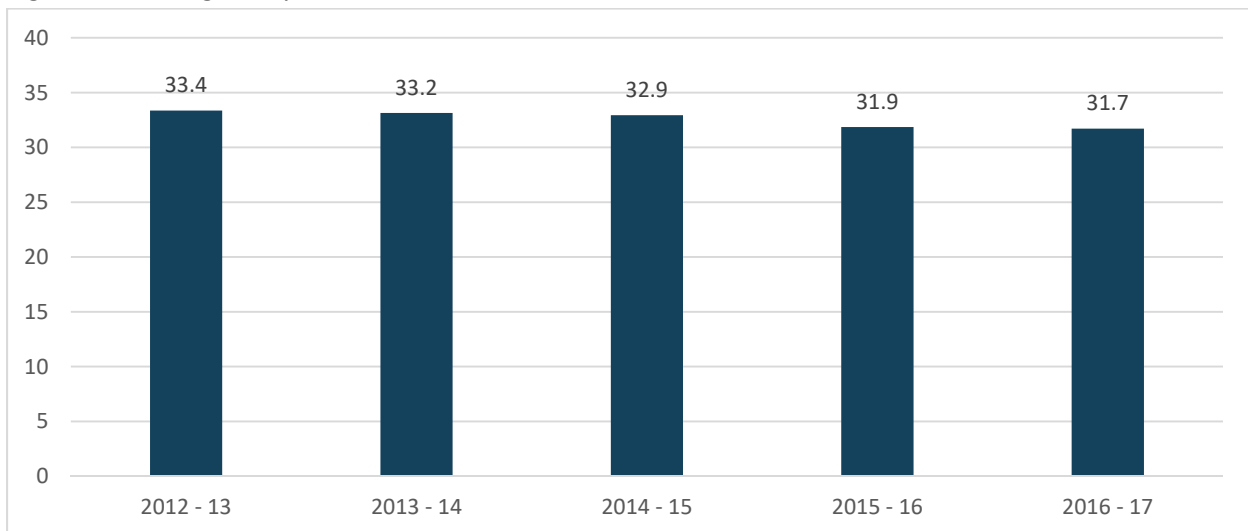
Source: SDLC provided transportation data, January 2018

While overall route efficiency is in line with peer levels, there have been additional efficiencies gained in transportation over the past five years.

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Conclusion

The metrics discussed above and our findings during our site visit drove a positive review for Transportation efficiency, in spite of some decreasing cost efficiency. Route efficiency is trending in the right direction.

Several best practices were identified within Transportation:

- A bus replacement program is in place, which could reduce maintenance costs.

- The Department closely tracks key performance indicators and sets departmental goals with action plans.

- A "min-max" inventory management approach is utilized, which helps prevent inventory shortages.

- Paperless time entry and work orders are utilized.

The plans in place by departmental management could further increase efficiency and demonstrate a commitment to continuous improvement.