

**BASE BUDGET REVIEW OF
THE DIVISION OF SCHOOL PLANT OPERATIONS,
MONTGOMERY COUNTY PUBLIC SCHOOLS**



**OFFICE OF LEGISLATIVE OVERSIGHT
REPORT NUMBER 2008-1**

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THE ASSIGNMENT

Montgomery County Public Schools' (MCPS) Division of School Plant Operations (SPO) is responsible for the custodial upkeep of MCPS facilities. SPO is one of four divisions included in the Department of Facilities Management that is responsible for building and maintaining facilities. SPO responsibilities include ensuring that cleanliness of MCPS facilities, providing healthy learning environments, and supporting community use activities. For FY08, the Council approved an operating budget of \$55.2 million for SPO with 1,319.2 full-time equivalents (FTEs).

This Office of Legislative Oversight (OLO) report provides a base budget review of the Division of School Plant Operations. It also includes an analysis of MCPS' overall costs for delivering building services. This base budget review assignment reflects the Council's desire for more in-depth analysis of agency budgets and information about program efficiency, effectiveness, results, and funding priorities as part of the budget review process. This project provides a core set of information about SPO costs, structure, and progress on performance measures. Elements reported include:

- Detailed budget information on personnel and operational costs from FY04 to FY08;
- Identification of primary factors that drive changes in total school plant operation costs;
- A description of the Division's strategic plan, practices, and performance measures; and
- Comparative benchmark data on operations and maintenance costs per square foot and per student for MCPS and four other suburban school systems in the region.

OLO's method for developing this base budget review included studying industry-based best practices in school plant operations; reviewing current and recent appropriation and expenditure data provided by MCPS; consulting with key MCPS, Office of Management and Budget, and Council staff; meeting with Office of Community Use of Public Facilities (CUPF) staff; and visiting seven MCPS schools to better understand the work of building service staff.

PROJECT FINDINGS

In sum, OLO finds that SPO performs well despite persistent challenges with student restrooms. OLO also finds that SPO consistently spent within budget despite overspending for overtime. OLO presents 20 project findings in six areas: Organizational Performance, Total Budget and Costs; Staffing Allocation and Overtime; SPO Relationship with CUPF, Supplies and Equipment, and Data Collection.

Organizational Performance

#1: SPO has a strategic plan, performance measures, and quality assurance efforts focused on improvement. SPO's strategic plan articulates its mission, vision, core values, strengths and weaknesses, and organizational priorities. SPO has developed action teams to focus on priority areas and has identified goals and performance measures and a framework for providing quality assurance.

#2: SPO implements custodial practices that reflect industry best practices. SPO implements practices that align with custodial industry best practices. They include the use of staffing formulas to allocate personnel, floating positions, team cleaning, automatic product dispensing devices, training for new personnel, and site-based management of building service personnel.

#3: SPO recognizes the upkeep of student restrooms as its most persistent challenge. Restroom inspections conducted by building service supervisors indicate that 98 percent of restrooms meet standards. However, MCPS' surveys of students indicate that only half of elementary students surveyed and a third of secondary students agree that their bathrooms were well supplied. These survey findings have not changed since FY03. SPO central administrators recognize this persistent challenge.

SPO Base Budget Review Findings

#4: SPO offers training for new building service workers and staff development. However, some SPO employees are unable to complete training in a timely manner. SPO trains new personnel to advance best practices and comply with regulations. Through Montgomery College, SPO also offers technical courses. With a waitlist for its air conditioning class and a 3-6 month lag for some new employees to complete the basic skills class, not all SPO staff complete their training in a timely manner.

Total Budget and Costs

#5: MCPS' estimated budget for providing building services increased 25 percent from \$57.2 million to \$71.3 million between FY04 and FY07. From FY04 to FY07, the SPO budget increased from \$42.9 million to \$51.4 million (20%); and the Department of Financial Services estimated budget for benefits for SPO personnel increased from \$14.2 million to \$19.9 million (40%).

#6: Personnel costs are the primary driver of building service costs. For FY08, budgeted personnel costs for employee salaries, wages, and benefits make up 97 percent of MCPS' costs of building services while supplies, equipment, and training make up less than 3 percent of MCPS' costs.

#7: SPO has consistently kept spending within its budget. Between FY04 and FY06, SPO kept spending within its overall budget. SPO's budget increased from \$43.4 million in FY04 to \$48.0 million in FY06; its actual expenditures increased from \$42.9 million to \$47.1 million during this time frame.

#8: The unit cost of school plant operations increased between FY04 and FY07. Between FY04 and FY07, the unit cost of school plant operations, as measured per square foot or per student, increased. The unit cost per square foot increased 16 percent, from \$2.76 per square foot to \$3.19 per square foot. The unit cost per student increased 26 percent, from \$411 per student to \$517 per student.

Staffing Allocation and Overtime

#9: SPO assigns 99 percent of school plant operations staff to school and facility based positions. SPO central administration comprises only 1 percent of the building services workforce. In FY07, elementary schools averaged 4.1 FTEs compared to secondary schools which averaged 10.6 FTEs.

#10: MCPS assigns more operations and maintenance staff to schools than peer school systems. According to the Washington Area Boards of Education (WABE), in FY07, MCPS assigned 76 percent of its operations and maintenance workforce to schools compared to Fairfax County assigning 74 percent of its workforce to schools and Prince George's County assigning 59 percent.

#11: SPO overtime costs significantly exceeded budgeted costs between FY04 and FY06. In FY04, SPO budgeted \$410,000 for overtime and spent \$810,000, in FY05, SPO budgeted \$420,000 and spent \$830,000; in FY06, SPO budgeted \$430,000 and spent \$870,000. In FY06, building service managers on average worked 55 hours of overtime and earned \$1,900 in overtime wages, while building service workers averaged 28 hours of overtime and earned \$600 in overtime wages.

#12: MCPS' hourly costs for hiring new half-time grade 6 building service workers are comparable to the costs of overtime. MCPS' hourly cost for new personnel and overtime includes wages and employee benefit contributions. In FY07, MCPS' costs for wages and benefits for full-time grade 6 workers averaged \$22.17 per hour while costs for half-time workers averaged \$24.63 per hour. MCPS' hourly costs for building service worker overtime, inclusive of FICA, were \$25.31 per hour in FY07.

#13: SPO increasingly relies on half-time personnel as building service workers. Between FY04 and FY07, the number of half-time building service workers increased from 285 to 350 employees. In FY07, MCPS' load (i.e., ratio of benefits to wages) for half-time building service workers was 69 percent compared to 42 percent for their full-time peers. SPO's increasing use of half-time staff to fill building service positions increases MCPS costs for employee benefits for building service personnel.

SPO Base Budget Review Findings

SPO Relationship with CUPF

#14: SPO and CUPF work collaboratively to staff community use events. Based on the interagency Memorandum of Understanding (MOU) for Community Use of Public Facilities, CUPF schedules events, sets and collects fees, and reimburses MCPS for costs associated with community use of schools. SPO provides staff to open, clean, and close schools for community events throughout the week.

#15: A gap exists between MCPS costs for staffing community use activities and CUPF payments for staff costs. In FY06, MCPS spent \$2,159,880 on wages and FICA for building service personnel to staff ICB activities compared to the CUPF payment of \$2,126,799 for building service staff. This resulted in a negligible salary gap of \$33,081. When MCPS' costs of employee benefits (beyond FICA) and additional staff for ICB activities are included, MCPS had a total gap of \$496,734 for staffing community use activities of which \$398,300 represented the cost of employee benefits. However, based on the MOU, CUPF is not expected to reimburse MCPS for employee benefits beyond FICA.

#16: Differences in how MCPS and CUPF define eligible staff hours for community use and high rates of overtime among grade 10-16 personnel explain some of the gap in MCPS and CUPF costs. In FY06, the Department of Financial Services attributed 104,063 hours of building service staff time to community use. CUPF, however, registered and reimbursed MCPS for only 80,378 eligible staff hours. High levels of ICB overtime performed by grade 10-16 personnel also contribute to the gap between MCPS costs and CUPF payments for staff. In FY06, SPO grade 10-16 staff accounted for 39 percent of ICB overtime compared to the SEIU agreement goal that no more than 20 percent of ICB overtime in secondary schools and 30 percent in elementary schools can be allocated to these positions.

Supplies and Equipment

#17: MCPS has the lowest custodial supply budget per square foot and student compared to four peer school systems. FY07 data compiled by SPO indicates that MCPS budgeted 7 cents in custodial supplies per square foot compared to an average of 8 cents in Baltimore County, 10 cents in Prince George's County, and 12 cents in both Fairfax and Howard Counties. SPO data also indicates that MCPS budgeted \$12.04 per student on custodial supplies compared to \$12.11 in Baltimore County, \$13.58 in Prince George's, \$17.25 in Howard, and \$17.70 in Fairfax.

#18: The SPO supplies budget managed by schools has grown at a slower pace than the supplies budget managed by central office. Between FY04 and FY08, the supply budget managed by schools increased 25 percent from \$810,000 to \$1,010,000. This compares to the supply budget managed by central office, which increased by 35 percent from \$540,000 to \$730,000 during the same time frame.

#19: SPO replaces custodial equipment when the cost of repair exceeds 75 percent of replacement costs. Most commonly schools receive new custodial equipment, such as vacuums and mowers, by using their own resources (e.g., PTA funds and energy conservation funds) or when modernized. SPO's custodial equipment practices stand in contrast to MCPS' technology modernization program that refreshes MCPS computers every four years and Planned Life-Cycle Asset Replacement programs that replaces major facility components in between school modernizations.

Data Collection

#20: Additional budget and cost data is required to further understand MCPS' total costs for school plant operations. MCPS does not track data on actual supply costs borne by schools, budgeted costs for employee benefits by division, or actual costs of weekday staff time, supplies, utilities, equipment and maintenance expenses to support community use of schools. Had this data been available, this base budget review would have compared budgeted costs to actual costs for custodial supplies, employee benefits, and community use expenses.

SPO Base Budget Review Recommendations

The Office of Legislative Oversight (OLO) recommends that the County Council schedule one to two worksessions with MCPS to discuss the following six issues identified with this base budget review of the Division of School Plant Operations. OLO also recommends that the Council include key representatives from the Office of Community Use for Public Facilities (CUPF) as part of its worksessions. Dialogue around these key issues should improve the Council's understanding and fiscal oversight of its appropriations for school plant operations.

Issue #1: Consider whether to use actual cost data to determine CUPF reimbursements. Reimbursements to MCPS for Community Use of Public Facilities staffing and supplies currently reflect a complex formula based on "clock hours," "paid use hours," and negotiated rates of reimbursement. OLO recommends the Council discuss with MCPS and CUPF the relationship between CUPF reimbursements and MCPS' actual costs for staffing and providing operational support (e.g. utilities and supplies) to community use activities.

Issue #2: Examine the trade-off between using overtime versus hiring additional staff to meet school plant and CUPF work hour demands. MCPS currently uses a mix of regular time hours among ICB workers and overtime hours among other SPO personnel to staff ICB activities. OLO recommends the Council discuss with MCPS the relative percentages of grade 6 and grade 10–16 personnel (i.e. building service managers, assistant managers, and plant equipment operators) who provide ICB overtime. OLO also recommends the Council discuss with MCPS the financial and operational trade-off between using more overtime among grade 6 workers and hiring additional grade 6 staff to meet community use needs.

Issue #3: Discuss the trade off between using half-time and full-time staff to meet school plant work hour demands. In FY07, MCPS' load (i.e., ratio of benefits to wages) for half-time building services workers was 69 percent compared to 42 percent for their full-time peers. OLO recommends the Council discuss with MCPS the financial and operational trade-off between using half- and full-time staff to meet current and future building service staff needs.

Issue #4: Consider whether to use actual cost data to build the budget for school custodial supplies. In FY07, the custodial supplies budget represented 3 percent of the SPO budget and 2 percent of MCPS expenditures on school plant operations. MCPS does not track the actual cost of custodial supplies purchased by schools. OLO recommends the Council discuss with MCPS the feasibility and potential benefits of tracking the actual costs of supplies purchased by schools and using actual cost data to create future supply budgets.

Issue #5: Discuss the advantages and disadvantages of implementing a custodial equipment replacement program. SPO does not systematically replace custodial equipment. This practice stands in contrast to MCPS' technology modernization program that refreshes MCPS computers every four years and the Planned Life-Cycle Asset Replacement program that replaces major facility components in between school modernizations. OLO recommends the Council discuss with MCPS its current practice and the potential advantages and disadvantages associated with replacing custodial equipment on a regular basis (e.g., every ten years).

Issue #6: Describe the use of efficiency and outcome measures, user satisfaction surveys, demand for staff training, and other performance measures to enhance the quality and cost-efficiency of school plant operations. SPO's strategic plan recognizes the needs to collect data that should inform decision-making to support improved performance. OLO recommends the Council discuss with MCPS whether and how SPO may enhance its use of performance measures to improve school plant operations, particularly related to improving student bathrooms and ensuring more staff complete needed training.

For a complete copy of OLO-Report 2008-1, go to: www.montgomerycountymd.gov/olo

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CHAPTER I: Authority, Scope and Organization

A. Authority

Council Resolution 15-1554, FY 2007 Work Program for the Office of Legislative Oversight, adopted July 25, 2006.

B. Scope, Purpose, and Methodology

Montgomery County Public Schools' (MCPS) Division of School Plant Operations (SPO) is responsible for the custodial upkeep of the school system's facilities. Specific responsibilities of SPO include ensuring that facilities are clean and provide healthy learning environments, maintaining quality standards, and supporting community use activities. For FY08, the Council approved an operating budget of \$55.2 million with 1,319.2 full-time equivalents (FTEs) for the Division.

This report, by the Office of Legislative Oversight (OLO), is a base budget review of the Division of School Plant Operations. The assignment of base budget reviews reflects the Council's desire for more in-depth analysis of agency budgets and information about program efficiency, effectiveness, results, and funding priorities as part of the budget review process. This project provides a core set of information about SPO's costs, structure, and progress on performance measures. Elements reported include:

- Detailed budget information on personnel and operational costs from FY04 to FY08;
- Identification of primary factors that drive changes in total school plant operation costs;
- Staffing data by full-time equivalent and number of employees for building service staff;
- A description of the Division's strategic plan, practices, and performance measures; and
- Comparative benchmark data on operations and maintenance costs per square foot and per student for MCPS and four other suburban school systems in the region.

The report concludes with findings and recommendations for Council action to enhance understanding, accountability, and transparency in school plant operations budgeting.

Methodology. OLO staff members Elaine Bonner-Tompkins, Jennifer Renkema, and Sarah Downie prepared this report with production assistance from Teri Busch. OLO's method for developing this base budget review included:

- Studying industry-based best practices in school plant operations;
- Reviewing current and recent appropriation and expenditure data provided by MCPS;
- Consulting with key MCPS staff as well as Office of Management and Budget and Council staff analysts;
- Meeting with Office of Community Use of Public Facilities (CUPF) staff to better understand the relationship between SPO and CUPF;
- Reviewing budget and other documents on Federal, County, and State requirements;
- Analyzing performance data for MCPS and other school systems; and
- Visiting seven MCPS schools to better understand the work of building service staff.

C. Organization of Report

Chapter II, Data Sources and Key Terms, defines the common organizational, personnel, and budget terms and data sources used throughout the report

Chapter III, Organizational Structures, Key Responsibilities, and Staffing presents an overview of the Department of Facilities Maintenance and the Division of School Plant Operations and a description of SPO staffing and major responsibilities.

Chapter IV, Budget and Expenditure Trends, describes SPO's personnel and operating costs, budgeted versus actual costs, indirect costs, and estimated total annual costs for the Division.

Chapter V, Major Mandates, synthesizes the major Federal, State, and County laws, regulations, and policies that impact school plant operations.

Chapter VI, Strategic Plan, Practices, and Performance Measures, describes the Division's operational framework for improving practice and its progress on performance measures.

Chapter VII, Comparative Benchmarks, provides budget, enrollment, staffing, and square footage data for MCPS and four school systems to compare operations/maintenance costs.

Chapter VIII, Community Use of Public Facilities and School Plant Operations, describes the County's and MCPS' roles in facilitating community use of public facilities and the impact on SPO's budget for staffing community activities.

Chapter IX, Findings and Recommendations, presents project findings on structure, costs, effectiveness and efficiency; and recommendations for Council action and MCPS next steps.

The **Appendix** contains OLO's methodology for estimating the cost of benefits for SPO personnel, comparative analysis between the SPO budget and other MCPS budgets, an analysis of three sets of scenarios for achieving cost savings, a description of SPO training courses and costs for Montgomery College courses, MCPS survey information for the school sites visited by OLO staff, a copy of the Interagency Memorandum of Understanding of Community Use of Public Facilities, SPO's recommended list of custodial supplies for elementary and secondary schools, and a reference list for this report.

D. Acknowledgements

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Col. E. Brooke Lee Middle School

Dr. Catherine Allie, (Former) Principal
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Mr. Jerome Easton, Assistant Principal
Mr. Henry Roberts, Building Service Manager
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Mr. Philip Hill, Business Manager
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CHAPTER II: Data Sources and Key Terms

OLO combined data from multiple sources to prepare this base budget review of the Division of School Plant Operations. This chapter describes the data sources and key terms used in this report in three areas: organization, personnel, and budget.

A. Organizational Terms

- **School Plant Operations and Building Services** describe custodial operations, building services, and administration delivered by Division of School Plant Operations central office-based personnel and school/facility-based personnel. This report typically uses the term “building services staff” to describe school/facility based staff that deliver direct services.
- **Community Use of Public Facilities and ICB** refer to the rental of public facilities on evenings, weekends, and school breaks to support community use. The Interagency Coordinating Board for Community Use of Public Facilities determines the policies regarding community use of schools, while the County’s Office of Community Use of Public Facilities (CUPF) coordinates and administers this program. MCPS staff typically refer to community use activities scheduled by CUPF as “ICB activities,” in reference to the Interagency Coordinating Board.

B. Personnel Terms and Data Sources

Personnel data provided by the MCPS Department of Management, Budget, and Planning; the Department of Financial Services; and the Division of School Plant Operations are used throughout this report to describe staffing trends. Staffing trends are typically described in fiscal years (FY) that follow a July to June calendar.

This report describes three types of personnel data.

- **Budgeted full-time equivalents** refers to the number of positions approved in the budget, based on the number of full-time employees needed to fill budgeted positions. An FTE can be filled by one full-time employee or multiple part-time employees (e.g., two 0.5 FTEs). This report tracks budgeted FTEs from FY04 to FY08, when available.
- **Filled full-time equivalents** refers to the number of filled positions by FTE status (i.e., the actual number of employees on staff by FTE) at a specific point in time. The difference between budgeted and filled FTEs is defined as the variance in FTEs, which captures the number of vacant FTEs at that point in time. The Department of Financial Services’ Employee and Retiree Services Center provided data on the number of SPO employees (headcount) and their full- and part-time status, which OLO used to calculate filled FTEs.
- **Headcount** refers to the number of persons employed without regard to their full or part-time status. Headcount personnel data typically tracks demographic trends and changes in the number of persons on staff rather than FTEs. This report describes headcount data provided by the Employee and Retiree Services Center for FY06 and FY07.

Three additional personnel terms used in this report are defined as follows:

- **Position grading or grades** refer to the placement of positions on the MCPS salary schedule for SEIU Local 500 represented employees. Positions requiring greater skill and/or responsibilities are graded higher (i.e., earn a higher hourly wage) than positions requiring fewer skills or responsibilities. Position grading occurs across positions (e.g., building service workers compared to plant equipment operators) and within positions (e.g., assistant building service manager I compared to assistant building service manager II). Data from the MCPS personnel complement describes position grades.
- **Shift differential** refers to the salary amount paid over and above the basic hourly rate based on shift schedule for SEIU represented positions. Eligibility for a shift differential is limited to full-time employees working a second or third shift. According to the SEIU contract, eligible employees who start at 2 p.m. or later and before 10 p.m. are eligible to receive a 5 percent differential in pay in addition to his/her base rate of pay. Those starting at 10 p.m. or later and before 5 a.m. are eligible for a 7.5 percent pay differential.
- **Position load** refers to the ratio of MCPS contributions for employee benefits to salaries paid by MCPS. For example, if an employee earned \$30,000 in wages and the MCPS cost of Social Security, group insurance, and retirement benefits for that employee was \$15,000, the load for that position would be 50 percent (i.e., \$15,000 divided by \$30,000).

C. Budget Terms and Data Sources

This report uses budget and expenditure data from the MCPS Operating Budgets; Department of Management, Budget, and Planning (Budget Office); the Department of Financial Services; Division of School Plant Operations (SPO); and the County's Office of Community Use of Public Facilities. In most respects, Budget Office and SPO data are comparable, with the Budget Office data offering a macro perspective and SPO data providing a micro view on specific school plant operation expenditures. To the extent that MCPS numbers vary, it is typically a function of accounting adjustments made to the general ledger used by the Budget Office that are not updated in the payroll system used by SPO to report expenditure trends.

Budget trends are described in fiscal years that follow a July to June calendar. In most cases, the data tables present budget information in millions of dollars. As such, the percent calculations do not always add to 100 due to rounding. Throughout the report, OLO uses the terms cost and expenditure interchangeably. Budget and expenditure data within this report are typically presented in two ways:

- **Budgeted data** refer to approved budget data published in the MCPS adopted operating budget. This report tracks budgeted expenditures from FY04 to FY08, when available.
- **Actual budget data** refer to actual expenditures within a fiscal year. The difference between budgeted and actual expenditures is defined as the variance in expenditures. This report tracks actual expenditures from FY04 and FY06 and compares this data to budgeted expenditures to track variance.

CHAPTER III: Organizational Structures, Key Responsibilities, and Staffing

This chapter provides an overview of the Division of School Plant Operations (SPO) and its relationship to MCPS' Department of Facilities Management (DFM). It also provides and summarizes data on staffing patterns for DFM and SPO and describes the key functions of SPO.

This chapter is presented in two parts:

- **Part A, Organizational Structure**, describes DFM and its subcomponents, which include SPO and the Division of Maintenance, and summarizes their recent staffing patterns by full-time equivalents (FTEs) between FY06 and FY08; and
- **Part B, School Plant Operations Responsibilities and Staffing**, describes the major staff functions, responsibilities, and staffing patterns by FTEs and headcount for SPO between FY06 and FY08.

The data and information reviewed in this chapter demonstrate three findings: SPO personnel comprise three-quarters of the MCPS workforce responsible for creating and maintaining school facilities; SPO relies on part-time personnel to meet a significant percentage of its staffing needs; and an effective relationship with the Division of Maintenance is critical to SPO achieving its goal of maintaining school facilities that support optimal health and learning.

A. Organizational Structure

This part is divided into two sections: Section 1 describes the organizational structures and major responsibilities of the Department of Facilities Management and its subcomponents to provide a context for the scope and size of SPO and MCPS' other facilities maintenance units. Section 2 provides a similar overview of SPO and its staffing units.

1. Overview of the Department of Facilities Management

The Department of Facilities Management is responsible for creating and maintaining MCPS public facilities. DFM is one of eight departments that report directly to the Office of the Chief Operating Officer, who oversees the business functions and support services for the school system. Some of DFM's functions include constructing new schools and updating older facilities, working to comply with safety regulations, and developing strategies to maximize energy efficiency.

DFM's primary work is performed by its four divisions, described below.

- **The Division of Long-Range Planning** conducts demographic analysis and represents MCPS in County land use planning to ensure that future school facility needs are met.
- **The Division of Construction** manages the planning, design, and construction of schools and other facilities.

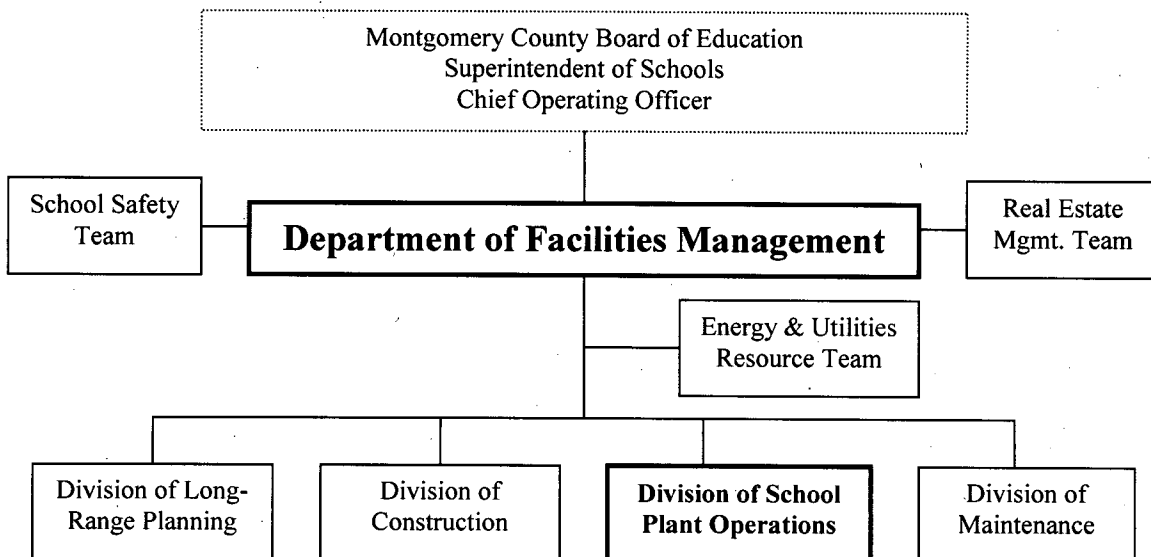
- **The Division of Maintenance** provides carpentry, electrical, plumbing, HVAC, and general maintenance services for MCPS facilities, as well as environmental services, capital asset replacement, and automated energy management services.
- **The Division of School Plant Operations** manages and provides the general upkeep of school buildings and grounds.

DFM also houses three teams that complement the work of its four divisions.

- **The School Safety Team** advises schools and offices on safety issues and coordinates with them to ensure compliance with safety regulations that apply to MCPS.
- **The Energy and Utilities Resource Team** manages utility costs for schools and develops strategies to improve energy efficiency in schools and minimize utility rates.
- **The Real Estate Management Team** manages school space and leases, acquires future school sites, and contributes to countywide master plans.

The organizational chart below illustrates the divisions and teams that constitute MCPS' Department of Facilities Management, including the Division of School Plant Operations.

**Exhibit 3-1:
Department of Facilities Management Organization Chart**



Each DFM division and team plays a critical and interconnected role in creating and maintaining MCPS facilities. Capital programming and planning determine facility design and construction, which in turn shape the need for maintenance and school plant operations. At the same time, preventative maintenance and school plant operations can extend the life cycle and usefulness of MCPS facilities. In other words, design and construction ultimately impact building services, and school plant operations can impact the future need for construction and renovation.

Staffing Summary. Table 3-1 breaks down the number of FTEs allocated to each division or team within the total DFM workforce.

Table 3-1: Budgeted Full-Time Equivalents, Department of Facilities Management, FY06 –FY08

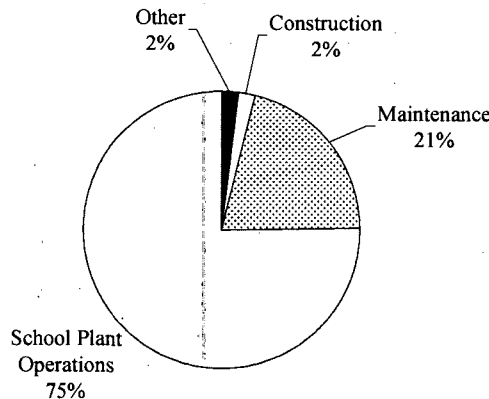
Unit	FY06	FY07	FY08	FY06-FY08 Change	
				#	%
Department of Facilities Management (Central Office)	5.0	4.0	4.0	-1.0	-20.0%
School Safety Team	1.0	1.0	1.0	0.0	0.0%
Energy and Utilities Resource Team	4.85	8.0	15.0	10.15	209.3%
Real Estate Management Team	5.0	4.5	5.0	0.0	0.0%
Division of Long-Range Planning	5.0	5.0	5.0	0.0	0.0%
Division of Construction	33.0	37.0	37.0	4.0	12.1%
Division of Maintenance	375.5	367.5	369.0	-6.5	-1.7%
Maintenance Apprenticeship Program	--	--	4.0	4.0	--
Division of School Plant Operations	1,270.7	1,324.7	1,339.2	68.5	5.4%
Total Facilities Management	1,700.1	1,751.7	1,779.2	79.2	4.7%

Source: FY06-FY08 Operating Budgets and Personnel Complements

Most positions in Table 3-1 are funded by the Department’s Operating Budget. The remainder are funded by the Department’s Capital Budget or through the Office of Community Use of Public Facilities: for FY08, the Division of Construction has 35.0 Capital Budget FTEs, the Real Estate Management Team has 1.0 Capital Budget FTE, the Division of Maintenance has 17.5 Capital Budget FTEs and 0.5 CUPF-funded FTE, and the Division of School Plant Operations has 20.0 CUPF-funded FTEs.

For FY08, SPO’s 1,339.2 budgeted FTEs, most of which are school-based staff, constitute 75 percent of the overall DFM workforce of 1,779.2 FTEs. DFM’s next largest divisions are Maintenance, with 369.0 FTEs, and Construction, with 37.0 FTEs. Exhibit 3-2 illustrates DFM’s FY08 makeup.

**Exhibit 3-2:
Department of Facilities Management Budgeted FTEs, FY08**



2. Overview of the Division of School Plant Operations

The Division of School Plant Operations supports the provision of building services with the goal of “ensur[ing] a clean, safe, comfortable, and attractive facility environment that is conducive to health and learning.”¹ SPO interacts with other divisions and teams in DFM to achieve this goal, most closely with the Division of Maintenance.

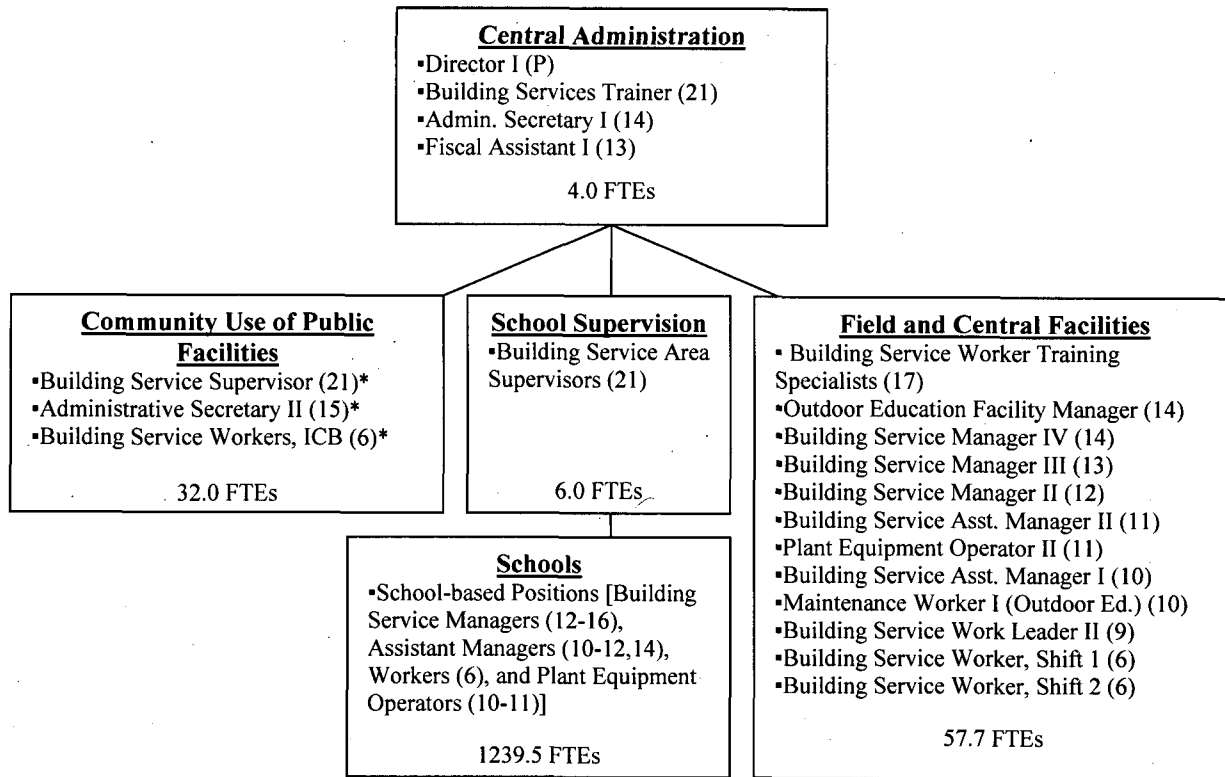
The FY08 MCPS Personnel Complement organizes SPO staff into five function areas:

- **Central Administration.** The director and his or her administrative team supervise the Division and provide funding and support for the facility- and school-based staff.
- **Schools.** School-based staff carry out daily cleaning; replenish restroom supplies; maintain and operate cleaning equipment and heating, ventilation, and air conditioning (HVAC) systems; and care for the grounds.
- **School Supervision.** Building service area supervisors oversee school-based staff and offer guidance on cleaning methods, equipment purchases, and related issues. They are also a part of the SPO central administrative team.
- **Field and Central Facilities.** Field- and central facility-based staff perform building services, but are not assigned to a specific school – either because they fill in at several different schools or work in MCPS office buildings. It also includes two training specialists who work with the administrative staff.
- **Community Use of Public Facilities.** Building service workers assigned to ICB activities open and close school buildings for community users on the weekends and perform cleaning assignments while the activities take place. ICB workers are assigned to schools with the highest level of community use.

Exhibit 3-3, on the next page, shows the structure of SPO’s five function areas and its staffing for FY08. For each position, the exhibit shows the grade in parentheses and the total number of FTEs for each area at the bottom of the box. All SPO positions are 12 month positions.

¹ The Superintendent’s Recommended FY08 Operating Budget and Personnel Complement, Chapter 7-72.

**Exhibit 3-3:
Division of School Plant Operations Personnel, FY08**



*The MCPS Operating Budget lists the building service supervisor, the administrative secretary, and 60 percent of the ICB building service workers as “non-operating budget positions” which are not included in SPO’s budget. Source: FY08 MCPS Personnel Complement

Staffing Summary. Table 3-2 shows the number of budgeted FTEs allocated to each of SPO’s function areas for FY06 to FY08.

Table 3-2: Budgeted FTEs, Division of School Plant Operations, FY06-FY08

Category	FY06	FY07	FY08	FY06-FY08 Change	
				#	%
Central Administration	5.0	4.0	4.0	-1.0	-20.0%
Field and Central Facilities	58.2	57.7	57.7	-0.5	-0.9%
School Supervision	6.0	6.0	6.0	0.0	0.0%
Schools	1,169.5	1,225.0	1,239.5	70.0	6.0%
Community Use of Public Facilities	32.0	32.0	32.0	0.0	0.0%
Total SPO FTEs	1,270.7	1,324.7	1,339.2	68.5	5.4%

Source: FY06-FY08 Operating Budgets and Personnel Complements

Overall SPO budgeted staff has increased by five percent from FY06 to FY08. Part B of this chapter contains a more detailed description of the number of staff by position.

B. School Plant Operations Responsibilities and Staffing

This part of the chapter contains the following four sections:

- Administrative responsibilities
- Administrative staffing
- School/facility-based responsibilities
- School/facility-based staffing

The discussion in this part distinguishes between SPO central office staff that perform administrative functions and school/facility-based staff who directly provide building services.

1. Administrative Responsibilities

This section provides an overview of four administrative staff functions that support school-based staff: allocating staff and supplies, hiring personnel, supervising schools, and providing training. This section then describes the specific responsibilities of key SPO administrative positions, including the director, supervisors, and trainers.

Staffing and Supplies Allocations. SPO administrative staff oversees all school plant operations and allocates staff based on a school's square-footage. SPO's goal of allocating one staff person per 17,000 square feet in each elementary school, one per 18,000 square feet in each middle school, and one per 19,000 square feet in each high school is consistent with industry best practices indicating that a custodian can clean approximately 18,000 to 20,000 square feet in an eight hour period to meet the industry standard of "ordinary tidiness."²

SPO administrative staff also allocate funding for supplies, such as cleaning products, toilet paper, and paper towels based in part on school square footage. However, SPO does not allocate equipment to schools based on square footage or a replacement schedule. When equipment breaks, SPO repairs it. However, if the equipment repair cost exceeds 75 percent of the replacement cost, SPO replaces it. MCPS reports that this practice prevents "junked equipment from entering the waste stream." When new technology is available, SPO may supply new equipment to schools, but this is not done on a routine basis.

Hiring Personnel. SPO administrators and supervisors respond to school staffing needs. When vacancies occur in a school's building service staff, SPO works with the Office of Human Resources to recruit qualified candidates, while the school interviews and selects applicants.

Schools frequently request temporary staff to fill vacancies or short-term or long-term absences. When a school has a vacancy, the area supervisor can approve overtime for existing staff or send temporary help. Each supervisor manages three permanent substitutes, known as rovers, and has the discretion to send to a school on a short-term or long-term basis when necessary. The SPO director manages temporary substitutes, who can also fill in when a regular worker is absent.

² Custodial Staffing Guidelines for Education Facilities; Association of Physical Plant Administrators; Alexandria, VA; 1998.

School Supervision. Supervisors carry out two formal inspections per year, but there are often more informal inspections. The formal inspections focus on restrooms and grounds: restrooms, because they are often the most challenging area to clean, and grounds, because it is the most visible part of the school to outsiders. When schools fail part of their inspection, they work with supervisors to correct problems.

Training. SPO provides several courses aimed at improving the productivity of its personnel. SPO trainers teach a basic skills course that is required for all new employees. Other courses offered are prerequisites for building service workers seeking promotion. For example, any building service worker interested in becoming a plant equipment operator, assistant manager, or manager, must take the Boiler Course, the Plant Equipment Operations Course, and the Air Conditioning Course, in that order. Appendix C describes the courses offered by SPO directly and in partnership with Montgomery College.

SPO also trains school-based staff in new cleaning methods and products. For example, after testing several new products, SPO chose to introduce a new cleaning product in schools, known as Alpha HP, which will be used for seven different functions (e.g., to clean restrooms, carpets, surfaces, and windows), replacing several other products. The building service trainer and specialists will provide training for all building service managers on the use of this new product. This product is central to SPO's plans to transition all schools to "green cleaning" described in Chapter VI on page 50.

Responsibilities for SPO Administrative Positions. A staff of twelve comprises the SPO central administrative team, including a director, trainers, and building service supervisors. There are also two administrators for community use: an ICB building service supervisor who manages the building service workers covering ICB activities and an administrative secretary. Table 3-3, below and on the next page, provides a summary of responsibilities by key SPO administrative position.

Table 3-3: Responsibilities for Key SPO Administrative Positions

Director
<p>Manages the Division of School Plant Operations and is responsible for ensuring that schools are clean, safe, attractive, and comfortable. Evaluates overall operational efficiency and identifies areas of potential improvement. Examples of duties include:</p> <ul style="list-style-type: none"> • Determining how funds and staff will be allocated to schools • Preparing, submitting, and justifying SPO's annual budget • Creating a strategic plan, updated annually, and working to achieve performance goals
Building Service Area Supervisors
<p>Responsible for providing technical support for an assigned area that encompasses several school clusters. Works closely with building service managers and principals to ensure that schools are clean and safe by offering advice and receiving feedback. Examples of duties include:</p> <ul style="list-style-type: none"> • Carrying out formal and informal inspections • Responding to temporary staffing needs • Arranging for equipment repairs

Table 3-3: Responsibilities for Key SPO Administrative Positions, continued

Building Service Trainer
Responsible for all building service training and supervising two building service training specialists, who assist in providing training. Examples of duties include: <ul style="list-style-type: none"> • Determining training needs and developing and organizing programs for building service staff • Teaching basic skills and leadership courses • Reviewing new cleaning products, equipment, and work methods to improve building services
ICB Building Service Supervisor
Manages building services for weekend community use and ICB building service workers to ensure sufficient support for ICB activities. Example of duties include: <ul style="list-style-type: none"> • Working with school principals and building service managers to determine the daily schedule for ICB workers • Assigning ICB workers to schools according to need • Helping to train ICB workers

Source: Division of School Plant Operations, MCPS Office of Human Resources

2. Administrative Staffing

This section provides a picture of the level of staffing for the positions described in the previous section. The table below describes the number of FTEs allocated to SPO’s administrative staff from FY06 to FY08.

Table 3-4: Budgeted FTEs by Administrative Position, FY06-FY08

	FY06	FY07	FY08
Director	1.0	1.0	1.0
Accountant	1.0	--	--
Building Service Supervisor, ICB	1.0	1.0	1.0
Administrative Secretary, ICB	1.0	1.0	1.0
Building Service Area Supervisor	6.0	6.0	6.0
Building Service Trainer	1.0	1.0	1.0
Building Service Training Specialist	5.0	2.0	2.0
Administrative Secretary	1.0	1.0	1.0
Fiscal Assistant	1.0	1.0	1.0
Total Administrative Staff	18.0	14.0	14.0
% of Total SPO Staff	1.4%	1.1%	1.0%

Source: FY07 and FY08 Operating Budget and Personnel Complement

The administrative staff remained unchanged from FY06 to FY08 except for two positions: one accountant position was eliminated after FY06, and three building service training specialist FTEs were moved to the Office of Organizational Development’s budget during FY06. The administrative staff of SPO comprises only 1 percent of SPO’s total budgeted FTEs for FY08.

3. School/Facility-Based Responsibilities

This section discusses the main responsibilities of the school-based building service staff, including a discussion of their relationship with maintenance and their role in the community use of public facilities. This is followed by a table describing the duties performed by each position. The responsibilities of facility-based building service staff are not addressed in depth here, but their responsibilities would be similar to those described below. The main difference between school- and facility-based staff is the presence and absence of students.

School-based staff receive support and supervision from the Division of School Plant Operations. They are, however, evaluated and supervised on a day-to-day basis by a school-based administrator: by the principal at elementary schools, by an assistant principal at middle schools, and by the business manager at high schools.

Staffing Requirements by School Level. Each school has a minimum of three building service workers: one full-time building service manager, one full-time assistant manager, and one FTE that can be filled by a full-time building service worker or split between two part-time workers (0.5 FTE each). Middle and high schools have a full-time plant equipment operator while building service managers fulfill this function in elementary schools. For FY07, the number of budgeted building service FTEs averaged 4.1 in each elementary school and 10.6 in each secondary school.³

Daily Schedule. There are typically two shifts for building service positions, with some overlap for part-time positions.

➤ **Shift One:** approximately 6:00 a.m. – 2:30 p.m.

The first shift begins before school starts, around 5:30 or 6:00 a.m., when the building service manager arrives to do a walk-through of the building and grounds to check for any trash or damage. Day workers maintain the cleanliness of facilities in areas of heavy use, such as hallways, lunchrooms, and restrooms, and respond to any issues that may arise.

➤ **Shift Two:** approximately 2:30 p.m. – 11:00 p.m.

Heavy cleaning is done during the second shift when there is less activity in the building. Most schools use a system called Systematic Team Cleaning, under which managers assign employees to a specific task (e.g., vacuuming or dusting) on a rotational basis, which they perform throughout the building. Based on the SEIU agreement with MCPS, all full-time shift two staff, including building service personnel, receive a five percent pay differential.

During the school year and summer breaks, the building service schedule varies depending on whether community use of the school occurs (e.g., summer camp) or another activity is planned, such as an HVAC replacement. In some cases, the school year schedule continues through the summer. In other cases, deep cleaning and repair work is completed. When it snows or when an emergency requires cleanup or repairs, the building service staff help remove the snow from the parking lots and sidewalks or perform other related tasks.

³ FY07 Personnel Complement; FY07 Citizens Budget; FY07 and FY08 CIP

Collaboration with the Division of Maintenance. SPO and Maintenance responsibilities overlap and there is close cooperation in many areas. For example, building service employees work closely with specialists in the Division of Maintenance to deal with potential problems related to asbestos or indoor air quality. In situations where building service staff lack necessary equipment or expertise for maintenance or repairs, the building service manager submits a work order to the school's assigned Maintenance depot (i.e., Bethesda, Clarksburg, or Randolph), which coordinates the response. In some cases, building service workers have taken on traditional maintenance responsibilities, such as painting walls, when maintenance is busy.

Community Use of Public Facilities. During the community use of public facilities at least one SPO building service worker must be on-duty to open and close the doors and monitor the activity. CUPF maintains an online schedule of activities that the building service manager checks regularly, and then schedules available staff for those times.

To accommodate weekly evening activities, building service staff modify their schedules to reduce overtime use. For weekend use, a building service staffer often works overtime to cover ICB activities. SPO also has budgeted for 60 part-time building service workers (known as ICB building service workers) assigned to cover weekend activities at schools with the highest weekend use. These workers are given cleaning assignments to do during the time between opening and closing for the community users. A weekend building service supervisor manages these workers, offering them support and training. This supervisor has the discretion to reallocate the ICB workers to schools with the most need. Chapter VIII discusses responsibilities and costs related to community use of public facilities in more detail.

Responsibilities for School-Based Positions. Table 3-5 describes the functions and responsibilities for school-based building service positions.

Table 3-5: Responsibilities for School-Based Positions

<p>Building Service Manager</p>
<p>Responsible for the management of plant operations of the assigned school, including the grounds. Supervises building service staff and trains new workers. Works during the first shift and serves as the main point of contact for school-based staff when they need assistance (e.g., setting up for events or cleaning up a spill). Receives guidance from an area supervisor and reports to the school's principal, vice principal, or business manager. Examples of tasks include:</p> <ul style="list-style-type: none"> • Providing building service staff with a schedule of tasks • Purchasing supplies (e.g., cleaning products and paper goods) • Performing general school plant maintenance and cleaning
<p>Building Service Assistant Manager</p>
<p>Supervises second-shift workers and is responsible for the upkeep and security of the building during that time. Provides oversight for school during evening community use. Reports to the building service manager. Examples of tasks include:</p> <ul style="list-style-type: none"> • Training building service staff in proper cleaning techniques • Performing general school plant maintenance and cleaning and boilers checks • Examining the building to ensure rooms have been cleaned and restocked

Table 3-5: Responsibilities for School-Based Positions, continued

Plant Equipment Operator
In middle schools and high schools, operates and performs routine servicing of heating and cooling equipment. Ensures that the equipment is working properly and safely and is maintained to prolong the life of the equipment. May also spend some time performing regular building service duties. Examples of tasks include: <ul style="list-style-type: none"> • Cleaning and checking boilers • Changing HVAC filters • Performing general school plant maintenance
Building Service Worker
Performs daily upkeep of the building. During school hours, duties mostly revolve around cleaning up after students or responding to problems that arise. After school, workers typically systematically clean the school and restock bathrooms. Examples of tasks include: <ul style="list-style-type: none"> • Dusting, vacuuming, removing trash • Responding to teacher requests such as cleaning spills • Maintaining the grounds, including snow removal
ICB Worker
Under the supervision of the ICB building service supervisor, maintains the security of the school during weekend community use and performs cleaning assignments. Examples of tasks include: <ul style="list-style-type: none"> • Opening and closing the building for authorized community users • Ensuring that windows and doors are locked and no unauthorized parties are present • Cleaning hallways, classrooms, and restrooms and monitoring HVAC equipment

Source: Division of School Plant Operations, MCPS Office of Human Resources and OLO School Site Visits

4. School- and Facility-Based Staffing

This section provides a picture of SPO's school- and facility-based workforce, including FTE and headcount data, and a discussion of the differences between these two data sets.

FTE Data. The table below shows the number of budgeted FTEs of all school- and facility-based workers (including permanent substitutes and building services staff for MCPS offices).

Table 3-6: Budgeted FTEs, School/Facility-Based Staff, FY06-FY08

Position Title	FY06	FY07	FY08	Change in FTE, FY06-08	
				#	%
Managers	212.0	216.0	216.0	4.0	1.9%
Assistant Managers/Work Leaders	203.0	209.0	210.0	7.0	3.4%
Plant Equipment Operators	68.0	69.0	69.0	1.0	1.5%
Building Service Workers, Shift 1	483.7	513.7	543.2	59.5	12.3%
Building Service Workers, Shift 2	256.0	273.0	257.0	1.0	0.4%
Building Service Workers, ICB*	30.0	30.0	30.0	0.0	0.0%
Total Building Service Staff	1,252.7	1,310.7	1,325.2	72.5	5.8%
<i>% of Total SPO Staff</i>	<i>98.6%</i>	<i>98.9%</i>	<i>99.0%</i>	<i>--</i>	<i>--</i>

* The MCPS Operating Budget lists 18 ICB building service worker FTEs as non-operating budget positions. Source: FY07 and FY08 Operating Budget and Personnel Complement.

Table 3-6 shows that school- and facility-based staff make up 99 percent of the total building service staff. Budgeted building service worker shift 1 FTEs increased by 12 percent between FY06 and FY08, more than any other position. Overall growth was about 6 percent, with a larger increase in FY07 (58.0 FTEs or 5%), compared with FY08 (14.5 FTEs or 1%).

Headcount Data. Table 3-7 shows headcount data for the same school- and facility-based positions in Table 3-6 for FY06 and FY07. Below that, Table 3-8 shows the variance between the FTE and headcount data.

Table 3-7: Headcount of Employees, School/Facility-Based Staff, FY06-FY07

Position Title	FY06	FY07	Change in Headcount, FY06-FY07	
			#	%
Managers	208	216	8	3.8%
Assistant Managers/Work Leaders	193	197	4	2.1%
Plant Equipment Operators	67	67	0	0.0%
Building Service Workers, Shift 1	602	653	51	8.5%
-Part-time	288	305	17	5.9%
-Full-time	314	348	34	10.8%
Building Service Workers, Shift 2	250	256	6	2.4%
Building Service Workers, ICB (<i>all part-time</i>)	44	45	1	2.3%
Total School/Facility Based Staff	1,364	1,434	70	5.1%
<i>Percent of Total SPO Staff</i>	<i>98.9%</i>	<i>99.0%</i>		

Source: Department of Financial Services, collected October 15th of each year

Table 3-8: Variance in Budgeted FTEs and Headcount, FY06-FY07*

Position	FY06	FY07	Explanation for Variance
Managers	-4.0	0.0	Vacancies
Assistant Managers/Work Leaders	-10.0	-12.0	Vacancies
Plant Equipment Operators	-1.0	-2.0	Vacancies
Building Service Workers, Shift 1	118.3	139.3	PT Staff & Vacancies
Building Service Workers, Shift 2	-6.0	-17.0	Vacancies
Building Service Workers, ICB	14.0	15.0	PT Staff & Vacancies
Total	111.3	123.3	PT Staff & Vacancies

*Variance = Headcount – Budgeted FTEs

Two explanations account for the variance shown in Table 3-8 between FTE and headcount data.

- **Part-time employees:** The headcount is higher than the number of FTEs for shift 1 and ICB building service workers because of part-time workers in both positions. All part-time building service workers are categorized as shift 1, regardless of the hours they work, because they do not receive the pay differential that full-time shift 2 workers receive. Additionally, all of the ICB building service workers are part-time.
- **Vacancies:** In all of the positions, there is a gap between FTEs and headcount because of vacancies. FTEs reflect the total number of budgeted positions, which does not account for vacancies. Headcount, on the other hand, measures the number of people employed at a point in time and does reflect vacancies in a position.

Vacancies. Examining filled FTEs illustrates the level of vacancy in the building service staff. Filled FTEs are the number of FTEs that are actually filled by an employee at a point in time based on headcount data and data on the full- and part-time status of employees. Table 3-9 shows the number of filled FTEs for FY06 and FY07. The difference between budgeted and filled FTEs equals the number of vacant FTEs at the time of data collection. This is illustrated in Table 3-10.

Table 3-9: Filled FTEs, School- and Facility-Based Staff, FY06-FY07

Position Title	FY06	FY07	Change in Filled FTEs, FY06-FY07	
			#	%
Managers	208.0	216.0	8.0	3.8%
Assistant Managers/Work Leaders	193.0	197.0	4.0	2.1%
Plant Equipment Operators	67.0	67.0	0.0	0.0%
Building Service Workers, Shift 1	458.0	500.5	42.5	9.3%
Building Service Workers, Shift 2	250.0	256.0	6.0	2.4%
ICB Building Service Workers	22.0	22.5	0.5	2.3%
Total School/Facility Based Staff	1,198.0	1,259.0	61.0	5.1%

Source: Calculated using data from the Department of Financial Services, collected October 15th of each year

Table 3-10: Variance in Budgeted FTEs and Filled FTEs (Vacant FTEs), FY06-FY07*

	Variance (FTEs)		Variance as % of Budgeted Personnel	
	FY06	FY07	FY06	FY07
Managers	-4.0	0.0	1.9%	0.0%
Assistant Managers/Work Leaders	-10.0	-12.0	4.9%	5.7%
Plant Equipment Operators	-1.0	-2.0	1.5%	2.9%
Building Service Workers, Shift 1	-25.7	-13.2	5.3%	2.6%
Building Service Workers, Shift 2	-6.0	-17.0	2.3%	6.2%
ICB Workers	-8.0	-7.5	26.7%	25.0%
Total	-54.7	-51.7	4.4%	3.9%

*Variance (Vacant FTEs) = Filled FTEs - Budgeted FTEs

Table 3-10, on the previous page, shows that ICB building service workers had the greatest percentage of vacancies of all building service positions.

Part-time Employees. As Table 3-7 on page 17 shows, a significant number of building service personnel are part-time. In 2007, 350 building service workers, or 24 percent of the school- and facility-based building service staff, worked part time.

To understand the distribution of part-time staff, the following table shows the number of part-time and full-time building service workers, not including ICB building service workers, for each school type in June 2007.

Table 3-11: Part-time Building Service Workers by School Type, Filled FTEs, June 2007

	Part-time	Full-time	Total Filled FTEs	% that are Part-time
Field and Central Facilities				
Building Service Worker, Shift 1	4.5	8	12.5	
Building Service Worker, Shift 2		12	12	
<i>Subtotal</i>			24.5	18.4%
Elementary Plant Operations				
Building Service Worker, Shift 1	100	140	240	
Building Service Worker Shift 2		36	36	
<i>Subtotal</i>			276	36.2%
Secondary Plant Operations				
Building Service Worker, Shift 1	55.5	209	264.5	
Building Service Worker Shift 2		211	211	
<i>Subtotal</i>			475.5	11.7%
Special/Alternative Programs Plant Operations				
Building Service Worker Shift 1	1	1	2	
Building Service Worker Shift 2		2	2	
<i>Subtotal</i>			4	25.0%
Total	161	619	780	20.6%

Source: Division of School Plant Operations, June 12, 2007

Table 3-11 demonstrates that elementary schools fill FTEs with part-time workers far more often than other schools: 36 percent of building service workers in elementary schools worked part-time compared with 12 percent in middle and high schools. Also according to this table, elementary schools employ 62 percent of all FTEs filled by part-time building service workers. Elementary Schools are smaller in size than other schools on average and therefore have fewer FTEs. Having two part-time workers rather than one full-time worker allows greater scheduling flexibility and leaves the school less vulnerable to worker absences.

CHAPTER IV: Budget and Expenditure Trends

MCPS' costs for school plant operations include the cost of wages, equipment and supplies, employee benefits, and training. This chapter describes MCPS' costs for school plant operations, cost drivers, and changes in school plant costs per student and per square foot. To the extent possible, this chapter describes budgeted data from FY04-FY08 and compares it to actual expenditure data for FY04-FY06 to describe variances between budgeted and actual expenditures.

The chapter is divided into three parts:

- **Part A, Trends in Total Costs**, describes OLO's method for estimating MCPS' costs for school plant operations and tracks FY04 to FY08 budget data;
- **Part B, Budget Cost Drivers**, describes four drivers of school plant costs – salaries, staffing, benefits, and workload drivers that include facility square footage; and
- **Part C, Expenditures per Square Foot and per Student**, describes changes in the cost of school plant operations per student and square foot from FY04 to FY07.

The data and information reviewed by OLO for this chapter led to several key observations. First, MCPS' budget for delivering school plant operations increased by 25 percent between FY04 to FY07, from \$57.0 to \$71.3 million, with personnel costs serving as the primary driver of MCPS' school plant costs. Second, SPO has consistently spent within budgeted parameters. Third, SPO spent nearly twice its overtime budget between FY04 and FY06. Fourth, MCPS' marginal costs for regular hours for building service workers are comparable to their costs for overtime. Fifth, the supplies budget managed by schools has grown at a slower pace than the budget managed by the central office. Sixth, additional data is required to fully understand MCPS' costs for school plant operations and supply costs in particular.

A. Trends in Total Costs

OLO's method for estimating MCPS' total costs for school plant are described in four sections:

- **Section 1, Data Sources for Estimating MCPS' Costs for School Plant Operations**, describes the data analyzed by OLO to estimate MCPS' costs for school plant operations;
- **Section 2, Trends in School Plant Total Costs**, summarizes the components of MCPS' total costs for school plant operations;
- **Section 3, Trends in Personnel Costs**, analyzes school plant personnel cost data; and
- **Section 4, Trends in Operating Costs**, synthesizes school plant operating cost data.

1. Data Sources for Estimating MCPS' Costs for School Plant Operations

MCPS' total expenses for funding school plant operations include SPO's budget and additional indirect personnel and operating costs reflected in other MCPS budgets. Indirect personnel costs include the cost of employee benefits budgeted by MCPS' Department of Financial Services (Financial Services). Indirect operating costs include the cost of SPO training delivered by Montgomery College and funded by MCPS' Office of Organizational Development.

To track SPO budget data, OLO analyzed data provided by the Budget Office that described budgeted data for FY04 to FY08 and actual cost data for FY04 to FY06. OLO used this data to compare variances between budgeted and actual costs. Neither the Budget Office nor SPO, however, track the actual cost of custodial supplies and equipment purchased by schools. Thus, OLO cannot assess the difference between supply and equipment budgets and actual costs.

To track detailed personnel data on wages and overtime, OLO analyzed data provided by SPO and the Department of Financial Services in addition to data provided by the Budget Office. However, in some instances that are noted, these three data sources are not comparable due to differences in staff included in figures or end of year changes made in the general ledger (i.e., the Budget Office) that are not reflected in payroll records used by Financial Services or SPO.

To track the cost of benefits for SPO employees, OLO relied on data provided by Financial Services to estimate MCPS' costs for pensions, FICA, and group insurance. OLO's estimate of these costs is described in Appendix A. Financial Services does not separately budget for benefits for SPO employees, so OLO is unable to compare budgeted costs for employee benefits to actual costs. Additionally, MCPS does not separately budget for workers compensation costs or retiree health benefits for SPO employees/retirees. Therefore, OLO cannot compare budgeted to actual costs in these benefit categories either.

To track the cost of training funded by the Office of Organizational Development, OLO relied on training cost data provided by SPO for Montgomery College courses.

2. Trends in School Plant Total Costs

MCPS' total expenses for school plant operations include both the SPO budget and personnel and operating costs included in the Financial Services and Office of Organizational Development (OOD) budgets. Table 4-1 provides OLO's estimate of MCPS' total expenses for school plant operations based on FY04 - FY06 actual costs for personnel and operations, FY07 budgeted costs for SPO expenses, and FY07 actual costs for benefits and Montgomery College courses.

Table 4-1: Estimated Total SPO-Related Expenditures, FY04-FY07* (\$ in millions)

	FY04	FY05	FY06	FY07	FY04-FY07 Change	
					\$	%
School Plant Personnel Costs						
Wages and Salaries (SPO)	\$41.28	\$43.15	\$45.25	\$49.38	\$8.11	19.6%
Benefits (Financial Services)	\$14.24	\$16.03	\$17.20	\$19.86	\$5.62	39.5%
<i>Personnel Subtotal</i>	<i>\$55.51</i>	<i>\$59.18</i>	<i>\$62.45</i>	<i>\$69.24</i>	<i>\$13.73</i>	<i>24.7%</i>
School Plant Operating Costs						
Equipment, Supplies, and Other (SPO)	\$1.62	\$1.66	\$1.78	\$1.99	\$0.36	22.4%
Montgomery College Courses (OOD)	\$0.04	\$0.04	\$0.04	\$0.05	\$0.01	12.7%
<i>Operating Subtotal</i>	<i>\$1.66</i>	<i>\$1.70</i>	<i>\$1.83</i>	<i>\$2.03</i>	<i>\$0.37</i>	<i>22.2%</i>
Total	\$57.17	\$60.88	\$64.28	\$71.27	\$14.10	24.7%

*This table is based on actual SPO costs for FY04-FY06 and budgeted costs for FY07.

Source: OLO estimate using FY04-FY07 Operating Budget, Division of School Plant Operations, and Department of Financial Services data.

Estimates of total costs described in Table 4-1 suggest that personnel costs have consistently made up 97 percent of overall school plant costs, compared to the costs of equipment, supplies, and Montgomery College courses, which have made up 3 percent of costs. Between FY04 and FY07, expenditures for salaries and wages increased 20 percent, from \$41.3 to \$49.4 million, while the cost of employee benefits increased by 41 percent from \$14.1 to \$19.9 million. Collectively, personnel costs for school plant operations increased by 25 percent. Alternately, operating costs for school plant increased by 22 percent during this time frame, from \$1.7 to \$2.0 million.

3. Trends in Personnel Costs

To describe trends in school plant personnel costs, this section describes SPO's costs for salaries and wages, overtime costs by position, and estimates of the Department of Financial Services' costs of benefits for SPO employees.

Costs for Salaries and Wages. Using SPO's budget for salaries and wages from FY04 to FY08 and actual costs for FY04 to FY06, this subsection describes SPO's personnel expenditures in five categories:

- **Salaries for school- and facility-based staff** includes regular wages for building service personnel, including ICB workers, and rovers housed in central office;
- **Salaries for administrators** includes salaries for the division director, building service supervisors, training staff, and other central-office based personnel;
- **Overtime** includes only overtime for SPO functions among school- and facility-based staff and excludes overtime for ICB activities, which SPO tracks separately (See Chapter VIII);
- **Substitutes** describes the cost of temporary workers; and
- **Other costs** include expenditures for longevity pay and staff time for special activities such as summer cleanup and football games.

Table 4-2 describes trends in budgeted personnel costs for SPO from FY04 to FY08.

Table 4-2: Budgeted SPO Personnel Expenditures, FY04-FY08 (\$ in millions)

Category	FY04	FY05	FY06	FY07	FY08	FY04-FY08 Change	
						\$	%
Salaries (school/facility-based)	\$40.39	\$42.02	\$44.49	\$47.67	\$50.88	\$10.49	26.0%
Salaries (administrative)	\$0.81	\$0.84	\$0.92	\$0.89	\$0.94	\$0.13	15.7%
Overtime	\$0.41	\$0.42	\$0.43	\$0.45	\$0.47	\$0.06	13.7%
Substitutes	\$0.13	\$0.34	\$0.30	\$0.31	\$0.33	\$0.20	159.7%
Other	\$0.05	\$0.05	\$0.05	\$0.06	\$0.06	\$0.01	13.7%
Total	\$41.80	\$43.68	\$46.21	\$49.38	\$52.68	\$10.88	26.0%

Source: MCPS Department of Management, Budget, and Planning

Table 4-2 shows that from FY04 to FY08, SPO budgeted expenditures for personnel increased by \$10.9 million (26%), from \$41.8 to \$52.7 million. Of this, \$10.5 million is attributable to increased salaries for school/facility-based staff. While the 160 percent increase in the substitutes budget between FY04 and FY08 is significant, comparison with actual substitute costs described in Table 4-3 demonstrates that SPO adjusted its FY05 budget for substitutes to reflect actual costs.

Table 4-3, below, describes actual SPO personnel costs from FY04 to FY06.

Table 4-3: Actual SPO Personnel Expenditures, FY04-FY06 (\$ in millions)

Category	FY04	FY05	FY06	FY04-FY06 Change	
				\$	%
Salaries (school/facility-based)	\$39.35	\$41.19	\$43.12	\$3.76	9.6%
Salaries (administrative)	\$0.79	\$0.83	\$0.90	\$0.11	14.0%
Overtime	\$0.81	\$0.83	\$0.87	\$0.06	7.8%
Substitutes	\$0.27	\$0.27	\$0.30	\$0.04	13.4%
Other	\$0.05	\$0.04	\$0.06	\$0.00	8.0%
Total	\$41.28	\$43.15	\$45.25	\$3.98	9.6%

Source: MCPS Department of Management, Budget, and Planning

Trends in actual expenditures from FY04 to FY06 show that a \$3.8 million increase in the cost of salaries for school/facility-based staff represented the majority of the \$4.0 million (10%) increase in actual expenditures.

Comparison between Tables 4-2 and 4-3 demonstrates that SPO consistently overspent on overtime between FY04 and FY06. While they budgeted for about \$400,000 each year; they expended more than \$800,000 annually. Nevertheless, SPO consistently spent within their overall personnel budget from FY04 to FY06. In particular, fund balances in school/facility-based salaries and other categories helped to offset overspending for substitutes in FY04 and for overtime between FY04 and FY06. SPO under-spent its budget by \$520,000 annually in FY04 and FY05 and under-spent their budget by \$960,000 in FY06. SPO reports that personnel lapse (i.e., vacancies) and directives to freeze new expenditures before the fiscal year's end accounts for their FY04 to FY06 variance.

Overtime Costs by Position. To describe SPO overtime costs in detail, this section describes overtime costs by position for FY06, the most recent year of actual expenditure data available. Table 4-4 on the next page describes SPO overtime costs for the following school- and facility-based positions: building service managers, assistant managers, plant equipment operators, and building service workers inclusive of ICB workers.

Table 4-4: SPO Overtime (OT) by Position, FY06

Position	Number Working OT	OT Hours	% of OT Hours	Total OT Wages Earned	Average OT Wages
Building Service Managers	213	11,706	34.1%	\$410,761	\$1,928
Assistant Managers	184	4,823	14.0%	\$125,653	\$683
Plant Equipment Operators II	11	260	0.8%	\$8,194	\$745
Plant Equipment Operator I	67	1,837	5.3%	\$55,683	\$831
Building Service Workers, Shift 1	445	12,385	36.1%	\$269,030	\$605
Building Service Workers, Shift 2	140	3,315	9.7%	\$72,628	\$519
Building Service Workers, ICB	6	26	0.1%	\$617	\$103
Total	1,009	34,351	100.0%	\$942,565	\$934

*Due to transfers, employees may be counted in more than one position. As a result, the total is less than the sum of employees by position.

Source: Division of School Plant Operations

According to Table 4-4, SPO reports spending \$942,565 for 34,351 overtime hours not related to ICB weekend activities.¹ Building service workers, including shift 1, 2, and ICB, worked about 46 percent of SPO overtime hours. Building service managers worked another 34 percent of overtime hours while assistant managers worked 14 percent of SPO overtime. Building service managers earned the most total overtime at \$410,761, followed by \$269,030 for shift 1 building service workers. Building service managers averaged \$1,928 in overtime wages while shift 1 building service workers averaged only \$605.

Estimated Costs for SPO Benefits. MCPS allocates the cost of benefits for SPO employees to the Department of Financial Services budget. This subsection summarizes OLO's estimates of Financial Services estimated costs for SPO employee benefits from in three areas: Social Security (i.e., FICA), group insurance, and pension contributions.² Table 4-5 on the next page describes estimates of these benefit costs for active SPO employees from FY04 to FY07.

¹ SPO based their data on MCPS' Lawson payroll database. The Department of Management, Budget, and Planning, which uses data from the general accounting system, shows only \$837,098 for actual FY06 overtime expenditures for SPO. Adjustments and corrections made in the general accounting system are not reflected in the payroll data.

² OLO calculated MCPS' FICA contributions using the Social Security Administration's rate of 7.56 percent. The group insurance estimates use the ratio of budgeted benefit costs to budgeted salary costs for all SEIU employees. OLO's estimate of pension contributions used the actual rates for SPO employees provided by the Department of Financial Services. Details of OLO's calculations appear in Appendix A.

Table 4-5: Estimated Benefit Expenses for SPO Employees, FY04-FY07* (\$ in millions)

Benefit Type	FY04	FY05	FY06	FY07	FY04-FY07 Change	
					\$	%
FICA (Social Security)	\$3.16	\$3.30	\$3.46	\$3.78	\$0.62	19.6%
Group Insurance	\$7.83	\$8.96	\$9.45	\$10.96	\$3.13	39.9%
Pension Contributions	\$3.24	\$3.77	\$4.29	\$5.12	\$1.88	57.8%
Total	\$14.24	\$16.03	\$17.20	\$19.86	\$5.62	39.5%

*FY04-FY06 estimates are based on actual salaries; FY07 estimates are based on budgeted.

Source: OLO estimates using Department of Financial Services data

In FY04, OLO estimates that MCPS spent \$14.2 million on benefits for SPO employees. By FY07, this amount increased by 39.5 percent to \$19.9 million. While group insurance costs were the largest contributor, increasing from \$7.8 million to \$11.0 million, pension contributions grew the fastest, increasing 58 percent, from \$3.2 million to \$5.1 million.

MCPS' April 19, 2007 response to the County Council explaining the increase in MCPS' pension contributions for all active employees between FY04 and FY06 provides some context for understanding why pension contributions for SPO employees increased. To explain the 77 percent increase in pension contributions during this time frame,³ MCPS states the following:

“During the period from FY 2004 through FY 2006, the pension fund was impacted by investment losses of 2001 and 2002. These investment returns are smoothed over a five year period, so they continue to increase the budgetary contributions. . . . MCPS also included the costs from the 2006 pension enhancements in the contribution rate in 2006, increasing it from 3.74 percent to 4.85 percent. The BOE contributions for the next three to five years are projected to be approximately 4.2 percent of the total salaries. However, this percentage may increase to improve the funded rates of the retirement plan.”⁴

Estimated MCPS Costs for Half-time, Full-time and Overtime. MCPS' cost for staff includes wages and employer contributions for employee benefits. Using average salary and benefit cost data provided by the Department of Financial Services, Table 4-6 describes the estimated compensation for the average half-time and full-time grade 6 building service worker in FY07.

Table 4-6: Estimates of MCPS Compensation Costs per Half-Time and Full-Time Building Service Worker, FY07

Employee Type	Average Salary	FICA	Group Insurance	Pension	Estimated Compensation	Estimated Load*
Half-time	\$14,537	\$1,122	\$7,574	\$1,403	\$24,623	69.5%
Full-time	\$31,340	\$2,398	\$7,574	\$3,024	\$44,336	41.5%

*Load refers to the ratio of benefits costs to salary costs

Source: OLO estimates based on MCPS Department of Financial Services data

³ OLO Report Number 2007-5, *Key Fiscal Indicators for Montgomery County Public Schools*, p. 36.

⁴ Final OLO Report ED Committee Questions, submitted to the County Council on April 19, 2007.

Table 4-6 demonstrates a higher load for half-time building service workers compared to their full-time peers. This pattern results from the equal contribution that MCPS makes for group insurance for half and full-time SPO staff. Table 4-7 below describes MCPS' hourly costs for building service workers scheduled for half-time, full-time, and overtime to describe MCPS' marginal costs for building service worker hours.

Table 4-7: Estimated MCPS Hourly Costs for Grade 6 Building Service Workers for Half-Time, Full-Time, and Overtime, FY07*

Staff Hour Type	Wage Rate	FICA Rate	Other Benefits Rate**	Total MCPS Rate
Half-time	\$14.54/hr	\$1.12/hr	\$8.98/hr	\$24.63/hr
Full-time	\$15.67/hr	\$1.20/hr	\$5.30/hr	\$22.17/hr
Overtime***	\$23.51/hr	\$1.80/hr	--	\$25.31/hr

* Rates based on 1000 hours for half-time, 2000 hours for full-time

**Other benefits include MCPS contributions to group insurance and pensions

***Overtime based on premium rate for average full-time worker of time and a half.

Source: OLO estimates based on MCPS Department of Financial Services data

According to Table 4-7, the marginal hourly costs to MCPS of regular staff time hours for half- and full-time building service workers are comparable to their overtime costs for the same personnel. In FY07, MCPS' estimated costs were \$24.63 per hour for half-time building service workers, \$22.17 per hour for full-time workers, and \$25.31 per hour for overtime among full-time workers.

4. Trends in Operating Costs

To describe trends in school plant operating costs, this section tracks data on SPO operating costs for consultants, supplies, materials, and equipment; supply and material allocations; and Montgomery College training costs funded by MCPS' Office of Organizational Development. Together, school plant operating costs represent 3 percent of MCPS' overall costs for school plant operations.

Operating Costs. This subsection describes four categories of direct operating costs:

- **Consultants and equipment repair**, including contractual costs for consultants and equipment repair;
- **Equipment replacement**, including equipment for SPO training classes and for schools whose equipment repair exceeds 75 percent of its replacement costs;
- **Supplies and materials**, including cleaning and bathroom supplies for facilities, uniforms, air conditioning filters, sealant for gym floors, and office supplies; and
- **Other costs**, such as cover travel, cell phones, and employee recognition programming.

Table 4-8 summarizes the SPO operating budget by category from FY04 to FY08.

Table 4-8: Budgeted SPO Operating Expenditures, FY04-FY08 (\$ in millions)

Budget Category	FY04	FY05	FY06	FY07	FY08	FY04-FY08 Change	
						\$	%
Consultants and Equipment Repair	\$0.07	\$0.07	\$0.08	\$0.10	\$0.10	\$0.03	38.2%
Equipment Replacement	\$0.14	\$0.14	\$0.14	\$0.14	\$0.59	\$0.45	318.4%
Supplies and Materials	\$1.34	\$1.42	\$1.54	\$1.66	\$1.74	\$0.40	29.4%
Other	\$0.07	\$0.07	\$0.07	\$0.08	\$0.08	\$0.01	19.0%
Total	\$1.63	\$1.70	\$1.83	\$1.99	\$2.51	\$0.89	54.3%

Source: FY05-FY07 Operating Budgets; MCPS Department of Management, Budget, and Planning

Table 4-8 shows that from FY04 to FY08, SPO's budgeted operating expenses increased from \$1.6 million to \$2.5 million (54%). Much of this growth was in supplies and materials, which increased by \$400,000 (29%). Cleaning and bathroom supplies for schools and other facilities make up the majority of costs in this category followed by uniforms, air conditioning filters, sealant for gym floors, and office supplies. An additional \$450,000 of the increase is in the equipment replacement category. However this entire amount represents the one-time FY08 budget for new floor burnishers.

Table 4-9 describes actual operating expenditures by category for SPO from FY04 to FY06.

Table 4-9: Actual SPO Operating Expenditures, FY04-FY06 (\$ in millions)

Budget Category	FY04	FY05	FY06	FY04-FY06 Change	
				\$	%
Consultants and Equipment Repair	\$0.13	\$0.14	\$0.19	\$0.06	41.2%
Equipment Replacement	\$0.13	\$0.12	\$0.08	-\$0.05	-37.0%
Supplies and Materials	\$1.32	\$1.31	\$1.43	\$0.11	8.7%
Other	\$0.04	\$0.10	\$0.08	\$0.04	109.0%
Total	\$1.62	\$1.66	\$1.78	\$0.16	10.1%

Source: FY05-FY07 Operating Budgets

According to Table 4-9, SPO's operating costs increased by 10 percent (\$160,000) between FY04 and FY06, which is similar to the increase in SPO personnel costs during this time frame (see Table 4-3). The \$110,000 increase in supply and materials costs made up the majority of the actual increase in operating costs followed by a \$60,000 increase in equipment repairs and \$40,000 increase in other costs. An overall \$210,000 increase in operational costs was offset in part by a \$50,000 decrease in the cost of replacing equipment during this time frame.

Comparisons between Tables 4-8 and 4-9 show that from FY04 to FY06, SPO's actual operating expenses stayed within budgeted expenses. Notably, SPO consistently spent around twice the budgeted amount on equipment repairs, but lower costs in other categories offset this over expenditure.

SPO Supply and Material Allocations. Each year, SPO allocates funding for custodial supplies into four accounts: elementary schools, secondary schools, special/alternative schools, and central office.

From the custodial supplies allocations for schools and other facilities, SPO reserves funding for gym floor sealant and an emergency reserve fund. SPO allocates the remainder of the school supply allocations to schools for custodial supplies (e.g., cleaning chemicals, bathroom tissue, and hand soap). SPO's allocation for central office includes custodial supplies for other facilities (i.e. administrative/field offices) that include such buildings as Carver Educational Services Center and bus and maintenance depots. The supply allocation for central office also includes system-wide funding for uniforms, air conditioning filters, and training supplies.

Table 4-10 describes SPO's supply allocations by facility and expenditure type from FY04 to FY08.

Table 4-10: Budgeted Supply Allocations, FY04-FY08 (\$ in millions)

	FY04	FY05	FY06	FY07	FY08	FY04-FY08 Change	
						\$	%
Custodial Supply Allocations							
Elementary	\$0.41	\$0.42	\$0.47	\$0.49	\$0.54	\$0.13	30.4%
Middle	\$0.17	\$0.17	\$0.18	\$0.18	\$0.19	\$0.03	15.2%
High	\$0.21	\$0.22	\$0.23	\$0.24	\$0.26	\$0.05	22.0%
Special/Alternative	\$0.02	\$0.02	\$0.02	\$0.02	\$0.02	\$0.01	26.4%
Administrative/Field Offices	\$0.03	\$0.03	\$0.03	\$0.03	\$0.04	\$0.02	54.7%
<i>Subtotal Custodial Supplies</i>	<i>\$0.84</i>	<i>\$0.85</i>	<i>\$0.94</i>	<i>\$0.97</i>	<i>\$1.05</i>	<i>\$0.22</i>	<i>26.0%</i>
Other Supply Expenditures							
AC Filters, Uniforms, Training Supplies, Office Supplies, General Maintenance	\$0.27	\$0.32	\$0.34	\$0.37	\$0.38	\$0.11	42.8%
Gym floor sealant and reserve	\$0.24	\$0.24	\$0.26	\$0.32	\$0.31	\$0.06	26.5%
<i>Subtotal other</i>	<i>\$0.51</i>	<i>\$0.57</i>	<i>\$0.60</i>	<i>\$0.69</i>	<i>\$0.69</i>	<i>\$0.18</i>	<i>35.1%</i>
Total Supplies	\$1.34	\$1.42	\$1.54	\$1.66	\$1.74	\$0.40	29.4%

Source: Division of School Plant Operations; MCPS Department of Management, Budget, and Planning

Table 4-10 demonstrates that the supply budgets managed by SPO central office increased at a higher rate than the budgets managed by schools. In particular, the allocation for administrative and field offices managed by central office increased by 55 percent and the allocation for other supplies managed by central office increased by 35 percent compared to the allocations managed by elementary schools increasing by 30 percent, the allocations managed by middle schools increasing 15 percent, and the allocations managed by high schools increasing 22 percent.

SPO reports that the Carver Educational Service Center and field-based depots regularly exhaust their supply budget before the end of the year, leading to a shortage of cleaning supplies and bathroom supplies that is filled in part by SPO's reserve fund. As shown in Table 4-10, SPO plans to increase the supply allocation to these offices to reduce the need for reserve funds in FY08. The school personnel interviewed for this project also indicated that they exhaust their SPO supply budgets managed by their schools before the end of the year. Schools reported using funds from other sources, such as rewards for energy savings and ICB reimbursements, to pay for cleaning and bathroom supplies. Some schools also reporting recycling and rationing custodial supplies to ensure they lasted through the end of the year.

Neither MCPS nor SPO track the additional costs of supplies purchased by schools and facilities. As such, OLO can neither describe nor analyze the variance between SPO's supply and materials allocation and the actual cost of custodial supplies and materials for schools or other facilities.

Training Costs. Through its partnership with Montgomery College, SPO offers staff training on boilers, plant equipment operations, and air conditioning. These expenditures appear in the budget for the Office of Organizational Development. Table 4-11, below, describes SPO budgeted and actual expenditures for Montgomery College training from FY05 to FY07.

Table 4-11: SPO Budgeted and Actual Expenditures for Montgomery College Training, FY05-FY07

	FY05	FY06	FY07	FY05-FY07 Change	
				#	%
Number of Participants	215	225	250	35	16.3%
Budgeted Expenditures	\$44,786*	\$45,483	\$46,495	\$1,709	3.8%
Actual Expenditures	\$43,317	\$44,284	\$49,946	\$6,629	15.3%

*OLO estimate using FY04 actual cost of \$42,654 and SPO's assumption of 5% annual increase.

Source: Division of School Plant Operations

Table 4-11 demonstrates the budget for Montgomery College training increased by 4 percent between FY05 and FY07, but actual expenditures increased by about 15 percent. SPO reports that the Office of Organizational Development has budgeted \$52,441 for Montgomery College classes for SPO personnel for FY08. Additional detail on Montgomery College training costs and enrollment appear in Appendix C.

B. Budget Cost Drivers

This section discusses four drivers of school plant costs: salaries, staffing, employee benefits, and workload drivers that include facility square footage. Understanding the specific impact of each driver on personnel costs is beyond the scope of this report. However, this section is useful because it provides context for how MCPS decisions regarding salaries, staffing, benefits, and workload drivers shape school plant costs, and personnel costs in particular.

1. Salary Increases

As described on Table 4-2, budgeted salaries for both facility-based and central office SPO personnel increased 26 percent from \$41.2 million in FY04 to \$51.8 million in FY08. At least two factors account for the increase in SPO salary costs: increases in salaries for existing staff and increases in the number of staff. This section discusses the increases in salary for existing staff while the next section describes the impact of staff increases on salary costs.

SPO personnel receive raises based on negotiated salary increases in the SEIU agreement and longevity pay based on seniority after 10, 14, and 18 years. Table 4-12 describes changes in the salary ranges for school-based building service personnel between FY04 and FY08.

Table 4-12: Salary Ranges for School/Facility-Based SPO Employees, FY04-FY08

Position	FY04	FY05	FY06	FY07	FY08	FY04-FY08 Change	
						\$	%
Managers							
Minimum	\$29,494	\$30,077	\$30,909	\$32,157	\$33,696	\$4,202	14.2%
Maximum*	\$49,587	\$50,586	\$51,979	\$54,080	\$56,680	\$7,093	14.3%
Assistant Managers							
Minimum	\$25,106	\$25,605	\$26,312	\$28,558	\$29,931	\$4,826	19.2%
Maximum*	\$40,955	\$41,766	\$42,910	\$49,067	\$51,418	\$10,462	25.5%
Plant Equipment Operator II							
Minimum	\$28,371	\$28,933	\$29,723	\$30,930	\$32,406	\$4,035	14.2%
Maximum*	\$38,938	\$39,707	\$40,789	\$42,432	\$44,470	\$5,533	14.2%
Plant Equipment Operator I							
Minimum	\$27,227	\$27,768	\$28,538	\$29,682	\$31,096	\$3,869	14.2%
Maximum*	\$37,128	\$37,877	\$38,917	\$40,477	\$42,411	\$5,283	14.2%
Building Service Workers (All shifts and ICB**)							
Minimum	\$23,109	\$23,566	\$24,211	\$25,189	\$26,395	\$3,286	14.2%
Maximum*	\$31,366	\$31,990	\$32,864	\$34,174	\$35,818	\$4,451	14.2%

* Each position may earn longevity pay that is not reflected; pay differentials are also not reflected.

** All ICB workers and some regular building service workers are part-time (20 hours a week). Therefore, their salary ranges would be half the amount of full-time workers.

Sources: FY04-FY08 Operating Budgets

Table 4-12 indicates that salary ranges for most school based positions increased by 14 percent between FY04 and FY08. If there were no turnover among SPO staff, increases in salaries for existing staff of \$5.9 million⁵ would have accounted for about half of the increase in SPO salary costs. Table 4-10 also indicates that salary ranges for assistant managers increased by 19 and 26 percent. This increase reflects the FY07 upgrading of these former Grade 9 positions into the Grade 10 positions that better reflect the responsibilities of assistant managers.

To provide additional context for the increase in SPO salaries, Table 4-13 describes average salaries, excluding overtime pay, for facility-based SPO staff for the two years with available data, FY05 and FY07.

Table 4-13: Average Annual Salaries of SPO Employees, FY05 and FY07

Position Type	FTEs		Average Salary*		FY05-FY07 Change in Average Salary	
	FY05	FY07	FY05	FY07	\$	%
Building Service Manager	210.0	216.0	\$48,132	\$50,815	\$2,683	5.6%
Assistant Manager	201.0	209.0	\$38,290	\$42,365	\$4,075	10.6%
Plant Equipment Operator II	25.0	26.0	\$43,185	\$45,677	\$2,492	5.8%
Plant Equipment Operator I	41.0	43.0	\$40,946	\$40,889	(\$57)	-0.1%
Building Service Worker, Shift 1	458.7	513.7	\$30,203	\$31,340	\$1,137	3.8%
Building Service Worker, Shift 2	248.0	273.0	\$30,673	\$30,699	\$27	0.1%
Building Service Worker, ICB	12.0	12.0	\$13,926	\$14,537	\$610	4.4%

*OLO estimates based on SPO average hourly rates on 12/15/04 and 11/15/06 for 2080 hours/year.

Source: Division of School Plant Operations

Table 4-13 demonstrates that between FY05 and FY07, assistant managers experienced the highest increases in average salaries followed by plant equipment operators II, and building service managers. Comparing Table 4-13 to Table 4-12 also demonstrates that the average salaries of all positions except ICB workers exceeded the mid-point of their position salary ranges. In fact, the average salaries of plant equipment operators exceed the maximum salary range due to longevity pay.

2. Staffing Increases

The number of SPO staff, particularly by full- and half-time status, also drives salary and benefit costs for school plant operations. This section describes how more FTEs and numbers of employees (i.e., head count) impacts salary and benefit costs. To begin, Table 4-14, on the next page, describes changes in budgeted FTEs between FY04 and FY08.

⁵ OLO estimate based on \$41.2 million (the cost of the budgeted salaries of school/facility-based and administrative staff, see Table 4-2 on page 22) multiplied by 14.2 percent for raises

Table 4-14: Budgeted FTEs, School Plant Operations, FY04-FY08

	FY04	FY05	FY06	FY07	FY08	FY04-FY08 Change	
						#	%
School- and Facility-Based Staff							
Managers	208.0	210.0	212.0	216.0	216.0	8.0	3.8%
Assistant Managers/Work Leaders	200.0	201.0	203.0	209.0	210.0	10.0	5.0%
Plant Equipment Operators	65.0	66.0	68.0	69.0	69.0	4.0	6.2%
Building Service Workers, Shift 1	448.7	458.7	483.7	513.7	543.2	94.5	21.1%
Building Service Workers, Shift 2	243.0	248.0	256.0	273.0	257.0	14.0	5.8%
Building Service Workers, ICB*	30.0	30.0	30.0	30.0	30.0	0.0	0.0%
<i>Subtotal School-Based Staff</i>	<i>1,194.7</i>	<i>1,213.7</i>	<i>1,252.7</i>	<i>1,310.7</i>	<i>1,325.2</i>	<i>130.5</i>	<i>10.9%</i>
Administrative Staff – Director, Building Service Supervisors, Trainers and Others							
<i>Subtotal Administrative Staff</i>	<i>14.0</i>	<i>14.0</i>	<i>18.0</i>	<i>14.0</i>	<i>14.0</i>	<i>0.0</i>	<i>0.0%</i>
Total FTEs for SPO	1,208.7	1,227.7	1,270.7	1,324.7	1,339.2	130.5	10.9%

* The MCPS Operating Budget lists 18 ICB building service worker FTEs and the ICB supervisor and administrative assistant as non-operating budget positions.

Source: FY05-FY08 Operating Budgets and Personnel Complements

According to Table 4-14, the number of school plant positions increased by 130.5 FTEs (11%) between FY04 to FY08. Assuming that the cost of salaries increased by 11 percent during this time frame as a result of the increase in FTEs, OLO estimates that new positions added \$4.5 million to SPO's salary costs and represent about 40 percent of the increase in budgeted salaries.⁶

3. Increasing Cost of Benefits

As described in Table 4-5, the cost of employee benefits increased from \$14.1 million in FY04 to \$19.9 million in FY07. At least three factors account for increases in benefit costs. The first is the increasing costs of benefits per employee, particularly for health insurance included in group insurance and for retirement costs. The second factor is the increase in the number of SPO FTEs since FY04. The third factor is the number of half-time personnel. More specifically, if SPO uses two half-time workers to fill one FTE, it doubles MCPS' costs for group insurance compared to hiring a full-time worker.

As noted in Chapter II, building service workers include both half-time and full-time employees. Shift 1 positions include employees who work a full-time first shift as well as those who work half-time first or second shift schedules. All ICB building service workers are half-time. Table 4-15 on the next page describes the number of full- and half-time building service workers from FY04 to FY07.

⁶ OLO estimate based on \$41.2 (see Table 4-2 on page 22) multiplied by 11 percent.

Table 4-15: Number of Part-Time and Full-Time Building Service Workers by Headcount, FY04-FY07

Position Status	FY04	FY05	FY06	FY07	FY04-FY07 Change	
					#	%
Full-Time	542	552	564	604	62	11.4%
Half-Time*	285	289	332	350	65	22.8%
Total	827	841	896	954	127	15.4%

* A minimal number of workers may be in multiple positions and be counted twice.
 Source: Department of Financial Services, October 15 data collection

From FY04 to FY07, the number of building service workers for all shifts increased 15 percent, and the number of part-time positions grew at twice the rate of full-time positions. In FY07, half-time personnel comprised 37 percent of all building service workers.

The higher load for employee benefits for half-time building service staff acts as a cost driver for MCPS' school plant costs. As noted in Table 4-6 on page 25, the load (i.e., ratio of benefits costs to wages) for half-time building service workers was 69 percent compared to 42 percent for their full-time peers in FY07. The difference in load results from MCPS contributing approximately \$7,574 per SPO employee for group insurance in FY07, regardless of half- or full-time status. As such, the increasing use of two half-time personnel to fill one building service FTE acts as a cost driver for Department of Financial Services benefit costs for SPO personnel.

4. Workload Drivers

SPO has a number of workload drivers, which in turn also drive school plant costs. They include the number of schools and other facilities; number of square feet; and changes in student enrollment. For example, as the number of facilities and square feet maintained by SPO increases, so does demand for employees and supplies. This section describes these cost drivers to provide context for the changes that have occurred in school plant total costs.

SPO allocates school-based staff with the goal of assigning one position per 17,000 square feet in elementary schools, one position per 18,000 square feet in middle schools, and one position per 19,000 square feet in high schools. SPO also allocates the grades of building service manager, assistant manager, and plant equipment operator based on the sizes of the schools. Assistant managers are graded according to a formula that also includes community use on weekdays, number of portables, and student enrollment at the school. SPO reports that a similar approach will be used to grade building service managers in the future.

Table 4-16, on the next page, describes the actual and projected number of schools, facilities, and square feet.

Table 4-16: Changes in Number of Schools, Facilities, and Square Feet, FY04-FY08

School/Facility Type	FY04	FY05	FY06	FY07	FY08	FY04-FY08 Change	
						#	%
Number of Schools and Other Facilities							
School facilities	193	194	196	201	201	8	4.1%
Administrative/Field Offices	15	15	15	15	15	0	0.0%
Leased/Holding Schools	10	10	10	10	10	0	0.0%
Total	218	219	221	226	226	8	3.7%
Number of Square Feet (in millions)							
Elementary	8.27	8.32	8.52	8.88	9.00	0.73	8.8%
Middle	4.88	4.90	5.18	5.16	5.15	0.28	5.7%
High	6.43	6.79	6.80	7.22	7.37	0.94	14.6%
Special/Alternative	0.37	0.37	0.37	0.37	0.37	0.00	-0.5%
Administration/Field Offices	0.75	0.75	0.70	0.70	0.71	-0.04	-5.3%
Leased/Holding Schools	0.59	0.36	0.36	0.37	0.38	-0.21	-3.5%
Total	21.28	21.48	21.93	22.69	22.98	1.69	8.0%

Source: Division of School Plant Operations

As shown in Table 4-16, the number of schools and the number of square feet maintained by SPO have increased between FY04 and FY08. During this time frame, the number of schools maintained by SPO increased from 193 to 201. This involved an increase of 1.9 million square feet, or about 9 percent. The most significant increase was in high schools, where the number of square feet grew by almost one million (15 percent). This is followed by elementary schools, which gained almost three-quarters of a million square feet.

For additional context, Table 4-17 describes trends in student enrollment and the Capital Improvement Program (CIP).

Table 4-17: Changes in Student Enrollment and the CIP, FY04-FY08

	FY04	FY05	FY06	FY07	FY08	FY04-FY08 Change	
						#	%
Student Enrollment	139,203	139,337	139,387	137,798	137,007*	-2,196	-1.6%
CIP (\$ in millions)	\$108.64	\$172.01	\$184.73	\$257.14	\$239.21	\$130.61	120.3%

*Projected enrollment

Sources: FY04-FY08 Operating Budgets, FY04-FY08 Capital Improvement Plan

In contrast to the increase in the number of schools and square feet, Table 4-17 projects a decrease in enrollment of 2,196 students between FY04 and FY08. The \$130.6 million increase in the Capital Improvement Program between FY04 and FY08, however, suggests that the increasing demand for building services associated with new construction will more than offset the decrease in demand associated with lower student enrollment.

C. Expenditures per Square Foot and per Student

This part of the chapter describes school plant operations expenditures per square foot and per student from FY04 to FY07 based on OLO's estimates of MCPS costs for school plant operations.

1. Expenditures per Square Foot

This section describes changes in total school plant operations costs per square foot from FY04 to FY07. Cost per square foot is a widely accepted industry standard for evaluating efficiency. SPO uses square footage to allocate staff and supplies and to grade managers and assistant managers, making it an important variable of SPO expenditures.

Table 4-18 describes changes in SPO's total costs per square foot from FY04 to FY07.

Table 4-18: School Plant Expenditures Per Square Foot, FY04-FY07*

	FY04	FY05	FY06	FY07	FY04-FY07 Change	
					#	%
Totals Used for Calculations (in millions)						
School Plant Personnel Costs	\$55.51	\$59.18	\$62.45	\$69.24	\$13.73	24.7%
School Plant Operating Costs	\$1.66	\$1.70	\$1.83	\$2.03	\$0.37	22.2%
Number of Square Feet**	20.69	21.13	21.57	22.32	1.63	7.9%
School Plant Personnel Costs per Square Foot						
Wages and Salaries	\$1.99	\$2.04	\$2.10	\$2.21	\$0.22	10.9%
Benefits	\$0.69	\$0.76	\$0.80	\$0.89	\$0.20	29.3%
<i>Personnel Subtotal</i>	<i>\$2.68</i>	<i>\$2.80</i>	<i>\$2.90</i>	<i>\$3.10</i>	<i>\$0.42</i>	<i>15.6%</i>
School Plant Operating Costs per Square Foot						
Supplies, Equipment, and Other	\$0.08	\$0.08	\$0.08	\$0.09	\$0.01	13.3%
Estimated Total	\$2.76	\$2.88	\$2.98	\$3.19	\$0.43	15.5%

*Based on actual SPO costs for FY04-FY06 and budgeted costs for FY07.

**Does not include leased/holding schools

Source: OLO estimate using FY05-FY08 Operating Budget, Division of School Plant Operations, and Department of Financial Services data

Table 4-18 suggests that from FY04 to FY07, school plant total cost per square foot increased \$0.43, or almost 16 percent from \$2.76 in FY04 to \$3.19 in FY07. Table 4-18 also suggests that personnel costs per square foot increased at a faster rate than supply and equipment costs per square foot (i.e., 16 percent compared to 14 percent).

2. Expenditures per Student

A second measure of changes in MCPS' efficiency at delivering school plant functions is its cost per student. SPO has not historically used student enrollment to make decisions. However, SPO has recently included enrollment as a factor in grading for assistant building service managers.

Table 4-19 shows OLO's estimates of changes in school plant expenditures per student from FY04 to FY07, including changes due to benefits and Montgomery College training.

Table 4-19: School Plant Expenditures Per Student, FY04-FY07*

	FY04	FY05	FY06	FY07	FY04-FY07 Change	
					#	%
Totals Used for Calculations						
School Plant Personnel Costs	\$55.51	\$59.18	\$62.45	\$69.24	\$13.73	24.7%
School Plant Operating Costs	\$1.66	\$1.70	\$1.82	\$2.04	\$0.37	22.3%
Student Enrollment	139,203	139,337	139,387	137,798	-1,405	-1.0%
School Plant Personnel Costs per Student						
Wages and Salaries	\$296.51	\$309.72	\$324.65	\$358.36	\$61.85	20.9%
Benefits	\$102.27	\$115.02	\$123.41	\$144.13	\$41.86	40.9%
<i>Personnel Subtotal</i>	<i>\$398.78</i>	<i>\$424.73</i>	<i>\$448.06</i>	<i>\$502.49</i>	<i>\$103.71</i>	<i>\$0.26</i>
School Plant Operating Costs per Student						
Supplies and Equipment	\$11.65	\$11.91	\$12.80	\$14.41	\$2.76	23.7%
Montgomery College Training	\$0.30	\$0.31	\$0.32	\$0.34	\$0.04	13.9%
<i>Operating Subtotal</i>	<i>\$11.95</i>	<i>\$12.22</i>	<i>\$13.12</i>	<i>\$14.75</i>	<i>\$2.80</i>	<i>23.4%</i>
Estimated Total	\$410.73	\$436.96	\$461.18	\$517.24	\$106.51	25.9%

*FY04-FY06 estimates are based on actual salaries; FY07 estimates are based on budgeted.

Source: OLO estimate using FY05-FY08 Operating Budget, Division of School Plant Operations, and Department of Financial Services data

Table 4-19 estimates that school plant total cost per student increased by \$107 (26%) from \$411 per student in FY04 to \$517 per student in FY07. The cost of wages and salaries for SPO personnel per student grew by \$62 (21%) during this time frame from \$297 per student to \$358. MCPS' cost of benefits for SPO personnel per student grew by \$42 (41%) from \$102 per student to \$144 per student. The supply and equipment budget grew by only \$2.76 per student, from \$11.65 in FY04 to \$14.41 in FY07. As noted in Table 4-10 on page 28, a little more than half of the supply allocation was managed directly by schools and the remainder was managed by the central office.

Appendix B (see circle 3) compares changes in the SPO budget to changes in the MCPS operating budget overall and notes that MCPS actual operating costs increased 20.5 percent between FY04 and FY06 and that budgeted operating costs increased by 32.2% between FY04 and FY08. Recognizing the small changes in student enrollment noted on Table 4-17 on page 34, the increase in school plant expenditures per student reported in Table 4-19 are consistent with overall changes in the MCPS per student operating costs. Conversely, school plant costs per square foot described in Table 4-18 grew at a slower pace than (16%) than the overall MCPS operating budget or per student costs.

CHAPTER V: Major Mandates

This chapter provides an overview of the major Federal, State, County, and MCPS mandates that the Division of School Plant Operations must comply with as part of its ongoing work. This chapter offers broad descriptions of major mandate and SPO's efforts to adhere to related requirements. Organized into nine parts, the mandates described are:

- **Part A, Hazardous Materials;**
- **Part B, Bloodborne Pathogens;**
- **Part C, Lockout/Tagout;**
- **Part D, Integrated Pest Management;**
- **Part E, Boiler Licensing;**
- **Part F, Emergency Plans;**
- **Part G, School Facilities Utilization;**
- **Part H, Fire Safety; and**
- **Part I, Solid Waste, Recycling, and Energy Conservation.**

OLO's review found that SPO meets many of their regulatory requirements through interaction with the Department of Facilities Management and the Division of Maintenance and through employee training. Table 5-1 on pages 42-43 summarizes these laws and regulations and SPO's responsibilities for complying with them.

While an evaluation of how fully SPO complies with laws and policies is not part of this report's scope, two other OLO projects will consider MCPS compliance with environmental laws. The first project, which is scheduled for release in October 2007, will describe the compliance of MCPS facilities with environmental laws and regulations. The second project will evaluate MCPS' recycling efforts as part of the OLO FY08 work program.

A. Hazardous Materials

This section describes three regulatory areas that govern how SPO responds to the presence of hazardous materials that may harm the health of students, staff, and community members: hazardous waste disposal, asbestos, and access to information about hazardous and toxic substances.

1. **Hazardous Waste Disposal.** SPO is responsible for complying with two Federal environmental laws: the *Resource Conservation and Recovery Act*¹ and the *Comprehensive Environmental Response, Compensation, and Liability Act*.² These two acts require special disposal procedures for certain materials, including burned-out fluorescent lamps, HID (high-intensity discharge) lamps, PCB (Polychlorinated Biphenyl)-containing lamp ballasts, and other materials containing hazardous chemicals. When building service staff identify these materials, they create a work order for the Division of Maintenance to request a special trash pickup and proper disposal.

¹Resource Conservation and Recovery Act, 42 U.S.C. §§ 6921-6939e (1976).

²The Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675 (1980).

2. **Asbestos.** Regulations for the *Asbestos Hazard Emergency Response Act*³ require schools to create an asbestos management plan, regularly inspect areas that contain asbestos, ensure professional removal, and provide asbestos awareness training to building service personnel. MCPS requires that all building service staff complete a two-hour asbestos awareness training within 60 days of hire. However, it often takes three to six months for new hires to participate in the Basic Skills class that includes the asbestos awareness training.

The asbestos awareness training teaches staff to recognize materials that may contain asbestos and to notify the Division of Maintenance when asbestos is disturbed. On these occasions, the Division of Maintenance sends its Asbestos Abatement Team to evaluate risk and create a removal plan.

3. **Access to Information about Hazardous and Toxic Substances.** *Access to Information about Hazardous and Toxic Substances* is more commonly known as the "Employee Right-to-Know Law."⁴ It is part of the *Maryland Occupational Safety and Health Act (MOSHA)*. *MOSHA* sets standards to ensure a safe and healthy work environment that minimizes the risk of work-related personal injury and death. It also adopts standards set by the Federal Occupational Safety and Health Administration.

This law requires MCPS to train employees about the proper use, labeling, and health hazards of chemicals they use on the job. SPO provides this training in the Basic Skills class, at in-service trainings, and when a new chemical is introduced.

Additionally, employers must provide employees with access to material safety data sheets that contain basic information about the chemical (e.g., common name, chemical name, and hazard warnings). To comply with this regulation, the Department of Facilities Management supplies copies of these sheets to building service supervisors.

B. Bloodborne Pathogens

A Federal regulation regarding bloodborne pathogens requires that employers create a bloodborne pathogens exposure control plan and provide training on exposure control and bio-waste disposal to all employees whose work includes regular risk of exposure.⁵

To comply with this regulation, the Department of Facilities Management (DFM) delivers on-site training at schools and requires all building service staff to complete this training annually. Teachers routinely contact building service staff to request clean up of blood or other bodily fluids.

³ Asbestos Hazard Emergency Response Act, 15 U.S.C. § 2641-2656 (1986); 40 C.F.R §§ 763.80-763.99 (1987).

⁴ Md. Code, Labor and Employment §§ 5-101 to 5-1001 (1991).

⁵ 29 C.F.R. § 1910.1030(c) (1974).

C. Lockout/Tagout Standard

Federal regulation establishes guidelines for safety procedures to prevent unexpected start-up of machines or equipment during maintenance or repair.⁶ For example, this standard requires an employee doing electrical work to place a lock/tag on the circuit breaker that only he/she may remove. SPO trains building service staff on proper lockout/tagout procedures during the basic skills and leadership and supervisory classes.

D. Integrated Pest Management

Under State law and MCPS policy, schools implement Integrated Pest Management, a system for controlling pests that relies primarily on non-chemical prevention and eradication methods such as cleaning and building repairs.⁷ Both the State and MCPS require schools to notify the school community prior to pesticide use. State law also requires that only licensed applicators apply pesticides. Both SPO and the Division of Maintenance are responsible for implementing integrated pest management, with SPO having the primary prevention role in pest control. If an infestation does occur, licensed applicators in the Division of Maintenance may use pesticides if necessary.

E. Boiler Licensing

The *Maryland Stationary Engineers Act*, adopted in 2005, requires anyone who will oversee a boiler in a school or building open to the public to be licensed.⁸ The act establishes five separate license grades depending on the type of boiler and the building where it is located.

Under previous State law, MCPS had only one plant equipment operator whose responsibilities required a license. The new law requires all managers, assistant managers, plant equipment operators, ICB workers, and substitutes to hold a license. In addition, employees must hold the appropriate level license for the type of boiler and school capacity.

The law permits employers to seek a waiver for license without examination for employees who were legally operating a boiler prior to the new law. The State will assign employees a license for a specific grade without examination based on work history. The deadline for waiver applications was May 31, 2007. SPO submitted waiver applications for 500 employees at a cost of \$50 each. The State has not yet approved or denied any of these applications.

SPO provides a boiler operation class that prepares employees for the State licensing exam. Prior to the 2005 change in the law, SPO required all managers, assistant managers, and plant equipment operators to pass this class. These individuals were certified under MCPS standards, but did not obtain a State license. In 2005 and 2006, SPO held a special boiler operations class to certify ICB workers. Class participants receive guidance on how to apply for a State license.

⁶ 29 C.F.R. § 1910.147(a)(3)(i) (1990).

⁷ Md. Code, Agriculture §§ 5-201 to 5-211 (1999); Code of Maryland Regulations (COMAR) § 15.05.02 (1999); Board of Education (BOE), Regulation ECF-RB, *Pesticides Use in Schools* (2000).

⁸ Md. Code, Business Occupations and Professions § 6.5-301 to 6.5-316 (2005).

SPO reports that MCPS and other districts in the State have concerns about their ability to meet the new requirements when the State begins to fully enforce the law. For SPO, it presents the following challenges:

- Applicants for entry level positions, such as ICB workers, rarely hold a license. SPO offers three boiler operation classes per year, so it takes six months to a year for a new worker to complete the boiler operation class and become certified under MCPS standards, depending on when they are hired.
- Workers receive a license for a specific type of boiler and cannot oversee a boiler that requires a higher level license. This presents a problem when a worker transfers to a new school or needs to substitute for someone who is on leave. SPO plans to add licensing requirements to job postings once the State provides licenses to employees who have requested waivers.
- The new law limits SPO's ability to reduce overtime costs by recruiting lower-wage workers to staff ICB weekend activities. SPO can only staff weekend activities with workers who have taken the boiler operation class—primarily managers, assistant managers, plant equipment operators, and ICB building service workers. Because of the new law, current SPO policy allows building service workers to work ICB weekend activities only if they have elected to take the boiler operation class.

F. Emergency Plans

Both the State Board of Education and MCPS have adopted regulations that require schools to develop emergency and disaster preparedness plans. Plans must include provisions for “mitigation, preparation, response, and recovery” to an emergency on school grounds or in the community. The school must be prepared for multiple forms of emergencies, including “man-made, technological, and natural.”⁹ Schools must hold regular drills.

MCPS' emergency planning includes both system-wide and school-based initiatives. Building service staff often have a role in school-based planning, such as participating in an onsite emergency team. This team holds regular drills and coordinates the school's response to actual threats in the school or community. Additionally, when schools are used as emergency shelters, building service staff open and clean the building.

G. School Facilities Utilization Act

The County *School Facilities Utilization Act*¹⁰ requires the Office of Community Use of Public Facilities (CUPF) and MCPS to cooperate to ensure community access to schools that does not interfere with academic programs or school activities. It also establishes the Interagency Coordinating Board (ICB) which sets policy and includes County and MCPS representatives MCPS building service staff open, close, and clean buildings that are used by community groups.

⁹ COMAR § 13A.02.02 (2005); BOE, Regulation EKA-RA, *Emergency and Disaster Preparedness* (1981).

¹⁰ Montgomery County Code §§ 44-1 to 44-5A (2004); BOE, Regulation KGA-RA, *Community Use of Public Schools* (1982).

MCPS has set regulations that prioritize users and establish policies on hours, fees, staffing, and user conduct.¹¹ MCPS and CUPF, along with the ICB, have developed an Interagency Memorandum of Understanding (MOU) that is revised annually. This MOU sets reimbursement rates and staffing procedures. The FY07 MOU includes the reimbursement rate for utilities, custodial supplies, equipment/maintenance, and staff services. Chapter VIII, Community Use of Public Facilities, describes the impact of community use on SPO's activities and budget.

The Negotiated Agreement with SEIU Local 500 stipulates how building service managers should distribute overtime hours for ICB weekend activities. Article 8 of the contract states that MCPS should normally recruit Grade 6 building service workers to work at least 70 percent of these hours in elementary schools and 80 percent of these hours in secondary school. In particular, the contract states:

In middle schools and high schools, up to 20 percent of such weekend hours per year shall be offered to employees on site who hold positions higher than pay Grade 6. In elementary schools, up to 30 percent of such weekend overtime hours per year shall be offered to employees on site who hold positions higher than pay Grade 6.¹²

Due to the new State boiler licensing requirements, it may be difficult for SPO to comply with this article since a majority of Grade 6 building service workers have not completed the boiler operation class and do not hold a license.

H. The Montgomery County Fire Safety Code

Building service managers play an important role in implementing the Montgomery County Fire Safety Code. The code describes County requirements and also adopts as law the National Fire Protection Association 101 Life Safety Code.¹³ The Board of Education has also developed policy guidance on fire safety that complies with the County Fire Safety Code.¹⁴

The building service manager does daily inspections of the school fire alarm system and pulls the alarm during fire drills. He or she keeps a log book of these inspections and drills. The manager also works with administrators, teachers, and other staff to ensure compliance with fire code regulations on access to exits, decorations on classroom and hallway walls, use of storage space, and others. The manager also prepares for annual inspections from the Fire Marshal.

Building service staff also participate in fire watches. A fire watch requires staff to patrol the school to watch for signs of a fire when a school's fire alarm is disabled. Staff patrolling the school are not allowed to have any other responsibilities. Often building service staff from other schools are called in to patrol.

¹¹ Regulation KGA-RA, *Community Use of Public Schools* (1982).

¹² *Agreement between SEIU Local 500 and Board of Education of Montgomery County for the School Years 2005-2007*.

¹³ Montgomery County Code §§ 22-1 to 22-98 (2004).

¹⁴ BOE, Regulation EBA-RA, *Fire Safety* (1982).

I. Solid Waste, Recycling, and Energy Conservation

A County regulation sets the goal of recycling 50 percent of solid waste at schools and other public buildings.¹⁵ In response, MCPS adopted its own recycling regulations. Additionally, the Board enacted an energy conservation policy that requires MCPS to develop programs that reduce energy use.¹⁶ To meet these goals, MCPS developed School Eco Response Teams (SERT) to improve energy conservation and increase recycling in schools.

SERT is a voluntary program, and participating schools must form a team and submit a plan to the Department of Facilities Management in the fall. Building service managers, teachers, students, and administrators participate on teams.

SERT activities include making the school community aware of ways to recycle and conserve energy, turning off lights in rooms that are not in use, and replacing current lighting with lower watt bulbs. To support conservation, building services follows an energy shut down program during school breaks and long weekends, attempts to keep equipment operating efficiently, and encourages other staff to conserve energy.

To support recycling, building service managers and/or workers may participate on a recycling team. Student participants on SERT teams often collect recycling, and building service staff bring it out to the recycling dumpster.

Schools that do well on energy conservation and recycling earn cash rewards. Some schools use SERT money to purchase new equipment for building services or cover shortfalls in their custodial supply budgets.

Table 5-1 on the following two pages summarizes the requirements, SPO responsibilities, and authority of the mandates described in this chapter.

¹⁵ Code of Montgomery County Regulations (COMCOR), § 48.00.03 (2003)

¹⁶ BOE, Regulation ECF-RC, *Recycling* (2000); BOE, Policy ECA, *Energy Conservation* (1973).

Table 5-1: Summary of Laws and Regulations Affecting School Plant Operations

Topic	Requirements	SPO Responsibilities	Authority
Hazardous Waste Disposal	Sets standards for special disposal of materials containing PCBs and other hazardous chemicals.	Identify waste that contains hazardous chemicals and request a special trash pick up by Maintenance.	<u>Federal:</u> Resource Conservation and Recovery Act, 42 U.S.C. §§ 6921-6939e (1976). Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675 (1980).
Asbestos	Schools must develop an asbestos management plan, train employees in asbestos awareness, and provide professional removal of asbestos.	Train new building service staff in asbestos awareness. Staff contacts Maintenance if there is a risk of asbestos exposure in the school.	<u>Federal:</u> Asbestos Hazard Emergency Response Act, 15 U.S.C. § 2651 (1986). 40 C.F.R §§ 763.80-763.99 (1987).
Access to Information about Hazardous and Toxic Substances	Employees must be trained in the proper use, labeling, and health hazards of chemicals and have access to material safety data sheets with basic chemical descriptions.	Train building service staff on chemical use, labeling, and health hazards. DFM distributes material safety data sheets to SPO area supervisors.	<u>Federal:</u> 29 C.F.R. § 1910.1200 (1974). <u>State:</u> Md. Code, Labor and Employment §§ 5-403 to 5-410 (1991).
Bloodborne Pathogens	Employers must develop a bloodborne pathogens exposure plan and train affected employees on exposure control.	Department of Facilities Management annually trains building service staff on exposure control and bio-waste disposal.	<u>Federal:</u> 29 C.F.R. § 1910.1030 (1974).
Lockout/Tagout	Sets safety procedures to prevent unexpected start-up of machines or equipment during maintenance or repair.	SPO trains building service staff on proper procedures for shutting down equipment during maintenance and repair.	<u>Federal:</u> 29 C.F.R. § 1910.147 (1990).
Integrated Pest Management	Requires schools to limit the use of pesticides and establishes guidelines for notification of pesticide use. Requires applicators to be licensed by the State.	SPO and Maintenance prevent and eradicate infestation through non-chemical means. Licensed applicators in Maintenance may use pesticides if necessary.	<u>State:</u> Md. Code, Agriculture §§ 5-201 to 5-211 (1999). COMAR § 15.05.02 (1999). <u>MCPS:</u> BOE, Regulation ECF-RB, <i>Pesticides Use in Schools</i> (2000).

Table 5-1: Summary of Laws and Regulations, continued

Topic	Requirements	SPO Responsibilities	Authority
Boiler Licensing	All employees who oversee a boiler in a school or building open to the public must hold a license.	All building service managers, assistant managers, plant equipment operators, and ICB workers must be licensed.	<u>State</u> : Stationary Engineers Act, Md. Code, Business Occupations and Professions §§ 6.5-301 to 6.5-316 (2005).
Emergency Plans	Schools must develop plans to respond to threats in the school or in the community.	Building service managers participate on on-site emergency teams at schools.	<u>State</u> : COMAR § 13A.02.02 (2005). <u>MCPS</u> : BOE, Regulation EKA-RA, <i>Emergency and Disaster Preparedness</i> (1981).
School Facilities Utilization	Requires community access to schools which does not interfere with academic programs or school activities. Prioritizes users and establishes policies on hours, fees, staffing, and user conduct.	Building service staff open, close, and clean schools for community users.	<u>County</u> : Montgomery County Code §§ 44-1 to 44-5A. (2004). <u>MCPS</u> : Regulation KGA-RA, <i>Community Use of Public Schools</i> (1982).
Fire Safety	Requires ten fire drills per year, sets evacuation procedures, establishes regulations on a variety of fire safety precautions. Sets standards for a fire watch if the alarm malfunctions.	Building service managers keep fire code compliance logs up-to-date, assist with fire drills, and monitor the building for fire code violations. Staff assist with fire watch patrols.	<u>County</u> : Montgomery County Code §§ 22-1 to 22-98 (2004). <u>MCPS</u> : BOE, Regulation EBA-RA, <i>Fire Safety</i> (1982).
Solid Waste and Recycling and Energy Conservation	Sets recycling and energy conservation goals, such as recycling 50% of solid waste.	Building service staff participate on recycling team; follow an energy shut down program during school breaks and long weekends; keeps equipment operating efficiently; and encourages other staff to conserve energy.	<u>County</u> : Code of Montgomery County Regulations, § 48.00.03 (2003) <u>MCPS</u> : BOE, Regulation ECF-RC, <i>Recycling</i> (2000). BOE, Policy ECA, <i>Energy Conservation</i> (1973).

Sources:

- United States Code. <http://www.gpoaccess.gov/uscode/index.htm>
- Code of Federal Regulations. <http://www.gpoaccess.gov/cfr/index.html>
- Maryland Code. <http://michie.lexisnexis.com/>
- Code of Maryland Regulations. <http://www.dsd.state.md.us/comar/>
- Montgomery County Code. http://www.amlegal.com/montgomery_county_md/
- MCPS. <http://www.mcps.k12.md.us/departments/policy/>

CHAPTER VI: Strategic Plan, Practices, and Performance Measures

This chapter describes the operational framework that MCPS' Division of School Plant Operations pursues to improve its practices. This chapter is organized into four sections:

- **Part A, Strategic Plan, Mission, and Priorities**, summarizes SPO's strategic plan;
- **Part B, Best Practices for Addressing Common Challenges**, describes how SPO practices align with industry standards for custodial operations;
- **Part C, SPO Key Initiatives**, summarizes two SPO initiatives aimed at improving performance – systematic team cleaning, and healthy, high performance cleaning; and
- **Part D, SPO Progress on Performance Measures**, describes SPO's goals in four areas – human resources, finances, organizational effectiveness, and customer satisfaction.

The data and documents reviewed by OLO suggest that SPO has implemented a number of initiatives and reached a variety of performance goals articulated in its strategic plan. This includes maintaining the staff turnover rate at less than 10 percent, conducting at least one bathroom inspection per school, and achieving levels of parent satisfaction that exceed 80 percent. However, SPO has not met its financial goals or improved customer satisfaction with student restrooms.

A. Strategic Plan, Mission, and Priorities

Section 1 of this part provides background for the development of SPO's current strategic plan, while Section 2 summarizes its key elements.

1. Background for SPO's Strategic Plan

SPO's strategic plan emerges from MCPS' overall strategic plan – *Our Call to Action: Pursuit of Excellence*. In particular, the SPO strategic plan enables MCPS to pursue Goal 5: "Provide High Quality Business Services that are Essential to the Educational Success of Students." SPO, like transportation and food service, is one of several business units that support MCPS' core mission of improving student performance.

The Montgomery County Business Roundtable for Education's recommendations for MCPS to increase efficiency and effectiveness in school plant operations informs SPO's strategic plan. Specific recommendations made in their 2003 *Operations Excellence* report include:¹

- Educate the employees and union representatives on the value of systematic team cleaning and make it mandatory at all schools;
- Require the centralization or concentration of after school uses in one area of the school to realize the full benefits of systematic team cleaning;
- Collaborate with the union to provide the training for both the initial adaptation of systematic cleaning as well as continued career path education; and
- Replace upright vacuums with backpacks using the savings generated by the implementation of systematic cleaning at all schools.

¹ *Operation Excellence*, Montgomery County Business Roundtable for Education and MCPS (2003), p. 11.

2. Key Elements of SPO's Strategic Plan

In February 2006, SPO revised its strategic plan; Exhibit 6-1 presents strategic plan highlights.

Exhibit 6-1: Highlights from Division of School Plant Operations Strategic Plan, FY06

Mission, vision, core values, customers and stakeholders:

- The mission of the Division of School Plant Operations (SPO) is to provide building services that ensures a clean, safe, comfortable, and attractive facility environment, conducive to health and learning, using efficient, effective techniques and materials and qualified people. The vision of the SPO is to be a model of outstanding building service.
- Six core values guide SPO's work: student success, commitment, teamwork, accountability, effectiveness and efficiency, and respect.
- Customers include principals, school staff, students, parents, and community members.
- Stakeholders include CUPF, the County Council, parents, other MCPS offices, unions, vendors, contractors, and suppliers.

Strengths, weaknesses, opportunities, and threats:

- Strengths of SPO include qualified leadership, administrative support, dedicated employees, effective equipment and materials, the SEIU contract, flexible staff, diversity, advancement opportunities, benefits and wages, training, recognition, the Supporting Services Professional Growth System, and teamwork.
- Weaknesses of SPO include budget limitations, downsizing of staff, language barriers, low morale, unprepared leadership, attendance, inconsistent performance evaluations, communication, recognition, leadership development, diversity, and inconsistent teamwork.
- Opportunities for SPO include new technologies, availability of training, Parent Teacher Associations, grants, systematic team cleaning, Montgomery College courses, Leadership in Energy and Environmental Design for Existing Buildings, and Community Use of School Facilities (CUPF/ICB) and School Eco-Response Team (SERT) funds.
- Threats to SPO include budget constraints, privatization of services, utility costs, increased building usage, increased cost of supplies and equipment, lack of coordination and collaboration between MCPS units, and unreasonable expectations.

Competitive advantage, assumptions, and organizational priorities:

- SPO's competitive advantage is its organizational knowledge.
- Core assumptions influencing SPO include year round use of facilities, increase in staff to building size ratios, budget constraints, and time constraints.
- SPO strategic issues for the next five years include making progress in the following areas: (1) leadership development and accountability; (2) consistent implementation of SPO standards; (3) night leader/assistant manager vacancy rates; (4) recognition of excellent performance; (5) diversity; (6) collaboration with CUPF/ICB; and (7) licensing more building service and ICB workers as boiler operators pursuant to the Maryland Stationary Engineers Act.

Source: Division of School Plant Operations

B. Best Practices for Addressing Common Challenges

This part is presented in two sections: Section 1 defines and summarizes best practices in school custodial operations, while Section 2 describes how SPO practices align with them.

1. Best Practices, Common Challenges, and Potential Solutions

School district management reviews in the Commonwealth of Virginia, also known as “school efficiency reviews,” identify a number of common challenges to school plant operations and potential solutions based on custodial industry best practices. Best practices typically refer to research-based practices. Within the field of school plant operations a less rigorous definition of best practices is used that relies on “common sense” rather than research because there are few, if any, empirically proven best practices in the field.² As such, the best practices described in this section are broad and reflect “promising practices” rather than empirically proven best practices. Table 6-1 synthesizes these findings.

Table 6-1: Common Challenges and Best Practices in School Plant Operations

Common Challenges	Best Practices
1. Ensure appropriate custodial staffing levels in schools	<ul style="list-style-type: none"> • Use staffing ratios/formula to allocate custodial staff among schools • Hire floating custodial positions • Use a contractor to manage custodial staff
2. Improve the productivity of custodians	<ul style="list-style-type: none"> • Use a team cleaning approach • Provide custodians with efficient equipment • Provide formal training for new custodians • Provide periodic training to custodial staff • Provide good oversight of work to control quality standards • Use automatic product dispensing devices • Have custodians report directly to principals • Contract for direct shipment of custodial supplies to schools • Establish a cleaning supply budget for each site
3. Keeping utility costs manageable	<ul style="list-style-type: none"> • Provide energy management education • Install automated energy management systems • Contract with energy management company • Install energy efficient lighting and equipment • Install thermal pane windows
4. Handling employee turnover and recruiting	<ul style="list-style-type: none"> • Use an employment service to hire custodians • Use training program to hire high quality staff
5. Make informed decisions using data on actual school building performance	Maintain data by school building on: <ul style="list-style-type: none"> • Energy costs per square foot • Staffing levels • Other factors to enable accurate comparisons and promote informed decisions

Source: Rotz, Robert. *Staff Briefing on Best Practices for the Support Services of School Divisions*. Joint Legislative Audit and Review Commission of the Virginia General Assembly. 14 October, 2003

² See Joint Legislative Audit and Review Commission (JLARC) of the Virginia General Assembly Best Practices for the Support Services of School Divisions report.

2. SPO's Challenges and Use of Best Practices

The common challenges to school plant operations identified in the Virginia school efficiency reviews synthesize many of the challenges that SPO faces in its day to day operations. This section describes the degree of overlap and alignment between industry-identified best practices for addressing common challenges and SPO's current practices.

Ensuring appropriate custodial staffing at all levels. As described in Chapter III, SPO uses substitute building service workers (e.g. rovers) to assist schools with absent staff. SPO also uses a staffing formula based on square footage to allocate building service staff. SPO relies on a more complex formula to allocate assistant building service managers by grading them based on building square footage, weekday community use, number of portables, and school enrollment. According to SPO, a similar formula will determine grades for building service managers. SPO does not use a contractor to manage building service staff. Instead, the building service manager typically supervises the building service team and the principal or another site-based administrator manages and evaluates the building service manager.

Improving the productivity of custodians. SPO implements a number of industry-identified best practices designed to improve the productivity of its workforce. This includes the use of:

- Systematic team cleaning that utilizes a team of specialists with defined tasks and procedures (i.e., detail, vacuuming, restrooms, and utility),
- Backpack vacuums and battery operated burnishers,
- Training for new employees and periodic training for all building service staff,
- The use of automatic product dispensing devices as part of the Healthy, High Performance Cleaning Initiative (described in Part C),
- Site-based administrators as supervisors of building service staff, and
- Cleaning supply budgets for each school.

To improve the accountability of building service staff to quality control standards, SPO uses quality assurance inspections described in Chapter III and the systematic team cleaning approach. Team cleaning enables three levels of oversight for school cleanliness each day. The evening cleaning team provides the first level of oversight as they cross-check the work of their peers to ensure that quality standards for routine cleaning are met. The assistant building service manager provides the second level of oversight by checking the routine and detailed cleaning of the team at the end of their shift. The building service manager provides the third level of oversight by checking the work of the evening crew before the school bell rings each morning.

To further improve the productivity of building service workers, SPO will purchase 160 high-speed floor burnishers for schools without them in FY08. SPO also provides a recommended list of equipment that newly constructed and renovated schools should purchase with their Furniture and Equipment funds³ to enable the building service team to effectively maintain their new schools. Similar funding, however, is not available for existing schools to upgrade their custodial equipment to more efficient models.

³ These are Capital Improvement Program funds; see Appendix F: SPO Recommended Custodial Equipment for Elementary and Secondary Schools.

Unlike MCPS' technology modernization program whose goal is to refresh MCPS computers every four years, or the Planned Life-Cycle Asset Replacement program that replaces facility components in between school modernizations, SPO does not systematically replace custodial equipment to ensure that schools have access to updated, efficient equipment. In general, SPO only replaces equipment whose costs of repair exceed 75 percent of the value of its replacement costs. With the absence of an SPO replacement cycle for equipment, schools themselves often pay for upgraded equipment.

Keep utility costs manageable. The Department of Facilities Management (DFM), Division of Maintenance, and SPO share responsibility for keeping utility costs manageable. The primary responsibility is with Maintenance, which keeps equipment running efficiently and manages the automated heating and cooling systems. DFM's Energy and Utilities Resource Team assists Maintenance by developing strategies to improve energy efficiency in schools and minimize utility rates. SPO assists Maintenance by supporting energy conservation through building service staff's participation on School Eco-Response Teams, described in Chapter V, Major Mandates. Best practices utilized by SPO to keep utility costs manageable include installing energy efficient light bulbs and assisting in providing energy management education to school community members.

Handling employee turnover and recruiting quality staff. SPO works in partnership with the Office of Human Resources to recruit and hire building service staff. As reported in Part D of this chapter and in Chapter VII, Comparative Benchmarks, SPO meets its turnover goals and experiences lower levels of employee turnover than other school districts within the region. SPO, however, reports experiencing higher than desired vacancy rates among its assistant managers. SPO's recent re-grading of night leader positions into assistant building service managers was designed to increase the attractiveness of these positions and to reduce turnover.

To address building service worker turnover, SPO also uses the ICB workforce as a recruitment pool, which in turn creates a higher than desired turnover rate for ICB workers. Additionally, the increasing language diversity of the building service workforce has created communication challenges for SPO. To address these, SPO is currently developing an English literacy course.

Making informed decisions using data on actual building performance. SPO has the capacity to make data-informed decisions based on the data it collects by school. This data includes:

- Building Service Supervisor and State Inspection data;
- Fire Code Compliance data;
- Student, Parent, and Teacher surveys; and
- Overtime data for SPO functions and ICB activities.

SPO, however, does not collect data on the actual costs of supplies and equipment per school that would enable comparisons between budgeted and actual costs and inform decision-making. As such, this base budget review cannot compare the actual costs of custodial supplies and equipment purchased by schools to their budgeted allocations for supplies.

C. SPO Key Initiatives

This part describes in detail two key initiatives that SPO eventually intends to implement in every MCPS facility. Section 1 describes Systematic Team Cleaning and Section 2 describes the Healthy, High Performance Cleaning Initiative, also known as Green Cleaning.

1. Systematic Team Cleaning

SPO has moved from zone cleaning to systematic team cleaning (STC) in 113 schools since FY05. Under zone cleaning, supervisors assigned employees to a section of the building where they were responsible for all cleaning tasks. Under systematic team cleaning, a team usually consists of four specialists with separate tasks for detail, vacuuming, restrooms, and utility.

Table 6-2 contrasts the zone and systematic team cleaning approaches from MCPS' perspective.

Table 6-2: Zone Cleaning vs. Systematic Team Cleaning, MCPS

Zone Cleaning	Systematic Team Cleaning
Employees focus on one section of the building and are responsible for cleaning in that area.	Employees focus on a specific task. They work in the entire building and rotate tasks regularly.
Employees are responsible for only one area of the building. Not all areas of the building receive equal quality cleaning.	Employees are responsible for the entire building. All areas get cleaned equally.
Building service staff work alone and have little opportunity to build a team. Stronger workers have little incentive to motivate their peers to work efficiently and effectively.	Employees form a team. They depend on each other to get their work done, creating peer pressure to work efficiently and effectively.
Employees have little time for "detail cleaning" or special projects.	The building is divided into four sections. One section is "detail cleaned" each day. On the fifth day, special projects such as floor waxing and carpet cleaning can be addressed.
Lights are on and doors are unlocked in all areas of the building.	Teams turn off lights and lock doors as they finish sections of the building, improving energy conservation and security.
Supervision is more difficult because employees are scattered throughout the building.	Supervision is easier because all employees are expected to be in one section of the building.
Requires more equipment (i.e. each worker needs a vacuum cleaner).	Limits the need for equipment (i.e. only vacuum specialists need vacuum cleaners).
New workers must learn all cleaning tasks and techniques at once.	New workers learn one specialization at a time.

Source: The Division of School Plant Operations

The table above generally speaks to process and desired outcomes in terms of implementation. What remains unclear, however, are the anticipated efficiencies and cost-savings associated with systematic team cleaning. For example, will systematic team cleaning improve employee morale and reduce absenteeism or turnover? Will it reduce school plant staffing levels or supply costs? SPO indicates that less equipment is required with STC. Other budgetary changes to discern the impact of this significant change in procedure are of interest, but beyond the scope of this report.

2. Healthy, High Performance Cleaning

The Healthy, High Performance Cleaning initiative aims to use environmentally-friendly “green” cleaning techniques to improve indoor air quality and protect workers and other building occupants from the effects of harsh chemicals. SPO developed the program to meet housekeeping requirements for the U.S. Green Building Council’s Leadership in Energy and Environmental Design (LEED) certification for Great Seneca Creek Elementary School. SPO is now extending the program to all schools to meet LEED standards for existing buildings.⁴

SPO’s initiative includes new cleaning practices, grounds care practices, and recommended and prohibited cleaning products.⁵ By the beginning of the 2007-2008 school year, SPO plans to transition all schools to a “green” multipurpose cleaner that is intended to reduce the amount of waste, chemicals used, and environmental contaminants. They have also adopted new cleaning practices, such as using vacuum cleaners rather than dust mops. According to SPO, this has decreased the amount of dust in the air and has extended the life of air filters in the heating and air conditioning systems. Like STC, understanding the overall budgetary impact of green cleaning on staffing and supplies is of interest, but beyond the scope of this report.

D. SPO Progress on Performance Measures

This section describes the performance measures tied to SPO’s strategic plan, the strategies that SPO implements to reach strategic goals, and their progress between FY03 and FY06 in four areas: Human Resources, Finances, Organizational Effectiveness, and Customer Satisfaction.

1. Human Resource Measures and Staff Development.

Human Resources. SPO’s strategic plan articulates several goals tied to human resources and the development of existing staff. In FY06, the four goals tied directly to human resources are:

- Achieving a daily attendance rate of 95 percent or above;
- Achieving an annual turnover rate at or below 10 percent;
- Maximizing productivity of a diverse workforce; and
- Investing in employees to enhance long-term organizational stability.

Table 6-3 describes SPO’s progress in meeting two of its human resource performance goals – daily attendance rate and annual turnover rate.

Table 6-3: SPO Measures of Human Resources, FY03-FY06

Measure	FY03		FY04		FY05		FY06	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual
Daily attendance rate	n/a	n/a	95.5	94.5	96.0	94.8	95.0	92.4
Annual turnover rate	10.0	8.7	8.0	8.8	10.0	10.4	10.0	9.1

Source: Division of School Plant Operations

⁴ MCPS Website. <http://www.mcps.k12.md.us/departments/facilities/greenschoolsfocus/gb.shtml#LEED>

⁵ Division of School Plant Operations. *Healthy, High Performance Cleaning (HHPC)*.

FY04 to FY06 data in Table 6-3 suggest that SPO lost some ground (2.1 percentage points) in reaching its attendance goals, but has consistently exceeded its staff turnover goals. To improve progress for attendance, SPO is currently working with building service managers and school administrators to ensure proper leave procedures are practiced among building service staff.

SPO does not explicitly track the proportion of its personnel who are speakers of other languages. However, the increase in the number of Asian American and Latino building service workers from 184 employees in FY04 to 421 employees in FY07 suggests that SPO's percentage of staff with limited English proficiency has increased. SPO's strategic plan includes the pilot and analysis of language training tools designed to provide assistance to ESOL employees.

Staff Development. SPO also tracks performance measures tied to staff development goals. In FY06, SPO's staff development goals were to:

- Train 700 SPO employees;
- Provide basis skills training to new employees within first three months of hire;
- Ensure that 85 percent of employees who complete basic skills training show improvement in their work performance based on supervisor surveys;
- Ensure that 95 percent of participants successfully pass the final test in programs that require final testing; and
- Reduce the number of no-shows and dropouts for Montgomery College courses.

Table 6-4 tracks SPO's progress in meeting two of its staff development goals – number of employees trained and percent of basic skills participants with improved performance.

Table 6-4: SPO Measures for Staff Training, FY03-FY06

Measure	FY03		FY04		FY05		FY06	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual
# of Employees Trained	400	547	630	711	700	723	700	621
% Performance Improved	82	80	80	80	80	81	85	80

Source: Division of School Plant Operations

Table 6-4 indicates that between FY04 and FY06, SPO lost progress in meeting its number of employees trained goal. Specifically, in FY06 the division's target number was higher than in FY04, but they trained fewer workers.

Table 6-4 also indicates that the percentage of employees demonstrating improvement after completing the basic skills training has hovered around 80 percent. Additionally, SPO reports that over 98 percent of participants passed tests administered at the end of training and that the no-show and dropout rate was reduced from 10 percent in FY04 to 5 percent in FY06.

SPO reports that 75 percent of new employees complete the basic skills training within three months. This is notable because SPO meets several policy mandates (see Chapter V) for employee training through this course with time sensitive requirements (e.g., staff must complete two-hour asbestos awareness training within 60 days of hire). SPO reports that vacancies and competing time demands for employees with second jobs prevents them from reaching this goal.

2. Financial Results

SPO's strategic plan includes three specific goals designed to enhance financial accountability.

- Overtime use will not exceed budget;
- Substitute cost will not exceed budget; and
- The ICB salary deficit (i.e. the difference between SPO costs and CUPF payments for building service personnel staffing community use activities) will not exceed \$100,000.

In addition, SPO tracks changes in cost per square foot. Table 6-5 describes SPO's progress on cost per square foot and overtime and substitute expenditures. SPO's progress in meeting its ICB salary deficit goal is unclear. However, data analyzed in Chapter VIII suggests that SPO achieved its goal in FY06 with an ICB salary deficit of \$31,275 (see Table 8-7, page 69).

Table 6-5: SPO Measures for Financial Results, FY03-FY06

Measures	FY03	FY04		FY05		FY06	
	Actual	Target	Actual	Target	Actual	Target	Actual
Cost per square foot	2.07	n/a	2.10	n/a	2.02	n/a	2.19
Overtime Costs (\$1,000's)	1,171	414	810	422	825	434	873
Substitutes Costs (\$1,000's)	526	331	342	294	265	282	302
Total Overtime and Substitute Costs (\$1,000's)	1,697	745	1,152	716	1,090	716	1,175

Source: Division of School Plant Operations and Department of Management, Budget and Planning.

Between FY03 and FY06, the joint cost of overtime and substitutes has declined by \$522,000 from \$1,697,000 in FY03 to \$1,175,000 in FY06. However, SPO consistently failed to reach its overtime costs targets between FY04 and FY06, missing it by \$396,000 in FY05, \$403,000 in FY05, and \$439,000 in FY06. It remains unclear whether SPO realistically budgets for overtime. If SPO budgeted for overtime based on prior year costs, the Division could have come closer to meeting its financial goals.

To make better progress on its financial goals, SPO reports implementing a number of strategies that include working with human resources to fill vacant positions quickly, developing overtime reports for timely analysis and problem solving, collaborating with principals to implement more cost efficient alternatives for coverage, and working with and training timekeepers to resolve discrepancies more quickly.

3. Organizational Effectiveness Results

SPO's strategic plan includes six goals designed to ensure that that all MCPS facilities are clean, safe, comfortable, and attractive. In FY06, SPO's organizational effectiveness goals were to have:

- 90 percent of annual fire marshal inspections yield no fire code violations;
- 394 quality building inspections performed per year (i.e. two inspections per school);
- 204 restroom inspections performed per year (i.e. one inspection per school);
- 98 percent of schools meet standards;
- 98 percent of school restrooms meet standards; and
- Systematic team cleaning deployed and verified at 200 locations.

SPO reports that in FY07, 108 schools reported no fire violations and the remaining 91 schools had 237 fire code violations (i.e., an average of 2.6 per school) for a compliance rate of 54 percent. Due to a change in how fire code violations are tracked, SPO cannot provide trend data on this performance measures. Table 6-6, however, describes trends in SPO progress on its remaining five organizational effectiveness measures.

Table 6-6: SPO Measures for Organizational Effectiveness, FY03-FY06

Measurement	FY03		FY04		FY05		FY06	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual
Building inspections	406	392	392	352	393	366	394	322
Restroom inspections	n/a	n/a	203	188	204	250	204	257
% of schools meet standards	90%	98%	95%	97%	98%	96%	98%	98%
% of restrooms meeting standards	n/a	n/a	93%	91%	93%	97%	98%	98%
# of Schools with Systematic Team Cleaning	50	31	50	44	100	95	200	113

Source: Division of School Plant Operations

The data tracked demonstrate that SPO has increasingly fallen short of its quality inspections goal by conducting 392 in FY03 compared to 322 in FY06. This in part may reflect the tasking of building service supervisors to assist the Division of Maintenance in conducting water quality inspections in FY06. To make progress in this area, SPO's strategic plan calls for developing schedules to ensure the timely completion of inspections, re-engineering and automating the inspection process, and developing more effective inspection communication tools.

In contrast, Table 6-6 shows that SPO has improved performance on restroom inspections. In FY05, SPO exceeded its target number of inspections by 46, and in FY06 SPO exceeded it by 53. Table 6-6 also demonstrates that SPO generally meets its targets for the percent of schools inspected meeting school standards and restroom standards. This later finding, however, is inconsistent with survey findings described in the Customer Satisfaction Measures section that indicate that a majority of students disagree with the statement that "(t)he bathrooms in my school are kept well-supplied."

Lastly, Table 6-6 indicates that systematic team cleaning has been implemented in more than half of MCPS' campuses. However, implementation data provided by SPO suggests that of the 113 schools who have implemented this approach, 28 schools need additional assistance to fully scale up and 10 have returned back to zone cleaning. To reach its goal of having all schools successfully use systematic team cleaning, SPO intends to:

- Develop an implementation strategy for the remaining 75 schools;
- Have the SPO training team initiate new STC programs at 75 schools;
- Have building service supervisors evaluate STC programs at 125 locations; and
- Hold cluster meetings that focus on systematic team cleaning.

Ideally, SPO will also collect and analyze data on performance and costs among schools by STC status to discern whether campuses implementing this initiative have higher levels of performance and/or lower costs than schools who have not implemented STC.

4. Customer Satisfaction Measures

SPO's strategic plan includes broad goals aimed at enhancing customer and stakeholder satisfaction. For FY06, SPO identified the following two customer satisfaction goals:

- 80 percent of parents will be satisfied with the cleanliness of their child's school; and
- 80 percent of all students (i.e., elementary, middle, and high school) will be satisfied with the cleanliness of their school.

SPO tracks progress in achieving customer satisfaction using parent and student surveys. Each year, the Department of Facilities Management disseminates a survey to a sample of parents and students to elicit their feedback on school plant operations and other business unit functions. The survey asks parents and students to agree or disagree with the following statements.

1. The custodians at my child's school are helpful when I ask questions or make requests.
2. The custodians at my child's school are kind to students.
3. The bathrooms in my child's school are kept well-supplied.
4. My child's school is clean.
5. The outside of my child's school building and grounds are clean.
6. Overall, I am satisfied with how clean my child's school building looks.

Table 6-7 describes FY03 to FY06 parent and student satisfaction data that SPO submits to the Office of the Chief Operating Officer. It compares SPO customer satisfaction targets to the percentage of parents and students indicating satisfaction (i.e., agree or strongly agree) with the custodial items on the Department of Facilities Management Survey of Supportive Services.

Table 6-7: SPO Measures of Customer Satisfaction, All Schools, FY03-FY06

Measures	FY03		FY04		FY05		FY06	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual
Average Custodial Response (Q1-Q6)								
% Parents satisfied	86.0	87.8	85.0	88.3	80.0	88.8	80.0	88.8
% Students satisfied	80.0	69.0	80.0	68.5	80.0	69.7	80.0	69.7

Source: Division of School Plant Operations

SPO has consistently reached its customer satisfaction targets among parents with about 88 percent of parent respondents between FY03 and FY06 indicating satisfaction with their child's school building. Conversely, with less than 70 percent of students indicating satisfaction with their schools, SPO has consistently failed to reach this satisfaction target. Table 6-8 compares disaggregated DFM data by survey question and school type and describes the primary area of student dissatisfaction: middle and high school restrooms.

Table 6-8: Percent of Students Satisfied with Restrooms and School Cleanliness by School Type, FY03-FY06

	FY03	FY04	FY05	FY06	FY03-FY06 Change
Elementary Schools					
Q3: Bathroom Supplied	51.9	49.3	51.2	51.1	-0.8
Q4: School is Clean	82.8	78.9	79.2	81.2	-1.6
Middle Schools					
Q3: Bathroom Supplied	33.9	36.8	36.7	35.1	1.2
Q4: School is Clean	67.6	67.4	68.8	67.0	0.3
High Schools					
Q3: Bathroom Supplied	32.2	37.2	36.7	30.8	-1.4
Q4: School is Clean	60.4	61.7	64.2	59.6	-0.8

Source: MCPS

Compared to three- to four-fifths of students indicating that their schools were clean, only a third to a half of students agreed that their school bathrooms were well-supplied with paper goods and soap. Secondary students expressed more dissatisfaction than elementary students. Moreover, this pattern has not changed demonstrably since FY03. SPO recognizes restrooms as its most pervasive problem: both central office and school personnel echoed this sentiment.

Persistent problems with student restrooms noted by staff and students during OLO school site visits include the waste and misuse of paper goods and vandalism that often leave bathrooms unclean with inadequate paper supplies. To reduce paper waste and improve bathroom upkeep, Wootton High School is considering replacing paper towels with hand dryers in selected bathrooms. Some schools that OLO visited are also trying to increase student accountability for restrooms. For example, Southlake Elementary School has developed a system for monitoring bathrooms during the school day and encouraging students to assist building service personnel in keeping bathrooms clean.

SPO has convened student focus groups to better understand the challenge of maintaining bathrooms and to identify opportunities for improvement. According to SPO, students generally felt that building service staff should refresh and restock restrooms more often, use larger trash cans, use hand dryers, install more dispensers, be more visible, and fix locks on stall doors. They also recommended that students report custodial problems to building service staff and that students talk to other students about the problem. Other suggestions included rewarding students for keeping restrooms clean, meeting regularly with building service staff to share concerns, and setting ground rules for use of the restrooms.

Based on these student focus groups, SPO has developed strategies and tools to improve restroom upkeep. These include using bathroom refresher schedules and asking school security, teachers and other school staff to check restrooms periodically as they monitor hallways and report any issues to building service staff. SPO also reports that building service supervisors share best practices among schools during follow-up inspection meetings with administrators and building service staff and confirm that schools have and use bathroom refresher schedules. Managers who have successfully improved their bathroom performance measures have presented their strategies during SPO's supervisory and leadership training classes.

SPO's strategic plan, however, offers few specific steps for enhancing the condition of student bathrooms during school hours. While SPO has developed charter teams to address other priorities that include training and its website, no charter team to date has been developed to focus specifically on improving student bathrooms.

CHAPTER VII: Comparative Benchmarks

This chapter provides comparative budget, enrollment, staffing, and square footage data on school plant operations and maintenance for MCPS and the following four districts: Baltimore County Public Schools; Fairfax County Public Schools; Howard County Public Schools; and Prince George's County Public Schools. This chapter is organized into four parts:

- **Part A, Comparative Benchmarks Compiled by MCPS**, describes benchmark school plant operations data compiled by SPO for the five school systems in FY07;
- **Part B, Operations and Maintenance Costs by Maryland State Budget Category**, compares joint school plant operations and maintenance budget data for FY07 among the four Maryland school systems;
- **Part C, Operations and Maintenance Staffing from Washington Area Boards of Education (WABE)**, compares FY07 staffing data for three of the local school systems that participate in WABE; and
- **Part D, Operations and Maintenance Costs from School Matters**, compares data compiled by the School Matters website on operations and maintenance costs per student for the five districts using 2004 census data.

A majority of the data sources reviewed in this chapter suggest that MCPS' costs for school plant operations and maintenance per student are the lowest among the five districts considered when compensation beyond wages (i.e., pension and group insurance) are excluded.

A. Comparative School Plant Benchmarks Compiled by MCPS

This section describes comparative school plant benchmarks compiled by MCPS. SPO monitors performance benchmarks that compare MCPS school plant operations costs per square foot to other school systems. SPO solicited and compiled data from school plant counterparts in Baltimore, Prince George's, Fairfax, and Howard Counties on student enrollment, number of schools and facilities, square footage, number of staff, budget, staff turnover rate, and cost per student. Tables 7-1 and 7-2 describe these comparative data and extrapolated costs for FY07.

OLO recognizes the limitations of relying exclusively on MCPS-reported data to consider comparative benchmarks in school plant operations. The basket of services provided by each school system's SPO counterpart may differ such that comparisons between costs actually compare "apples to oranges." For example, painting services provided by SPO could be a maintenance responsibility in other jurisdictions. Similarly, building services in other school systems may offer some services that are delivered by Maintenance, rather than by SPO for MCPS.

Given the overlap in how school plant and maintenance services are delivered across school systems, Sections B - D review three additional sources of comparative data that combine school plant operations and maintenance budget and staffing data.

Table 7-1: School Plant Operation Benchmarks by District, FY07

	Montgomery County	Baltimore County	Prince George's County	Fairfax County	Howard County
Demographics					
Enrollment	137,798	106,182	137,618	164,295	49,048
Number of Schools	199	164	202	198	75
Square Footage (# in millions)					
All Facilities	22.7	16.4	19.1	25.0	7.3
Schools	21.6	15.9	18.5	23.5	7.1
School Plant Operations Budget (\$ in millions)					
Total	\$51.4	\$32.0	\$78.6	\$64.2	\$17.6
Custodial Supplies	\$1.7	\$1.3	\$1.9	\$2.9	\$0.8
School Plant Operations Staff					
Schools-Based FTEs	1,221	912	1,060	1,434	404
School Square Footage/SPO Staff	17,707	17,447	17,435	16,422	17,688
Entry Level Pay Rate per Hour	\$12.11	\$9.26	\$11.36	\$10.38	\$11.65
Turnover Rate per Year	9%	12%	n/a	4%	14%

Source: Division of School Plant Operations

Table 7-2: School Plant Operation (SPO) Benchmarks by Unit, FY07

	Montgomery County	Baltimore County	Prince George's County	Fairfax County	Howard County
Expenditures per Square Foot					
SPO Budget/Square Ft	\$2.26	\$2.01	\$4.12	\$2.57	\$2.41
Supplies \$/Square Ft	\$0.07	\$0.08	\$0.10	\$0.12	\$0.12
Expenditures per Student and Students per FTE					
SPO Budget/Student	\$372.77	\$301.43	\$570.91	\$390.87	\$357.89
Supplies \$/Student	\$12.04	\$12.11	\$13.58	\$17.70	\$17.25
Students/School FTE	112.9	116.4	129.8	114.6	121.4
Operating and School Plant Operations Budget (\$ in millions)					
School System Operating Budget	\$1,851.5	\$1,056.1	\$1,493.4	\$2,085.2	\$555.5
SPO Budget	\$51.4	\$32.0	\$78.6	\$64.2	\$17.6
SPO as Percentage of Operating Budget	2.8%	3.0%	5.3%	3.1%	3.2%

Source: OLO analysis of data compiled by Division of School Plant Operations

Tables 7-1 and 7-2 suggest that MCPS compares favorably to other school systems in terms of achieving relatively low levels of staff turnover and high levels of productivity. In particular, the comparative data compiled by MCPS suggest the following:

- MCPS offers the highest wages for entry level building service staff at \$12.11 per hour compared to entry level wages ranging from \$9.26 (Baltimore County) to \$11.65 (Howard County) per hour.
- MCPS falls in the middle of its peers in school plant operations cost of \$2.26 per square foot and \$373 per student. This compares to a low of \$2.01 per square foot and \$301 per student in Baltimore County and a high of \$4.12 per square foot and \$571 per student in Prince George's County.
- MCPS has the lowest supply budget costs at seven cents per square foot and \$12.04 per student compared to a high of 12 cents per square foot in both Fairfax and Howard Counties and a high of \$17.70 per student in Fairfax County. However, as noted in Chapter IV, Budget and Expenditure Trends, this may reflect a higher level of cost-sharing with schools for custodial supplies than in peer districts.
- MCPS assigns the fewest students, 113, per school plant position compared to one position per 115 students in Fairfax County, one position per 116 students in Baltimore County, one position per 121 students in Howard County, and one position per 130 students in Prince George's County.

Table 7-1 also demonstrates remarkably similar rates of school square footage assigned per building service workers among the five districts, ranging from a low of 16,422 square feet per FTE in Fairfax County to a high of 17,707 square feet per FTE in MCPS.

B. Operations and Maintenance Costs by Maryland State Budget Category

Under Maryland law, each County Council must appropriate funds for its school district according to State budget categories defined by the Maryland State Department of Education. Given the potential for overlap in operations and maintenance across school systems, OLO compiled and analyzed data for MCPS and its three Maryland peers in two budget categories:

- **State Budget Category 10, Operation of Plant and Equipment**, tracks salaries and operating expenses for warehousing and distributing services, operating services (e.g., utilities), care and upkeep of grounds and buildings, and security services.
- **State Budget Category 11, Maintenance of Plant**, tracks salaries and operating expenses for upkeep of grounds, buildings, and fixed equipment and maintenance for vehicles not used for student transportation.

Table 7-3 on the next page describes FY07 budget data for Montgomery, Baltimore, Prince George's, and Howard Counties appropriated by State Budget Categories 10 and 11, and estimates of operations and maintenance expenditures per student and square foot. Because there can also be differences in how Counties define categories, considering the sum of State Budget Categories 10 and 11 to reflect joint operations and maintenance costs is also important.

Table 7-3: District Benchmarks by Maryland State Budget Category, FY07

State Budget Categories	Montgomery County	Baltimore County	Prince George's County	Howard County
Operating Budget (in millions)				
State Budget Category 10: Operation of Plant and Equipment	\$104.1	\$82.3	\$110.6	\$34.7
State Budget Category 11: Maintenance of Plant	\$30.7	\$26.9	\$32.5	\$16.7
Sum for SBC 10 and 11	\$134.8	\$109.2	\$143.1	\$51.4
Expenditure per Square Foot				
SBC 10: Operation of Plant and Equip.	\$4.59	\$5.02	\$5.79	\$4.75
SBC 11: Maintenance of Plant	\$1.36	\$1.62	\$1.70	\$2.29
Sum for SBC 10 and 11	\$5.95	\$6.64	\$7.49	\$7.04
Expenditure per Student				
SBC 10: Operation of Plant and Equip.	\$754	\$776	\$801	\$708
SBC 11: Maintenance of Plant	\$223	\$254	\$236	\$341
Sum for SBC 10 and 11	\$977	\$1,030	\$1,037	\$1,049

Sources: OLO Report 2007-5; Division of School Plant Operations

Compared to Baltimore, Prince George's, and Howard Counties, Table 7-3 suggests that:

- MCPS achieves the lowest State Budget Category 10 expenditures at \$4.59 per square foot for the operation of plant and equipment compared to a range of \$4.75 to \$5.79 per square foot among the other Maryland districts considered;
- MCPS has the lowest combined State Budget Categories 10 and 11 expenditures for plant and equipment and maintenance at \$5.95 per square foot and \$977 per student compared to \$6.64 per square foot and \$1,030 per student in Baltimore County; \$7.49 per square foot and \$1,037 per student in Prince George's County; and \$7.04 per square foot and \$1,049 per student in Howard County.

C. Operations and Maintenance Staffing from Washington Area Boards of Education

Since personnel costs are the most significant driver of operations and maintenance budget costs, the review of comparative staffing data provides another opportunity to compare differences in costs across districts. The Washington Area Boards of Education (WABE) Guide compiled by Fairfax County Public Schools provides FY07 staffing data for operations and maintenance for Montgomery, Prince George's, and Fairfax Counties. Table 7-4 on the next page describes this data by full-time equivalents and staffing patterns by square foot and student.

Table 7-4: Staffing Benchmarks from Washington Area Boards of Education, FY07

Benchmarks	Montgomery County	Prince George's County	Fairfax County
Enrollment and Square Footage			
Enrollment	137,798	137,618	164,295
Square Footage for All Facilities (in millions)	22.7	19.1	25.0
Operations and Maintenance (OM) Staffing by Full-Time Equivalents (FTEs)			
Sum of OM FTEs	1,615.7	1,871.2	1,944.0
School-based OM FTEs*	1,226.0	1,110.0	1,433.5
Non-school based OM FTEs**	389.7	761.2	510.5
School-based % of OM FTEs	75.8%	59.3%	73.7%
Square Footage per Staff			
Square Feet/OM FTE	14,046	10,200	12,877
Square Feet/School-based OM FTE	18,511	17,195	17,462
Square Feet/Non-school-based OM FTE	58,237	25,074	49,034
Students per Staff			
Students/OM FTE	85.3	73.6	84.5
Students/School-based OM FTE	112.4	124.0	114.6
Students/Non-school-based OM FTE	353.6	180.8	321.8

*School-based OM positions include custodial staff

** Non-school based OM positions includes non school-based custodian, maintenance, print shop and warehouse employees

Sources: Washington Area Boards of Education Guide 2007; Division of School Plant Operations

OLO's review of the WABE data based on Table 7-4 suggests that MCPS operations and maintenance (OM) staff serve more square feet and students on average than either Fairfax or Prince George's Counties. Interestingly however, because MCPS allocates a greater percentage of its OM staff to schools rather than to other facilities, its ratio of students to school-based OM positions is the lowest of the three districts considered. Table 7-4 reveals the following findings:

- MCPS allocates 76 percent of its operations and maintenance staff to schools compared to Fairfax allocating 74 percent of its OM staff to schools, and Prince George's County allocating 59 percent of its OM staff to schools.
- MCPS assigns more square feet per school-based OM staff than Prince George's and Fairfax County. The differences are most pronounced among square feet per non-school-based OM FTE. Each non-school based OM FTE in Prince George's County covers 25,000 square feet compared to about 50,000 square feet in Fairfax County and nearly 60,000 square feet in Montgomery County.
- MCPS also assigns more students per OM employee than Fairfax and Prince George's County. The ratio of students to OM staff in Montgomery County is 85.3 students per worker, compared to a ratio of 84.5 students per OM worker in Fairfax County, and a ratio of 73.6 students per worker in Prince George's County.

D. Operations and Maintenance Costs per Student from School Matters

OLO also consulted the School Matters website sponsored by Standard and Poor’s to compare operations and maintenance costs per students for all five districts. School Matters offers a database of school district budget data derived from U.S. Census Bureau Form F-33 as reported by state education agencies. The website estimates the per student costs of operations and maintenance expenditures that include the cost of building services, heat and electricity, building security, and benefits. For the five districts, Table 7-5 describes School Matters’ estimates of per student costs for operations and maintenance for FY04, the most recently available data.

Table 7-5: Estimates of Operations and Maintenance Costs per Student from School Matters, FY04

	Montgomery County	Baltimore County	Prince George's County	Fairfax County	Howard County
Operations and Maintenance (OM) Expenditures per Student					
Total Cost of OM	\$864	\$820	\$856	\$1,007	\$807
OM Compensation (salaries and benefits)	\$577	\$461	\$573	\$564	\$515
OM Utilities, Equipment & Supplies	\$287	\$359	\$283	\$443	\$292

Source: School Matters (www.schoolmatters.com)

Data from School Matters suggests that MCPS had higher overall OM costs and compensation costs per student in FY04 than its peers. According to Table 7-5, MCPS had the second highest estimated per student costs for OM at \$864 per student, compared to a high of \$1,007 per student in Fairfax County, and a low of \$807 per student in Howard County. Moreover, MCPS ranked first in OM compensation costs at \$577 per student compared to \$573 per student in Prince George’s, \$564 per student in Fairfax, \$515 per student in Howard, and \$461 per student in Baltimore County.

MCPS’ higher ranking of per student costs for OM overall, and for compensation in particular, may arise due to the inclusion of the cost of the employee benefits in School Matters estimates¹ if the cost of employee benefits is higher in MCPS compared to its peers. Additional information and analysis beyond the scope of this report would be needed to discern what accounts for MCPS’ higher ranking according to School Matters.

Conversely, data from School Matters suggest that MCPS had the second lowest costs per student for utilities, equipment, and supplies in FY04. MCPS spent \$287 on utilities, equipment, and supplies compared to a high of \$443 per student in Fairfax. To the extent that supply costs influence MCPS’ lower ranking on this cost indicator, this finding is consistent with FY07 data compiled by MCPS that indicate it has the lowest supply budget per student and square foot among the five districts (see Table 7-2).

¹ Employee benefits are excluded from the comparative budget data based on the school system reported and Maryland State Budget Category data referenced in Part A and B of this chapter. State Budget Category 12, Fixed Costs, captures the cost of benefits for employees whose salaries are included in State Budget Categories 1-10.

CHAPTER VIII: Community Use of Public Facilities and School Plant Operations

The Division of School Plant Operations works with the Office of Community Use of Public Facilities (CUPF) to coordinate community use of schools. This chapter describes responsibilities and costs associated with the community use of schools in two parts.

- **Part A, Background on Community Use of Schools**, summarizes CUPF's and SPO's roles in facilitating public access to schools; and
- **Part B, Costs and Expenditures Related to Community Use of Schools**, presents CUPF's revenues and expenditures and MCPS' staff costs related to school use.

OLO's review of data from CUPF and MCPS leads to the following observations. First, the Memorandum of Understanding between CUPF and MCPS to support and staff community use of schools drives the reimbursement structure and payments to MCPS by CUPF. Second, CUPF's hourly rate of reimbursement for staff costs exceeds MCPS' hourly costs for most building service staff. Third, CUPF reports substantially fewer *clock hours* than the *staff hours* that MCPS attributes to community use activities. Clock hours refer to weekend and holiday community use hours that CUPF uses to reimburse for staff hours, while MCPS' accounting of staff hours refers to all hours billed by ICB workers and overtime hours for other SPO personnel who staff community use. Fourth, the difference in MCPS' and CUPF' measures of community use hours combined with high levels of ICB overtime for higher grade staff contribute to a gap between MCPS costs and CUPF payments for staffing community use activities.

The factors that account for a majority of the difference in CUPF hours and SPO hours require additional study. MCPS does not track the actual costs for utilities, custodial supplies, and equipment and maintenance for community use, leaving it unclear whether a variance exists between reimbursements and actual costs because of these expenditures for ICB activities.

A. Background on Community Use of Schools

CUPF is the County office responsible for coordinating public use of schools, libraries, and County office buildings. The office schedules events, collects fees, trains community users, and provides general administrative oversight of community use of public facilities. Most of this use occurs in schools. Both CUPF and MCPS refer to community use of schools as "ICB activities" in reference to the Interagency Coordinating Board that works with CUPF and MCPS to establish policy for community use (see Chapter V: Major Mandates).

This part of the chapter provides background for understanding the costs and expenditures for MCPS and CUPF related to community use of schools described in Part B. Section 1 describes CUPF's responsibilities for community use of schools while Section 2 describes SPO's responsibilities. Section 3 describes the Memorandum of Understanding that defines the reimbursement structure for CUPF to MCPS for ICB costs.

Additionally, Table 8-1 on the following page describes the three categories of hours used by CUPF and MCPS to capture community use costs – *clock hours*, *paid use hours*, and *staff hours*. Understanding the distinction between hours attributed to community use and reimbursed by CUPF is critical to understanding the information and analysis presented in this chapter.

Table 8-1: Definitions of Hours Used to Calculate CUPF Reimbursements and MCPS Costs for Community Use of Schools

Hour Type and Definition	How Its Used
Clock Hours: Weekend and holiday community use hours – defined as the span of time between opening and closing of schools plus 30 minutes for setup and breakdown.	CUPF uses clock hours to reimburse MCPS for most staff costs.
Paid Use Hours: Weekday, weekend, and holiday community use hours for paying groups.	CUPF uses paid use hours to reimburse MCPS for custodial supplies, equipment, and maintenance.
Staff Hours: The amount of time that staff actually work in support of community use. Includes all weekday and weekend hours for ICB workers, training for ICB workers, and overtime for other MCPS staff for community use.	MCPS uses staff hours to pay for staff costs related to community use activities. CUPF also uses actual staff hours to reimburse cafeteria, security and media staff.

Source: MCPS Division of School Plant Operations; Office of Community Use of Public Facilities

1. CUPF’s Responsibilities for Community Use of Schools

CUPF schedules events, sets and collects fees, and reimburses MCPS for costs associated with ICB activities in school buildings. The office schedules all events that are not sponsored by the local school, including MCPS programs, PTA events, and activities for community groups.

Facility use is free for MCPS and most PTA events, but all other groups pay rent based on a complex fee schedule designed to maximize the affordable use of public facilities. Fees vary depending on the type of group and activity, the space and staff needed, and whether it is a weekday or weekend activity. CUPF also schedules the use of elementary and middle schools ballfields, including 15 ballfields used by schools and maintained by the Maryland-National Capital Park and Planning Commission.

2. SPO Responsibilities Related to Community Use of Schools

SPO has the primary responsibility within MCPS for staffing community events, including opening, cleaning, and closing the school. Depending on the event, MCPS, in collaboration with the ICB scheduler, may also assign security, cafeteria and media staff to work an event.

During the week, community activities occur during second shift hours for building service staff. As such, the need for overtime hours to staff community use activities is minimized. To staff weekend activities, SPO uses two approaches. Sixty of the highest use schools are budgeted to have a half-time (0.5 FTE) building service worker who staffs weekend ICB activities. At other schools, managers recruit personnel to staff the building. SPO also staffs schools for elections.

Building services does not staff ballfield use by community groups unless the group has also rented a portion of the building. However, building service staff pick up trash after community groups use MCPS ballfields. At schools with heavy weekend use, staff may spend two or three hours on Monday morning cleaning the grounds.

Additionally, SPO monitors the overtime hours for weekend ICB activities. New payroll software introduced in FY04 allows SPO to notice discrepancies between the hours that CUPF approved for reimbursement and the hours reported by building service staff. To resolve this, SPO now compares all overtime hours reported by employees to a list of hours from CUPF. SPO reports that this process had reduced errors and spending on ICB overtime.

3. Reimbursement Structure

County law establishes an Interagency Coordinating Board (ICB) that facilitates policymaking for the community use of schools. Each year, CUPF, MCPS, and the ICB negotiate a Memorandum of Understanding (MOU) that sets the reimbursements that MCPS will receive from CUPF for their costs related to community use. The MOU broadly categorizes the reimbursements as utilities, custodial supplies, equipment and maintenance, and staffing. Staffing includes building services personnel, media technicians, security, and cafeteria staff.

CUPF's reimbursements to MCPS related to SPO occur in two ways: reimbursements to MCPS for staffing and custodial supplies; and reimbursement directly to schools to help defray the costs of equipment and maintenance. Reimbursements for staff are based on weekend clock hours while reimbursements for custodial supplies and equipment/maintenance are based on paid user hours. Table 8-2 below summarizes the reimbursement structure for FY07.

Table 8-2: Community Use of Public Facilities (CUPF) Reimbursement Structure, FY07

Category	Basis	Rate	Reimbursed to:
Utilities	5.5% of MCPS' previous year's total utility costs.	\$130,404/month	Department of Facilities Management
Custodial Supplies	Per <i>paid use hour</i> for the previous fiscal year.	Elementary: \$.35/hr. Middle: \$.40/hr. High: \$.50/hr.	Division of School Plant Operations
Equipment/Maintenance	Per <i>paid use hour</i> for the previous fiscal year.	\$1.25/hr.	Individual schools
Building Service Staff (Weekend & holiday use)	Per <i>clock hour</i> using the average overtime rate plus FICA for a building service worker.	\$26.50/hr.	MCPS
Building Service Staff (Elections)	Per <i>staff hour</i> worked during elections using the average overtime rate plus FICA for a building service manager.	\$40.50/hr.	MCPS
Additional Building Service Staff Time: Weekday use and summer clean-up	Weekday use: 20% of weekend <i>clock hours</i> credited to SPO for ICB worker hours on Fridays. Summer clean-up: 600 hours of staff time credited to SPO for use in high-use schools.	\$26.50/hr.	MCPS
Media Technicians, Security & Cafeteria Staff	Per <i>staff hour</i> using the average overtime rate plus FICA.	Media: \$41.75 Security: \$26.00 Cafeteria: \$25.00	MCPS

Source: 2007 Interagency MOU (Appendix E); Office of Community Use of Public Facilities; Department of Management, Budget, and Planning; Department of Facilities Management; Division of School Plant Operations

As noted in Table 8-2, CUPF bases its reimbursements to MCPS for building service personnel on an average overtime wage plus FICA (i.e., Social Security), which was \$26.50 per clock hour in FY07. Additionally, CUPF reimburses MCPS for 5.5 percent of its prior year utilities bill to defray the costs of utilities for community use. CUPF also reimburses SPO for custodial supplies at a sliding rate for schools: 35 cents per paid user hour for elementary schools, 40 cents per paid user hours for middle schools, and 50 cents per paid hour in high schools.

In addition to the reimbursements included in the MOU, CUPF has also made other contributions to MCPS through initiatives funded through its fund balance to support community use. For example, CUPF has funded ballfield rehabilitation, security cameras, and phone lines that tie into schools' public announcement systems.

B. Costs and Expenditures Related to Community Use of Schools

This part presents in two sections FY06 CUPF cost and expenditure data related to community use of schools. Section 1 describes CUPF's expenditures, revenue, and reimbursements to MCPS. Section 2 summarizes data from MCPS on ICB staff costs.

1. CUPF Expenditures, Revenue, and Reimbursements to MCPS

CUPF Expenditures and Revenues. Table 8-3 summarizes the CUPF budget in FY06 for expenditures and revenue. Expenditures for personnel include salaries and benefits; operating costs include MCPS reimbursements, building lease, office supplies, and capital outlays.

Table 8-3: CUPF Expenditures and Revenue, FY06

	Amount	Percent of Total
Expenditures		
Personnel (26 workyears)	\$1,782,336	26.1%
Operating	\$5,053,170	73.9%
--Reimbursements to MCPS	\$4,670,146	68.3%
--Other Operating Expenses	\$383,024	5.6%
Total	\$6,835,506	100.0%
Revenue		
General User Fees	\$7,885,253	97.7%
Ballfield Reservation Fees	\$92,365	1.1%
Investment Income	\$93,115	1.2%
Total	\$8,070,733	100.0%

Source: County Executive's FY08 Recommended Budget

In FY06, CUPF had a budget of \$6.8 million that included \$1.8 million in personnel costs for 26 workyears and \$5.1 million in operating costs. Reimbursements to MCPS accounted for 68 percent of CUPF's expenditures. To fund its budget, CUPF received \$8 million in revenue. General user fees accounted for 98 percent of CUPF's revenue, while the remaining two percent was generated by ballfield reservation fees and investment income. Of the \$7.9 million generated in user fees, MCPS rentals accounted for \$7.6 million (96%).

CUPF's revenue exceeded expenditures by about \$1.2 million in FY06. This revenue went to CUPF's fund balance that totaled \$2.3 million based on the FY06 Comprehensive Annual Financial Report. CUPF aims to reserve 10 percent of its annual revenue to protect against shortfalls in revenue, provide for reinvestment in technology, and allow for program investments such as pilot programs.

CUPF Expenditures Related to MCPS. Table 8-4 describes CUPF's FY06 MOU-based reimbursements and other expenditures related to MCPS.

Table 8-4: CUPF Expenditures Related to MCPS, FY06

Expense Category	Amount	% of Total
MOU-Based Reimbursements		
Utility costs	\$1,300,000	27.8%
Custodial Supplies	\$99,388	2.1%
Maintenance and Equipment	\$652,881	14.0%
MCPS building service, media, cafeteria, and security staff	\$2,437,273	52.2%
<i>Subtotal</i>	<i>\$4,489,542</i>	<i>96.1%</i>
Other Expenditures		
Weekend building service supervisor, resource conservation assistant, and weekend security patrol/assistant	\$155,604	3.3%
Car for weekend supervisor	\$4,120	0.1%
Phone lines to tie into school PA systems	\$20,880	0.4%
<i>Subtotal</i>	<i>\$180,604</i>	<i>3.9%</i>
Total	\$4,670,146	100.0%

Source: Office of Community Use of Public Facilities

The data show that in FY06, CUPF attributed \$4.7 million in expenditures to community use of schools. Reimbursements represented 96 percent of these expenditures. Of this amount, \$2.4 million was reimbursed to MCPS for building service, media, cafeteria, and security staff. In addition, CUPF paid the salaries for three MCPS employees assigned to CUPF: a half-time (0.5 FTE) resource conservation assistant for the Division of Maintenance; a full-time weekend building service supervisor assigned to SPO; and a weekend security patrol/assistant to the weekend supervisor.

Table 8-4 also shows that in FY06 SPO received \$99,388 for custodial supplies. CUPF reports that this reimbursement was for 520,145 paid use hours at an hourly rate of \$0.15 for elementary schools, \$0.20 for middle schools, and \$0.45 for high schools. As noted in Table 8-2, these reimbursement rates increased in FY07 to \$.35 per hour for elementary schools, \$.40 per hour in middle schools, and \$.50 per hour for high schools. The doubling of ICB' reimbursements rates for custodial supplies to \$199,000 in FY07 equates to approximately 20 percent of custodial supplies allocations managed directly by schools (see Table 4-10, page 28).

Finally, Table 8-4 shows that reimbursements for building service, media, cafeteria, and security staff account for just over half (52%) of CUPF's expenditures related to MCPS. Table 8-5 below further disaggregates the staff cost reimbursement.

Table 8-5: Staff Time Reimbursements to MCPS for ICB Activities, FY06

	Clock Hours	Reimbursement	% of Total Reimbursements
Building Service Staff			
Weekend community activities	66,665	\$1,763,963	72.4%
Weekday cleanup hours*	13,113	\$346,961	14.2%
Summer clean-up hours	600	\$15,876	0.7%
<i>Subtotal Building Service Staff</i>	<i>80,378</i>	<i>\$2,126,799</i>	<i>87.3%</i>
Other MCPS Staff			
Security	6,130	\$183,709	7.5%
Media Service Technicians	2,685	\$104,403	4.3%
Cafeteria Staff	746	\$22,363	0.9%
<i>Subtotal Other Staff</i>	<i>9,561</i>	<i>\$310,474</i>	<i>12.7%</i>
Total	89,939	\$2,437,273	100.0%

*20% of weekend clock hours, not including 517 hours in quarterly adjustments.

Source: Office of Community Use of Public Facilities

The data in Table 8-5 demonstrate that in FY06, CUPF paid MCPS \$2.4 million for staff time. Of this, \$2.1 million (87%) was for building service staff and \$310,000 (13%) was for other staff. For building services, the reimbursement was for a total of 80,378 clock hours, including 66,666 weekend clock hours worked by building services staff, a 13,113 hour supplement for weekday use for Friday evening hours staffed by ICB workers, and another 600 hour supplement for summer clean-up.

2. MCPS Staff Costs Related to Community Use

This section describes staff costs tracked by MCPS related to ICB activities, including salaries, overtime, and benefits, and compares these costs to the reimbursements received from CUPF. OLO reviewed data on staff ICB costs from three MCPS sources:

- Total cost of all MCPS employees who worked for ICB activities, using data from the Department of Management, Budget and Planning (Budget Office);
- Total hours worked and wages earned for ICB activities by SPO staff, using data from the Department of Financial Services (Financial Services); and
- SPO overtime by position for ICB activities, using data collected by SPO.

Slight differences exist in the data from the three sources. Budget Office data includes building service, media, security, and cafeteria staff, while data from Financial Services and SPO include only building service staff. Additionally, end of the year adjustments made to the general ledger data in the Budget Office do not get reflected in the payroll data from Financial Services, and changes to the payroll data may not be made to SPO's database.

Total Salaries, Overtime, and Benefits Costs. The Budget Office tracks staff costs for actual hours worked by building service, security, media, and cafeteria staff for ICB activities in FY06 and staff-related reimbursements from CUPF. Table 8-6 describes this data for FY06.

**Table 8-6: MCPS Expenditures and CUPF Reimbursements
for MCPS Personnel Staffing ICB Activities, FY06**

Expenditure Type	MCPS Expenditure	CUPF Reimbursement	Balance
Salaries and Overtime			
Salaries	\$725,576	--	--
Overtime*	\$1,625,606	--	--
<i>Subtotal Salaries and Overtime</i>	\$2,351,182	\$2,252,748	-\$98,434
Benefits			
FICA**	\$179,865*	\$180,220	\$355
Other benefits	\$398,655	\$0	-\$398,655
<i>Subtotal of Benefits</i>	\$578,520	\$180,220	-\$398,300
Total	\$2,929,702	\$2,432,968¹	-\$496,734

*Overtime includes both regular and premium rate overtime.

**OLO estimate using the subtotal for salaries and overtime and the Social Security Administration FICA rate of 7.65%. Note that CUPF calculates their reimbursement for FICA using 8% of salaries and overtime.

Source: MCPS Department of Management, Budget, and Planning

¹ The MCPS Budget Office reports \$4,305 less in staff reimburses than the \$2,437,273 reported by CUPF (see Table 8-5). A small part of this difference (\$319) is attributed to CUPF indicating that they contributed \$180,539 to FICA compared to MCPS indicating that they received \$180,220.

According to Table 8-6, MCPS spent \$2.9 million on salaries, overtime, and benefits related to ICB activities, while they received \$2.4 million in reimbursements in FY06. This resulted in a deficit of about a half million dollars, including about \$98,000 for salaries and overtime and \$398,000 for benefits. However, MCPS does not expect reimbursements from CUPF to cover benefits, and the Department of Financial Services budgets for this anticipated expense.

Comparing Hours and Costs for Community Use. As described previously, CUPF reimburses MCPS for building service staff based on clock hours—the number of hours that community groups use a building on a weekend or holiday, which is adjusted with additional hours for clean up and weekday use. However, data from Financial Services shows that building service personnel worked significantly more hours staffing the community use of schools. Staff hours cited by Financial Services would include all hours billed by ICB workers and overtime hours for community use worked by other building service personnel.

Table 8-7 below compares Financial Services calculations of FY06 community use hours and costs for building service staff to CUPF’s clock hours and reimbursements.

Table 8-7: Comparing Hours and Costs of Building Service Staff for ICB Activities, FY06

Type of Hours	Hours	Average Wage/Hr. + FICA Rate	Total Wages + FICA Costs
MCPS Financial Services - ICB Hours			
Regular Time for ICB Workers	54,006	\$14.44	\$780,029
Overtime for Building Service Staff*	50,057	\$27.57	\$1,379,851
Financial Services Total Hours	104,063	\$20.76	\$2,159,880
Community Use of Public Facilities			
Weekend Clock Hours for School Use	66,665	\$26.46	\$1,763,963
Weekday Supplement	13,113	\$26.46	\$346,961
Summer Supplement	600	\$26.46	\$15,876
CUPF Total Hours	80,378	\$26.46	\$2,126,799
Difference between MCPS and CUPF			
Difference in Total Hours and Costs	23,685	-\$5.70	\$33,081

*Overtime includes both regular and premium rate overtime.

Sources: MCPS Department of Financial Services, Office of Community Use of Public Facilities and OLO calculations of FICA

Table 8-7 shows that in FY06 MCPS’ Department of Financial Services attributed 104,063 hours of staff to community use. CUPF, however, registered 80,378 eligible staff hours representing 66,665 weekend hours for community use and 13,713 additional hours for weekday and summer clean-up. As such, there is a gap of almost 24,000 hours between MCPS and CUPF accounting of eligible ICB staff hours.

The factors that account for a majority of the difference in CUPF and SPO hours require additional study. According to SPO, training time for ICB workers as well as setup and cleanup time beyond the 30 minutes included in clock hours make up part of the difference. Additionally, CUPF suggests that a portion of the difference may be due to ICB worker hours on weekends when a school is not hosting a community activity. This situation usually occurs on weekends outside of basketball season and in August when schools may be closed for cleaning. During these times, the ICB worker does tasks solely on behalf of SPO, not CUPF.

The impact of the CUPF and MCPS hours gap on SPO's ICB salary deficit is tempered by the higher rate of reimbursement by CUPF (\$26.46 per hour) compared to MCPS' average costs for wages and FICA (\$20.76 per hour). Appendix C, Analysis of Three Sets of Scenario for Achieving Costs Savings, describes the potential the savings that MCPS could achieve by reducing the hours gap.

Table 8-7 also shows that the difference between MCPS' wage and FICA costs and CUPF's reimbursement for building service personnel was \$33,081 in FY06, suggesting that SPO met its performance target to achieve an ICB salary deficit of less than \$100,000 (Chapter VII, page 52).

Hours Worked and Wages Earned by Building Service Staff. Table 8-8 below describes the distribution of SPO staff costs for community use between regular time and overtime for FY06. Regular time represents hours worked by ICB building service workers, while overtime primarily represents time worked by other building service staff.

Table 8-8: Hours Worked and Wages Earned by Building Service Staff for ICB Activities, FY06

	Hours	% of hours	Total Wages	% of Wages	Average Wage/Hr.	Average Wage/Hr. + FICA
Regular Time	54,006	51.9%	\$724,597	36.1%	\$13.42	\$14.44
Overtime*	50,057	48.1%	\$1,281,794	63.9%	\$25.61	\$27.57
Total	104,063	100.0%	\$2,006,391²	100.0%	\$19.28	\$20.76

*Overtime includes both regular and premium rate overtime.

Source: MCPS Department of Financial Services, Division of School Plant Operations and OLO calculations of FICA

Table 8-8 suggests an almost even split between regular time and overtime hours worked by building service staff in FY06. With premium pay of one to two times the regular rate comprising most of overtime wages, overtime represents almost two-thirds of building service staff costs for community activities.

² Total wages reported by Financial Services (\$2,006,391) is less than the salaries and overtime reported by the Department of Management, Budget, and Planning in Table 8-6 (\$2,352,182) because it includes only building service employees.

SPO Overtime by Position for ICB Activities. The hourly wages of employees have a significant effect on the overtime cost to MCPS of building service staff for ICB activities. The FY05-FY07 agreement with SEIU stipulated that at least 80 percent of middle and high school and 70 percent of elementary school overtime hours for ICB activities should go to grade six building service workers. Table 8-9 describes the distribution of ICB overtime hours and wages earned by grade level and position type for building service staff in FY06.

Table 8-9: ICB Overtime for Building Service Staff, FY06

	Hours	% Hours	Wages	% Wages	Average Wage/Hr.	Average Wage/Hr. + FICA
Grades 10-16*						
Managers	8,382	16.7%	\$295,787	23.1%	\$35.29	\$37.99
Assistant Managers	9,481	18.9%	\$254,176	19.8%	\$26.81	\$28.86
Plant Equipment Operators	1,596	3.2%	\$47,921	3.7%	\$30.03	\$32.32
<i>Subtotal of Grades 10-16</i>	19,459	38.8%	\$597,884	46.6%	\$30.73	\$33.08
Grade 6 Building Service Workers						
Shift I	15,872	31.7%	\$353,099	27.5%	\$22.25	\$23.95
Shift II	8,316	16.6%	\$204,173	15.9%	\$24.55	\$26.43
ICB	6,462	12.9%	\$127,093	9.9%	\$19.67	\$21.17
<i>Subtotal of Grade 6</i>	30,650	61.2%	\$684,365	53.4%	\$22.33	\$24.04
Total	50,108³	100.0%	\$1,282,249	100.0%	\$25.59	\$27.55

*SPO does not have positions in grades seven through nine.

Source: Division of School Plant Operations

Table 8-9 shows that in FY06, building service staff worked 50,108 hours of overtime and earned a total of \$1.3 million. Workers in grades 10-16 worked 19,459 hours (39%) and earned \$598,000 (47% of the wages) compared to grade 6 employees who worked 30,650 hours (61%) and earned \$684,000 (53% of wages). As such, Grade 6 building service workers worked less than the 70 to 80 percent of ICB overtime hours required in the SEIU contract.

Additionally, Table 8-9 demonstrates that in FY06 the average building service employee earned \$25.59 per ICB overtime hour, not including FICA. On average, employees in grades 10-16 earned \$30.73 per overtime hour, while grade 6 workers earned \$22.33 per hour. Had a greater percentage of ICB overtime wages been earned by existing grade 6 employees, the MCPS deficit for ICB costs would have been diminished. Appendix C provides some analysis of the potential cost savings that MCPS can achieve by increasing the allocation of ICB overtime hours to grade 6 employees from 61 to 75 percent.

³ Differences in total overtime hours and wages reported by SPO (50,108 hours and \$1,282,249) and Financial Services (50,057 hours and \$1,281,794) are due to adjustments made in the Financial Services database that were not made in SPO's database.

Chapter IX: Findings and Recommendations

At the request of the County Council, the Office of Legislative Oversight (OLO) conducted a base budget review of Montgomery County Public Schools' Division of School Plant Operations (SPO). A base budget review provides in-depth analysis of a budget and related program information for the purpose of informing and improving the Council's oversight, annual review, and decision-making on agency appropriations.

This chapter presents key findings based on OLO's base budget review of SPO and offers recommendations for next steps and Council actions in two parts.

- **Part A, Findings**, presents project findings in six areas: organizational performance, total budget and costs, staffing allocations and overtime, SPO's relationship with Community Use of Public Facilities (CUPF), supplies and equipment, and data collection; and
- **Part B, Recommendations**, presents OLO's recommendations for enhancing the County Council's oversight of school plant operations personnel costs, operating expenses, cost efficiencies, and organizational performance.

A. Findings

This part presents OLO's 20 findings in six sections:

- **Organizational Performance** offers findings that synthesize SPO's progress toward achieving performance goals and providing staff development to SPO personnel;
- **Total Budget and Costs** describes findings regarding the total costs of school plant operations, costs per square foot and student, and the major drivers of costs;
- **Staffing Allocation and Overtime** describes SPO's allocation of building service personnel and overtime, and MCPS' marginal costs for regular and overtime;
- **SPO Relationship with Community Use of Public Facilities** offers findings on the relationship between SPO and CUPF, the ICB salary deficit, and reasons for the deficit;
- **Supplies and Equipment** presents findings on SPO's supply allocations to schools, supply and equipment costs per student, and process for equipment replacement; and
- **Data Collection** describes the additional data required to further understand total school plant operations costs, and custodial supply costs in particular.

Organizational Performance

Finding 1: SPO has a strategic plan, performance measures, and quality assurance efforts that focus on continuous improvement.

In 2006, the central administration of SPO developed a strategic plan that articulates its mission, vision and core values, strengths and weaknesses, and organizational priorities for the next five years. To implement its plan, SPO has developed action teams focused on the following priorities: leadership, the implementation of SPO standards, assistant building service managers, employee recognition, workplace literacy for English language learners, collaboration with CUPF, and boiler licensing.

SPO has identified goals and performance measures for human resources, staff development, financial results, organizational effectiveness, and customer satisfaction. The continuum of performance measures tracked by SPO ranges from process indicators (e.g., number of trainings) to outcome measures (e.g., percentage of schools meeting standards). SPO also tracks a variety of performance measures that reflect both “easy to reach” and “stretch” goals, such as 80 percent of students surveyed will indicate satisfaction with the custodial upkeep of their school.

To improve school-based practices, SPO has also created a framework for delivering training and providing quality assurance. SPO employs three trainers that teach staff courses on basic skills, new initiatives, best practices, and effective supervision. SPO also partners with Montgomery College to provide technical training to personnel on boilers, plant equipment operations, and air conditioning. Additionally, SPO employs six building service supervisors who conduct quality assurance inspections and provide technical assistance to schools that need help to meet the standards.

Finding 2: SPO implements custodial practices that reflect industry best practices.

SPO implements practices that align with custodial industry best practices that include the use of:

- Staffing formulas based on school square footage to allocate building services personnel,
- Floating positions (i.e., rovers and temporary substitutes) for staffing assistance,
- Team cleaning approaches on a majority of campuses,
- Automatic product dispensing devices,
- Formal training for new building service workers,
- Periodic training to custodial staff, and
- Site-based rather than central office-based management of building service personnel.

However, whether the implementation of these best practices has improved performance or cost-effectiveness of school plant operations has not been quantified by SPO.

Finding 3: SPO recognizes the upkeep of student restrooms as its most persistent challenge.

Restroom inspections conducted by building service supervisors indicate that 98 percent of restrooms meet standards. MCPS' School Environmental Surveys of students on bathrooms, however, reflect another reality. Only half of elementary students surveyed and one third of secondary students surveyed agreed that their bathrooms were well supplied. These sentiments have not changed since FY03.

Despite generally favorable restroom evaluations, SPO central administrators interviewed by OLO recognize student restrooms as the most persistent challenge. However, SPO's strategic plan does not dedicate an action team to improving student restrooms.

Persistent problems with student restrooms noted by staff and students during school site visits include the waste and misuse of paper goods and vandalism that often leave bathrooms unclean with inadequate paper supplies. To reduce paper waste and improve bathroom upkeep, Wootton High School is considering replacing paper towels with hand dryers in selected bathrooms. Some schools that OLO visited are trying to increase student accountability for restrooms. For example, Southlake Elementary has developed a system for monitoring bathrooms during the school day and encouraging students to assist building service personnel in keeping bathrooms clean.

Finding 4: SPO offers formal training for new building service workers and ongoing staff development opportunities for existing personnel. However, some SPO employees are unable to complete training in a timely manner.

SPO trainers offer a basic skills training course to all employees as well as supervision and leadership courses to building service managers and assistant managers. Through the basic skills course, MCPS provides essential training to building service personnel to comply with several state and federal laws and regulations that include hazardous waste disposal, asbestos awareness, and access to information about hazardous and toxic materials.

In partnership with Montgomery College and with funding from the Office of Organizational Development, SPO offers courses on boilers, plant equipment operations, and air conditioning that are required for promotion and recertification. However, according to SPO, the demand for the air conditioning course exceeds current availability.

SPO also reports that due to staff vacancies and competing time demands for building service workers with second jobs outside of MCPS, only 75 percent of new building service workers are able to complete the basic skills training course within the first three months of hire.

Total Budget and Costs

Finding 5: MCPS' budget for providing building services increased by 25 percent from \$57.2 million in FY04 to \$71.3 million in FY07.

MCPS' total expenses for school plant operations include the SPO budget and employee benefits and operating costs included respectively in the Department of Financial Services (DFS) and Office of Organizational Development (OOD) budgets.

From FY04 to FY07, the SPO budget increased from \$42.9 million to \$51.4 million (20%); the estimated DFS budget for benefits for SPO personnel increased from \$14.2 million to \$19.9 million (40%); and the OOD actual training costs for school plant courses at Montgomery College increased from \$42,654 to \$49,946 (17%). Adding the SPO, DFS, and OOD components of school plant costs together, MCPS' overall budget for delivering building services increased 25 percent from \$57.2 million in FY04 to \$71.3 million in FY07.

Finding 6: Personnel costs are the primary driver of building service costs.

For FY07, personnel costs for SPO employee salaries, wages, and benefits make up 97 percent of MCPS' costs of delivering building services. Costs for supplies, equipment, and training make up less than 3 percent of MCPS' costs for school plant operations.

Personnel costs included in the SPO budget for salaries, wages, overtime, and substitutes accounted for 69 percent of building service costs in FY07. Between FY04 and FY07, the budget for these personnel costs increased 18 percent from \$41.8 million to \$49.4 million. Wage increases for existing staff, the cost of new positions (116.0 FTEs), and salary increases for 200 night leader positions, who were upgraded to assistant building service managers, account for most of the increase in SPO's personnel costs.

MCPS contributions to group insurance, pensions, and FICA accounted for 28 percent of building service costs in FY07. Between FY04 and FY07, the cumulative cost of these employee benefits increased 40 percent from \$14.2 million to \$19.9 million. The increasing cost of health insurance and pensions accounts for most of this increase.

Finding 7: SPO has consistently kept spending within its budget.

Between FY04 and FY06, SPO consistently kept spending within its overall budget for salaries, wages, equipment, and supplies. SPO's budgeted costs increased from \$43.4 million in FY04 to \$48.0 million in FY06; its actual costs increased from \$42.9 million to \$47.1 million during this time frame, resulting in an annual variance (i.e., difference between budgeted and actual costs) of \$520,000 in FY04 and FY05, and \$960,000 in FY06. SPO attributes their annual variance to personnel lapse and MCPS directives to freeze new expenditures before the fiscal year's end.

MCPS either reallocated unspent resources from the SPO budget within State Budget Category 10, Operation of Plant, to assist DFM with higher than anticipated utilities expenditures between FY04 and FY06 or to the MCPS fund balance.

Finding 8: The unit cost of school plant operations increased between FY04 and FY07

Between FY04 and FY07, the unit cost of school plant operations, as measured per square foot or per student, increased. Specifically, the cost per square foot increased by 16 percent, from \$2.76 per square foot to \$3.19 per square foot. The cost per student increased by 26 percent, from \$411 per student to \$517 per student.

Staffing Allocation and Overtime

Finding 9: SPO assigns 99 percent of school plant staff to school- and facility-based positions.

SPO central administration comprises only 1 percent of the personnel employed in the Division. The remaining 99 percent of positions are assigned to schools and MCPS facilities to provide school plant and building services. In FY07, elementary schools averaged 4.1 full time equivalents compared to secondary schools which averaged 10.6 full time equivalents.

Finding 10: MCPS assigns more operations and maintenance staff to schools than peer school systems and demonstrates the lowest ratio of students to staff in schools, but the highest ratio of students to staff overall.

The functions of maintenance and custodial services departments among districts often vary. For example, in some districts maintenance is responsible for painting, while in others, it is the responsibility of school plant operations. Given these variations, comparisons of MCPS' school plant staffing levels to other districts requires the consideration of both operations and maintenance staffing data to ensure data comparability.

According to the Washington Area Boards of Education (WABE), in FY07, MCPS assigned 76 percent of its operations and maintenance workforce to schools. This compared to Fairfax County Public Schools assigning 74 percent its workforce to schools and Prince George's County assigning 59 percent.

WABE data also indicates that MCPS assigns more students to operations and maintenance staff overall, but had the lowest number of students per school-based position. In FY07, each operations and maintenance position served 85.3 students, compared to 84.5 students in Fairfax County and 73.6 students in Prince George's County. However, MCPS assigned 112.4 students per school-based position compared to 114.6 students assigned per position in Fairfax County and 124.0 students assigned per position in Prince George's County.

Finding 11: SPO overtime costs significantly exceeded budgeted costs between FY04 and FY06.

Comparisons between budgeted and actual costs for FY04 to FY06 demonstrate a consistent variance between budgeted and actual overtime expenditures. While SPO budgeted for about \$400,000 in overtime annually; they expended more than \$800,000 each year. More specifically, in FY04, SPO budgeted \$410,000 for overtime and spent \$810,000; in FY05, SPO budgeted \$420,000 for overtime and spent \$830,000; and in FY06, SPO budgeted \$430,000 for overtime and spent \$870,000.

An analysis of FY06 overtime data indicates that building service managers are the most likely to earn overtime with an average premium rate of \$35.00 per hour followed by building service workers that earned an average premium rate of \$22.00 per hour. Building service managers on average worked 55 hours of overtime, earning an additional \$1,900 in wages, while building service workers averaged 28 hours of overtime, earning an additional \$600 in wages.

Finding 12: MCPS' marginal costs for hiring new half-time grade 6 building service workers are comparable to the costs of overtime for existing Grade 6 personnel.

The hourly marginal costs to MCPS of hiring additional half-time building service workers are comparable to the costs of extending overtime to existing building service workers.

MCPS' marginal cost for new personnel includes their wages and employer contributions for employee benefits. In FY07, the average salary of a full-time grade 6 building service worker was \$31,340 and MCPS contributed \$12,996 to their benefits. Therefore, MCPS' total costs for a full-time building service worker were \$44,336 annually and about \$22.17 per hour. In FY07, the average salary of a half-time building service worker was \$14,537 and MCPS contributed another \$10,099 in benefits. As such, MCPS' total costs per half-time building service worker were \$24,626 annually or about \$24.63 per hour.

MCPS' marginal cost for staff overtime includes overtime wages and FICA contributions. In FY07, full-time grade 6 building service workers on average would have earned a premium rate of \$23.51 per hour for overtime and MCPS would have contributed an additional \$1.80 per hour for FICA (i.e., Social Security). As such, MCPS' marginal cost per overtime hour for building service workers would have been \$25.31. This is \$3.14 more an hour than the marginal costs of hiring a full-time building service worker, and only \$0.68 higher than MCPS' costs of hiring an additional half-time worker.

Finding 13: SPO increasingly relies on half-time personnel as building service workers.

In FY04, 285 of 827 building service workers (34%) were half-time employees. By FY07, 350 of 954 building service workers (37%) were half-time employees. The growth in SPO's use of half-time grade 6 workers results from schools' increasing use of half-time personnel to staff regular building service worker positions rather than from an increase in half-time ICB building service workers.

MCPS' load for employee benefits (i.e., ratio of benefits to wages) for half-time building services staff is higher than the load for full-time staff. In FY07, the load for half-time building service workers was 69 percent compared to 42 percent for their full-time peers. The difference in load results from MCPS contributing approximately \$7,600 to group insurance per building service employee in FY07, regardless of half-time and full-time status. As such, SPO's increasing use of half-time personnel to fill building service FTEs acts as a cost driver for Department of Financial Services benefit costs for SPO personnel.

SPO Relationship with Community Use of Public Facilities

Finding 14: SPO and CUPF work collaboratively to staff community use events.

Based on the interagency Memorandum of Understanding (MOU) for Community Use of Public Facilities, SPO and CUPF work collaboratively to staff and support community use events.

The Office of Community Use of Public Facilities schedules events, sets and collects fees, and reimburses MCPS for costs associated with community use of schools. SPO provides staff to open, clean, and close schools for community events on weeknights, weekends, and holidays.

To staff weeknight activities, SPO ensures that assistant building service managers schedule their hours to clean and close schools after community events. To staff weekend activities, MCPS budgets for 60 half-time ICB workers to staff community use activities in the highest need schools. Additionally, other SPO staff work overtime to cover CUPF activities at other schools.

CUPF reimburses MCPS \$26.50 for every weekend hour of staff time. CUPF also provides MCPS with a weekday supplement to cover the costs of ICB worker staff time on Friday evenings, and additional payments to SPO and schools to help defray the costs of custodial supplies, equipment, and maintenance associated with supporting community use activities.

Finding 15: A gap exists between MCPS' costs for staffing community use activities and CUPF payments for staff costs.

In FY06, OLO estimates that MCPS' Department of Financial Services spent \$2,159,880 on wages and FICA to building services personnel to staff ICB activities compared to the CUPF payment of \$2,126,799 for building service staff. This resulted in a negligible salary gap of \$33,081 for building services staff.

MCPS' overall gap for ICB costs is higher because it includes the cost of salaries for other personnel and employee benefits. In FY06, MCPS expended \$2,929,702 on staff costs for ICB activities compared to CUPF's reimbursement of \$2,432,968. This results in an overall gap of \$496,734 for MCPS for staffing ICB activities. However, it is important to note that \$398,300 of the gap (80%) represents the cost of benefits for ICB workers. Based on the MOU, CUPF is not expected to reimburse MCPS for employee benefit costs beyond FICA.

Finding 16: Differences in how MCPS and CUPF define eligible staff hours for community use and high rates of ICB overtime among grade 10-16 personnel explain some of the gap in MCPS and CUPF costs.

In FY06, the Department of Financial Services attributed 104,063 hours of staff time to community use. This includes 54,006 hours of regular time among half-time ICB workers and another 50,057 in overtime for other building service personnel. CUPF, however, registered 80,378 eligible staff hours representing 66,665 weekend hours for community use and 13,713 additional hours for weekday and summer cleanup.

The nearly 24,000 hour gap between MCPS' and CUPF's accounting of eligible staff hours is explained only in part by CUPF's exclusion of training and leave time for ICB workers and setup and cleanup time beyond 30 minutes from its calculations of clock hours. What accounts for a majority of the difference in CUPF hours and SPO hours requires additional study.

The impact of SPO staff billing for more hours than reimbursed by CUPF on the ICB cost gap is exacerbated by the high level of ICB overtime performed by more expensive managers, assistant managers, and plant equipment operators. In FY06, these grade 10-16 personnel accounted for 39 percent of the overtime assigned to community use with a combined average wage and FICA rate of \$33.08 per hour. In contrast, the SEIU agreement states that no more than 20 percent of ICB overtime in secondary schools, and no more than 30 percent of ICB overtime in elementary schools should be allocated to building service personnel above grade 6.

Supplies and Equipment

Finding 17: MCPS has the lowest custodial supply budget per square foot and student in comparison to four peer school systems.

Comparative data compiled by SPO for FY07 indicate that they budgeted 7 cents in custodial supplies per square foot compared to an average of 8 cents per square foot in Baltimore County, 10 cents per square foot in Prince George's County, and 12 cents per square foot in both Fairfax and Howard Counties. SPO data also indicates that MCPS budgeted \$12.04 per student on custodial supplies compared to \$12.11 per student in Baltimore County, \$13.58 per student in Prince George's, \$17.25 per student in Howard, and \$17.70 per student in Fairfax.

While comparative data demonstrates that MCPS budgeted fewer dollars for custodial supplies per square foot and student than other peer districts in the region, no comparative information is available on actual supply expenditures.

Finding 18: The SPO supplies budget managed by schools has grown at a slower pace than the supplies budget managed by central office.

In FY07, the \$1.7 million budget for custodial supplies for paper goods, cleaning supplies, uniforms, filters, and other supplies represented 3 percent of the SPO budget, and approximately 2 percent of total MCPS expenditures for school plant operations. In FY08, SPO will direct school-based building service managers to directly manage 58 percent of the SPO supply budget; SPO central administration will directly manage the remaining 42 percent of the SPO supply budget to support administrative offices, school, and central office functions.

Between FY04 and FY08, the supply budgets managed by schools increased 25 percent from \$810,000 to \$1,010,000. This compares to the supply budget managed by central office that increased by 35 percent from \$540,000 to \$730,000 during the same time frame.

Finding 19: SPO replaces custodial equipment when the cost of repair exceeds 75 percent of replacement costs.

In general, SPO only replaces equipment whose costs of repair exceed 75 percent of its replacement value. On occasion, SPO has used unexpended funds to purchase equipment for schools; the FY08 budget also includes funding for 160 floor burnishers. However, these central office investments in equipment by SPO are the exception rather than the rule.

Most commonly, schools receive new custodial equipment, such as vacuums and mowers, by using their own resources (e.g., PTA funds and energy conservation funds) or when modernized.

SPO's custodial equipment practices stand in contrast to MCPS' technology modernization (Tech-Mod) and Planned Life-Cycle Asset Replacement (PLAR) programs. Tech-Mod's goal is to refresh MCPS computers every four years. Replacing major facility components in between school modernizations, like roofs and HVAC systems, serves as the goal of the PLAR program.

Data Collection

Finding 20: Additional budget and cost data is required to further understand MCPS' total costs for school plant operations.

MCPS, and in particular SPO's, cooperation in sharing available data was invaluable to building OLO's understanding of MCPS total costs for school plant operations and the major drivers on budget changes. However, this base budget review is limited by three specific data limitations.

First, OLO could not compare the costs of custodial supplies and equipment purchased by schools to budgeted allocations because MCPS does not track supply costs borne by schools.

Second, the cost of group insurance and pension benefits for SPO staff must be estimated because the Department of Financial Services does not track cost data by division. Additionally, MCPS is unable to disaggregate the cost of workers compensation or health benefits for retirees from school plant operations, so these costs are not well understood.

Third, the actual cost of non-ICB worker building service staff for weekday community use and the cost of supplies, utilities, equipment, and maintenance for community use activities remain unknown because MCPS does not track these data points.

Had these additional sources of data been available, this base budget review would have been able to compare budgeted costs to actual costs for employee benefits, custodial supplies, and community use expenses.

B. Recommendations

The Office of Legislative Oversight recommends that the County Council schedule one to two worksessions to discuss the following six issues identified with this base budget review of MCPS' Division of School Plant Operations. Dialogue around these key issues should improve the Council's understanding and fiscal oversight of its appropriations for school plant operations.

Additionally, OLO recommends that the Council include key representatives from the Office of Community Use for Public Facilities as part of its worksessions with MCPS on improving school plant operations to facilitate improved understanding and budgeting of building service personnel for community use activities.

OLO recommends that Council focus on the following key issues to inform future appropriations to MCPS under State Budget Category 10, Operation of Plant, which includes the Division of School Plant Operations.

Issue 1: Consider whether to use actual cost data to determine CUPF reimbursements to MCPS for ICB costs.

Reimbursements to MCPS for Community Use of Public Facilities staffing and supplies currently reflect a complex formula based on "clock hours," "paid use hours," and negotiated rates of reimbursement. OLO recommends the Council discuss with MCPS and CUPF the relationship between CUPF reimbursements and MCPS' actual costs for staffing and providing operational support (e.g. utilities and supplies) to community use activities.

Issue 2: Examine the trade-off between using overtime versus hiring additional staff to meet school plant and CUPF work hour demands.

MCPS currently uses a mix of regular time hours among ICB workers and overtime hours among other SPO personnel to staff ICB activities. OLO recommends the Council discuss with MCPS the relative percentages of grade 6 and grade 10–16 personnel (i.e. building service managers, assistant managers, and plant equipment operators) who provide ICB overtime. OLO also recommends the Council discuss with MCPS the financial and operational trade-off between using more overtime among grade 6 workers and hiring additional grade 6 staff to meet community use needs.

Issue 3: Discuss the trade off between using half-time and full-time staff to meet school plant work hour demands.

In FY07, MCPS' load (i.e., ratio of benefits to wages) for half-time building services workers was 69 percent compared to 42 percent for their full-time peers. With MCPS contributing approximately \$7,600 in group insurance benefits in FY07 for each half-time and full-time building service worker, MCPS' hourly compensation costs per half-time employee are higher than the hourly cost for full-time employees. OLO recommends the Council discuss with MCPS the financial and operational trade-off between using half- and full-time staff to meet current and future building service staff needs.

Issue 4: Consider whether to use actual cost data to build the budget for school custodial supplies.

In FY07, the custodial supplies budget represented 3 percent of the SPO budget and 2 percent of MCPS expenditures on school plant operations. MCPS does not track the actual cost of custodial supplies purchased by schools. OLO recommends the Council discuss with MCPS the feasibility and potential benefits of tracking the actual costs of supplies purchased by schools and using actual cost data to create future supply budgets.

Issue 5: Discuss the advantages and disadvantages of implementing a custodial equipment replacement program.

SPO does not systematically replace custodial equipment. This practice stands in contrast to MCPS' technology modernization program that refreshes MCPS computers every four years and the Planned Life-Cycle Asset Replacement program that replaces major facility components in between school modernizations. OLO recommends the Council discuss with MCPS its current practice and the potential advantages and disadvantages associated with replacing custodial equipment on a regular basis (e.g., every ten years).

Issue 6: Describe the use of efficiency and outcome measures, user satisfaction surveys, demand for staff training, and other performance measures to enhance the quality and cost-efficiency of school plant operations.

SPO's strategic plan recognizes the needs to collect data that should inform decision-making to support improved performance. OLO recommends the Council discuss with MCPS whether and how SPO may enhance its use of performance measures to improve school plant operations, particularly related to improving student bathrooms and ensuring more staff complete needed training within a timely manner.

CHAPTER X: Agencies Comments

The written comments received from the Superintendent of Schools on the final draft of this Office of Legislative Oversight report are attached (page 86) and followed by written comments received by the Chief Administrative Officer (page 88).

OLO's final report incorporates technical corrections and comments provided by MCPS and County Government staff. The scenarios mentioned in the Chief Administrative Officer's comments are referenced in Appendix C (beginning on © 6). As always, OLO greatly appreciates the time taken by staff to review our draft report and provide feedback.



August 30, 2007

Ms. Karen Orlansky
Director, Office of Legislative Oversight
Montgomery County Council
Stella B. Werner Council Office Building
100 Maryland Avenue
Rockville, Maryland 20850

Dear Ms.  Orlansky:

Thank you for providing the draft Office of Legislative Oversight (OLO) base budget review of the Montgomery County Public Schools (MCPS) Division of School Plant Operations. This project has provided the opportunity for a comprehensive review of budgetary information related to the mission of the Division of School Plant Operations to provide a safe and healthy learning environment for MCPS students. MCPS staff has reviewed the draft report and found it to be thoroughly researched, thoughtfully written, and helpful to our common goal of assisting the County Council and the general public to make budget decisions regarding MCPS.

I appreciate the collaborative relationship that Ms. Elaine Bonner-Tompkins of the OLO staff and her colleagues developed with MCPS staff with whom they worked during the project. They provided MCPS staff with an ongoing opportunity for input into the development of the report and responded to technical suggestions.

MCPS notes the outstanding work by the Division of School Plant Operations staff that has been recognized in the report and intends to review the findings in greater detail to develop strategies for further improving the quality and efficiency of school plant operations. MCPS staff has provided OLO staff with some detailed comments related to the specific findings and budgetary data presented in the report. The report recognizes that the strategic plan and operational implementation of school plant operations reflect the goals of the annual MCPS strategic plan—*Our Call to Action: Pursuit of Excellence*. I am confident that the report will assist the County Council in making necessary budget decisions related to this function that implement the MCPS strategic plan.

Rather than making specific recommendations, the report raises some questions regarding school plant operations and calls for additional analysis and review. Many of these questions involve the relationship between MCPS and the Office of Community Use of Public Facilities (CUPF). These questions deserve more comprehensive treatment to take into account the service provided to the community by CUPF at MCPS facilities. MCPS staff will be ready to participate fully in any such comprehensive review of CUPF issues.

Office of the Superintendent of Schools

850 Hungerford Drive, Room 122 ♦ Rockville, Maryland 20850 ♦ 301-279-3381

Regarding Issue 1, MCPS agrees that actual cost data can illuminate CUPF reimbursement issues. The introduction of the new Financial Management System (FMS) will provide added ability to provide actual cost data, but the value of this data must be continually weighed against the cost of gathering and maintaining the information.

Regarding Issue 2, MCPS agrees that the trade-off between the use of overtime versus hiring additional staff can be explored through further analysis, but notes that this analysis must weigh operational concerns related to managerial flexibility and customer service, as well as financial considerations. MCPS has the same reaction to Issue 3 regarding the trade-off between half-time and full-time staff, and notes that the OLO report suggests further analysis would be necessary before a specific recommendation is possible.

Regarding Issue 4, MCPS believes that the introduction of the FMS should provide further capacity to provide requested information on the use of custodial supplies.

Regarding Issue 5 on equipment replacement, the OLO report did not provide sufficient analysis of the existing equipment replacement policy to determine a specific recommendation. It should be recognized that any change to implement scheduled replacement would involve significant additional cost.

MCPS fully concurs with the recommendations contained in Issue 6 on the use of performance measures and appreciates the positive comments throughout the report on the progress in performance measurement implemented by the Division of School Plant Operations. It is our expectation that the Education Committee and the full County Council will continue to study the questions raised in the report as the Council approaches work on the FY 2009 Operating Budget.

The members of the Board of Education and I look forward to working with the County Council as this report is reviewed and discussed. The goal will be to ensure that MCPS continues to provide high-quality school plant operations services that efficiently provide an attractive and productive learning environment for children and employees that they expect and deserve.

Respectfully,



Jerry D. Weast, Ed.D.
Superintendent of Schools

JDW:vnb

Copy to:

Members of the Board of Education
Executive Staff
Ms. Jones
Mr. Lavorgna
Mr. Ikheloa
Ms. Bonner-Tompkins



OFFICES OF THE COUNTY EXECUTIVE
ROCKVILLE, MARYLAND 20850

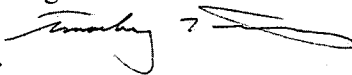
Isiah Leggett
County Executive

Timothy L. Firestine
Chief Administrative Officer

MEMORANDUM

August 30, 2007

TO: Karen Orlansky, Director, Office of Legislative Oversight

FROM: Timothy L. Firestine, Chief Administrative Officer 

SUBJECT: Office of Legislative Oversight Report 2008-1, Base Budget Review of the Division of School Plant Operations, Montgomery County Public Schools

This memorandum will communicate our general comments on the above-named report, particularly as it applies to Community Use of Public Facilities (CUPF) and School Plant Operations. We want to recognize the efforts and willingness of you and your staff to understand the complexities involved in the relationship between CUPF and MCPS.

Executive Branch staff has already communicated with you on the technical aspects and some other perspectives of the report as it applies to CUPF. We appreciate your willingness to incorporate those points of discussion in the final report.

In general, we ask that you also consider the following:

- The level of reimbursement from CUPF to MCPS is driven by a Memorandum of Understanding negotiated with MCPS and policies approved by the Interagency Coordinating Board. Those reimbursements to MCPS equal approximately 70% of CUPF's annual operating budget.
- We recognize that there are differences in the perceptions of the gap between CUPF and MCPS hours. Clearly, your study was not intended to delve deeper into this particular issue. However, further study about factors and data associated to the gap could change or eliminate those differences.
- We recognize that the scenarios that are presented in the section on recommendations are only conceptual ideas. The ability to implement the concepts contained in these scenarios would necessitate detailed analysis and negotiation to determine their feasibility and usefulness.

In closing, we want to emphasize the value that this study has provided in bringing to our attention detailed information that was not previously available. We look forward to working with the County Council in its review of this report.

TF:vj

cc: Joseph Beach, Director, Office of Management and Budget
Robert DeBernardis, Assistant to the Chief Administrative Officer
Paul Folkers, Assistant Chief Administrative Officer
Ginny Gong, Director, Community Use of Public Facilities
Jennifer Hughes, Special Assistant to the County Executive

APPENDIX

Appendix	Title	Begins on Circle Number
A	OLO Calculations of Employee Benefits for SPO Personnel	2
B	Comparison between SPO budget and other MCPS budgets	3
C	Analysis of Three Sets of Scenarios for Achieving Costs Savings	6
D	SPO Training and Montgomery College Courses and Costs	12
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**Appendix A:
OLO Calculations of Benefit Costs for SPO Employees**

Salaries and Wages

OLO calculated the cost of benefits using actual SPO expenditures for salaries and wages (i.e., salaries, overtime, substitutes, and other costs) for FY04-FY06. To provide a broader range of data, OLO included budgeted salaries and wages for FY07. Table A-1 below shows the amounts used in OLO's calculations in millions.

Table A-1: SPO Salaries and Wages, FY04-FY07

FY04	FY05	FY06	FY07*
\$40.83	\$42.99	\$45.25	\$49.38

*Budgeted

Source: MCPS Department of Management, Budget, and Planning

Calculations of Group Insurance Rates

OLO derived group insurance rates from the ratio of budgeted salaries of all SEIU employees to the budgeted cost of group insurance for active employees.¹

Table A-2: Health Insurance Rates for SEIU Employees, FY04-FY07

	FY04	FY05	FY06	FY07
Budgeted Salaries	\$223,571,200	\$239,219,921	\$253,121,620	\$274,367,398
Group insurance for active employees	\$42,427,838	\$49,663,709	\$52,861,668	\$60,910,895
Group insurance as percent of salaries	18.98%	20.76%	20.88%	22.20%

Source: MCPS Department of Management, Budget, and Planning

FICA, Group Insurance, and Pension Contributions

Table A-3 shows the rates OLO used to calculate benefit costs for SPO employees. The Social Security Administration sets the rate for FICA. The pension contribution rates reflect actual rates for SPO employees provided by the Department of Financial Services.

Table A-3: Benefit Costs as a Percent of SPO Salaries, FY04-FY07

Benefit Category	FY04	FY05	FY06	FY07
FICA (i.e., Social Security)	7.65%	7.65%	7.65%	7.65%
Group Insurance	18.98%	20.76%	20.88%	22.20%
Pension Contributions	7.86%	8.73%	9.48%	10.37%

Source: MCPS Department of Financial Services

¹ Steve Farber, Compensation Benefits for All Agencies, MFP Committee, County Council, April 17, 2007

**Appendix B:
Comparison between SPO budget and other MCPS budgets**

This appendix compares changes in the SPO budget to changes in the MCPS operating budget and the budgets for the Department of Facilities Management (DFM) and the Division of Maintenance. Ideally, the funding in the budgets for DFM, the Division of Maintenance, and SPO should provide the necessary resources for these departments/divisions to work together to ensure that schools are healthy, clean, safe, and energy efficient.

Data described in this appendix demonstrate that among the budgets considered, SPO had the lowest levels of increase in both budgeted and actual expenditures and the highest percentages of funds left unexpended at the end of each fiscal year.

Table B-1 describes changes in budgeted expenditures from FY04-FY08 for the MCPS operating budget, DFM, SPO, and Maintenance budgets.

Table B-1: Budgeted Expenditures for MCPS, Department of Facilities Management, SPO, and Maintenance, FY04-FY08 (\$ in millions)

Budget	FY04	FY05	FY06	FY07	FY08	FY04-FY08 Change	
						\$	%
MCPS Operating Budget	\$1,501.38	\$1,609.38	\$1,713.74	\$1,851.50	\$1,985.02	\$483.64	32.2%
Department of Facilities Management Central Office	\$28.37	\$30.42	\$33.73	\$43.89	\$47.90	\$19.53	68.8%
- MCPS Utilities	\$22.96	\$25.86	\$29.17	\$38.01	\$41.41	\$18.45	80.4%
- All other DFM costs	\$5.41	\$4.56	\$4.56	\$5.88	\$6.49	\$1.08	20.0%
Division of School Plant Operations	\$43.42	\$45.38	\$48.04	\$51.37	\$55.19	\$11.77	27.1%
Division of Maintenance	\$23.14	\$24.89	\$26.56	\$27.86	\$29.80	\$6.66	28.8%

Sources: FY04-FY08 Operating Budgets

As shown in Table B-1, the SPO budget grew by 27 percent between FY04 and FY08 compared to an increase of 32 percent in the MCPS operating budget, 69 percent in the DFM budget, and 29 percent in the Maintenance budget. Much of the increase in the DFM budget results from its inclusion of MCPS utilities costs. The utilities budget increased by 80 percent (\$18.5 million) from about \$23.0 million in FY04 to \$41.4 million in FY08.

Table B-2 on the next page describes trends in actual expenditures between FY04 and FY08.

Table B-2: Actual Expenditures for MCPS, Department of Facilities Management, SPO, and Maintenance, FY04-FY06 (\$ in millions)

Budget	FY04	FY05	FY06	FY04-FY06 Change	
				\$	%
MCPS Operating Budget	\$1,490.20	\$1,602.45	\$1,721.65	\$231.45	15.5%
Department of Facilities Management Central Office	\$28.97	\$33.26	\$37.89	\$8.92	30.8%
- MCPS Utilities	\$23.47	\$28.47	\$31.79	\$8.32	35.4%
- All other DFM Costs	\$5.50	\$4.79	\$6.10	\$0.60	10.9%
Division of School Plant Operations	\$42.90	\$44.85	\$47.04	\$4.14	9.6%
Division of Maintenance	\$22.87	\$24.74	\$27.56	\$4.69	20.5%

Sources: FY06-FY08 Operating Budgets; MCPS Department of Management, Budget, and Planning

Table B-2 demonstrates that SPO experienced the slowest growth in actual expenditures among the four budgets considered. In particular, SPO's actual expenditures increased by 11 percent between FY04 and FY06 compared to a 15.5 percent increase in the MCPS operating budget, a 31 percent increase in DFM expenditures, and 20.5 percent increase in Maintenance. As with budgeted expenditures, the growth in DFM's actual expenditures is attributable to increasing utilities costs (about \$8 million).

Table B-3 below describes the variance in budgeted compared to actual expenditures for the MCPS operating, DFM, SPO, and Maintenance budgets from FY04 to FY06.

Table B-3: Variance in Budgeted and Actual Expenditures for MCPS, Department of Facilities Management, SPO, and Maintenance, FY04-FY06

Budget	Variance (\$ in millions)			Variance as % of Budget		
	FY04	FY05	FY06	FY04	FY05	FY06
MCPS Operating Budget	\$11.18	\$6.93	-\$7.91	0.7%	0.4%	-0.5%
Department of Facilities Management Central Office	-\$0.60	-\$2.84	-\$4.16	-2.1%	-9.3%	-12.3%
- MCPS Utilities	-\$0.51	-\$2.61	-\$2.62	-2.2%	-10.1%	-9.0%
- All other DFM costs	-\$0.09	-\$0.23	-\$1.54	-1.6%	-5.0%	-33.8%
Division of School Plant Operations	\$0.52	\$0.53	\$1.00	1.2%	1.2%	2.1%
Division of Maintenance	\$0.27	\$0.15	-\$1.00	1.2%	0.6%	-3.8%

Sources: FY04-FY08 Operating Budgets

Table B-3 demonstrates that between FY04 and FY06 actual expenditures for MCPS, SPO, and the Division of Maintenance were very close to budgeted expenditures. Table B-3 demonstrates that SPO was consistently within its budget by about one to two percent (\$520,000 to \$1 million) between FY04 and FY06. SPO reports that factors that influence their variance include lapse and directives by the Chief Operating Officer to freeze new expenditures before the fiscal year's end. In FY06, MCPS and the Division of Maintenance slightly exceeded their budgets. The one exception is the DFM, which consistently exceeded its budget allocation during this timeframe, largely due to utilities.

**Appendix C:
Analysis of Three Sets of Scenarios for Achieving Costs Savings**

During school site visits and meetings with MCPS representatives, OLO solicited suggestions for potential cost savings for SPO. In conducting this project, OLO also recognized some potential areas for cost-savings. This appendix presents and analyzes three sets of scenarios for achieving cost savings for MCPS and its Division of School Plant Operations in three parts.

- **Part A, Narrow the Gap between SPO and CUPF Hours for Community Use**, describes the impact of narrowing the gap between SPO and CUPF hours recorded;
- **Part B, Hire Additional Workers to Reduce Overtime Costs**, provides estimates of the potential savings of hiring additional full-time and part-time building service workers;
- **Part C, Use Grade 6 Workers for Overtime**, describes the budgetary consequences of exclusively using lower paid staff for SPO and CUPF overtime.

A. Narrow the Gap between Hours Reported by SPO and CUPF for Community Use

As described in Chapter VIII, Community Use of Public Facilities and School Plant Operations, the gap between CUPF clock hours for community use and MCPS staff hours for community use among building service personnel contributes to the ICB salary deficit for SPO.

There are two ways to minimize the difference between CUPF and MCPS eligible hours attributable to community use of schools. The first is to decrease the number of MCPS staff hours; the second is to increase the number of clock hours reimbursed by CUPF. This section offers several scenarios to compare the budgetary implications of closing the gap between SPO and CUPF community use hours. To begin, Table C-1 describes the FY06 gap between CUPF clock hours and MCPS community use hours.

Table C-1: Actual Hours and Costs for Community Use of Schools, FY06

Type of Hours	# of Hours	Average Rate*	Costs**
CUPF Clock Hours	80,378	\$26.46	\$2,126,799
MCPS ICB Hours	104,063	\$20.76	\$2,159,880
Difference	-23,685		-\$33,081

* For CUPF, rate based on actual reimbursement; MOU indicates rate of \$26.50 for average overtime rate plus FICA at 8%. For MCPS, rate based on actual regular and overtime wages plus FICA at 7.65%.

** For MCPS, ICB costs based on wages and FICA paid for; for CUPF, costs refer to reimbursement for SPO staff for ICB.

Sources: MCPS Department of Financial Services and Office of Community Use of Public Facilities

Table C-1 demonstrates a 23,685 hour gap between clock hours for community use reimbursed by CUPF and hours billed by MCPS staff for community use. CUPF's higher rate of reimbursement per clock hour (at \$26.46) compared to MCPS' combined wage and FICA rate per hour (\$20.76) helped to offset the SPO deficit for community use. Nevertheless, MCPS expended \$33,081 more than they received from CUPF to reimburse for ICB wage and FICA costs for building service staff.

It remains unclear whether other variances between actual and reimbursed costs offset this gap in hours. For example, CUPF reimbursed MCPS for 5.5 percent of its FY06 utility bill to defray the cost of utilities for community use in FY07. However, because MCPS does not track the additional cost of utilities for community use activities, it is unclear whether they receive a net gain or loss from this arrangement.

Next, Table C-2 describes the projected offset for MCPS of reducing the ICB staff time gap by 12,000 hours and 24,000 hours using FY06 data.

Table C-2: Reducing MCPS Hours for Community Use - Actual and Proposed Hours and Costs for Community Use of Schools, FY06

Type of Hours	# of Hours	Average Rate*	Costs**
Actual MCPS Hours and Costs for Community Use of Schools			
MCPS ICB Hours, Actual	104,063	\$20.76	\$2,158,074
Scenario A1: Reduce MCPS Hours for Community Use by 12,000			
CUPF Clock Hours, Actual	80,378	\$26.46	\$2,126,799
MCPS ICB Hours, Proposed	92,063	\$20.76	\$1,911,228
Proposed Difference	-11,685		\$215,571
Scenario A2: Reduce MCPS Hours for Community Use by 24,000			
CUPF Clock Hours, Actual	80,378	\$26.46	\$2,126,799
MCPS ICB Hours, Proposed	80,063	\$20.76	\$1,662,108
Proposed Difference	-315		\$464,691

* For MCPS, average rate based on blended rate reflecting regular time and overtime rates +FICA; for CUPF, rate based on FY06 MOU of \$26.50 per clock hour for wages and FICA.

** For MCPS, ICB costs based on wages and FICA paid for staffing; for CUPF, costs refer to reimbursement for SPO staff for ICB.

Sources: MCPS Department of Financial Services and Community Use of Public Facilities

Table C-2 suggests that MCPS could have generated excess revenue of \$215,000 from CUPF in FY06 had it reduced the difference in recorded ICB staff hours by 12,000 hours (Scenario A1). This reduction represents about a half of the FY06 gap between CUPF's and SPO's record of eligible community use hours. Moreover, had the gap between CUPF and MCPS hours been essentially eliminated by SPO reducing its recording of eligible community use time by 24,000 hours, MCPS could have generated excess revenue of \$465,000 in CUPF reimbursements to help defray benefit costs for ICB workers (Scenario A2).

Completely eliminating the gap between SPO and CUPF hours is untenable given that training for ICB workers are included in SPO ICB hours, but not CUPF clock hours. Nevertheless, this finding offers additional context for how narrowing the staff time gap between SPO and CUPF can result in significant cost savings for MCPS.

Another way to minimize the gap in hours is for CUPF to increase the number of clock hours reimbursed to MCPS for community use. Table C-3 estimates the projected cost savings to MCPS if CUPF increased the clock hours it reimburses to MCPS by 12,000 and 24,000 hours.

Table C-3: Increasing CUPF Hours for Community Use - Actual and Proposed Hours and Costs for Community Use of Schools, FY06

Type of Hours	# of Hours	Average Rate*	Costs**
Actual CUPF Hours and Reimbursements for Community Use of Schools			
CUPF Clock Hours, Actual	80,378	\$26.46	\$2,126,799
Scenario A3: Increase CUPF Hours for Community Use by 12,000			
<i>CUPF Clock Hours, Proposed</i>	92,378	\$26.46	\$2,444,322
MCPS ICB Hours, Actual	104,063	\$20.76	\$2,159,880
Proposed Difference	-11,685		\$284,442
Scenario A4: Increase CUPF Hours for Community Use by 24,000			
<i>CUPF Clock Hours, Proposed</i>	104,378	\$26.46	\$2,761,842
MCPS ICB Hours, Actual	104,063	\$20.76	\$2,159,880
Proposed Difference	315		\$601,962

* For MCPS, average rate based on blended rate reflecting regular time and overtime rates +FICA; for CUPF, rate based on FY06 MOU of \$26.50 per clock hour for wages and FICA.

** For MCPS, ICB costs based on wages and FICA paid for staffing; for CUPF, costs refer to reimbursement for SPO staff for ICB.

Sources: MCPS Department of Financial Services and Community Use of Public Facilities

Table C-3 suggests that had CUPF reimbursed MCPS for an additional 12,000 clock hours for community use activities, MCPS would have received a net benefit of \$284,000 (Scenario A3). Had CUPF reimbursed MCPS for an additional 24,000 hours, MCPS would have received a net benefit of \$601,000 which would have more than covered the current cost of benefits for ICB workers (Scenario A4). This surplus could have more than offset the nearly \$500,000 MCPS balance for salaries and benefits not reimbursed by CUPF noted in Chapter VIII (see Table 8-4 on page 66). However, as mentioned earlier, because MCPS does not track utility costs for CUPF, it is unknown whether the MCPS deficit for salaries and benefits for CUPF is offset by a utility cost surplus.

B. Hire Additional Workers to Reduce Overtime Costs

SPO's actual overtime costs doubled budgeted overtime costs between FY04 and FY06. SPO could potentially reduce overtime costs by hiring additional staff whose regular time hours and pay could replace the overtime hours and pay of existing staff. Possible benefits of converting overtime into positions include less employee burnout, higher morale, and reduced use of sick leave.

This section describes the projected impact of hiring additional workers to reduce building service overtime costs by hiring either full-time or part-time grade 6 building service workers. OLO recognizes that some overtime must be worked by higher level positions (e.g., grade 10-16 positions) due to the specific skills needed. For simplicity, however, the analysis in this section focuses on the hiring of additional building service workers. Table C-4 describes staff hours and MCPS costs for SPO and CUPF overtime hours.

Table C-4: Overtime Hours and Costs for Building Service Personnel for SPO and CUPF, FY06

Overtime Type	# of Hours	Wages and FICA*	Percent of Total
School Plant Operations	34,351	\$1,014,671	42.4%
Community Use of Public Facilities	50,057	\$1,379,670	57.6%
Total	84,408	\$2,394,341	100.0%

* Based on FY06 actual wages and estimated FICA of 7.65%.

Sources: MCPS Department of Financial Services and Community Use of Public Facilities

According to Table C-4, building service personnel worked a total of 84,408 overtime hours in FY06 at a payroll cost to MCPS of nearly \$2.4 million. SPO overtime represented approximately 42 percent of these hours (34,351); CUPF overtime represented the remaining 58 percent of these hours (50,057).

Assuming an average annual workload of approximately 1,800 hours per full-time equivalent, the 84,408 overtime hours generated in FY06 could have been worked by 94 additional half-time personnel or 47 full-time employees. MCPS could save costs if hiring additional staff was less than the cumulative cost of overtime hours. To consider the cost effectiveness of hiring additional staff, the marginal cost to MCPS of hiring additional personnel must be understood.

Table C-5 on the next page estimates MCPS' FY07 costs per half-time and full-time grade 6 building service worker.

Table C-5: Estimates of MCPS Compensation Costs per Half-Time and Full-Time Building Service Worker, FY07

Employee Type	Average Salary	FICA	Group Insurance	Pension	Estimated Compensation
Half-time	\$14,537	\$1,122	\$7,574	\$1,403	\$24,626
Full-time	\$31,340	\$2,398	\$7,574	\$3,024	\$44,336

Source: OLO estimates based on MCPS Department of Financial Services data

Table C-5 suggests that the marginal cost to MCPS for each half-time building service worker hired is \$24,626 compared to \$44,336 for each full-time hire. Using FY07 compensation estimates, Table C-6 summarizes the potential costs and savings to MCPS of hiring additional half-time and full-time staff to reduce overtime for building service staff.

Table C-6: MCPS Costs of Hiring Additional Full-Time and Half-Time Personnel Compared to FY06 Overtime Costs

Building Service Staffing	# of Hours	MCPS Costs
Scenario B1: Hire 42 Full-Time Grade 6 Workers		
SPO and CUPF Overtime, FY06 Actual	84,408	\$2,394,522
47 Full-time Staff (@1800 hrs each)	84,600	\$2,083,792
Difference		\$310,730
Scenario B2: Hire 84 Part-Time Grade 6 Workers		
SPO and CUPF Overtime, FY06 Actual	84,408	\$2,394,522
94 Half-time Staff (@900 hrs each)	84,600	\$2,314,844
Difference		\$79,678

Source: OLO estimates based on MCPS Department of Financial Services and Community Use of Public Facilities data.

Table C-6 demonstrates the potential cost savings of hiring additional staff to reduce overtime costs. Assuming a constant need for overtime hours and the effective allocation of new staff to work these hours, MCPS could save \$312,000 by hiring 47 full-time building service workers or \$81,000 by hiring 94 additional half-time personnel. If, however, the need for overtime varies by year or the ability to replace overtime with regular time is limited, the benefits of hiring additional staff to reduce overtime costs may be reduced. Fully sorting out the benefits and consequences of hiring additional staff to reduce building service overtime costs would require additional information and analysis.

C. Use Grade 6 Workers for Overtime

Another way to reduce overtime costs is to replace overtime and wages for higher grade workers with overtime and wages for lower paid staff. This section describes the potential impact of using grade 6 building service workers for SPO and CUPF overtime needs. However, there are limitations to exclusively using grade 6 building service workers for overtime when a continuum of skill sets and experiences are often required to meet specific staff needs for overtime.

In FY06, building service personnel billed 84,408 hours of overtime for SPO and CUPF overtime. Of this amount, nearly 19,000 hours, representing 54 percent of SPO overtime, were billed by personnel in grades 10-16 at a cost of \$650,000. Grade 10-16 employees also billed approximately 19,000 hours, representing 39 percent of ICB overtime, at a cost of a little less than \$650,000.

Table C-7 describes the potential cost savings of limiting grade 10-16 overtime for school plant operations to 30 percent of all hours and for limiting community use overtime to 25 percent of all hours representing the mid-point between the high school (20%) and elementary school (30%) goals for overtime use for senior school plant personnel in the SEIU agreement (see Chapter V).

Table C-7: SPO Personnel Costs for SPO and CUPF Overtime, FY06

Positions by Grade	Overtime Wage and FICA Rate	# of OT Hours	Costs of OT Wages and FICA
Actual SPO and CUPF Overtime Costs for Grades 10-16			
Grades 10 - 16, SPO Actual	\$34.67	18,626	\$645,673
Grades 10 - 16, CUPF Actual	\$33.08	19,459	\$643,704
Scenario C1: Use Grade 6 Employees for 70% of 34,351 SPO Overtime Hours			
<i>Use Grades 10-16 for 30% of SPO OT, Proposed</i>	\$34.67	10,305	\$357,274
<i>Use Grade 6 for 70% of SPO OT, Proposed</i>	\$22.50	8,321	\$187,223
<i>Proposed Subtotal Costs</i>			\$544,497
<i>Difference between Actual and Proposed</i>			\$101,177
Scenario C2: Use Grade 6 Employees for 75% of 50,057 CUPF Overtime Hours			
<i>Use Grades 10 - 16 for 25% ICB OT Proposed</i>	\$33.08	12,514	\$413,963
<i>Use Grade 6 for 75% ICB OT, Proposed</i>	\$24.04	6,945	\$169,958
<i>Proposed Subtotal Costs</i>			\$580,921
<i>Difference between Actual and Proposed</i>			\$62,783

Source: OLO estimates based on Division of School Plant Operations data

Table C-7 demonstrates that had SPO reduced overtime among grade 10-16 staff by 8,300 hours, and used grade 6 employees instead, the Division could have saved \$101,000 in FY06. Similarly, if community use overtime had been reduced for grade 10-16 personnel by 6,945 hours, and grade 6 employees been used instead, SPO could have been saved \$73,234 in CUPF overtime costs.

**Appendix D:
SPO Training and Montgomery College Courses and Costs**

Table D-1 describes the courses that SPO offers to building service personnel. SPO's building service trainer and building service training specialists teach courses at MCPS' Lincoln Center. The other courses are offered at Montgomery College in collaboration with SPO.

Table D-1: Training Course Information

Course Title	Description	Hours	Frequency
Training at Lincoln Center			
Basic Skills Training Course	Required for new employees. Topics covered: human and public relations; sexual harassment; recycling and water conservation; equipment use and maintenance; restroom, classroom, and office cleaning; and awareness of safety issues.	20	Frequently throughout the year
Introductory Supervision and Leadership Course	Required for a promotion. Teaches management skills.	40	Throughout the year as needed
Advanced Supervision and Leadership Course	Designed for people who are already in management positions to learn how to use their time efficiently and motivate their staff to achieve the results they desire.	20	Throughout the year
Training at Montgomery College			
Boiler Course	Required for promotion. Successful completion of the course provides a Boiler Certification, and prepares employees for the Maryland license exam.	40	Three times per year
Plant Equipment Operations Course	Required for promotion; follows the Boiler Course	40	Twice per year
Air Conditioning Course	Required for promotion; follows the Plant Equipment Operations course.	80	Once per year
Boiler Refresher	Boiler Recertification is required every five years. This class teaches about the latest technology.	24	Twice per year

Source: Division of School Plant Operations

Through its partnership with Montgomery College, SPO offers its staff classes on boilers, plant equipment operations, and air conditioning. These expenditures appear in the budget for the Office of Organizational Development. Table D-2 on the next page describes SPO's budgeted expenditures for Montgomery College training from FY05 to FY08.

Table D-2: SPO Budgeted Expenditures for Montgomery College Training, FY06-FY08

	FY05*	FY06	FY07	FY08	FY05-FY08 Change	
					#	%
Expenditure	\$44,786	\$45,483	\$46,495	\$52,441	\$7,654	17.1%

*OLO estimate using FY04 actual cost and SPO's assumption of 5% annual increase.

Source: Division of School Plant Operations

SPO estimates that the cost of their Montgomery College classes increase five percent annually, including instruction and books. Table D-2 shows that SPO and OOD have budgeted \$52,441 in FY08, a 17 percent (\$7,654) increase over FY05.

Table D-3 below describes actual expenditures per Montgomery Course and the number of students enrolled in each course between FY05 and FY07. Detailed expenditure data for FY04 was not available.

Table D-3: SPO Actual Expenditures for Montgomery College Training, FY05-FY07

	FY05	FY06	FY07	FY05-FY07 Change	
				#	%
Boiler Class					
Expenditure	\$18,033	\$18,744	\$18,744	\$711	3.9%
Students	105	105	105	0	0.0%
Boiler Refresher					
Expenditure	\$7,110	\$7,966	\$7,966	\$856	12.0%
Students	40	50	50	10	25.0%
Plant Equipment Operator					
Expenditure	\$6,116	\$6,248	\$11,910	\$5,794	94.7%
Students	35	35	60	25	71.4%
Air Conditioning					
Expenditure	\$12,058	\$11,326	\$11,326	-\$732	-6.1%
Students	35	35	35	0	0.0%
Total					
Expenditure	\$43,317	\$44,284	\$49,946	\$6,629	15.3%
Students	215	225	250	35	16.3%

Source: Division of School Plant Operations

According to Table D-3, the total cost of SPO training at Montgomery College increased from \$43,317 for 215 students to \$49,946 for 250 students, or by 15 percent (\$6,629) from FY05 to FY07. Much of this increase is due to the additional plant equipment operator course which SPO added in FY07. This added 25 students at a cost of \$5,562.

**Appendix E:
School Environmental Survey Results for MCPS and Site Visit Schools**

OLO staff participated in site visits at seven Montgomery County public schools. During the site visits, OLO staff spoke with school administrators and building service personnel about school plant operations at their school. The Division of School Plant Operations chose the schools to be visited and while they chose a variety of school types, it is not meant to be a representative sample. Rather, the site visits offered valuable background information that allowed for a better understanding of how school plant operations are carried out and the challenges that some schools face.

Included here is a list of the sites that OLO visited in May and June of 2007. The name of the school is followed by the date of the site visit in parenthesis.

- Tilden Middle School (May 21, 2007)
- Kensington Parkwood Elementary School (May 22, 2007)
- Montgomery Blair High School (May 23, 2007)
- Thomas Wootton High School (May 24, 2007)
- Col. E. Brooke Lee Middle School (May 29, 2007)
- Burnt Mill Elementary School (June 4, 2007)
- South Lake Elementary School (June 5, 2007)

To provide a context for how the schools visited compare to all Montgomery County public schools, the following three tables present the 2005-2006 results of the annual School Environment Survey completed by students in MCPS schools. The survey included four questions related to the conditions of the school plant, which are presented below. Students had four response options: they could strongly agree, agree, disagree, or strongly disagree with the statements in the survey.

The three tables that follow compare the results in the schools OLO visited to the combined School Environmental Survey results of all elementary, middle, and high schools. It is important to note that these survey results do not reflect the most recent school year, and conditions may have changed in the past year due to new staff or different strategies.

**Table E-1: 2005-2006 Survey of School Environment--
Student Results, Elementary Schools**

1) The outside of this school is kept clean.		
	Strongly Agree/Agree	Disagree/Strongly Disagree
<i>All Elementary Schools</i>	74.1%	25.9%
Kensington Parkwood ES	84.3%	15.7%
Burnt Mill ES	51.3%	48.7%
South Lake ES	70.0%	30.0%
2) The inside of this school is kept clean.		
	Strongly Agree/Agree	Disagree/Strongly Disagree
<i>All Elementary Schools</i>	81.7%	18.3%
Kensington Parkwood ES	88.1%	11.9%
Burnt Mill ES	66.2%	33.7%
South Lake ES	84.6%	15.4%
3) Bathrooms in this school are kept clean and well supplied.		
	Strongly Agree/Agree	Disagree/Strongly Disagree
<i>All Elementary Schools</i>	42.2%	57.8%
Kensington Parkwood ES	61.5%	38.5%
Burnt Mill ES	14.3%	85.8%
South Lake ES	61.5%	38.4%
4) I think the temperature in this school is comfortable.		
	Strongly Agree/Agree	Disagree/Strongly Disagree
<i>All Elementary Schools</i>	74.8%	25.2%
Kensington Parkwood ES	79.3%	20.8%
Burnt Mill ES	67.5%	32.4%
South Lake ES	63.9%	36.2%

All elementary schools: Sample size=17,785 (80% of those surveyed)
 Kensington Parkwood: Sample size=139 (92%), students in grades 3 & 5 were surveyed
 Burnt Mill: Sample Size=155 (88%), students in grades 3 & 5 were surveyed
 South Lake: Sample Size=132 (79%), students in grades 3 & 5 were surveyed
 Source: MCPS web site, <http://sharedaccountability.mcpsprimetime.org/SurveyResults/>

**Table E-2: 2005-2006 Survey of School Environment--
Student Results, Middle Schools**

1) The outside of this school is kept clean.		
	<u>Strongly Agree/Agree</u>	<u>Disagree/Strongly Disagree</u>
<i>All Middle Schools</i>	75.0%	25.0%
Tilden MS	74.4%	25.6%
Col. E. Brooke Lee MS	61.2%	38.8%
2) The inside of this school is kept clean.		
	<u>Strongly Agree/Agree</u>	<u>Disagree/Strongly Disagree</u>
<i>All Middle Schools</i>	68.0%	32.0%
Tilden MS	71.3%	28.6%
Col. E. Brooke Lee MS	52.6%	47.4%
3) Bathrooms in this school are kept clean and well supplied.		
	<u>Strongly Agree/Agree</u>	<u>Disagree/Strongly Disagree</u>
<i>All Middle Schools</i>	31.9%	68.0%
Tilden MS	30.8%	69.2%
Col. E. Brooke Lee MS	25.0%	75.1%
4) I think the temperature in this school is comfortable.		
	<u>Strongly Agree/Agree</u>	<u>Disagree/Strongly Disagree</u>
<i>All Middle Schools</i>	54.3%	45.8%
Tilden MS	46.7%	53.3%
Col. E. Brooke Lee MS	39.2%	60.8%

All Middle Schools: Sample size=17,020 (82%)

Tilden: Sample size=418 (81%), students in grades 6 & 8 were surveyed

Col. E. Brooke Lee: Sample size= 297 (76%), students in grades 6 & 8 surveyed

MCPS web site, <http://sharedaccountability.mcpsprimetime.org/SurveyResults/>

**Table E-3: 2005-2006 Survey of School Environment--
Student Results, High Schools**

1) The outside of this school is kept clean.		
	<u>Strongly Agree/Agree</u>	<u>Disagree/Strongly Disagree</u>
<i>All High Schools</i>	77.3%	22.7%
Montgomery Blair HS	69.6%	30.3%
Thomas Wootton HS	87.2%	12.8%
2) The inside of this school is kept clean.		
	<u>Strongly Agree/Agree</u>	<u>Disagree/Strongly Disagree</u>
<i>All High Schools</i>	63.6%	36.4%
Montgomery Blair HS	61.5%	38.5%
Thomas Wootton HS	71.1%	28.8%
3) Bathrooms in this school are kept clean and well supplied.		
	<u>Strongly Agree/Agree</u>	<u>Disagree/Strongly Disagree</u>
<i>All High Schools</i>	30.8%	69.1%
Montgomery Blair HS	25.7%	74.4%
Thomas Wootton HS	27.3%	72.7%
4) I think the temperature in this school is comfortable.		
	<u>Strongly Agree/Agree</u>	<u>Disagree/Strongly Disagree</u>
<i>All High Schools</i>	53.9%	46.0%
Montgomery Blair HS	61.6%	38.3%
Thomas Wootton HS	62.9%	37.0%

All High Schools: Sample size=17,991 (79% of those surveyed)

Montgomery Blair: Sample size=1,143 (75%), student in grades 9 & 11 were surveyed.

Thomas Wootton: Sample size=1,057 (85%), students in grades 9 & 11 were surveyed

Source: MCPS web site, <http://sharedaccountability.mcpsprimetype.org/SurveyResults/>

**Appendix F:
Interagency Memorandum of Understanding for Community Use of Public Facilities**

INTERAGENCY MEMORANDUM OF UNDERSTANDING

This memorandum dated this ____ day of _____, 2006, constitutes the agreement between the Board of Education of Montgomery County, on behalf of Montgomery County Public Schools (hereinafter referred to as "MCPS") and Montgomery County, Maryland, on behalf of the Interagency Coordinating Board for Community Use of Public Facilities (hereinafter referred to as "ICB") for annual reimbursements of utilities, custodial supplies, equipment/maintenance and staff services that represent costs incurred or services rendered in making school facilities available to the community.

I. UTILITIES

ICB agrees to reimburse MCPS the sum of \$1,564,850.00 in FY07. This amount is payable in monthly installments of \$130,404.17.

II. CUSTODIAL SUPPLIES

ICB agrees to provide an annual allocation for custodial supplies to Plant Operations based upon each school's FY06 hours of paid community use as follows: high schools--\$.50; middle schools--\$.40; and elementary schools--\$.30. The total sum payable in FY07 is estimated at \$200,510.00.

III. EQUIPMENT/MAINTENANCE

ICB agrees to reimburse individual schools the sum of \$1.25 for each hour of paid community use during FY06. This payment is to be deposited in a school account designated for ICB equipment/maintenance purchases so that standard MCPS procurement and invoice payment procedures may be followed. These monies are to be used only for repairs, improvements, replacements or new purchases which positively impact community use, such as auditorium sound and lighting equipment, or for projects such as gym floor refinishing. Schools are responsible for forwarding to ICB an annual accounting of FY06's expenditures prior to the release of the FY07 equipment/maintenance award. Schools will also be required to clear any balances owed to ICB for school activities prior to disbursement of the award checks.

IV. STAFF SERVICES

MCPS agrees to provide building service staff to cover all community use activities. While these employees will routinely be assigned cleaning duties during this coverage, their first priority will be to provide services to community users.

Other MCPS staff including security, media services technicians and cafeteria staff will be scheduled, as required, to provide services for community events.

Interagency Memorandum of Understanding
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A. Compensation Schedule

ICB agrees to reimburse MCPS for weekend staff coverage in FY07 (July 1, 2006-June 30, 2007) as follows:

ICB will generate a clock hours report for Saturday, Sunday and holiday usage of school facilities by the community. The clock hours report will indicate the number of hours from the time the first group is scheduled in a facility to the end of the last activity of that day. This report will be forwarded to the Department of Management, Budget and Planning on a quarterly basis no later than the last day of the month following each quarter. MCPS will bill ICB for the reported clock hours at an hourly rate of \$26.50 (including FICA). MCPS will also bill ICB for additional weekend cleaning hours (20% of the total clock hours) at the same rate of \$26.50 (including FICA). Election staff coverage will be billed at the rate of \$40.50 per hour (including FICA).

For each reporting period, ICB will calculate the number of hours for MCPS employees assigned as building attendants for cultural schools and other activities and add that total to the clock hours and cleaning hours. There will be a semi-annual reconciliation to reflect any adjustments, both increases and decreases, for hours of use or staff services received subsequent to the generation of each quarterly report.

With respect to staff services provided by media services technicians, cafeteria staff and security, ICB will also provide a staff services report according to the same schedule as above. For FY07, MCPS will bill ICB for these staff hours according to the following estimated overtime rates that include FICA:

Media service technicians	\$41.75
Cafeteria staff	\$25.00
Security staff	\$26.50

B. Operational Considerations

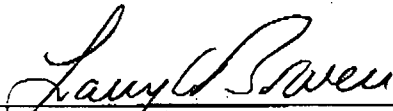
ICB staff will continue to schedule weekend use centrally from the ICB office and maintain a weekend scheduling database. In order to provide school staff and community users with a mechanism for responding to community use issues as they occur, ICB will maintain the 24-hour message center. The weekend staff supervisor will be provided office space with Community Use of Public Facilities, a PC and access to the scheduling database. ICB will furnish the MCPS weekend staff supervisor with a County car, beeper and cell phone to monitor calls on Saturdays and Sundays, respond to staffing issues and handle problems and lockouts identified by community users. MCPS agrees to provide an experienced substitute on any Saturday or Sunday when the weekend staff supervisor is on approved leave. The ICB's County car will be made available to the substitute weekend staff supervisor.

Interagency Memorandum of Understanding
Page 3

V. TERM

The term of this agreement is July 1, 2006, through June 30, 2007. With the mutual consent of both parties, this agreement may be extended under the same terms and conditions for three additional one-year periods.

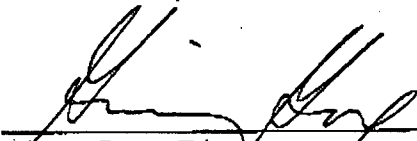
READ AND APPROVED:



Larry Bowers, Chief Operating Officer
Montgomery County Public Schools

8/15/06

Date



Ginny Gong, Director
Office of Community Use of Public
Facilities

7/12/06

Date

**Appendix G:
SPO Recommended Custodial Equipment for Elementary and Secondary Schools**

Recommended Custodial Equipment for Elementary Schools

Item #	Bid #	Unit Price	Quant	Extended Price	Notes
Tractor (Large) Not currently on bid			1	\$ -	Maintenance looking for replacement
Tractor Cart			1	\$ -	
Trash Cart	7065	\$ 241.60	1	\$ 241.60	
Utility Cart	7065	\$ 66.94	3	\$ 200.82	
Vacuum, 14" Upright	7063	\$ 462.50	2	\$ 925.00	
Vacuum, Backpack	7063	\$ 260.45	4	\$ 1,041.80	
Vacuum, Wet/Dry w/squeegee	7063	\$ 505.00	1	\$ 505.00	
Vacuum, Wet-Dry (regular)	7063	\$ 305.00	1	\$ 305.00	
Walk Behind Mower w/Velke	7112	\$ 2,471.00	1	\$ 2,471.00	
Walkie Talkies	4028	\$ 270.00	4	\$ 1,080.00	
Weed Eater	7112	\$ 307.00	2	\$ 614.00	
Window Washer					
Computer (see website for current pricing)	SCE-055998	\$ 953.00	1	\$ 953.00	
				\$ 29,782.38	

Recommended Custodial Equipment for Secondary Schools

Item #	Bid #	Unit Price	Quant	Extended Price	Notes
Tractor (Large) Not currently on bid			1	\$ -	Maintenance looking for replacement
Tractor Cart			1	\$ -	
Trash Cart	7065	\$ 241.60	2	\$ 483.20	
Utility Cart	7065	\$ 66.94	3	\$ 200.82	
Vacuum, 14" Upright	7063	\$ 462.50	2	\$ 925.00	
Vacuum, Backpack	7063	\$ 260.45	3	\$ 781.35	
Vacuum, Wet/Dry w/squeegee	7063	\$ 505.00	1	\$ 505.00	
Vacuum, Wet/Dry regular	7063	\$ 305.00	1	\$ 305.00	
Walk Behind Mower w/Velke	7112	\$ 2,471.00	1	\$ 2,471.00	
Walkie Talkies	4028	\$ 270.00	4	\$ 1,080.00	
Washer, Pressure	7063	\$ 816.00	1	\$ 816.00	
Weed Eater	7112	\$ 307.00	2	\$ 614.00	
Window Washer			1	\$ -	
Computer (see website for current pricing)	DBM2020	\$ 953.00	1	\$ 953.00	
				\$ 31,122.82	

**Appendix H:
Office of Legislative Oversight Resource List**

MCPS Publications

Strategic Plan Documents

2006 Annual Report on Our Call to Action. February 2007.

Our Call to Action: Pursuit of Excellence—Strategic Plan for Montgomery County Public Schools 2006-2011. July 2006.

Operating and Program Budget Documents

Operating Budget Summary and Personnel Complement: Appropriated by the County Council, Adopted by the Board of Education. FY04-FY08.

Program Budget and Budget Staffing Guidelines. Superintendent's Recommended Operating Budget. FY04-08.

Capital Improvements Program Documents

Educational Facilities Master Plan and Capital Improvements Program. FY05 & FY07.

Educational Facilities Master Plan and Amendments to the Capital Improvements Program. FY04, FY06, & FY08.

Other MCPS Documents

Agreement between the Montgomery County Association of Administrative and Supervisory Personnel and the Board of Education of Montgomery County for the 2003-2006 school years.

Contract Agreement between the Montgomery County Educational Association and the Board of Education of Montgomery County for the 2005-2007 school years.

Healthy, High Performance Cleaning Program.

Schools at a Glance. Department of Reporting and Regulatory Accountability. 2002-2003 to 2005-2006 school years.

SEIU Local 500 Agreement for the 2005-2007 school years.

Staff Statistical Profile. FY05-FY07

Legal Resources

Federal Laws and Regulations

Asbestos Hazard Emergency Response Act, 15 United States Code (U.S.C.) § 2651 (1986).
(United States Code. <http://www.gpoaccess.gov/uscode/index.htm>)

Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675 (1980). (<http://www.gpoaccess.gov/uscode/index.htm>)

Resource Conservation and Recovery Act, 42 U.S.C. §§ 6921-6939e (1976). (<http://www.gpoaccess.gov/uscode/index.htm>)

29 Code of Federal Regulations (C.F.R.) § 1910.147 (1990). (<http://www.gpoaccess.gov/cfr/index.html>)

29 C.F.R. § 1910.1030 (1974). (<http://www.gpoaccess.gov/cfr/index.html>)

29 C.F.R. § 1910.1200 (1974). (<http://www.gpoaccess.gov/cfr/index.html>)

40 C.F.R §§ 763.80-763.99 (1987). (<http://www.gpoaccess.gov/cfr/index.html>)

State Laws and Regulations

Md. Code, Agriculture §§ 5-201 to 5-211 (1999). (<http://michie.lexisnexis.com/>)

Stationary Engineers Act, Md. Code, Business Occupations and Professions §§ 6.5-301 to 6.5-316 (2005). (<http://michie.lexisnexis.com/>)

Md. Code, Labor and Employment §§ 5-403 to 5-410 (1991). (<http://michie.lexisnexis.com/>)

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COMAR § 15.05.02 (1999). (<http://www.dsd.state.md.us/comar/>)

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