

# KEY FISCAL INDICATORS FOR MONTGOMERY COUNTY PUBLIC SCHOOLS



OFFICE OF LEGISLATIVE OVERSIGHT  
REPORT NUMBER 2007-5

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## KEY FISCAL INDICATORS

### MONTGOMERY COUNTY PUBLIC SCHOOLS

OFFICE OF LEGISLATIVE OVERSIGHT REPORT 2007-5

FEBRUARY 27, 2007

#### OVERVIEW

The Montgomery County Public Schools' FY07 operating budget of \$1.85 billion represents almost half of the \$3.88 billion that the County Council appropriated to County-funded agencies. Local tax dollars fund about three-fourths of MCPS' operating budget.

This report responds to the County Council's request for Office of Legislative Oversight (OLO) to recommend a dozen fiscal indicators of the MCPS operating budget. Fiscal indicators are quantitative measures of funding and spending that provide information on sources of revenue, resource allocation, major cost drivers, and expenditure trends. It is anticipated that the Council will use these fiscal indicators to:

- Become more familiar with MCPS' base budget;
- Provide context for MCPS' annual operating budget requests for new funding; and
- Discuss funding and expenditure trends with MCPS and members of the community.

Combined with data on student performance, a review of fiscal indicators can facilitate understanding of the efficiency and effectiveness of MCPS' operations and activities. While recognizing that no single measure, such as average per student cost or change in average teacher salary, can be used to determine funding decisions, such indicators can serve as barometers of the fiscal performance of the school system.

#### ENROLLMENT AND DEMOGRAPHIC TRENDS

Enrollment and demographic trends are important building blocks for the MCPS operating budget. Following a period of steady growth for more than two decades, MCPS' enrollment has now leveled off. MCPS' current school year enrollment of 137,798 students represents a small decline (1.1%) compared to last year.

Reflecting changes in the County's demographics, MCPS' student population notably changed during the past three decades with respect to its racial/ethnic composition, percent of students who receive free and reduced-priced meals (FARMS), and number of English language learners. Between FY75 and FY05:

- The number of African-American, Hispanic, Asian-American, and American Indian students increased from 11 to 57 percent of total enrollment;
- The number of students receiving FARMS almost quadrupled; and
- Enrollment of English language learners increased to almost 10 percent of all students.

Total enrollment and other demographic characteristics have changed less dramatically in recent years.

#### LEGISLATORS' USE OF FINANCIAL AND PERFORMANCE DATA

Legislators routinely make decisions about how to allocate money. Historically, funding decisions have rarely been based on the large numbers of performance measures that agencies generate. Reasons for this include:

- Concerns about accuracy and reliability of the data;
- Limited relevance of the large quantity of data provided; and
- Insufficient understanding of how to connect the data to resource allocation.

To date, there are few examples of school systems using fiscal indicators to capture their efficiencies, particularly with regard to the return on spending in education. However, recognizing the benefits of data and analysis that links the investment of public resources to desired outcomes, current efforts are underway across the country to strengthen the connection between educational inputs and outcomes. This OLO project assignment reflects the County Council's interests in moving in this direction.

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## Recommended Fiscal Indicators

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OLO developed 12 fiscal indicators that provide an overview of the MCPS operating budget. The indicators are organized into the three major categories listed below. Most indicators provide multiple years of trend data. Several also include comparative data from other area school systems.

### Category A – Revenues and Expenditures

**Indicator 1, Total Operating Budget by Revenue Source**, tracks MCPS' total annual operating budget and the relative contributions of the major revenue sources that fund the school system. It includes a ranking of Maryland school systems by the percent of their respective operating budgets supported by local funds.

**Indicator 2, Sources of Federal and State Revenue**, provides more detail on the State and Federal revenue that MCPS receives. It includes trend data on funding that MCPS has received from the Bridge to Excellence, No Child Left Behind, and the Individuals with Disabilities Education Act programs.

**Indicator 3, Expenditures by State Budget Category**, presents MCPS' budget according to the State budget categories defined by the Maryland State Department of Education. State law mandates that the Council use these categories to allocate funds within the MCPS budget.

### Category B – Major Budget Components and Cost Drivers

**Indicator 4, Tax Supported Positions, Salaries, and Benefits by Bargaining Unit**, tracks the cost of salaries and benefits for MCPS employees, broken out by bargaining unit. This measure focuses on tax supported positions, and excludes those funded by grants, enterprise, and special revenue funds.

**Indicator 5, Starting and Average Salaries for Teachers, Paraeducators, Bus Operators, and Principals**, provides salary data for four positions. Teachers, paraeducators, bus operators, and principals account for two-thirds of the MCPS workforce. This indicator also compares teacher salaries across area school systems.

**Indicator 6, Expenditures for Retiree Health Benefits**, presents the costs of health benefits for MCPS retirees and their dependents. This indicator tracks past, current, and projected costs of retiree health, including the anticipated contributions to the MCPS Retiree Health Trust Fund that will begin in FY08.

**Indicator 7, Multi-Year Costs of Selected MCPS Initiatives**, tracks the annual and cumulative costs of three major MCPS initiatives implemented since FY01: class size reduction, special education enhancements, and additional elementary school assistant principals.

**Indicator 8, Special Education Costs**, tracks the expenditures for special education operations and services, including transportation for individuals with disabilities, ages 0 to 21.

**Indicator 9, Cost of School Plant Operations, Maintenance, Transportation, and Utilities**, provides data on major non-instructional costs, such as cleaning of facilities, repairs, bus maintenance, and electricity.

### Category C – Per Student Expenditures

**Indicator 10, Per Student Cost by Grade Span**, presents MCPS' calculations of per student costs for kindergarten, elementary, secondary, and K-12 students. It also compares MCPS' average cost per student to other area school districts, using data from the Washington Area Boards of Education.

**Indicator 11, Per Student Cost by Disability Status**, compares MCPS' average per student cost to estimates of per student costs for students with and without disabilities.

**Indicator 12, Per Student Cost by School Type and Service Category**, compares MCPS' average per student costs in Focus (i.e. high poverty) and Non-focus Elementary, Middle, High, and Special schools. It includes a list of all MCPS elementary schools in descending order of FY06 per student school-based costs.

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## Selected Findings from Fiscal Indicators

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Key findings from OLO's review of MCPS fiscal indicators include:

- a. MCPS' FY07 budget of \$1.85 billion is \$436 million (31%) larger than it was four years ago. During this time, enrollment remained around 139,000 students and MCPS experienced small increases in the number of students receiving FARMS, English as a second language services, and special education services.
- b. In FY07, County tax dollars pay for 74% of MCPS' operating budget; the State funds 18% and the Federal government funds 4%. Enterprise and Special Funds (3%) and other sources (1%) make up the balance.
- c. Recent increases in State and Federal funds are largely determined by the numbers of MCPS students eligible for FARMS, English language acquisition services, and special education programs. Since FY04, State and Federal funding generated by these populations increased by almost \$80 million.
- d. MCPS' FY07 tax supported workforce of 20,028 FTEs is represented by Montgomery County Education Association (MCEA) – 57%; Service Employees International Union Local 500 (SEIU) – 39%; and Montgomery County Association of Administrative and Supervisory Personnel (MCAASP) – 4%. Only 22 staff members are not represented.
- e. Between FY03 and FY06, MCPS added 422 teachers to the workforce: 31 in FY04, 161 in FY05, and 230 in FY06. MCPS' starting teacher's salary in FY06 was \$542 higher and average teacher's salary was \$4,524 higher compared to Fairfax County Public Schools.
- f. For tax supported MCPS employees, the component costs of salaries and benefits have been increasing at notably different rates. Specifically, between FY04 and FY06, salaries increased 12%; group insurance costs increased 24%; and retirement (i.e., pension) contributions increased 77%.
- g. MCPS' annual spending on retiree health benefits will more than triple, from \$35 million in FY07 to \$129 million in FY12. This is due to increasing health care costs plus annual payments into the Retiree Health Trust Fund, which is being created to fund MCPS' future retiree health liability, estimated at \$1.3 billion.
- h. Between FY03 and FY06, special education costs increased 32% from \$213 to \$280 million. During this time, the number of students with disabilities enrolled in MCPS schools and non-public placements remained steady at about 13% of all students whose education is funded through MCPS. In FY06, students with disabilities totaled 18,321.
- i. To demonstrate the difference between new and ongoing program costs, OLO tracked funding since FY01 for class size reduction, special education enhancements, and elementary assistant principals. During this time, new annual funding totaled \$40.5 million, while the total cumulative cost of these initiatives was \$145.8 million.
- j. FY07 data compiled by the Washington Area Boards of Education ranks MCPS' average per student costs of \$13,446 as the highest among area school systems with enrollment larger than 50,000. Fairfax County Public Schools' average per student cost (\$12,853) ranks second.
- k. The differential between MCPS' per student costs at the elementary vs. secondary grades has increased in recent years. In FY03, per student costs at the elementary level were \$265 more than the per student costs at the secondary level; by FY06, this difference had increased to \$515.
- l. In FY06, MCPS' average cost of educating a student without disabilities was \$10,043. This was less than half the average cost of educating a student with disabilities enrolled in an MCPS school (\$22,018), and one-fifth the cost of educating a student with disabilities in a private placement (\$53,958).
- m. To show funding differences between Focus (i.e., high-poverty) and Non-focus elementary schools, OLO calculated per student costs (for school-based services) by school type. In FY06, average school-based per student costs at Focus elementary schools was \$10,117 compared to \$8,336 at Non-focus school.



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## Linking Inputs to Outcomes and Next Steps

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### THE RESEARCH

Research on the correlation between higher levels of funding and improved student performance generally finds ambiguous and sometimes conflicting results. Some studies conclude there is no evidence of a relationship between the amount of money spent and student achievement, while others find a substantial connection.

A causal link between educational inputs and outputs is difficult to prove. Factors other than school-based inputs (e.g., family background, socioeconomic conditions) are known to have a measurable impact on student achievement. Further, there are limitations and biases in the tests used to measure student achievement.

Some research suggests that investment in certain reform strategies can make a difference in student achievement. In particular, “successful” strategies identified in the literature include targeting resources to improve the performance of struggling learners; smaller class sizes for disadvantaged groups; improving teacher quality; and rigorous curriculum and course offerings.

### TWO PILOT INDICATORS FOR DISCUSSION

OLO’s report introduces two pilot MCPS indicators for the purpose of launching a discussion about ways to measure the efficiency and effectiveness of the County’s substantial spending on education. Beyond measuring costs per student, these pilot indicators attempt to measure the cost per “successful” student. While remaining cognizant of the measurement challenges, OLO suggests tracking changes in MCPS’ unit costs that compare changes in spending to student achievement.

- Pilot Indicator A, Algebra High School Assessment Proficiency (HSA), measures the unit cost of Algebra HSA proficient students. This State assessment test is one of four that members of the Class of 2009 and beyond must pass to graduate from high school. This pilot indicator compares FY03 to FY06 changes in the four-year cost of high school to Algebra HSA proficiency rates by student groups.
- Pilot Indicator B, Advanced Placement/Honors Class Participation, measures the unit cost of students participating in one or more AP/Honors classes. MCPS has a goal to increase the rate of AP/Honors participation to 75%. This pilot indicator compares changes in the cost of high school to AP/Honors participation rates by student groups.

Preliminary analysis by OLO suggests that MCPS increased its efficiency on the pilot indicator for Algebra HSA proficiency and decreased its efficiency on the pilot indicator for AP/Honors class participation. For both indicators, unit costs declined most significantly for African-Americans, Hispanics, students receiving FARMS, students with disabilities, and English language learners.

### RECOMMENDED NEXT STEPS

The Office of Legislative Oversight recommends that the County Council:

1. Adopt a package of fiscal indicators for the MCPS operating budget, including decisions on the format and frequency for providing future updates to the Council.
2. Direct staff to produce an updated version of the adopted indicators that reflects the Board of Education’s FY08 Recommended Operating Budget.
3. Determine the need for additional comparative data from other school districts.
4. Consider assigning OLO an FY08 Work Program project to develop a parallel package of key fiscal indicators for MCPS Capital Budget and Capital Improvement Program (CIP).

For a complete copy of OLO-Report 2007-5, go to: [www.montgomerycountymd.gov/olo](http://www.montgomerycountymd.gov/olo)

KEY FISCAL INDICATORS FOR  
MONTGOMERY COUNTY PUBLIC SCHOOLS

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*Key Fiscal Indicators for Montgomery County Public Schools*

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## **Chapter I: Authority, Scope, and Organization**

### **A. Authority**

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

### **B. Scope, Purpose, and Methodology**

This FY07 Office of Legislative Oversight project is a component of the County Council's efforts to strengthen the Council's annual review and ongoing oversight of the Montgomery County Public Schools' (MCPS) budget. County funds appropriated by the Council account for nearly three-fourths of MCPS' annual operating budget and about half of all local tax dollars in FY07.

The objective of this FY07 OLO assignment was to recommend a group of one dozen fiscal indicators of the MCPS operating budget. Fiscal indicators are defined as quantitative measures related to funding. Fiscal measures provide information concerning, for example, sources of revenue, resource allocation, major cost drivers, and spending trends.

It is expected that the Council will consult this package of fiscal indicators during annual budget worksessions and as part of the Council's ongoing oversight of funds appropriated to MCPS. Specifically, the Council can use the fiscal indicators to:

- Become more familiar with MCPS' base budget;
- Provide context for MCPS' annual budget requests for new funding; and
- Engage in discussion with representatives of MCPS and members of the community about trends in MCPS funding and expenditures.

Combined with data on student performance, the review of fiscal indicators can also facilitate understanding of the efficiency and effectiveness of MCPS' operations and activities. While recognizing that no single fiscal indicator, such as per student costs or increase in average teacher salary, can be used to determine funding decisions, such indicators can serve as barometers of the fiscal performance of the school system.

In assigning this project, Councilmembers expressed interest in fiscal indicators that:

- Monitor the split among the different sources of revenue that fund MCPS' budget;
- Track changes in the major components of MCPS' annual expenditures, such as personnel, costs of salaries, health benefits, facility maintenance, and transportation;
- Project significant future demands on MCPS' budget, e.g., retiree health care; and
- Measure the effective and efficient use of public dollars spent on education, especially with respect to linking expenditures to MCPS' progress toward achieving selected goals outlined in MCPS' strategic plan, *Our Call to Action: Pursuit of Excellence*.

## **Methodology**

Office of Legislative Oversight (OLO) staff members Elaine Bonner-Tompkins, Karen Orlansky, Richard Romer, and Jennifer Renkema prepared this report, with production assistance from Teri Busch. OLO's method for arriving at one dozen key fiscal indicators for Council consideration included a combination of general and comparative research, interviews, and document reviews. Specifically, OLO:

- Reviewed the research on linking financial inputs to educational outcomes;
- Researched what fiscal indicators are routinely tracked by a selected number of "comparable" public school districts, including Fairfax County Public Schools and Charlotte-Mecklenburg Public Schools;
- Became conversant with the numerous sources of fiscal and student performance data that MCPS regularly publishes;
- Met with Councilmembers, Council staff, and representatives from the County Government's Office of Management and Budget to solicit views on characteristics of the fiscal indicators that would be most useful for the Council to track; and
- Consulted with key MCPS staff including the Superintendent, Chief Operating Officer, Deputy Superintendent of Information and Organizational Systems, and Chief Financial Officer on the measures they recommend for Council tracking and review. OLO also consulted with staff from the following MCPS organizational units: Office of the Chief Operating Officer; Management, Budget and Planning; Association Relations; Facilities Management; Human Resources; Shared Accountability; Employee and Retiree Service Center; and Long-range Planning.

## **C. Organization of Report**

**Chapter II, MCPS Enrollment and Demographic Trends**, provides an overview of MCPS' enrollment and demographic trends.

**Chapter III, Background**, presents summary information on: (A) the research on linking educational expenditures and student outcomes; (B) the sources of fiscal and student performance data that MCPS regularly publishes; and (C) the increasing attention legislators are paying to linking performance measures to budget decision-making.

**Chapter IV, Key Fiscal Indicators for the MCPS Operating Budget**, presents OLO's recommendations for a dozen fiscal indicators to be adopted by the Council and used as part of the Council's ongoing review, discussion, and oversight of the MCPS operating budget.

**Chapter V, Pilot Indicators for Linking MCPS Spending to Educational Outcomes**, offers two pilot indicators for discussion that attempt to link costs to student outcomes by examining MCPS' unit costs for achieving selected high school benchmarks.

**Chapter VI, Recommendations for Next Steps**, outlines OLO's recommendations for the Council's adoption, review, and use of the fiscal indicators.

The **Appendix** contains reference materials that are relevant to the indicators proposed for Council consideration. The Appendix includes: an overview of MCPS' strategic plan, *Our Call to Action: Pursuit of Excellence*, a summary of MCPS data on selected student performance targets; and additional information (e.g., enrollment, demographics, annual budget) on the school districts for which comparative data are provided in several of the indicators; and a list of references used by OLO in preparing this report.

#### **D. Acknowledgements**

OLO received a high level of cooperation from everyone involved in this study. OLO greatly appreciates the information and insights provided by all participants.

OLO thanks the many MCPS staff who worked with us during the study period. The following individuals deserve special thanks:

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## **Chapter II: MCPS Enrollment and Demographic Trends**

This chapter provides an overview of MCPS' enrollment and demographic trends. These data serve as important building blocks for the MCPS operating budget. In sum:

- Following a period of steady growth for more than two decades, MCPS' enrollment leveled off in recent years. In fact, MCPS' enrollment reported for the current school year (2006-07) represents a small decline of 1,589 students (1.1%) compared to last year.
- Reflecting the overall changes in the County's demographics, data on MCPS enrollment for the past 30 years demonstrate notable shifts in the racial/ethnic composition of the student population, the number of students receiving free and reduced-priced meals (FARMS), and the number of English language learners.

### **A. MCPS Enrollment and Demographic Trends, FY75-FY05**

The table and accompanying graphs on the next page summarize MCPS enrollment and demographic data for four points in time during the past 30 years: FY75, FY85, FY95, and FY05.<sup>1</sup> The data indicate that during this time period:

- An enrollment decline between FY75 and FY85 was followed by 20 years of enrollment growth. MCPS' enrollment increased 52 percent between FY85 and FY05, from 91,704 students in FY85 to 139,337 students in FY05.
- The racial/ethnic composition of the MCPS student body changed significantly. The number of White students declined, while the number of African-American, Hispanic, Asian-American, and American Indian students notably increased. In FY75, students of color represented 11.3 percent of total enrollment; in FY05, students of color represented more than half (56.7%) of the MCPS student population.
- The number of students receiving FARMS more than quadrupled, increasing from about 7,000 in FY75 to more than 32,700 students in FY05. As a percent of total enrollment, the number of students receiving FARMS increased from 6 percent in FY75 to 24 percent in FY05.

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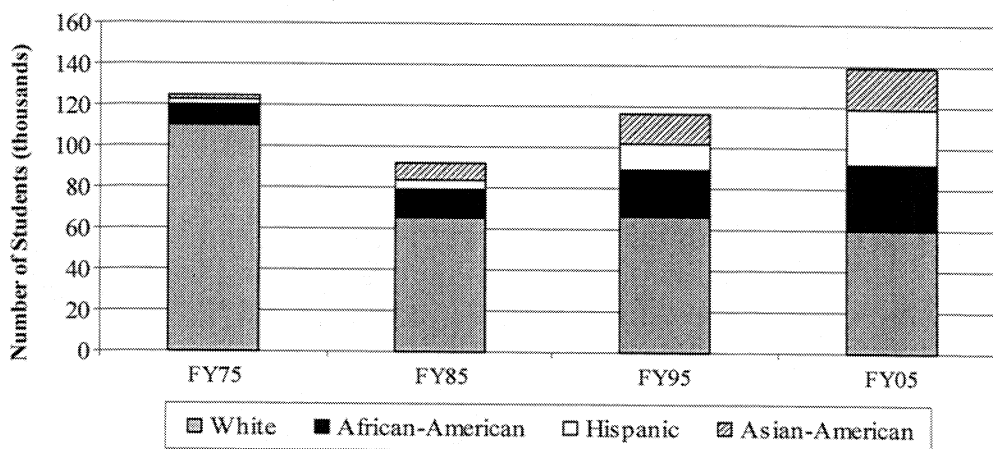
<sup>1</sup> Note: The percent calculations do not always add to 100 due to rounding.

**Table 1: MCPS Enrollment and Demographic Data: FY75, FY85, FY95, and FY05**

Race/Ethnicity of MCPS Students	FY75		FY85		FY95		FY05	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
White	110,299	88.7	65,410	71.3	66,596	56.9	60,366	43.3
African-American	9,928	8.0	13,327	14.5	22,170	18.9	31,446	22.6
Hispanic	2,050	1.6	4,807	5.2	13,439	11.5	27,011	19.4
Asian-American	1,929	1.6	8,024	8.7	14,440	12.3	20,118	14.4
American Indian	113	0.1	136	0.1	464	0.4	396	0.3
<b>Total Enrollment</b>	<b>124,319</b>	<b>100%</b>	<b>91,704</b>	<b>100%</b>	<b>117,082</b>	<b>100%</b>	<b>139,337</b>	<b>100%</b>
<b>Students receiving FARMS</b>	<b>6,948</b>	<b>6.3%</b>	<b>11,004</b>	<b>12.0%</b>	<b>15,056</b>	<b>21.4%</b>	<b>32,744</b>	<b>23.5%</b>

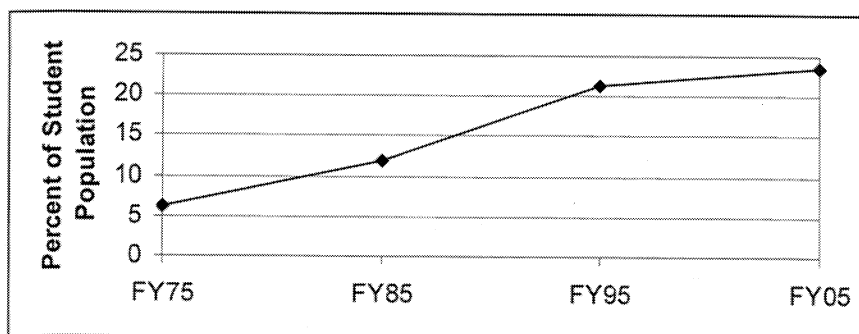
Source: Superintendent's Recommended FY07 and FY08 Capital Budgets

**Exhibit 1: Change in Number of MCPS Students by Race/Ethnicity\*, FY75-FY05**



\*See Table 1 (above) for American Indian enrollment data.

**Exhibit 2: Percent of MCPS Students Receiving Free and Reduced Priced Meals, FY75-FY05**



**B. Enrollment Trends and Projections, FY03-FY10**

Table 2 (below) summarizes MCPS enrollment and demographic data from FY03-FY06. This is the time period tracked by most of the fiscal indicators outlined in Chapter IV. The data show that during these four years:

- Total enrollment remained essentially stable at around 139,000 students, fluctuating by less than one percent across the four years.
- Trends in racial and ethnic diversity in MCPS continued, with the White student population further declining and the African-American, Hispanic, and Asian-American student populations growing. The American Indian population remained at 0.3 percent.
- As a share of total enrollment, the rate of FARMS participation increased by 1.6 percentage points (22.6% to 24.2%) between FY03 and FY06.
- The enrollment of K-12 students with disabilities changed little from FY03-FY06, increasing from 12.2 to 12.7 percent of total enrollment.
- The English language learner population grew just over 10 percentage points, from 8.6 to 9.7 percent of all MCPS students.

**Table 2: MCPS Enrollment and Demographic Data, FY03-FY06**

Race/Ethnicity of MCPS Students	FY03		FY04		FY05		FY06	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<i>White</i>	64,028	46.1	62,072	44.6	60,366	43.3	58,780	42.2
<i>African-American</i>	29,755	21.4	30,736	22.1	31,446	22.6	31,816	22.8
<i>Hispanic</i>	24,915	17.9	26,058	18.7	27,011	19.4	27,931	20.6
<i>Asian-American</i>	19,765	14.2	19,908	14.3	20,118	14.4	20,458	14.7
<i>American Indian</i>	428	0.3	429	0.3	396	0.3	402	0.3
<b>Total Enrollment</b>	138,891	100%	139,203	100%	139,337	100%	139,387	100%
<b>Students receiving FARMS</b>	31,389	22.6%	32,395	23.2%	32,744	23.5%	33,713	24.2%
<b>Students with disabilities*</b>	17,013	12.2%	17,334	12.5%	17,628	12.7%	17,700	12.7%
<b>English language learners</b>	11,961	8.6%	12,467	9.0%	12,905	9.3%	13,464	9.7%

\*Includes all K-12 students with an Individualized Education Plan enrolled in an MCPS facility.

Source: Superintendent's Recommended FY07 and FY08 Capital Budgets; MCPS Staff, December 2006; Packet for Education Committee of Montgomery County Council, 01/29/07, prepared by K. Levchenko

Table 3 (below) shows actual and projected MCPS enrollment from FY03 to FY10. The data indicate that:

- Enrollment growth slowed during this time, resulting in annual enrollment increases of less than one percent between FY04 and FY06.
- For the first time in over two decades, total enrollment fell by 1,589 students (1.1%) between FY06 and FY07. MCPS expects a small downward trend to continue through FY09, as the number of graduates is expected to be greater than the number of newly enrolled students.
- In FY10, MCPS expects enrollment to begin increasing again; however, total enrollment in FY10 is still projected to be 1.6 percent below FY03 enrollment.

**Table 3: Actual and Projected MCPS Enrollment, FY03-FY10**

	Actual				Current	Projected		
	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10
<b>Enrollment</b>	138,891	139,203	139,337	139,387	137,798	137,007	136,258	136,603
<b>Change in enrollment from prior year</b>	--	312	134	50	-1,589	-721	-749	345
<b>Percent change from prior year</b>	--	0.2%	0.1%	0.0%	-1.1%	-0.5%	-0.5%	0.3%

Source: Superintendent's Recommended FY08 Capital Budget; Packet for Education Committee of Montgomery County Council, 01/29/07, prepared by K. Levchenko

## **Chapter III: Background**

The Montgomery County Public Schools' approved FY07 operating budget of \$1.851 billion represents 47.7% of the \$3.9 billion appropriated by the Council across the County-funded agencies; in terms of tax supported expenditures, MCPS' share is just over half (50.7%). This chapter presents background information on three topics that together provide some context for the Council's assignment to the Office of Legislative Oversight to develop a package of fiscal indicators for MCPS' operating budget.

**Part A, Linking School-Based Inputs to Educational Outcomes**, summarizes the research on the connection between educational expenditures and student performance.

**Part B, MCPS' Sources and Uses of Budget and Student Performance Data**, describes the sources of budget and student achievement data that MCPS currently compiles, publishes, and uses in decision-making.

**Part C, Legislators' Increasing Use of Performance Data**, reviews how legislators are paying more attention to linking performance measurement to budget decision-making.

### **A. Linking School-Based Inputs to Educational Outcomes**

To date, research on the correlation between higher levels of funding and improved student performance has yielded inconsistent results. However, some studies indicate that targeting resources toward certain reform strategies can make a difference in student achievement. This section summarizes why it is hard to measure the link between school-based inputs and educational outcomes, as well as what can be learned from the published research findings on this important policy issue.

Providing a public education is a resource-intensive endeavor for local governments. National data compiled by the National Center for Education Statistics show that, on average, education expenditures account for about 41 percent of a local government's operating budget.<sup>1</sup>

A strong commitment to a high-quality system of public education combined with the significant investment of public money warrants analysis of the use and effectiveness of spending on education. Developing consistent, valid, and reliable measures of student and other school-related "outcomes" is crucial to allocating limited resources to the most effective practices.<sup>2</sup>

#### **1. Measuring the Influence of School Resources on Student Achievement**

Overall, the research on the influence of school resources on student achievement generally finds "ambiguous, conflicting, and weak results."<sup>3</sup> Some researchers have concluded that there is little or no evidence of a relationship between the level of school resources and student achievement, while others report a substantial impact.

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<sup>1</sup> National Center for Education Statistics. "Table 160: Revenues for public elementary and secondary schools, by source and state or jurisdiction: 2002-2003." *Digest of Education Statistics*. 2005.

<sup>2</sup> Fowler, William, Jr. ed. "Developments in School Finance. 1999-2000." National Center for Education Statistics. July 2002.

<sup>3</sup> Krueger, Alan. "Experimental Estimates of Education Production Functions." *The Quarterly Journal of Economics*. May 1999.

Several factors make establishing a causal link between educational inputs and outputs difficult. Of particular importance are the numerous non-school variables that influence student learning and achievement,<sup>4</sup> and the limitations and biases in student achievement tests. These two ideas are briefly described below.

**Non-School variables affect student achievement.** Research consistently shows that factors other than school-based inputs, such as family background and socioeconomic conditions, have a measurable impact on student achievement.<sup>5</sup>

Environmental factors are conceptually different than school inputs because they are often beyond the control of school officials. Non-school variables identified in the literature as making a difference on a student's academic achievement include: nutrition; health care; parental guidance; and student peer groups.<sup>6,7</sup> Researchers often use longitudinal (multi-year) studies to gauge the impact of a program or initiative;<sup>8</sup> the impact of a program over the long-term is complex to measure, as many of these non-school variables change over time.

**Limitations and Biases in Current Tests of Achievement.** Public education develops key skills in three areas: cognitive, social, and physical. While academic tests measure cognitive skills, the measurement of student achievement in the other areas is limited.<sup>9</sup>

Further, tests of academic achievement hold limited capacity to measure cognitive skills due to inherent biases. According to social science researcher Christopher Jencks, these forms of bias include:

- *Labeling bias* – when a test claims to measure one thing, but actually measures something else;
- *Content bias* – when a test contains questions that tend to favor one group over another;
- *Methodological bias* – when a test uses a technique or method that underestimates the ability or competence of one group relative to another;
- *Prediction bias* – when a test is used to predict an individual's future performance; and
- *Selection system bias* – when educational institutions and employers have incentives to adopt selection systems that emphasizes test scores.<sup>10</sup>

Bias in achievement tests can prevent the return of valid and reliable data, which in turn makes it difficult to assess a student's academic progress.

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<sup>4</sup> Fowler, Willima, Jr. ed. "Developments in School Finance, 1999-2000." National Center for Education Statistics. July 2002.

<sup>5</sup> Hanushek, Erick A. "Publicly Provided Education." *National Bureau of Economic Research*. February 2002.

<sup>6</sup> Hochschild, Jennifer and Bridget Scott. "Trends: Governance and Reform of Public Education in the United States." *Public Opinion Quarterly*, vol. 62, no. 1, Spring 1998. pages 79-120.

<sup>7</sup> Fowler, William, Jr. ed. "Developments in School Finance, 1999-2000." National Center for Education Statistics. July 2002.

<sup>8</sup> Borja, Rhea. "Researchers Weigh Benefits of One Computer per Lap." *Education Week*. 10 May 2006.

<sup>9</sup> O'Sullivan, Arthur. *Urban Economics*. 5<sup>th</sup> ed. McGraw-Hill: Boston. 2003.

<sup>10</sup> Jencks, Christopher and Meredith Phillips ed. *The Black-White Test Score Gap*. Washington, D.C: Brookings Institution Press. 1998.

## **2. Research on the Relationships Between Inputs and Educational Outcomes**

Despite the difficulties in establishing causal relationships, the research literature identifies several specific programs or initiatives that appear to provide a positive impact on learning. Academic research points to certain initiatives as being more effective in raising student achievement in comparison to alternative programs. “Successful” reform strategies include:

- Targeting resources to improve the performance of struggling learners;
- Smaller class sizes for disadvantaged groups;
- Improving teacher quality; and
- Rigorous curriculum and course offerings.

In addition, certain resources are necessary for education to take place, such as buildings, transportation, and safety measures. Research shows that the quality of school facilities can have an impact on students’ experiences, and ultimately on their educational achievement.<sup>11</sup> However, once an educational facility reaches a threshold level of adequacy, the research demonstrates that the impact on improvements in student learning diminishes.<sup>12</sup>

**Targeting resources to improve performance of struggling learners.** The research shows that for schools with increasing numbers of students with disabilities, English-language learners, or increasing achievement gaps between minority and White students, additional resources are most effectively spent when aimed specifically at these groups.<sup>13</sup> Further, for “at-risk” children, funding preschool programs, smaller classes, and tutoring can improve performance.<sup>14</sup>

David Card and Abigail Payne studied the effects of school finance reforms, the distribution of school spending, and the resulting student outcomes. They found that when relative spending shifts occurred from richer to poorer districts (as a result of court and legislative-induced reforms); there is some equalization in test score outcomes.<sup>15</sup>

**Smaller classes for disadvantaged groups.** Research on class size has yielded mixed results when measuring, at the aggregate level, the relationship between student achievement and differences in class size. Yet, recent research provides evidence that school and class size matters, especially for low-income students. For example, a 1998 study by Rivkin, Hanushek, and Kain shows that small classes improve educational achievement for low-income but not other students. Other research shows that smaller classes increase achievement for students at all income levels, with the largest gains for low-income students.<sup>16</sup>

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<sup>11</sup> Filardo, Mary, Jeffrey Vincent, Ping Sung and Travis Stein. “Growth and Disparity: A Decade of U.S. Public School Construction.” *Building Educational Success Together*. October 2006.

<sup>12</sup> Grubb, Norton and Laura Goe. “The Unending Search for Equity: California Policy, New School Finance, and the *Williams Case*.” University of California, Berkeley. 2003.

<sup>13</sup> Viadero, Debra. “How Much is Enough?” *Education Week*. (online). 29 September 1999.

<sup>14</sup> Hochschild, Jennifer and Nathan Scovronick. *The American Dream and the Public Schools*. Oxford University Press: New York. 2003.

<sup>15</sup> Card, David and A. Abigail Payne. “School Finance Reform, and the Distribution of SAT Scores.” *National Bureau of Economic Research*. October 1998.

<sup>16</sup> O’Sullivan, Arthur. *Urban Economics*. 5<sup>th</sup> ed. McGraw-Hill: Boston. 2003.

Alan Krueger and Diane Whitmore find that elementary school students tend to have higher test scores when enrolled in smaller classes. In addition, African-American students tend to have disproportionately higher gains than White students.<sup>17</sup> Many studies have found that smaller schools show the most pronounced positive effects in low-income communities and for traditionally lower-achieving students.<sup>18</sup>

**Improved teacher quality.** There is solid empirical evidence that teacher quality can also impact student achievement. Funding levels, in turn, make a difference in teacher quality, as communities that spend more tend to attract “better” teachers and services.<sup>19</sup> A study by Rivkin, Hanushek, and Kain showed that the most effective schools are those with the most qualified teachers, not the best organization or instructional equipment.<sup>20</sup> In this context, teacher quality is measured by the amount of teaching experience, professional development programs, communications skills, and turnover rates of teachers.

**Rigorous curriculum and course offerings.** Public school course offerings and the curriculum taught by teachers are also shown to have an impact on student achievement. Research shows that students who are enrolled in classes with high-achieving peers achieve more, even after taking into account base achievement levels. Similarly, students in non-academic tracks, on average, seem to achieve at lower levels than those in academic tracks.<sup>21</sup> Studies have also shown that investment in mathematics and science curriculum is more likely to lead to improved student achievement than similar levels of investment in reading and writing.<sup>22</sup>

In sum, measuring the correlation between school-based inputs and educational outcomes is extremely difficult, and to date, continues to yield inconsistent results. However, while the research remains inconclusive as to the certainty of linking increased funding to improved student performance, there is evidence that certain investments, e.g., targeting resources, smaller classes, teacher quality, and rigorous curriculum offerings, are more effective than others.

## **B. MCPS’ Sources and Uses of Budget and Student Performance Data**

MCPS staff report that the agency has a considerable history of using performance measures to track student progress and to inform decision-making. This section provides an overview of the performance measurement and budget-related data that MCPS currently compiles, publishes, and reportedly uses on a regular basis to make decisions about programs and resource allocation.

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<sup>17</sup> Chubb, John E. and Tom Loveless. ed. *Bridging the Achievement Gap*. Washington, DC: Brookings Institution Press, 2002.

<sup>18</sup> Darling-Hammond, Linda, Michael Milliken and Peter Ross. “High School Size, Structure and Content: What Matters for Student Success?” Stanford University. 2005.

<sup>19</sup> Brimley, Vern Jr. and Rulon R. Garfield. *Financing Education in a Climate of Change*. 8<sup>th</sup> edition. Boston, MA: Allyn and Bacon, 2002.

<sup>20</sup> O’Sullivan, Arthur. *Urban Economics*. 5<sup>th</sup> ed. McGraw-Hill: Boston. 2003.

<sup>21</sup> Redd, Zakia, Jennifer Brooks and Ayelish McGarvey. “Educating America’s Youth: What Makes a Difference.” Child Trends Research Brief. August 2002.

<sup>22</sup> Konstantopoulos, Spyros. “Trends of School Effects on Student Achievement.” IZA Research Institute. September 2005.



## 1. MCPS' Publications that Contain Budget and Student Performance Data

MCPS regularly publishes numerous documents that contain a broad range of budget and/or student performance data. Table 4 (pages 14-15) lists more than a dozen MCPS publications and provides a brief overview of their contents. Hard copies of these documents are available to the public upon request; most are also available in electronic version via MCPS' website.

Table 4 lists two documents that relate directly to MCPS' strategic plan, *Our Call to Action: Pursuit of Excellence*. Most recently updated in 2006, *Our Call to Action* establishes goals, milestones, and student performance targets that the school system intends to meet between the years 2006 and 2011. The *Annual Report* provides updates on MCPS' progress and includes an abundance of student performance data, such as:

- Percent of elementary, middle, and high school students at or above proficiency standards in reading and mathematics;
- Percent of test takers receiving a three or better on an AP/IB test;
- Percent of students with disabilities in general education; and
- Percent of students suspended by racial/ethnic group and gender.

Each year, MCPS publishes both recommended and approved versions of the agency's operating and capital budgets. In recent years, MCPS has also published a program budget. Each document provides a wide-range of information about the MCPS budget and additional data that helps relate the budget to student performance and the strategic plan.

The MCPS *Operating Budget* contains substantial data on revenue sources; agency-wide budget trends; requested, current year, and past year budget allocations by organizational unit; and average student costs. The *Operating Budget* also provides data on student enrollment. In recent years, MCPS has made a concerted effort to increase the reporting of performance measures published in the *Superintendent's Recommended Operating Budget*.

Examples of student performance measures from the *Superintendent's Recommended Operating Budget* for FY08 are:

- The percent of ESOL students with improved English Language Proficiency scores;
- The progress made toward reducing the percent of African-American students with disabilities who spend more than 60% of their time in a separate class.
- The progress made by students with disabilities in meeting *No Child Left Behind* requirements for reading and mathematics proficiency.

Every year, MCPS also publishes a *Citizen's Budget* that gives an overview of the *Superintendent's Recommended Operating Budget*. While the content of the *Citizen's Budget* varies from year to year, it generally includes a summary of MCPS's achievements, major programs and initiatives, and the recommended operating budget.

The *Program Budget and Staffing Guidelines* is a document that MCPS produces twice a year – in December, following publication of the *Superintendent's Recommended Operating Budget*, and in July, following publication of the approved *Operating Budget Summary and Personnel*

*Complement.* The *Program Budget* describes significant program and budget changes, and provides information and data by program rather than organizational unit. Additionally, beginning with FY08, each program summary includes a description of how the program is aligned with the MCPS Strategic Plan; it also provides a crosswalk to related information in the published *Operating Budget*.

The six-year *Facilities Master Plan and Capital Improvement Plan (CIP)* presents MCPS' plans for modernizations and other building projects. As with other County-funded agencies, MCPS recommends a new *CIP* biennially and recommends amendments in the so-called "off years." For each school, the *CIP* provides enrollment projections, demographics, and facility characteristics. Additional data appear in the appendices, including:

- Actual and projected enrollment for a seven-year period;
- Historical enrollment figures by racial/ethnic group;
- Number of relocatable classrooms planned by school; and
- School size, age, and capacity.

MCPS also publishes an annual *Comprehensive Annual Financial Report (CAFR)*, which contains the agency's audited financial statements. The *CAFR* provides multiple years of financial trends for MCPS' net assets and fund balances. It also provides data that places MCPS' financial condition in a broader context, such as data on the County's total debt capacity, a snapshot of the County's demographics and economy, and a recitation of MCPS' operating costs by State budget category for the most recent three years.

Several other documents also provide detailed budget and performance data. For example, *Schools at a Glance* and its companion *Special Education at a Glance* include student performance measures disaggregated by grade level and school. *Schools at a Glance* also provides data for individual schools, including information on student enrollment and performance, staff allocations, teacher experience, special programs, and each school's operating budget. *Special Education at a Glance* provides information about students with disabilities, special education programs, student outcomes, and staffing by school.

MCPS' application for the Baldrige National Quality Award includes substantial data on student performance measures as well as on financial trends. Student performance trends reported in this document include: reading and math proficiency of MCPS students compared to a prior Baldrige winner. Budget data include the annual growth in MCPS' share of all County expenditures, and MCPS' administration costs as a percent of the agency's total operating budget. Finally, MCPS produces an annual *Staff Statistical Profile*, which provides detailed data on MCPS' workforce. While this document does not contain student achievement data or financial trends, it provides information that relates to MCPS' current and future operating costs. Examples of data provided in the Staff Statistical Profile include:

- Number of employees, average annual salary, and salary schedule placement by bargaining unit;
- Number of principals and assistant principals eligible for retirement within five years;
- Degree, certification, and years of experience for new and all teachers; and
- Turnover rate for administrators, teachers, and support services staff.

**Table 4: Key MCPS Publications and Documents**

Publication Title	Frequency	Summary of Contents*
<b>Strategic Plan Documents</b>		
<i>Our Call to Action: Pursuit of Excellence – Strategic Plan for MCPS</i>	Annual	Milestones and student performance targets. Plans for fiscal controls and organizational effectiveness.
<i>Annual Report on Our Call to Action</i>	Annual	Update on MCPS’ progress toward meeting its goals. Longitudinal data on student performance and some financial trends.
<b>Budget/Financial Documents</b>		
Operating Budget and Personnel Complement <ul style="list-style-type: none"> <li>• <i>The Citizens Budget</i></li> <li>• <i>The Superintendent’s Recommended Operating Budget and Personnel Complement</i></li> <li>• <i>Operating Budget Adopted by the Board of Education</i></li> <li>• <i>The Superintendent’s Operating Budget Summary and Personnel Complement (Appropriated by the County Council, Adopted by the Board of Education)</i></li> </ul>	Annual	<p><i>Citizens:</i> Summary of recommended budget; provides descriptions of MCPS initiatives. Includes data on student performance and minimal financial trends, but contents vary each year.</p> <p><i>Recommended:</i> Budget summary tables including enrollment trends and cost per student. Detailed budget chapters for each organizational unit (e.g. K-12 Instruction, Office of the Superintendent of Schools, Special Education and Student Services). Chapters include department-specific performance measures, budgets showing three-year financial trends, and staffing plans. Appendices include budgets by State budget categories with three-year trends.</p> <p><i>Adopted by Board of Education:</i> Amendments to the Recommended Operating Budget. No performance measures.</p> <p><i>Appropriated:</i> Approved MCPS budget with changes made by the BOE and County Council. No performance measures.</p>
Program Budget and Budget Staffing Guidelines <ul style="list-style-type: none"> <li>• <i>The Superintendent’s Recommended Operating Budget</i></li> <li>• <i>Operating Budget Summary</i></li> </ul>	Annual	<p><i>Recommended:</i> Budgets by MCPS program based on the Recommended Operating Budget. Provides program descriptions, explanation of budget changes, and crosswalk to the Recommended Operating Budget. Budgets show two-year financial trends.</p> <p><i>Approved Summary:</i> Updates Program Budget based on approved MCPS Operating Budget</p>
Educational Facilities Master Plan and Capital Improvements Plan (CIP) <ul style="list-style-type: none"> <li>• <i>Superintendent’s Recommended Capital Budget and CIP</i></li> <li>• <i>Board of Education Requested Capital Budget and CIP</i></li> <li>• <i>Educational Facilities Master Plan and the CIP</i></li> </ul>	Biennial**	<p><i>Recommended:</i> Provides data on enrollment, building capacity, and building characteristics (e.g. size, age, number of relocatables) as it relates to the Capital Improvements Plan.</p> <p><i>Board of Education Requested:</i> Provides financial data for current projects and projected costs for six-year plan.</p> <p><i>Master Plan:</i> Provides data on enrollment, building capacity, and building characteristics (e.g. size, age, number of relocatables) as it relates to the Capital Improvements Plan.</p>
Comprehensive Annual Financial Report	Annual	Financial data including audited financial statements and a statistical section with up to ten years of MCPS financial trends.

**Table 4: Key MCPS Publications and Documents, continued**

Publication Title	Frequency	Summary of Contents*
<b>Other Documents</b>		
Application for Malcolm Baldrige National Quality Award	Periodic application; last applied 2006	Improvement plans for instructional programs and business operations. Includes longitudinal data on student performance and financial trends with regional and national comparisons. Also includes staff data.
<i>Schools at a Glance</i>	Annual	Point-in-time data on enrollment, staffing, facilities, programs, student performance, and operating costs for each school.
<i>Special Education at a Glance</i>	Annual	Data on student performance, enrollment, and staffing for special education programs. Includes <i>Guide to Planning and Assessing School-Based Special Education Programs</i> .
<i>Staff Statistical Profile</i>	Annual	Data on staff demographics, hiring, pay, qualifications, experience, and longevity.

\*Summaries are based on the most recent document.

\*\*On off years, MCPS and the County Council amend the *Educational Facilities Master Plan and Capital Improvement Plan*.

## 2. Other Sources of Data on MCPS Spending and Student Performance

Other sources of information and data related to MCPS spending and student performance are:

- Data that MCPS reports to the Maryland State Department of Education (MSDE) to demonstrate progress on the No Child Left Behind Act and the Bridge to Excellence Act;
- Program evaluations conducted by MCPS' Department of Shared Accountability; and
- The system of performance measurement established by the Office of the Chief Operating Officer for MCPS' business functions.

MCPS provides student, individual school, and district level data to MSDE in five areas: student achievement on state assessments; the progress of English language learners in becoming English proficient; the percent of teachers who are highly qualified; the percent of students who are in safe schools; and high school graduation rate. MCPS submits data on these indicators as part of its Annual Update to its Bridge to Excellence Master Plan that reports on MCPS' implementation of the No Child Left Behind Act.

The Department of Shared Accountability (DSA) conducts evaluations of MCPS programs. In recent years, for example, DSA has issued reports on the impacts of its Early Success Performance Plan and Extended Learning Opportunities Summer Program. DSA has also examined the Grade 2 Global Screening for the identification of Gifted and Talented Students and Advanced Placement participation and performance for the Classes of 2002 through 2006.

Additional DSA program evaluations currently in progress include: studies on early childhood education initiatives; Grades 1 and 2 curriculums for mathematics and reading; middle school academic interventions; and the teacher professional growth and evaluation system.

**The Chief Operating Officers' System of "Dashboard" Measures.** The Office of the Chief Operating Officer (OCOO) uses a sophisticated system of measurement and reporting as part of routine decision-making and ongoing management. During the past three years, the OCOO has developed and refined a system of so-called "dashboard measures" to monitor the performance of MCPS' business operations. These measures include human resources; financial services; budgeting; facilities and materials management; security; and transportation.

The OCOO has developed a tool for aggregating performance measures of each unit into a database of performance measures that provide snapshots of the overall performance of functions supervised by the OCOO. This tool also has the capacity to drill down into the organization to determine which units are particularly strong or in need of improvement. Data are collected by unit across four categories: organizational results, financial results, customer focus, and employee focus/workforce excellence.

In the business world, dashboard measures are considered stretch targets, and if executives meet them they receive a financial bonus. For the OCOO, the dashboard also offers stretch targets that serve as the basis for leadership team meetings. As a function of the dashboard measures and their use in OCOO decision-making, improvement strategies are developed for areas with performance problems. Annual aggregated results are also used to check long-term trends and to examine whether OCOO is meeting its overall goals.

**The American Productivity and Quality Center Project (APQC).** To expand its ability to compare performance to others systems, particularly those who are high performers, MCPS is one of 24 school districts that is participating in the American Productivity and Quality Center (APQC) project to develop common data points and benchmarks of school productivity. Eventually, participation in the APQC database should enable comparisons among MCPS and other school districts on effectiveness with respect to: assessing student achievement; recruiting and selecting teachers; and managing information technology and business units.

### **C. Legislators' Use of Financial and Performance Data**

Legislators routinely make decisions about how to allocate money. In making these decisions, legislators can benefit from having access to data and analysis that links the investment of public resources to desired outcomes. This section reviews the increasing attention legislators across the country are paying to linking performance measures to budget decision-making.

OLO's study last year on the use of performance measures in budget decision-making<sup>23</sup> found that legislators rarely base their funding decisions on the large number of indicators that agencies generate. As identified by OLO, the major reasons for this include:

- Concerns about accuracy and reliability of the data;
- Limited relevance of the large quantity of data provided; and
- Insufficient understanding of how to connect the data to resource allocation.

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<sup>23</sup> OLO Report 2006-2, Legislative Uses of Performance Measures in Budget Decision-Making

One of the Council's recommendations that resulted from OLO's study was that staff identify a smaller number of priority indicators to use as the basis for a more informed discussion among Councilmembers and agency representatives during annual budget deliberations.

The Council is not alone in its interest in improving the link between performance measurement and budget decision-making. For example, the Government Accounting Standards Board (GASB) has suggested that performance measures ought to be included in the financial reporting of government entities to demonstrate "how the government cares for its citizens."<sup>24</sup>

GASB further suggests that government entities should adopt performance measures that link *service effort* to *service accomplishment*. *Service effort* involves inputs, such as expenditures. *Service accomplishment* involves outputs, efficiency, outcomes, and service quality.

Mark Friedman, founder of the Fiscal Policy Studies Institute and an advocate for "results accountability," suggests that measures can help legislators answer many questions. Output measures, such as average class size, help to address questions on how much was done. Efficiency measures, such as data on average costs of service delivery, help to address questions of how much it cost. Outcome and service quality measures, such as changes in high school graduation rates and graduate readiness for post secondary education or the workforce, are necessary for addressing the question of what benefits students received from the money spent.<sup>25</sup>

There are few examples of school systems using fiscal indicators to capture their efficiencies, particularly with regard to the return on investment of educational costs. In 1990, GASB noted the need for school systems to develop fiscal indicators that measure efficiency. While emphasizing their experimental nature, GASB recommended that schools develop measures such as cost per graduate or cost per student achieving expected improvement on test scores.<sup>26</sup>

The Standard and Poor's School Evaluation Service's website "School Matters" is an example of a current effort to strengthen the connection between educational inputs and outcomes. As stated on the website:

Not only is it important to know how overall spending changes from one fiscal year to the next, but it is also important to know how spending increases (or decreases) are allocated over time among accounting functions. What percentages, for example, of "new money" have gone to instruction versus maintenance, administration or food services? Only when financial data are broken down into sufficient detail are local and state education leaders able to make informed judgments about the likely impact of additional spending on student achievement.<sup>27</sup>

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<sup>24</sup> Text is adapted from Concept Statements No. 1: Objectives of Financial Reporting, Governmental Accounting Standards Board ([http://www.seagov.org/sea\\_gasb\\_project/con\\_stmt\\_one.shtml](http://www.seagov.org/sea_gasb_project/con_stmt_one.shtml))

<sup>25</sup> In *Trying Hard is Not Good Enough*, 2005, Mark Friedman cites these three performance measurement questions.

<sup>26</sup> Harry Hantry, Marita Alexander and James Fountain, Jr. "Chapter 4: Elementary and Secondary Education" in Harry Hantry, James Fountain, Jr., Jonathan Sullivan and Lorraine Kremer (eds.) *Service Efforts and Accomplishments Reporting: It's Time Has Come, An Overview* – Norwalk, Connecticut: Governmental Accounting Standards Board, 1990

<sup>27</sup> Page 16 of Standard and Poor's School Evaluation Services, *Analytical Framework and Methodology*, March 2005 ([http://www.schoolmatters.com/pdf/Analytical\\_Paper\\_3-11-05.pdf](http://www.schoolmatters.com/pdf/Analytical_Paper_3-11-05.pdf))

Paul Arveson<sup>28</sup> of the Balanced Scorecard Institute acknowledges difficulties with establishing links between budget and outcomes. For example, measuring “customer satisfaction” can be difficult when there are multiple customers: the client, the taxpayer, and the legislature. Efficiency measures can also be complex to interpret. For example, reducing cost may also reduce positive outcomes.

Arveson argues for an incremental approach to establishing and using fiscal indicators. As a first step, Arveson argues that the use of fiscal performance measures across government entities should begin on their business side. He notes that:

Government offices, warehouses, bases and facilities have much the same support services and user needs as any private company's. So we should expect to find degrees of efficiency of operating and support processes that can be measured, benchmarked and improved. This is the appropriate function of a measurement program, and its goal is simply to improve productivity and efficiency, i.e. reduce the cost and cycle time of internal processes.<sup>29</sup>

In sum, local legislators have a compelling interest to collect performance measurement data from local agencies - including school systems - that describe how public expenditures result in service accomplishments. MCPS' use of performance measures via its strategic plan, reports of student achievement, budget documents, and “dashboard” of business side measures create a natural bridge for improving the Council's use of performance measures relative to MCPS. Identifying performance measures that link resources to outcomes is a critical component to both the transparency and accountability of the MCPS budget.

The next chapter (Chapter IV) presents a set of key fiscal indicators that can improve the Council's understanding and oversight of the MCPS operating budget. Chapter V then introduces two pilot indicators for Council discussion as performance measures of MCPS' efficiency in improving student outcomes at the high school level.

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<sup>28</sup> Paul Arveson, 1998 – The Balanced Scorecard Institute (<http://balancedscorecard.org/basics/bsc1.html>)

<sup>29</sup> Paul Arveson, 1998 – The Balanced Scorecard Institute (<http://balancedscorecard.org/basics/excesses.html>)

## Chapter IV: Key Fiscal Indicators for the MCPS Operating Budget

The fiscal indicators outlined in this chapter together provide an overview of MCPS' operating budget. The next page lists the 12 proposed indicators, which are organized into three general categories: Revenues and Expenditures; Major Budget Components and Cost Drivers; and Per Student Expenditures. The write-up of each fiscal indicator includes:

- An introductory description of what it measures;
- One or more data tables with accompanying graphics;
- Bullet points that highlight the major findings;
- Recommended issues and questions for Council discussion; and
- Caveats regarding the data used for that indicator and/or how it should be interpreted.

**Sources of data.** MCPS' published operating and capital budget documents served as the primary source of MCPS data. A number of indicators employ information from other MCPS data sources, including the *Program Budget* and *Schools at a Glance*. The two sources of comparative information were on-line databases compiled by the Washington Area Boards of Education and the Maryland State Department of Education. The Appendix contains a complete list of resources used by OLO in compiling the indicators.

**Time frames.** Nine of the 12 indicators include five years of data, FY03 through FY07. Alternative time frames were used for some indicators based on availability of MCPS data or for the purpose of making comparisons with data provided by an outside source.

**Actual vs. budgeted data.** Unless otherwise noted, expense, enrollment and position data for previous fiscal years (through FY06) represent actual expenditures, enrollment, and positions. FY07 data are budgeted expenditures, as published in MCPS' FY07 approved operating budget. Because actual and budgeted numbers represent different types of information, the data tables describing expenditures calculate percent change for the four years of actuals, FY03 through FY06. Because the revenue amounts for FY07 are no longer "estimated," data tables describing revenue changes over time use five years of data, FY03 through FY07.

**Dollars in millions/rounding.** In most cases, the data tables present budget information in millions of dollars. The percent calculations do not always add to 100 due to rounding. The Appendix (© 12) provides additional technical notes on OLO's calculations of per student costs in Indicator 11.

**Summary of student performance targets provided for reference in the Appendix.** As explained earlier, fiscal indicators are defined as quantitative measures related to funding. MCPS has invested considerable effort in identifying and measuring targets for student performance, which are summarized and published in MCPS' strategic plan, *Our Call to Action: Pursuit of Excellence*. The Appendix (©2-8) contains a brief overview of this document and provides data on selected student performance targets from MCPS' most recent strategic plan update.



<b>Category A - Revenues and Expenditures</b>		<b>Begins on Page #</b>
Indicator 1: Total Operating Budget by Revenue Source	This indicator measures MCPS' total annual operating budget and the relative contributions of the different revenue sources that fund the school system. It includes a ranking of Maryland school systems by the percent of their budget supported by local funds.	22
Indicator 2: Sources of Federal and State Revenue	This indicator provides more detail on the sources of State and Federal revenue that fund approximately one-fourth of the MCPS operating budget. It includes trend data on changes in revenue received from Bridge to Excellence, No Child Left Behind, and the Individuals with Disabilities Education Act programs.	25
Indicator 3: Expenditures by State Budget Category	This indicator summarizes MCPS' budget by the major State budget categories. State law requires the County Council to appropriate funds according to these standardized categories defined by the Maryland Department of Education.	29
<b>Category B - Major Budget Components and Cost Drivers</b>		
Indicator 4: Tax Supported Positions, Salaries, and Benefits by Bargaining Unit	This indicator provides data on the size of the MCPS workforce and the costs of salaries and benefits for current employees. Specifically, cost data are provided by bargaining unit in four categories: salaries; social security; group insurance; and retirement.	34
Indicator 5: Starting and Average Salaries for Teachers, Paraeducators, Bus Operators, and Principals	This indicator presents starting and average salary data for four MCPS positions: Teachers (10 month positions); Paraeducators; Bus Operators; and Principals. Added together, these four positions represent about two-thirds of the MCPS workforce. It includes comparative data from other area school systems on starting and average teacher salaries.	39
Indicator 6: Expenditures for Retiree Health Benefits	This indicator contains data on the past and future estimated costs of health benefits for MCPS retirees. It includes: <ul style="list-style-type: none"> <li>• FY03-FY07 data on the annual "pay-as-you-go" costs of retiree health benefits paid by MCPS; and</li> <li>• MCPS' estimates on FY08-FY12 future costs of retiree health benefits, for both the annual pay-as-you-go expenses and annual contributions to the Retiree Health Trust Fund.</li> </ul>	44
Indicator 7: Multi-Year Costs of Selected MCPS Initiatives	This indicator tracks the annual and cumulative costs of three major MCPS initiatives from FY01 to FY06: <ul style="list-style-type: none"> <li>• Class size reduction;</li> <li>• Special education investments/least restrictive environment initiatives; and</li> <li>• Additional elementary school assistant principals.</li> </ul>	46

<b>Category B - Major Budget Components and Cost Drivers (continued)</b>		<b>Begins on Page #</b>
Indicator 8: Special Education Costs	<p>This indicator tracks the cost of delivering special education and related services (e.g., occupational therapy) to students with disabilities. It shows costs divided into five categories:</p> <ul style="list-style-type: none"> <li>• K-12 special education services;</li> <li>• Early intervention and preschool special education services;</li> <li>• Non-Public placements;</li> <li>• Special education transportation; and</li> <li>• Costs of personnel benefits for staff who deliver special education services and provide transportation to students with disabilities.</li> </ul>	49
Indicator 9: Cost of School Plant Operations, Maintenance, Transportation, and Utilities	<p>This indicator tracks the costs of the following non-instructional costs:</p> <ul style="list-style-type: none"> <li>• School Plant Operations, which includes the routine cleaning of MCPS facilities;</li> <li>• Maintenance, which includes maintenance and repair services;</li> <li>• Transportation, which includes maintaining and operating MCPS' bus fleet;</li> <li>• Utilities, which includes the costs of electricity, heating oil, natural gas, propane, and water and sewer for all MCPS facilities.</li> </ul>	52
<b>Category C- Per Student Expenditures</b>		
Indicator 10: Per Student Cost by Grade Span	<p>This indicator presents average per student cost calculations based on MCPS' calculations of average per student costs for four groups: kindergarteners, elementary students, secondary students, and all students in grades K-12. It also includes a comparison of average per student costs among MCPS and other area school districts.</p>	54
Indicator 11: Per Student Cost by Disability Status	<p>This indicator presents average per student cost calculations for different cohorts of students: students without disabilities; students with disabilities in MCPS schools; and students with disabilities in private placements. OLO also calculates a K-12 per student cost, which adds back in the data on students in private placements.</p>	58
Indicator 12: Per Student Cost by School Type and Service Category	<p>This indicator presents average per student costs for school-based costs by the following "types" of schools:</p> <ul style="list-style-type: none"> <li>• Focus elementary schools (i.e., high poverty schools)</li> <li>• Non-focus elementary schools;</li> <li>• Middle schools;</li> <li>• High schools;</li> <li>• Special schools for students with disabilities.</li> </ul> <p>It includes a ranking of all MCPS elementary schools in descending order of FY06 per student school-based costs.</p>	61

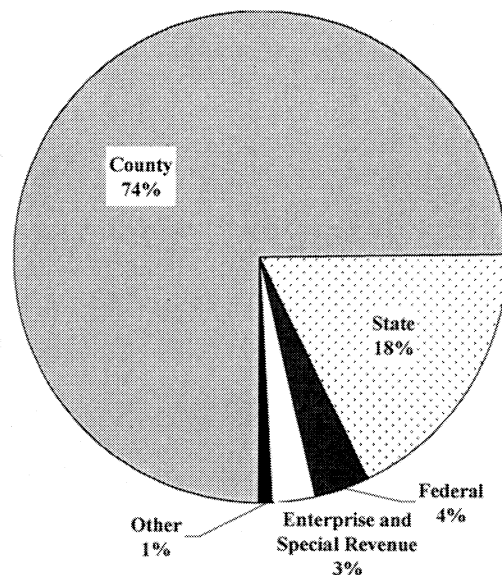
## Category A – Revenues and Expenditures

### INDICATOR 1: TOTAL OPERATING BUDGET BY REVENUE SOURCE

This indicator measures MCPS' total annual operating budget and the relative contributions of the major revenue sources that fund the school system. The five-year trend data track:

- Increases in total funds that the Council appropriates to MCPS;
- Relative contributions of revenue from the County, State, and Federal government;
- Amount of revenue from Enterprise and Special Funds and other sources; and
- Annual changes in dollars by revenue source.

#### Exhibit 3: Sources of Revenue for MCPS FY07 Operating Budget: \$1,851.5 million



**Table 5: Total Operating Budget by Revenue Source, FY03-FY07**

Revenue Source	Funding (\$ in millions)					Percent of Total				
	FY03	FY04	FY05	FY06	FY07	FY03	FY04	FY05	FY06	FY07
County <sup>1</sup>	1,079.2	1,135.1	1,223.9	1,296.3	1,384.7	76	76	75	75	74
State	235.3	256.7	275.3	301.8	335.4	17	17	17	18	18
Federal	56.4	59.7	70.2	63.5	65.0	4	4	4	4	4
Enterprise & Special Funds <sup>2</sup>	41.4	42.5	43.8	45.3	52.1	3	3	3	3	3
Other <sup>3</sup>	3.7	4.3	7.0	21.3	14.3	*	*	*	1	1
<b>TOTAL</b>	<b>\$1,416.2</b>	<b>\$1,498.4</b>	<b>\$1,620.2</b>	<b>\$1,728.3</b>	<b>\$1,851.5</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

\*Value is less than one percent.

<sup>1</sup> Annual appropriations to MCPS are offset by the fund balance carried over from the prior year, which was \$14.3 million in FY03; \$3 million for FY04; \$13.3 million for FY05; \$13.3 million for FY06; and \$3.9 million for FY07.

<sup>2</sup> Includes Enterprise Funds (School Food Service, Adult Education, Real Estate Management, Field Trips, and Entrepreneurial Activities), and the Instructional Television Special Revenue Fund.

<sup>3</sup> Includes revenue from tuition and fees, hospital teaching, private grants and "miscellaneous." During a fiscal year, as new grants are received, funds budgeted in Other Revenue are reclassified to other sources depending on the source of the grant. Consequently, FY07 adopted budget data are not comparable to FY03 to FY06 actual data.

## Category A – Revenues and Expenditures

### Key Findings:

- MCPS' FY07 operating budget of \$1.85 billion is \$436 million (31%) larger than it was four years ago.
- In FY07, County tax dollars fund 74 percent of MCPS' operating budget. The balance of funding comes from the State (18%), the Federal government (4%), Enterprise and Special Funds (3%) and miscellaneous other revenue sources such as private grants and fees (1%).
- While the total County dollar contribution to MCPS has increased substantially (\$306 million) during the past four years, the County's share as a percent of the total MCPS budget declined from 76 percent to 74 percent. During this time period, the State's relative contribution increased from 17 to 18 percent of the total.

### Recommended Issues/Questions for Council Discussion

OLO recommends that the Council's annual worksessions on the MCPS budget include review of the different revenue sources that support the budget request. Indicator 1 provides the data for an informed discussion with MCPS about any major shifts in revenue, and in particular, about how and why the County's share of the MCPS budget is increasing, decreasing, or remaining the same. In addition, Indicator 1 establishes the facts for a review and discussion of changes in the relationships between and among the different sources of revenue, e. g., how a specific change in funds received from the State or Federal government has affected MCPS' request for County funds. For comparative reference, Table 6 (page 24) ranks all Maryland school systems by the percent of their budget that is supported by local funds.

### Suggested Questions

1. What are the major factors that explain the changes among the different sources of revenue for the MCPS budget between FY03 and FY07?
2. As MCPS develops its budget request, if there is a program that was reliant on non-County funds that are about to expire, what does MCPS do? Does MCPS sunset the program, seek County funds, or identify other sources of non-County funds to continue it?
3. Every local agency, including MCPS, has some priorities that County taxpayers cannot afford to fund. What are MCPS' practices for seeking non-County revenue to support its priorities?

### Caveats on Indicator 1 Data

This indicator describes trends in County revenue overall, but not by disaggregated source (e.g. local income taxes or property taxes). For an understanding of trends among the specific sources of County revenue, the Council would need to consider additional data. Further, data on how much funding MCPS receives is different from knowing how much funding is necessary to enable MCPS to meet its performance targets. For a more complete picture of the MCPS budget, information on bottom-line appropriations and source of revenue need to be coupled with information on how the funds are used.

**Table 6: Maryland School Systems Ranked by Percent of FY07 Budget Supported by Local Funds**

Jurisdiction	Percent of FY07 Budget Paid by:			
	County/City	State	Federal	Other
Montgomery County	74	18	4	1
Worcester County	74	19	7	0
Talbot County	70	24	6	1
Howard County	68	27	3	1
Anne Arundel County	64	31	4	0
Kent County	56	34	9	1
Queen Anne's County	55	37	7	1
Baltimore County	53	39	7	0
Frederick County	52	43	4	1
Calvert County	52	42	4	0
Carroll County	51	44	5	1
Harford County	48	47	4	1
Charles County	46	48	5	1
St. Mary's County	43	49	6	2
Garrett County	42	48	8	1
Cecil County	41	54	5	0
Prince George's County	40	53	6	1
Washington County	40	54	6	0
Dorchester County	35	54	9	1
Wicomico County	32	60	7	1
Allegany County	25	67	8	0
Somerset County	25	60	14	1
Caroline County	23	70	7	1
Baltimore City	20	69	11	0

Source: Maryland State Department of Education, 2006 Annual Update to Bridge to Excellence Master Plans, Approved FY07 Budgets

**Observations:**

- Montgomery County and Worcester County both fund 74 percent of their respective school systems' operating budgets, the highest local share paid in the State.
- The State share of the MCPS operating budget is 18 percent, the lowest percent contribution in the State. In comparison, the State's highest percent contributions are in Caroline County (70%) and Baltimore City (69%).
- The Federal share of the MCPS operating budget is 4 percent, one of the lowest percent contributions in the State. (Note: This calculation excludes Federal revenue received for food programs, which are budgeted in MCPS' Enterprise Funds.)

## Category A – Revenues and Expenditures

### INDICATOR 2: SOURCES OF FEDERAL AND STATE REVENUE

This indicator provides more detail on the State and Federal revenue that comprise nearly a quarter of MCPS' operating budget. Most of this revenue is formula driven, based on MCPS enrollment of students eligible for free and reduced-priced meals, special education, and English language acquisition services. Indicator 2 uses actual budget data from FY03–FY06, inclusive of grant supplementals and adopted budget data for FY07.

The five-year trend data track the State revenue that MCPS received each year from:

- Bridge to Excellence, which provides unrestricted aid based on a minimum amount per student plus additional funds based on the number of students who receive special education services, have limited English proficiency, or qualify for free or reduced-price meals;
- State Grant programs, which primarily provide categorical aid to MCPS;
- Transportation aid for students served in general and special education; and
- Reimbursements for Non-Public Placements, which offsets about one-third of MCPS' tuition costs for serving students with disabilities in private schools.

This indicator also tracks the Federal revenue MCPS received each year from:

- No Child Left Behind (NCLB) funding, which includes Compensatory Education - Title I, Improving Teacher Quality - Title IIA; Technology - Title IID; English Language Acquisition - Title III, Safe and Drug Free Schools - Title IV, Innovative Programs - Title V and American Indian Education - Title VII;
- Individuals with Disabilities Education Act (IDEA) funding for special education;
- Medical Assistance Program, which provides Medicaid reimbursement to MCPS for educational related expenses for students with disabilities from low-income households;
- Head Start and Other Programs, which include Adult Education, Vocational Education, Impact Aid, and other federally-funded programs.



**Category A – Revenues and Expenditures**

**Table 7: Sources of State and Federal Revenue, FY03-FY07**

Revenue Source/Program	FY03	FY04	FY05	FY06	FY07	Change FY03 to FY07	
						\$	%
<b>State of Maryland</b>	(\$ in millions)					\$	%
Bridge to Excellence	157.7	214.0	232.7	263.3	294.6	136.9	86.8
State Grant Programs	49.4	9.0	5.5	1.6	1.3	-48.1	-97.4
Transportation	17.5	24.2	26.2	25.9	28.3	10.8	61.7
Non-Public Placements	11.6	10.3	11.0	11.0	11.3	-0.3	-2.6
<b>Total State Revenue</b>	<b>\$236.2</b>	<b>\$257.5</b>	<b>\$275.3</b>	<b>\$301.8</b>	<b>\$335.4</b>	<b>\$99.2</b>	<b>42.0%</b>
<b>Federal Government</b>						\$	%
No Child Left Behind (NCLB)	21.9	20.6	24.1	26.3	28.7	6.8	31.1
Special Education (IDEA)	18.7	21.5	25	27.4	27.4	8.7	46.5
Medical Assistance Program	4.1	4.3	5.0	4.8	4.2	0.1	2.4
Head Start	3.0	3.2	3.2	3.3	3.3	0.3	10.0
Other Programs	8.7	13.3	12.8	1.8	1.5	-7.2	-82.8
<b>Total Federal Revenue</b>	<b>\$68.0</b>	<b>\$75.1</b>	<b>\$83.4</b>	<b>\$77.2</b>	<b>\$79.6</b>	<b>\$11.6</b>	<b>17.1%</b>

This indicator further identifies the amounts of State (Bridge to Excellence) and Federal (NCLB and IDEA) revenue that is generated by MCPS' special needs population. The data provided in Table 8 (next page) begin in FY04 because this is the first year that State funding under Bridge to Excellence allocated additional dollars to school systems based on their numbers of students eligible for free and reduced-price meals, English language acquisition services, and special education. Before FY04, the State awarded categorical rather than unrestricted funds to MCPS to help address the educational needs of these student groups.

The additional State dollars that MCPS receives are allocated through three funding streams listed in Table 8 (i.e. Compensatory Education, Limited English Proficiency, Special Education). MCPS is allowed to use this revenue for all students rather than exclusively for students eligible for compensatory, bilingual, or special education services. There is, however, an expectation that local school districts will use at least as much as what was awarded under Bridge to Excellence to meet the needs of students with special needs. In comparison, the Federal revenues listed below offer targeted categorical aid to eligible students.<sup>1</sup>

<sup>1</sup> OLO recognizes that MCPS uses some of its Federal Title I (i.e. compensatory education) revenue to fund school-wide programs that support all learners. These school-wide programs are categorical in that they can only be implemented in high poverty schools.

**Category A – Revenues and Expenditures**

**Table 8: State and Federal Revenue Tied to Students with Special Needs, FY04-FY07**

Revenue Source/Program	FY04	FY05	FY06	FY07	Change FY04 to FY07	
<b>State- Bridge to Excellence</b>	<b>(\$ in millions)</b>				<b>\$</b>	<b>%</b>
Compensatory Education	20.2	35.5	45.9	58.1	37.9	187.6
Limited English Proficiency	16.2	18.6	22.7	28.4	12.2	75.3
Special Education	11.3	16.1	20.6	27.1	15.8	139.8
<b>Additional revenue generated by students with special needs</b>	<b>\$47.7</b>	<b>\$70.2</b>	<b>\$89.2</b>	<b>\$113.6</b>	<b>\$65.9</b>	<b>138.2</b>
<b>Federal – NCLB and IDEA</b>					<b>\$</b>	<b>%</b>
Compensatory Education -Title I	13.6	15.8	18.7	20.1	6.5	47.8
English Language Acquisition -Title III	1.7	2.3	2.7	2.9	1.2	70.6
Special Education (IDEA)	21.5	25	27.4	27.4	5.9	27.4
<b>Additional revenue for students with special needs programs</b>	<b>\$36.8</b>	<b>\$43.1</b>	<b>\$48.8</b>	<b>\$50.4</b>	<b>\$13.6</b>	<b>37.0</b>

**Key Findings:**

- Increased State funding through the Bridge to Excellence initiative accounted for 90 percent<sup>2</sup> of the \$99.2 million increase in State revenues that MCPS received between FY03 and FY07. According to MCPS, \$39.5 million of this amount represents the transition from categorical to unrestricted aid. The remainder was due to the working out of the Foundation formula and to enrollment and wealth changes that occurred during this period. The other major increase (\$10.8 million) in State revenue was for student transportation. These increases were offset by a reduction (between FY03 and FY04) in programs financed through State grants that funded categorical programs by the State.
- MCPS' receipt of Bridge to Excellence funds tied to its special needs population increased by \$65.9 million (138%) from \$47.7 million in FY04 to \$113.6 million in FY07. In particular, MCPS' receipt of State aid tied to its percent of students eligible for free and reduced-priced meals (e.g., listed as Compensatory Education funds on the table) almost tripled from \$20.2 million in FY04 to \$58.1 million in FY07.
- MCPS' receipt of Federal revenue tied to its special needs population increased by \$13.6 million (37%) from \$36.8 million in FY04 to \$50.4 million in FY07. The most significant increase occurred in Federal funding for Title I (e.g. Compensatory Education), which increased by \$6.5 million (48%) from \$13.6 million in FY04 to \$20.1 million in FY07.

<sup>2</sup> The increase in Bridge to Excellence revenue is partially due to offsets in categorical state aid. This change in Bridge to Excellence revenue is compared to the increase in total state revenue.



**Recommended Issues/Questions for Council Discussion**

As reviewed in Indicator 1, in FY07, State and Federal revenue funds about 22 percent of MCPS' operating budget. OLO recommends the Council should annually monitor and understand the changes in these different streams of State and Federal dollars. An increase or decrease in non-County funds often directly influences MCPS' requests for County funds.

Much of the State and Federal revenue that MCPS receives is to assist with meeting the educational needs of low-income students, English language learners, and students with disabilities. OLO recommends the Council ask MCPS about the connection between recent increases in State or Federal funding and the expansion of specific programs designed to support improved achievement for these students.

Suggested Questions

1. To what extent do changes in student population account for changes in non-County revenue? What other factors account for revenue changes?
2. What does MCPS already know about the future trends in funding from the State and Federal governments, for example Bridge to Excellence funding in FY08? What plans does the agency have to respond to these changes?
3. MCPS receives additional Federal and State revenue in both unrestricted and earmarked funds to address the educational needs of low-income students, students with disabilities and English language learners. How do these non-County revenues compare to the overall costs of serving students with special needs? What revenues are anticipated in the future?

**Caveats on Indicator 2 Data**

Indicator 2 excludes State and Federal revenue that MCPS receives and deposits in Enterprise and Special Funds. The largest sum excluded is the State and Federal portions of funding for the School Food Service Fund, which in FY07 will total about \$16.3 million. For an understanding of trends in Federal and State Revenue overall, data on Enterprise and Special funds are needed.

Additionally, the Council should understand that the non-County revenue that MCPS receives based on its populations of low-income students, students with disabilities and English language learners are not all earmarked to exclusively serve these student groups. Federal and State policymakers increasingly understand the value of investing in school-wide strategies to improve the performance of students with special needs. As such, Bridge to Excellence dollars, and Title I funding at the school level, can be used to support both school-wide and targeted programs.

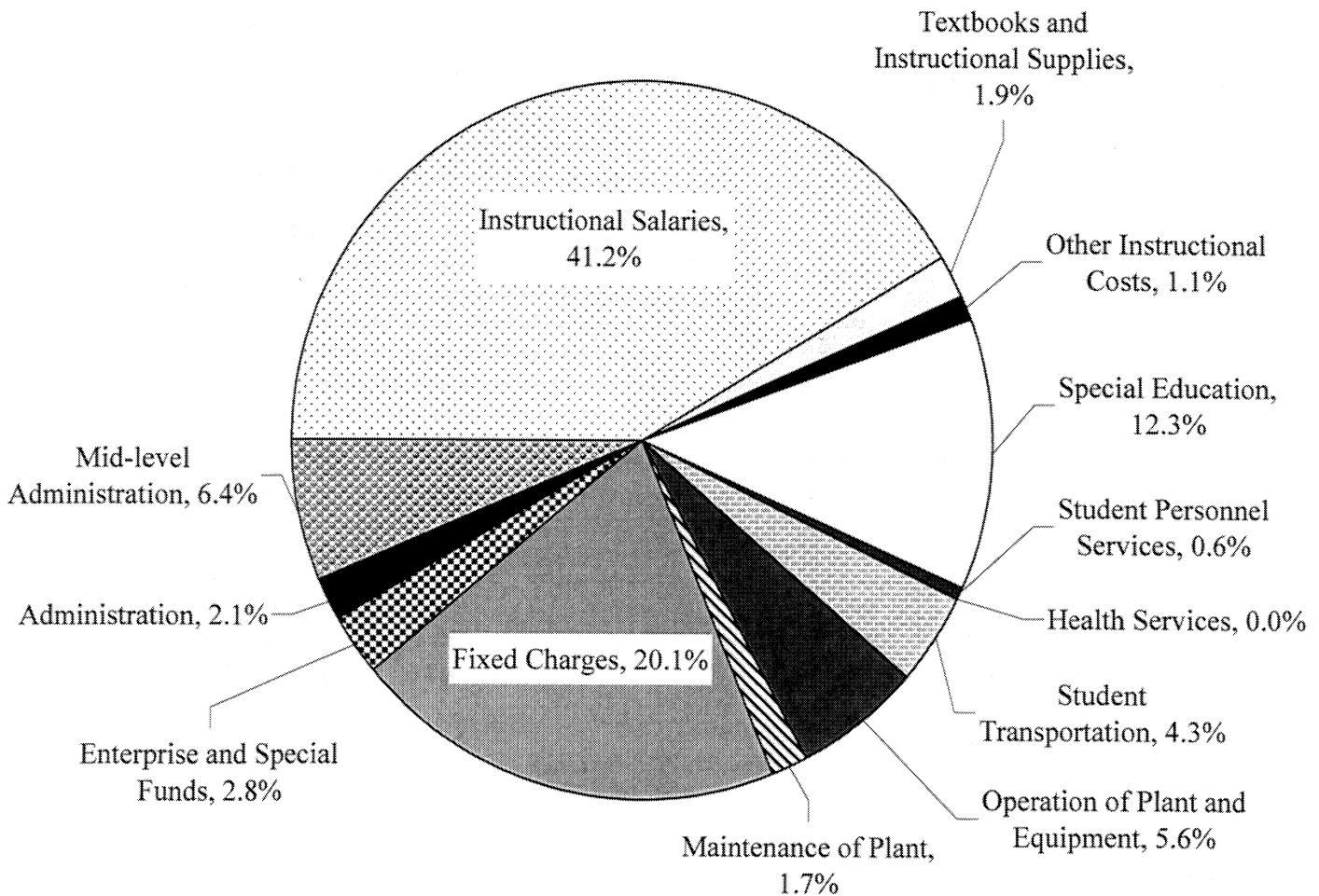
**INDICATOR 3: EXPENDITURES BY STATE BUDGET CATEGORY**

This indicator summarizes MCPS' expenditures by State budget category. State law requires the County Council to appropriate funds to MCPS according to standardized categories defined by the Maryland State Department of Education (MSDE). State law prohibits MCPS from reallocating expenditures across State budget categories without Council approval.

The FY07 data depicted in the graphic below are the dollar amounts appropriated by the Council in the different State budget categories. The table on the next page contains the FY07 budgeted amounts and MCPS' actual expenses by State budget category FY03-FY06. A table summarizing the expenses included in each category begins on page 33.

**Exhibit 4: MCPS Approved Budget by State Category, FY07**

Total: \$1,851 million



**Table 9: MCPS Expenditures by State Budget Category, FY03-FY07**

State Budget Categories		FY03	FY04	FY05	FY06	FY07	FY03-FY06 Change	
		(\$ in millions)					\$	Percent
1	Administration	30.2	30.4	31.9	34.7	38.3	4.5	14.9
2	Mid-level Administration	93.9	97.1	100.7	108.6	118.4	14.7	15.7
3	Instructional Salaries	634.5	659.2	693.6	724.7	763.2	90.2	14.2
4	Textbooks & Instructional Supplies	26.8	26.9	29	32.6	35.6	5.8	21.6
5	Other Instructional Costs	14.2	13.4	14.7	19.2	19.5	5	35.2
6	Special Education	165.4	182.2	199.8	212.2	227.8	46.8	28.3
7	Student Personnel Services	6.2	8.4	9.3	9.9	10.4	3.7	59.7
8	Health Services	*	*	*	*	*	*	*
9	Student Transportation	56	60.9	67	72.9	79.8	16.9	30.2
10	Operation of Plant and Equipment	78.6	80.4	84.3	90.3	104.1	11.7	14.9
11	Maintenance of Plant	26.1	25.5	27.4	29.1	30.7	3	11.5
12	Fixed Charges	233.3	266.4	302.2	328.4	371.5	95.1	40.8
	Enterprise and Special Funds	46.4	50.3	49.2	50.9	52.1	4.5	9.7
	<b>TOTAL</b>	<b>\$1,412.2</b>	<b>\$1,501.4</b>	<b>\$1,609.4</b>	<b>\$1,713.7</b>	<b>\$1,851.5</b>	<b>\$301.5</b>	<b>21.3%</b>

\* Annual appropriation for FY03 was \$40,434; FY04 was \$45,638; FY05 was \$45,378; for FY06 was \$45,378; and for FY07 was \$46,138. Health services expenditures increased 12 percent from FY03 - FY06.

**Key Findings:**

- The State categories of Instructional Salaries, Special Education, and Fixed Charges (i.e., employee benefits) are consistently the largest expense areas. Added together, these three categories account for almost three-fourths of all appropriations to MCPS.
- Between FY03 and FY06, MCPS' budget increased by \$301.5 million (21%). During this time, the largest dollar increases were in Instructional Salaries and Fixed Charges, which together accounted for \$185 million or 61 percent of the bottom-line growth in the budget.
- When examined separately, Instructional Salaries declined from 45 to 42 percent of the total MCPS operating budget. Conversely, Fixed Costs' share of the operating budget increased from 17 percent in FY03 to 19 percent in FY06.
- Between FY03 and FY06, the largest percent increase occurred in two expense categories. Specifically, Student Personnel Services increased by 60 percent and Fixed Charges (i.e., employee benefits) increased by 41 percent.

### **Recommended Issues/Questions for Council Discussion**

The information provided by Indicator 3 is especially relevant to the Council because as noted above, State law requires the County Council to appropriate funds to MCPS according to these standardized State budget categories. OLO recommends that the Council become more conversant with what sorts of expenses are contained in each category. This will improve the Council's understanding of the uneven increases across categories that are evident from the most recent five years of data. Because all school systems in Maryland report spending by the same State-defined budget categories, Indicator 3 also provides an opportunity for some comparative analysis.

#### Suggested Questions

1. What is the history of the State budget categories? How have they changed over time? Would MCPS prefer to see changes in how some of the categories are defined?
2. In general, what does MCPS' record show in terms of budgeted vs. actual spending by category? Are there categories for which a transfer of funds is more frequently requested?
3. What are the major factors that explain the significant differentials in percent growth between FY03 and FY06 across the State budget categories?
4. MCPS' spending on classroom instruction is spread across several categories, e.g., Categories 2-6 (Mid-level Administration, Instructional Salaries, Textbooks and Supplies, Other Instructional Costs and Special Education); Category 10: Operation of Plant; and Category 12: Fixed Charges. How can the Council calculate MCPS' total investment each year on classroom instruction for all students? How about for students with disabilities?

#### **Caveats on Indicator 3 Data**

MCPS' budget by State budget category is often not conducive to calculating the total costs of MCPS' activities. In particular, the State requirement to include all benefit costs for active and retired employees into a single category titled "Fixed Charges" means that the dollars allocated in the other categories reflect only the salary costs of the personnel involved, and not the total cost of compensation.

Another example of where the State budget categories can limit a full understanding of costs is in the area of information technology (IT). State law requires that centralized technology costs be included in State Category 1 – Administration. For MCPS, this refers to the costs of their Office of the Deputy Superintendent for Strategic Technologies and Accountability and its related departments. However, there are many IT investments beyond this centrally located office that are included in other State budget categories. For example, the computer on the principal's desk is in Category 2. Thus, IT costs from multiple State categories comprise MCPS' true IT costs.

**Overview of the State Budget Categories**

The table below summarizes the major expenses included in each State budget category, as set forth in the Maryland State Department of Education’s *Financial Reporting Manual for Maryland Public Schools*.

**Table 10: State Budget Category Definitions**

State Budget Category		Major Expenses
1	Administration	Salaries and operating expenses for: <ul style="list-style-type: none"> <li>• General Support Services (e.g. Board of Education and Executive Administration)</li> <li>• Business Support Services (e.g. Fiscal Services, Purchasing Services; Printing, Publishing, and Duplicating Services)</li> <li>• Centralized Support Services (e.g. Planning, Research, Development, and Evaluation Studies; Information Services, Human Resources Services; and Data Processing Services)</li> </ul>
2	Mid-level Administration	Salaries and operating expenses associated with Instructional Programs (see Category 3) including: <ul style="list-style-type: none"> <li>• Salaries for principals, assistant principals, secretaries and other school-based administrative staff in the Office of the Principal</li> <li>• Instructional Administration and Supervision, such as curriculum development and audiovisual services</li> </ul>
3	Instructional Salaries	Salaries of teachers, instructors, aides, librarians, guidance counselors, school psychologists, and others who work in Instructional Programs such as: <ul style="list-style-type: none"> <li>• Regular Programs (e.g. art, driver education and safety, mathematics, and science)</li> <li>• Special Programs (e.g. Gifted and Talented Programs and ESOL)</li> <li>• Career and Technology Programs</li> <li>• Staff Development</li> </ul>
4	Textbooks and Instructional Supplies	Textbooks and supplies for all Instructional Programs that are not Special Education related
5	Other Instructional Costs	Contracted services, travel, equipment, and fund transfers associated with Instructional Programs
6	Special Education	Salaries and operating expenses directly associated with special education including: <ul style="list-style-type: none"> <li>• Public, state, and non-public school instructional programs</li> <li>• Staff development, school-based administration (e.g. principals, assistant principals, clerical staff), and curriculum development</li> </ul>

**Table 10: State Budget Category Definitions (continued)**

State Budget Category		Major Expenses
7	Student Personnel Services	Salaries and operating expenses for school social workers and pupil personnel workers, whose activities include improving student attendance and providing casework services
8	Health Services	Salaries and operating expenses for school-based physical and mental health service providers. (In Montgomery County, the Department of Health and Human Services funds the majority of Health Services expenses.)
9	Student Transportation	Salaries and operating expenses (e.g. vehicle maintenance and fuel) to provide transportation for general and special education students, as well as student transportation for activities such as field trips, sports, and summer programs
10	Operation of Plant	Salaries and operating expenses for: <ul style="list-style-type: none"> <li>• Warehousing and Distributing Services (e.g. storing and distributing supplies, furniture, equipment, and mail)</li> <li>• Operating Services (e.g. utilities and insurance)</li> <li>• Supervision of Operation and Plant Services</li> <li>• Care and Upkeep of Grounds and Buildings (e.g. landscaping, maintenance of movable equipment, and custodial services)</li> <li>• Security Services (e.g. police services, traffic control)</li> </ul>
11	Maintenance of Plant	Salaries and operating expenses for: <ul style="list-style-type: none"> <li>• Supervision of Maintenance of Plant Services (e.g. salaries)</li> <li>• Upkeep of Grounds, Buildings, and Fixed Equipment (e.g. equipment maintenance and repair and meeting code requirements)</li> <li>• Vehicle Maintenance Services (only vehicles not used for student transportation)</li> </ul>
12	Fixed Charges	Costs “not readily allocable to other expenditure categories” including: <ul style="list-style-type: none"> <li>• Health insurance and benefits for active and retired employees</li> <li>• Loan interest</li> <li>• Tuition reimbursement for staff</li> </ul>
14	Community Services	Salaries and operating expenses for: <ul style="list-style-type: none"> <li>• Regular Community Services (e.g. community recreation, child care)</li> <li>• Non-Public, Non-Disabled, Student Transportation Services</li> <li>• Community Transportation Services</li> </ul>

## Category B – Major Budget Components and Cost Drivers

### INDICATOR 4: TAX SUPPORTED POSITIONS, SALARIES, & BENEFITS BY BARGAINING UNIT

This indicator provides data on the size of the tax supported workforce and the related cost of salaries and benefits. Tax supported expenditures are costs supported by unrestricted local and state tax dollars as compared to earmarked grants and enterprise funds. Tax supported positions represent approximately 90 percent of the MCPS workforce. Data for this indicator are presented for tax supported positions overall and for each of MCPS' three bargaining units:

- Montgomery County Education Association (MCEA);
- Service Employees International Union Local 500 (SEIU); and
- Montgomery County Association of Administrative and Supervisory Personnel (MCAASP)

Indicator 4 tracks the tax supported cost of salaries and benefits, number of positions, and average cost of salaries/benefits per position. Data are provided on four components of compensation for active employees: salaries; Social Security; group insurance (which includes medical, dental, vision, prescription drug, and life insurance); and retirement. The costs reported for benefits represent MCPS' costs, exclusive of the employees' contributions.

Indicator 4 provides data back to FY04, the first year that MCPS started keeping data on tax supported salaries and benefits by bargaining unit. This indicator reports actual salary and filled positions rather than budgeted salaries and positions approved by the Council. The table below lists the positions represented by each employee group. The tables and charts on the following pages incorporate data on the 22 "nonscheduled" employees into the MCAASP totals.

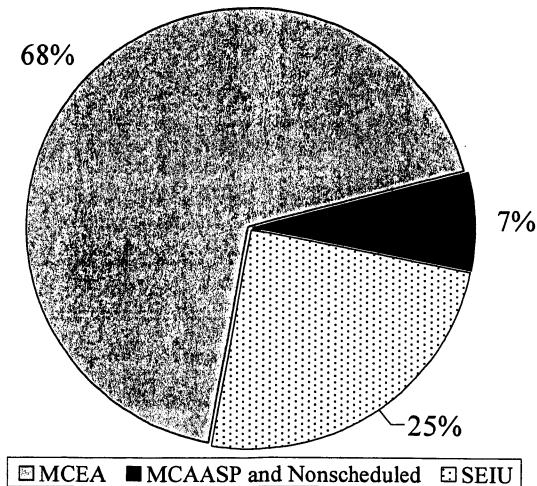
**Table 11: Tax Supported Positions by Bargaining Unit, FY07**

Group	Positions Represented	FY07 Filled Positions (FTEs)	Percent of Workforce
Montgomery County Education Association (MCEA)	Teachers, Instructional Specialists, Counselors, Pupil Personnel Workers, Speech Pathologists, Psychologists, and Social Workers	11,494.3	57.4
Service Employees International Union Local 500 (SEIU)	Paraeducators and Food Service, Building Service, Maintenance, Transportation (including Bus Operators and Mechanics), Security, Office, and Media/Technology Employees	7,806.8	39.0
Montgomery County Association of Administrative and Supervisory Personnel (MCAASP)	Central Office Administrators, Principals, Assistant Principals, and Student Support Specialists	705	3.5
Nonscheduled Employees	Superintendent; Chief Operating Officer; Deputy, Associate, and Community Superintendents	22	0.1
<b>TOTAL</b>		<b>20,028.1</b>	<b>100%</b>



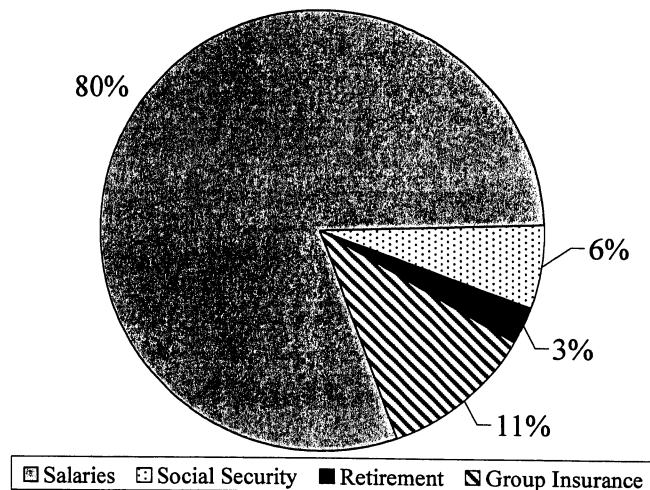
**Category B – Major Budget Components and Cost Drivers**

**Exhibit 5: Costs of Tax Supported Salaries and Benefits by Bargaining Unit, FY07\***



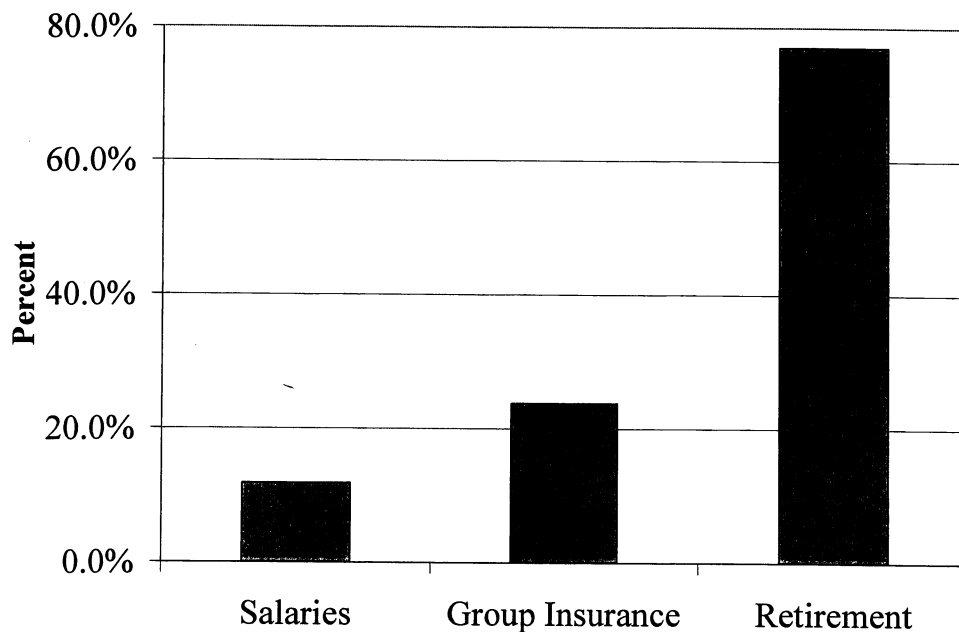
\* FY07 figures based on budget request.

**Exhibit 6: Distribution of Tax Supported Compensation Costs, FY07\***



\* FY07 figures based on budget request.

**Exhibit 7: Percent Increase in the Costs of Tax Supported Salaries, Group Insurance, and Retirement Contributions, FY04-FY06**





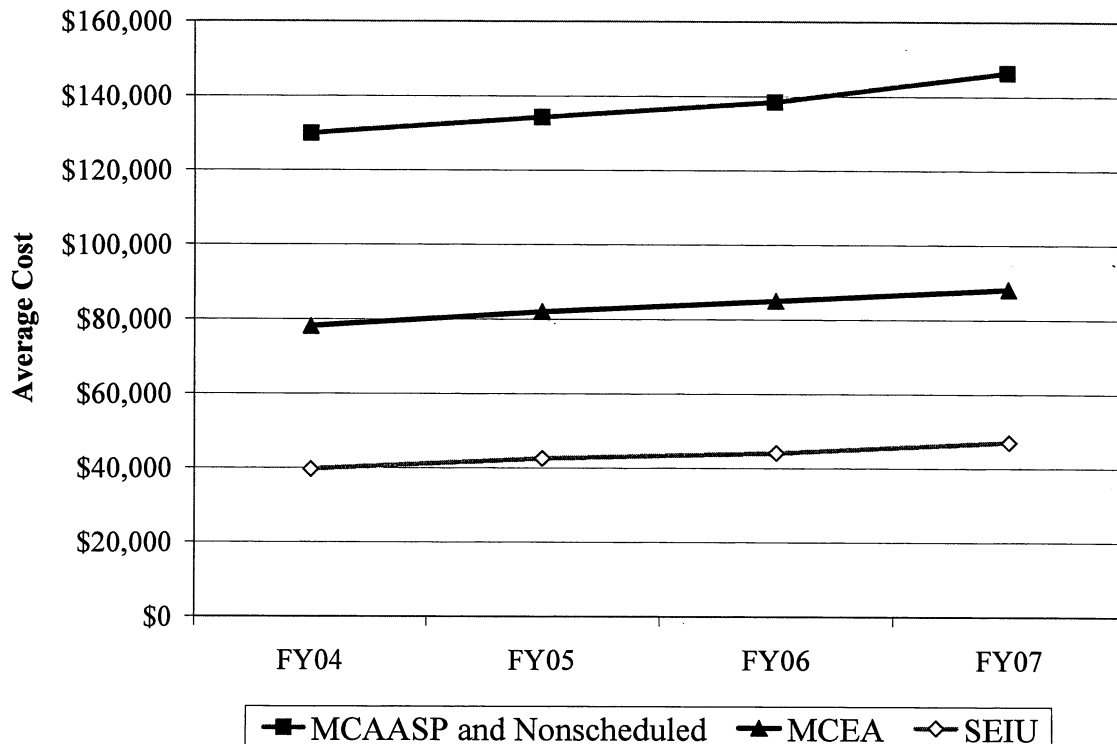
**Category B – Major Budget Components and Cost Drivers**

**Table 12: Tax Supported Salaries and Benefits by Bargaining Unit, FY03-FY07**

	FY04	FY05	FY06	FY07*	\$ Change FY04-06	% Change FY04-06
<b>Salaries and Benefits for Tax Supported MCPS Workforce (\$ in millions)</b>						
Salaries	\$1,000.0	\$1,058.5	\$1,118.5	\$1,191.2	\$118.5	11.9%
Social Security	\$75.4	\$79.0	\$83.6	\$89.2	\$8.2	10.9%
Group Insurance	\$116.3	\$134.2	\$144.0	\$164.0	\$27.7	23.8%
Retirement	\$19.9	\$27.7	\$35.2	\$42.6	\$15.3	76.9%
<b>TOTAL</b>	<b>\$1,211.6</b>	<b>\$1,299.4</b>	<b>\$1,381.2</b>	<b>\$1,487.0</b>	<b>\$169.6</b>	<b>14.0%</b>
<b>Salaries and Benefits by Bargaining Unit (\$ in millions)</b>						
MCEA members	\$842.2	\$900.1	\$953.5	\$1,013.6	\$111.3	13.2%
SEIU members	\$287.3	\$313.1	\$333.0	\$367.0	\$45.7	15.0%
MCAASP and Nonscheduled	\$82.1	\$86.2	\$94.8	\$106.4	\$12.7	15.5%
<b>TOTAL</b>	<b>\$1,211.6</b>	<b>\$1,299.4</b>	<b>\$1,381.2</b>	<b>\$1,487.0</b>	<b>\$169.6</b>	<b>14.0%</b>

\* FY07 figures based on budget request rather than adopted budget.

**Exhibit 8: Average Cost per Tax Supported FTE by Bargaining Unit, FY04-07**



**Category B – Major Budget Components and Cost Drivers**

**Table 13: Tax Supported Positions and Average Cost per FTE by Bargaining Unit, FY03-FY07**

	FY04	FY05	FY06	FY07*	Change FY04-06	% Change FY04-06
<b>Number of Filled Positions (FTEs) by Bargaining Unit</b>						
MCEA	10,778.6	10,972.5	11,213.20	11,494.3	434.6	4.0%
SEIU	7,254.7	7,368.4	7,553.50	7,806.8	298.8	4.1%
MCAASP and Nonscheduled	632.0	642.0	685.0	727.0	53.0	8.4%
Total Positions/FTE's	18,665.3	18,982.9	19,451.70	20,028.1	786.4	4.2%
<b>Average Cost per FTE by Bargaining Unit</b>						
MCEA	\$78,136	\$82,035	\$85,030	\$88,181	\$6,894	8.8%
SEIU	\$39,608	\$42,489	\$44,080	\$47,014	\$4,472	11.3%
MCAASP and Nonscheduled	\$129,886	\$134,247	\$138,410	\$146,329	\$8,524	6.6%

\* FY07 figures based on budget request rather than adopted budget.

**Key Findings:**

- The FY07 MCPS tax supported workforce consists of 20,028 filled positions (FTEs). MCEA represents 57 percent of the workforce; SEIU represents 39 percent of the workforce; and MCAASP represents 4 percent. Only 22 MCPS staff members are not represented by a bargaining unit.
- Salaries and benefits for active tax supported employees account for 80 percent of MCPS' total operating budget. The \$1.5 billion that MCPS is spending this year (FY07) on salaries and benefits for active employees is an increase of \$275.4 million compared to FY04.
- Between FY04 and FY06, the costs of the different components of tax supported salaries and benefits increased at notably different rates. Salaries increased 12 percent; group insurance costs increased 24 percent; and retirement contributions increased 77 percent.
- Between FY04 and FY06, the total number of MCPS tax supported positions increased by 786.4 FTEs. About 55 percent of these were positions represented by MCEA and 38 percent were positions represented by SEIU. The balance (7%) are represented by MCAASP.
- In FY07, the average cost per MCEA position is \$88,181. The average cost per SEIU position is \$47,014, and the average cost per MCAASP position is \$146,329. Between FY04 and FY06, the average cost per MCEA and MCAASP position increased 9 percent and 7 percent, respectively. The average cost per SEIU position increased 11 percent.

### Recommended Issues/Questions for Council Discussion

Salaries and benefits for tax supported employees represent the biggest portion of MCPS' operating budget and the single largest cost driver of the agency's annual budget increases. As a result, OLO recommends that the Council invest time in becoming familiar with the various components of Indicator 4, paying particular attention to understanding how the different elements of compensation (e.g., salary, group insurance and retirement) drive MCPS' annual requests for additional funds.

Adjustments to tax supported salaries and benefits reflect changes in the costs associated with funding MCPS' negotiated agreements for current employees, as well as the costs of hiring new staff. OLO recommends the Council review how much of the increase in MCPS' budget from year to year is due to higher costs associated with current employees vs. increased expenditures associated with expanding the workforce.

### Suggested Questions

1. Of the increases in the costs of tax supported positions since FY04, what proportion is explained by higher costs of salaries/benefits for the current workforce vs. the cost of adding additional staff? Does this answer differ by bargaining unit?
2. MCPS awards step increases based on increasing experience. Are changes in productivity associated with step increases? If so, what changes/improvements in employee productivity have resulted from the increasing cost of salaries and benefits associated with step increases since FY04? What changes are anticipated in the future?
3. What explains the 77 percent increase in the County's retirement contributions for active tax supported employees between FY04 and FY06? What are MCPS' estimates of the agency's retirement costs for the next three to five years?
4. What strategies has MCPS undertaken in recent years to contain costs of employee benefits and with what effect? Are there additional strategies planned going forward?

### **Caveats on Indicator 4 Data**

Indicator 4 excludes the cost of salaries and benefits for MCPS positions that are supported through budgeted grants and enterprise funds because FY04 to FY06 data for this employee group was not readily available. More specifically, positions, salaries and benefits for employees supported with Food Service funds are excluded for this indicator. According to MCPS, approximately 10 percent of its workforce is employed in non-tax supported positions. As such, additional data is needed to consider trends in the cost of MCPS salaries and benefits overall.

Additionally, the annual costs of tax supported salaries/benefits underestimates the total costs of employee compensation because it excludes the liability associated with retiree health benefits as well as the costs of other employee benefits, such as tuition assistance. It also does not capture the total public sector cost of benefits because it excludes the State's significant contribution to the annual cost of teacher pensions.

**Category B – Major Budget Components and Cost Drivers**

**INDICATOR 5: STARTING AND AVERAGE SALARIES FOR TEACHERS, PARAEDUCATORS, BUS OPERATORS, AND PRINCIPALS**

This indicator tracks five years of data (FY03–FY07) on starting and average salaries for four MCPS positions: teachers, paraeducators, bus operators, and principals. Added together, these four positions represent about two-thirds of the MCPS workforce. This indicator describes data on actual salaries and positions rather than budgeted data.

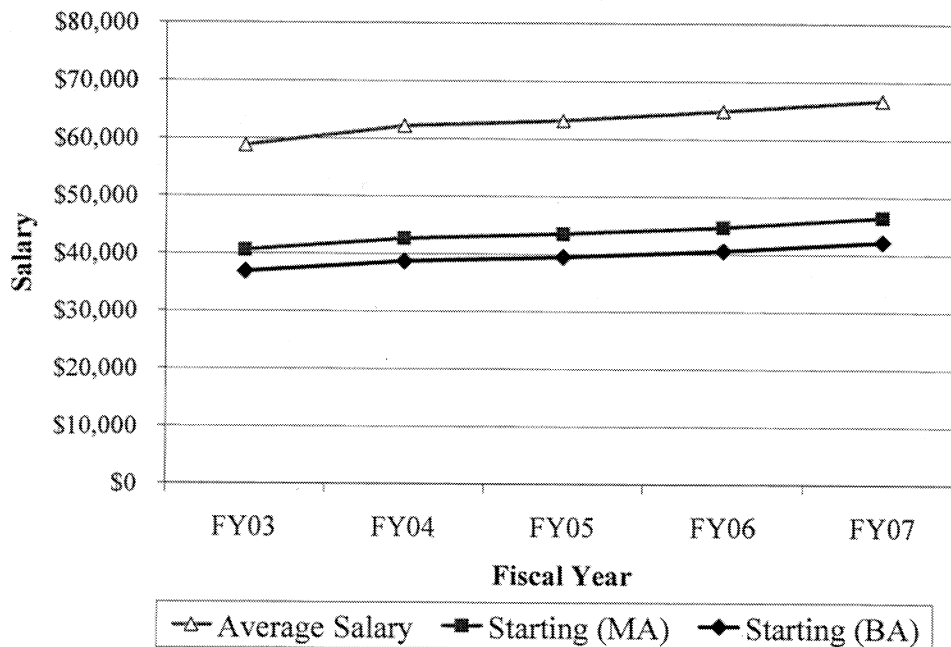
Indicator 5 also provides comparative data on FY06 teacher salaries, as published by the Washington Area Boards of Education and the Maryland State Department of Education.

**Table 14: Description of Selected MCPS Positions, FY07**

Position	Pay Grades	Salary Range*	Number of Filled Positions
Teachers – 10-month positions	A-D	\$42,176 to \$92,107	12,331
Paraeducators – Regular and special education; 10-month positions	11-12	\$23,648 to \$34,336	2,264
Bus Operators – 10-month positions	9	\$21,858 to \$29,579	1,175
Principals – Elementary, middle, and high school; 12-month positions	O-Q	\$91,484 to \$130,521	193

\* Each position may earn additional longevity pay that is not reflected in the salary range. See page 43 for details.

**Exhibit 9: Starting and Average MCPS Teacher Salaries, FY03-FY07**



**Category B – Major Budget Components and Cost Drivers**

**Table 15: Starting and Average Salaries and Number of Positions (Full Time Equivalents) for Selected MCPS Positions, FY03-FY07\***

	FY03	FY04	FY05	FY06	FY07	Change FY03-FY06	
						#	%
<b>Teachers</b>							
<b>Starting Salary</b>							
<i>Bachelor's Degree</i>	\$36,841	\$38,683	\$39,457	\$40,542	\$42,176	\$3,701	10.0%
<i>Master's Degree</i>	\$40,588	\$42,617	\$43,468	\$44,663	\$46,463	\$4,075	10.0%
<b>Average Salary</b>	\$58,758	\$62,156	\$63,131	\$64,852	\$66,740	\$6,094	10.4%
<b>Number of Positions</b>	10,363.3	10,394.5	10,555.0	10,785.4	11,062.0	422.1	4.1%
<b>Paraeducators</b>							
<b>Starting Salary</b>							
<i>Regular</i>	\$21,290	\$21,842	\$22,145	\$22,635	\$23,648	\$1,345	6.3%
<i>Special Education</i>	\$22,142	\$22,688	\$23,030	\$23,538	\$24,736	\$1,396	6.3%
<b>Average Salary</b>	\$26,566	\$26,863	\$29,159	\$30,366	\$31,813	\$3,800	14.3%
<b>Number of Positions</b>	1,401.5	1,464.8	1,520.4	1,575.9	1,660.5	174.4	12.4%
<b>Bus Operators</b>							
<b>Starting Salary</b>	\$19,552	\$20,043	\$20,339	\$20,787	\$21,858	\$1,235	6.3%
<b>Average Salary</b>	\$25,066	\$25,173	\$26,275	\$26,892	\$28,082	\$1,826	7.3%
<b>Number of Positions</b>	1,008.1	986.8	991.9	993.2	995.4	-14.9	-1.5%
<b>Principals**</b>							
<b>Starting Salary</b>							
<i>Elementary Schools</i>	\$81,800	\$84,254	\$85,939	\$87,758	\$91,484	\$9,684	11.8%
<i>Middle Schools</i>	\$85,890	\$88,467	\$90,236	\$93,243	\$97,202	\$7,353	8.6%
<i>High Schools</i>	\$92,450	\$95,224	\$97,128	\$99,071	\$103,034	\$6,621	7.2%
<b>Average Salary</b>	\$107,656	\$109,600	\$112,505	\$114,251	\$114,123	\$6,595	6.1%
<b>Number of Positions</b>	184.0	184.0	182.0	188.0	193.0	4.0	2.2%

\* This table describes actual salaries and positions filled by full time equivalents rather than budgeted salaries or positions.

\*\* Principals not included: Edison High School of Technology, Principals at Special Schools and Principals on Special Assignment

**Category B – Major Budget Components and Cost Drivers**

**Table 16: Maryland and Metropolitan Area School Systems Starting and Average Teacher Salary, FY06**

School District	Starting Salary Rank	Starting Teacher Salary	Average Salary Rank	Average Teacher Salary
<b>Maryland State Department of Education</b>				
Montgomery County	1	\$40,542	1	\$63,930
Charles County	2	\$38,685	13	\$50,526
Calvert County	3	\$38,500	2	\$59,307
St. Mary's County	4	\$38,406	5	\$53,404
Prince George's County	5	\$38,307	4	\$53,976
Talbot	6	\$38,100	14	\$50,427
Washington	7	\$37,708	18	\$49,908
Howard County	8	\$37,653	3	\$56,898
Baltimore County	9	\$37,206	10	\$52,536
Queen Anne's County	10	\$37,000	20	\$48,533
Cecil County	11	\$36,862	17	\$49,948
Harford County	12	\$36,374	16	\$50,014
Frederick County	13	\$36,351	6	\$53,271
Anne Arundel County	14	\$36,339	11	\$52,453
Dorchester County	15	\$36,207	7	\$53,054
Carroll County	16	\$36,051	8	\$52,827
Worcester	17	\$35,903	12	\$51,014
Baltimore City	18	\$35,672	15	\$50,092
Wicomico	19	\$35,320	19	\$49,714
Caroline County	20	\$35,183	21	\$48,345
Kent County	21	\$35,050	9	\$52,792
Somerset	22	\$32,608	24	\$45,973
Garrett County	23	\$32,144	22	\$47,858
Allegany County	24	\$31,579	23	\$47,173
<b>Washington Area Boards of Education</b>				
Arlington County	1	\$40,816	1	\$66,295
Montgomery County	2	\$40,542	2	\$64,725
Fairfax County	3	\$40,000	4	\$60,201
Loudon County	4	\$39,600	6	\$56,932
Prince George's County	5	\$39,438	8	\$52,855
Manassas City	6	\$37,933	7	\$56,063
Falls Church	7	\$37,667	5	\$59,998
Prince William County	8	\$37,615	9	\$51,607
Alexandria City	9	\$35,563	3	\$62,536

## Category B – Major Budget Components and Cost Drivers

### Key Findings:

- Approximately 11,000 teachers are currently employed by MCPS and account for approximately 53 percent of the school system's workforce. Between FY03 and FY06, MCPS added 422 teachers to the payroll, with a larger number added in each subsequent year: 31 in FY04, 161 in FY05, and 230 in FY06.
- Over the past four years, the number of paraeducator positions (FTE's) in the MCPS workforce grew from 1,401.5 in FY03 to 1,575.9 in FY06, an increase of 12 percent. Comparatively, the number of bus operators decreased by two percent from 1,008 in FY03 to 993 in FY06.
- From FY03 to FY06, the starting salary for teachers increased 10 percent, from \$36,841 to \$40,542 for teachers with a Bachelor's degree; and from \$40,588 to \$44,663 for teachers with a Master's degree. Starting salaries for principals increased 7-12 percent, depending on grade. Starting salaries for paraeducators and bus operators increased about six percent.
- The average teacher salary increased 10 percent, from \$58,758 to \$64,852 between FY03 and FY06. In comparison, the average salary for bus drivers increased seven percent, the average salaries for principals increased six percent, and average salaries for paraeducators increased about 14 percent.
- There are two sources of readily available data on teacher salaries in the region: the Washington Area Boards of Education (WABE) and the Maryland State Department of Education (MSDE). WABE data published for FY06 rank Montgomery County's starting and average teacher salaries as the second highest among the nine reporting school districts. MSDE data published for FY06 rank Montgomery County's teacher salaries as the highest in Maryland.
- WABE data for FY06 rank Fairfax County third, right below Montgomery County. Specifically, the starting teacher's salary in Montgomery County was \$542 higher than the starting teacher's salary in Fairfax County; the average teacher's salary in Montgomery County was \$4,524 higher than the average teacher's salary in Fairfax.

### Recommended Issues/Questions for Council Discussion:

OLO recommends the Council use the data in Indicator 5 to provide another vantage point to understand increases in MCPS' compensation costs. Changes in starting and average salaries are a function of multiple factors, including pay adjustments contained in MCPS' bargaining agreements, the number of approved positions (FTEs), the number of experienced teaching staff that command higher salaries than new hires, and turnover. In terms of turnover, changes over time also reflect where new staff members start on position salary scales.



## **Category B – Major Budget Components and Cost Drivers**

### Suggested Questions

1. Which school districts are MCPS' strongest competitors for high quality staff? Does this vary depending on the type of position?
2. How many qualified applicants does MCPS receive for each posted vacancy for the four positions considered here? Has this number changed in recent years?
3. How do the changes in both starting and average salaries compare to the rate of inflation since FY03? What accounts for the higher level of average salary increase among teachers and bus drivers compared to principals and paraeducators?
4. What is the annual level of turnover for each position group? To what extent does turnover help explain the trends in average salaries? Have increases in average salaries helped to mediate problems of turnover? In particular, among teachers, what impact, if any, have increases in average salaries had on reducing turnover in high need areas such as special education and English as a second language?
5. What proportion of staff across the four position categories are near or at the top of scale? What percent of these employee groups are expected to retire with the next 5 years? Alternately, what proportions of staff by position are near or at the bottom of their respective position's scale?

### **Caveats on Indicator 5 Data**

The schedules of salary ranges for positions referenced by this indicator do not reflect the end range for those earning longevity pay. Principals earn \$1,500 annually in longevity pay after 5 years of consecutive MCPS service and \$3,000 after 10 years. Teachers at Step 19 for six years earn an annual longevity payment of 2.25 percent. And SEIU members that include bus operators and paraeducators receive longevity pay based on seniority after 10, 14, and 18 years. To understand salaries at the highest end of the salary range, additional data are needed.

The Council should also note that salary is only one component of employee compensation. Comparing salaries across jurisdictions is not the same as comparing total compensation. Further, salary data alone does not capture changes in tenure or scope of responsibilities for the positions considered that may help to explain changes over time.

Additionally, because average salary calculations are influenced by so many factors (e.g., number of employees, longevity of employees, starting salaries of new hires, turnover), interpreting changes over time requires substantial analysis. In some cases, changes in average salaries across fiscal years may be analogous to comparing "apples to oranges."



## Category B – Major Budget Components and Cost Drivers

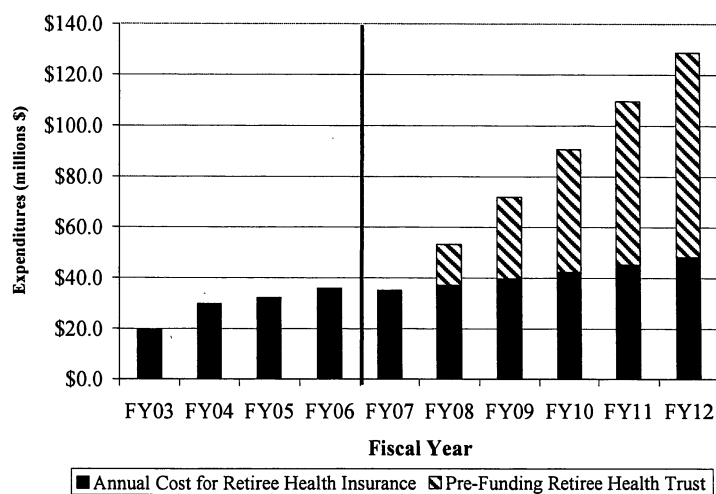
### INDICATOR 6: EXPENDITURES FOR RETIREE HEALTH BENEFITS

This indicator tracks the costs of health benefits provided to eligible MCPS retirees and their dependents. Indicator 6 includes:

- Annual FY03-FY07 pay-as-you-go costs of MCPS retiree health benefits; and
- Estimated annual FY08-FY12 pay-as-you-go costs of MCPS retiree health benefits plus contributions to the MCPS Retiree Health Trust Fund.

Beginning in FY08, similar to other County-funded agencies, MCPS plans to make payments into a Retiree Health Trust Fund, which responds to Government Standards Accounting Board standards for the disclosure of the long-term liability related to retiree health benefits. Between FY08-FY12, MCPS plans to increase its annual Trust Fund contributions to \$128.8 million; this amount (\$128.8 million) then becomes the annual contribution MCPS must make going forward to meet its future liability, estimated (as of July 2006) to total \$1.3 billion.

**Exhibit 10: MCPS Retiree Health Benefits Actual Costs (FY03-FY06) and Estimated Costs (FY07-FY12)**



**Table 17: Retiree Health Benefit Costs, FY03-FY12 (\$ in millions)**

	FY03	FY04	FY05	FY06	FY07
<b>Cost of Retiree Health Benefits</b>	\$19.7	\$29.9	\$32.2	\$35.9	\$35.1
Cost of All Benefits (for active and retired)	\$233.3	\$266.4	\$302.2	\$328.4	\$371.5
Retiree Health as Percent of All Benefits	8.4%	11.2%	10.7%	10.9%	9.4%
Number of Retirees	5,753	5,969	6,199	6,399	6,595
<b>Estimated Future Costs</b>	<b>FY08</b>	<b>FY09</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>
<b>Estimated Annual Cost of Retiree Health Benefits and Trust Fund Contribution</b>	\$53.2	\$71.9	\$90.7	\$109.6	\$128.8
Estimated Cost of Retiree Health Insurance	\$37.1	\$39.7	\$42.4	\$45.2	\$48.3
Estimated Trust Fund Contribution	\$16.1	\$32.2	\$48.3	\$64.4	\$80.5

## Category B – Major Budget Components and Cost Drivers

### Key Findings:

- Between FY03 and FY06, the annual costs of MCPS' retiree health benefits increased 82 percent from 19.7 to 35.9 million. During this time, the costs of retiree health, as a percent of the total cost of benefits (for active and retired employees), increased from 8 to 11 percent.
- MCPS' annual costs related to retiree health benefits will rise substantially in the coming years due to increasing costs of health care plus annual MCPS payments into the Retiree Health Trust Fund. It is estimated that MCPS' annual expenses related to retiree health will more than double, increasing from \$53.2 million in FY08 to \$128.8 million in FY12.
- The Council appropriates funds for MCPS' employee benefits in the State budget category titled "Fixed Costs." The increasing costs of retiree health benefits will mean that the category of Fixed Costs will consume a growing percent of MCPS' total operating budget.

### Recommended Issues/Questions for Council Discussion

The increasing costs of retiree health benefits, including the payments required to fund the Retiree Health Trust, is not an issue that is unique to the school system. OLO recommends that the same questions that the Council poses to MCPS about controlling the future costs of retiree health benefits should be posed to all of the County-funded agencies.

### Suggested Questions

1. How many current retirees and dependents are eligible for retiree benefits? What proportion participates in MCPS' current plan? What level of participation is anticipated in the future?
2. How are the levels and packages for retiree benefits determined? How many years of service are required for an employee to be eligible for retiree health benefits? For dependents?
3. What strategies has MCPS undertaken in recent years to control the agency's costs of retiree health benefits? What has been the impact of these strategies?
4. How has knowledge of MCPS' anticipated large annual payments into the Retiree Health Trust Fund influenced the way MCPS is developing its annual budget request?

### Caveats on Indicator 6 Data

This indicator is based on a five year ramp up for MCPS to make its annual required contribution of \$128.8 million into the Retiree Health Trust Fund. If MCPS' shortens or extends its ramp up period, then the estimated future costs would change. Estimates of future retiree health costs are also based on assumptions about the number of beneficiaries and the future costs of health care. A change in assumptions can make a significant change in actual costs.

Additionally, as noted above, annual costs of retiree health benefits should not be confused with MCPS' long-term liability associated with providing these benefits. The Actuarial Accrued Liability (the best available measure of MCPS' future obligations) shows that, as of July 1, 2006, MCPS' liability for providing future retiree health benefits is \$1.3 billion.

## Category B – Major Budget Components and Cost Drivers

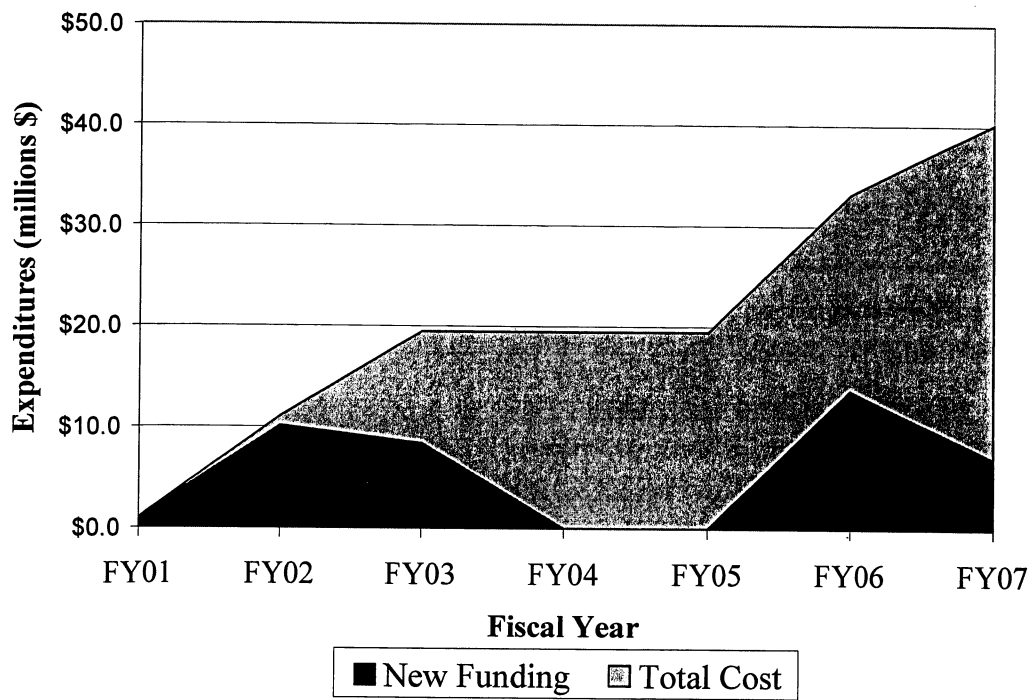
### INDICATOR 7: MULTI-YEAR COSTS OF SELECTED MCPS INITIATIVES

This indicator estimates the costs of three major MCPS initiatives implemented since FY01. In addition to reflecting what it has cost to implement selected MCPS priorities, this indicator demonstrates how multi-year initiatives carry both “new” and “continuing” program costs. The three programs tracked by Indicator 7 are:

- **Class size reduction**, which added 523 positions to MCPS between FY01 and FY07 to reduce class sizes for elementary and secondary schools, grades K-2 and special education, and to reduce the number of combination classes;
- **Special education enhancements**, which added 238 positions between FY01 and FY07 to improve special education programming and access to the least restrictive environment for students with disabilities;
- **Elementary school assistant principals**, which added 33 new assistant principal positions between FY02 and FY07 for elementary schools that did not have one before.

For each initiative, Indicator 7 provides data on new funds appropriated annually plus the continuing costs of delivering the same services previously approved. For simplicity, same service or “continuing” program costs assume constant costs of service delivery, i.e., no inflationary adjustment. The annual “total initiative cost” for each initiative is then calculated as same service funding plus any program expansion costs provided in MCPS’ approved budget.

**Exhibit 11: New and Estimated Total Funding for the Selected Initiatives, FY01-FY07**



**Category B – Major Budget Components and Cost Drivers**

**Table 18: Estimated Costs for the Three Selected Initiatives, FY01-FY07  
(\\$ in millions)**

	FY01	FY02	FY03	FY04	FY05	FY06	FY07	TOTAL
<b>Class Size Reduction</b>								
New Funds	0.9	5.9	7.5	0.0	0.0	9.5	1.6	25.4
Same Service	0.0	0.9	6.8	14.3	14.3	14.3	23.8	74.4
<b>Total Costs</b>	<b>\$0.9</b>	<b>\$6.8</b>	<b>\$14.3</b>	<b>\$14.3</b>	<b>\$14.3</b>	<b>\$23.8</b>	<b>\$25.4</b>	<b>\$99.8</b>
<b>Special Education Enhancements</b>								
New Funds	0.1	4.2	0.9	0.0	0.0	3.0	3.8	12.0
Same Service	0.0	0.1	4.3	5.2	5.2	5.2	8.2	28.2
<b>Total Costs</b>	<b>\$0.1</b>	<b>\$4.3</b>	<b>\$5.2</b>	<b>\$5.2</b>	<b>\$5.2</b>	<b>\$8.2</b>	<b>\$12.0</b>	<b>\$40.2</b>
<b>New Elementary School Assistant Principals</b>								
New Funds		0.3	0.0	0.0	0.0	1.2	1.6	3.1
Same Service		0.0	0.3	0.3	0.3	0.3	1.5	2.7
<b>Total Costs</b>		<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>\$1.5</b>	<b>\$3.1</b>	<b>\$5.8</b>
<b>Three Initiatives</b>								
New Funding for All Three	1.0	10.4	8.4	0.0	0.0	13.7	7.0	40.5
<b>Total Cost for All Three</b>	<b>\$1.0</b>	<b>\$11.4</b>	<b>\$19.8</b>	<b>\$19.8</b>	<b>\$19.8</b>	<b>\$33.5</b>	<b>\$40.5</b>	<b>\$145.8</b>

**Key Findings:**

- Since FY01, the Council appropriated \$40.5 million in new funds for the three initiatives selected: class size reduction, special education enhancement, and elementary assistant principals.
- Between FY02 and FY07, the total cost of these three initiatives was \$145.8 million. This amount is equal to \$105.3 million in continuing program costs on top of the \$40.5 million in new funding.
- For multi-year initiatives, same service and total program costs considerably exceed new funding appropriations. For example, between FY01 and FY07, new funding for class size reductions amounted to \$25.4 million compared to continuing costs of \$74.4 million.
- Even in years when no new programs or program expansions are funded, the cost of continuing earlier investments accumulates. For example, even with no new funding approved in either FY04 and FY05, another \$19.8 million was spent each year to continue class size reduction and special education initiatives begun in previous years and to retain the elementary assistant principals hired in FY02.

## Category B – Major Budget Components and Cost Drivers

### Recommended Issues/Questions for Council Discussion

MCPS' annual budget submission typically focuses on the new funds requested to begin a new program or to expand an existing one. After new funding is appropriated, new staff are hired and an initiative is either implemented or expanded. In subsequent years, the continuing cost of the program moves to the base budget, and often "disappears" from the Council's annual budget review. As a result, the total multi-year cost of most new programs is rarely tracked.

OLO recommends that the Council's annual budget review include updates and inquiries related to total program costs, with requests for new program funding analyzed within the context of multi-year costs. In addition to asking about the continuing costs of programs implemented in previous years, the Council should ask MCPS for data describing the projected budgetary impact of proposed initiatives going forward. Beyond understanding the total costs of a program, this sort of inquiry affords the Council an opportunity to ask about the effectiveness and return on investment of specific funded initiatives.

OLO notes that MCPS appears headed in the direction of providing more multi-year budget information. In particular, the recently released Middle School Reform Report includes budget projections for realigning resources, additional resources needed, and the cost of same service delivery, for the next three fiscal years (FY08 to FY10). Additionally, MCPS' *Program Budget* includes some multi-year tracking of initiatives, such as Full Day Kindergarten. MCPS staff report that the agency's new financial management system will have the capacity to track the costs of specific initiatives over multiple years.

### Suggested Questions

1. Does MCPS plan to include the multi-year costs of programs in future operating budget submissions?
2. What are the specific goals for each of the three initiatives tracked by Indicator 7? Does MCPS believe the investments being made are successfully achieving these goals? To the extent that these goals are not being reached, what steps are being taken to redirect resources to more effective uses?
3. What are the anticipated long-term costs of each of these initiatives? What outcomes are expected as a result and when?

### **Caveats on Indicator 7 Data**

This indicator describes trends in the estimated costs of the selected initiatives rather than the actual costs of the selected initiatives. MCPS' current financial management system does not track the multi-year cost of new programs. As such, OLO's estimates of continuing program costs rely on an assumption of constant costs that may either under or over-estimate the actual costs of the selected initiatives considered. MCPS' new financial management system will be able to track multi-year costs of new programs.

## Category B – Major Budget Components and Cost Drivers

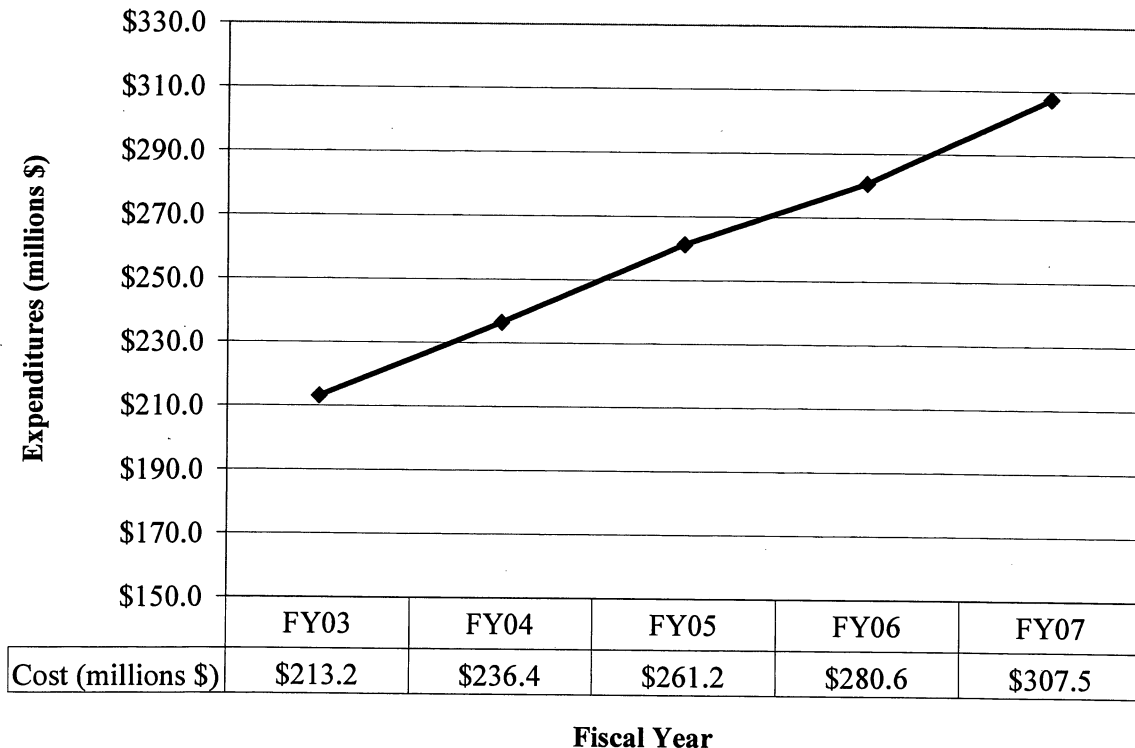
### INDICATOR 8: SPECIAL EDUCATION COSTS

This indicator tracks the costs of delivering special education and related services such as occupational therapy to students with disabilities. FY03-FY06 data reflect actual costs and FY07 data reflect budgeted costs. These special education costs are in addition to the general education costs of serving students with disabilities in inclusive settings. Indicator 8 also reports the numbers of students with disabilities enrolled in MCPS schools and Non-Public Placements.

The five-year trend data track changes in special education costs in five categories:

- K-12 Services<sup>1</sup> – the cost of operations and assessments, instruction, counseling, and other services for children with disabilities age 6-21;
- Early Intervention and Preschool Services<sup>2</sup> – the cost of operations and services for children with disabilities age 0-5;
- Non-Public Placements – the cost of serving students with disabilities in private schools at public expense;
- Transportation – the cost of transporting students with disabilities to school; and
- Special Education Benefits – the estimated cost of benefits for staff who deliver special education and transportation services to students with disabilities.

**Exhibit 12: Special Education Costs, FY03-FY07**



<sup>1</sup> Includes funding for the Office of the Special Education Associate Superintendent, the Department of Special Education Operations, the Division of School Based Services, Special Schools and Department of Student Services

<sup>2</sup> Includes funding for Division of Preschool Special Education and Related Services and Home and School Based services for Infants, Toddlers, Preschooler with Disabilities (IDEA Education)

**Category B – Major Budget Components and Cost Drivers**

**Table 19: Special Education Expenditures and Enrollment, FY03-FY07**

Special Education Expenditures	FY03	FY04	FY05	FY06	FY07	FY03	FY04	FY05	FY06	FY07
	Expenditures (\$ in millions)					Percent of Operating Budget				
K-12 Services	105.8	127.5	138.3	149.6	165.0	8	9	9	9	9
Early Intervention and Preschool Services	32.0	23.0	26.0	29.1	30.1	2	2	2	2	2
Non-Public Placements	27.6	31.7	34.5	33.5	32.7	2	2	2	2	2
Transportation <sup>3</sup>	21.3	23.3	26.3	28.4	32.3	2	2	2	2	2
Estimated Benefits <sup>4</sup>	26.5	30.9	36.1	40.0	47.4	2	2	2	2	3
<b>TOTAL</b>	<b>\$213.2</b>	<b>\$236.4</b>	<b>\$261.2</b>	<b>\$280.6</b>	<b>\$307.5</b>	<b>15%</b>	<b>16%</b>	<b>16%</b>	<b>16%</b>	<b>17%</b>
Student in:	Number of Students with Disabilities**					Percent of MCPS-Funded Students				
MCPS Facility	17,013	17,334	17,628	17,700	17,218	12	13	13	13	12
Non-Public Placement	674	649	645	621	591	1	1	1	*	*
<b>TOTAL</b>	<b>17,687</b>	<b>17,983</b>	<b>18,273</b>	<b>18,321</b>	<b>17,809</b>	<b>13%</b>	<b>13%</b>	<b>13%</b>	<b>13%</b>	<b>13%</b>

\*Value is less than one percent.

\*\* FY07 numbers of students are an unofficial count; Non-Public Placements are not included in total MCPS enrollment.

**Key Findings:**

- Between FY03 and FY06, special education costs increased by \$67.3 million (32%) from \$213.2 million to \$280.6 million. As a portion of the MCPS budget, special education increased from 15 to 16 percent between FY03 and FY06.
- In FY06, the total number of students with disabilities enrolled and MCPS schools and served in non-public placements was approximately 18,321 which is 634 more students than in FY03. During this time, students with disabilities consistently accounted for about 13 percent of all students whose education is funded through MCPS.
- Between FY03 and FY06, the costs of K-12 operations and related services increased 41 percent, the cost of early intervention and preschool services decreased by nine percent, and the cost of transportation increased 33 percent. From FY05 and FY06, the cost of Non-Public Placements decreased by \$1 million (3%).

<sup>3</sup> Special education transportation costs for FY03 estimated based on 1.6 percent of total MCPS FY03 operating budget.

<sup>4</sup> Costs of benefits for salaries included in State Budget Category 6 and for special education transportation are estimated as 18.2 percent of salary costs in FY03, 19.0 percent of salaries in FY04; 20.5 percent of salaries in FY05; 21.1 percent of salaries in FY06 and 22.3 percent of salaries in FY07.

## Category B – Major Budget Components and Cost Drivers

### Recommended Issues/Questions for Council Discussion

The County Council has consistently paid close attention to service provision for students with disabilities. Because the expenses captured by Indicator 8 exclude the general education costs associated with serving students with disabilities, OLO recommends the Council inquire about the total costs of serving this cohort of students (see Indicator 11 for OLO's estimate of actual costs per K-12 student with disability).

A related issue that OLO recommends the Council pursue is the connection between special and general education costs that support improved achievement and reduce the over-representation of minority students in special education. This is because investments that increase the capacity of general education classes to serve all learners may decrease the costs for special education.

### Suggested Questions

1. What are the major factors that account for the increasing costs in special education? What is, for example, the division among increased costs of compensation for existing staff, new staff or programs, and the changing needs of students with disabilities?
2. What are the MCPS data trends with respect to the over-representation of minority students in special education? What programs are being funded to address this issue?
3. What accounts for the changing numbers of students in Non-Public Placements?
4. What cost efficiencies have been implemented to control increasing costs of special education? What cost efficiencies might be achieved in the future?

### **Caveats on Indicator 8 Data**

Data on the benefit costs associated with special education are based on OLO's estimates of benefit costs rather than on actual costs. As such, actual special education costs may vary according to the accuracy of this estimated special education cost component.

Further, this indicator excludes special education costs funded by non-special education sources. For example, staff development for special educators and psychological services for students receiving pre-intervention services that are funded in State Budget Category 3 (Instruction) are excluded from our calculations. OLO's 2004 *Analysis of MCPS' Special Education Spending: Part I*, provides more specific examples of non-special education funded costs that should be included in more comprehensive calculations of special education costs.

Lastly, as noted above, Indicator 8 excludes the general education costs of serving students with disabilities. This cost component per student is estimated in Indicator 11.



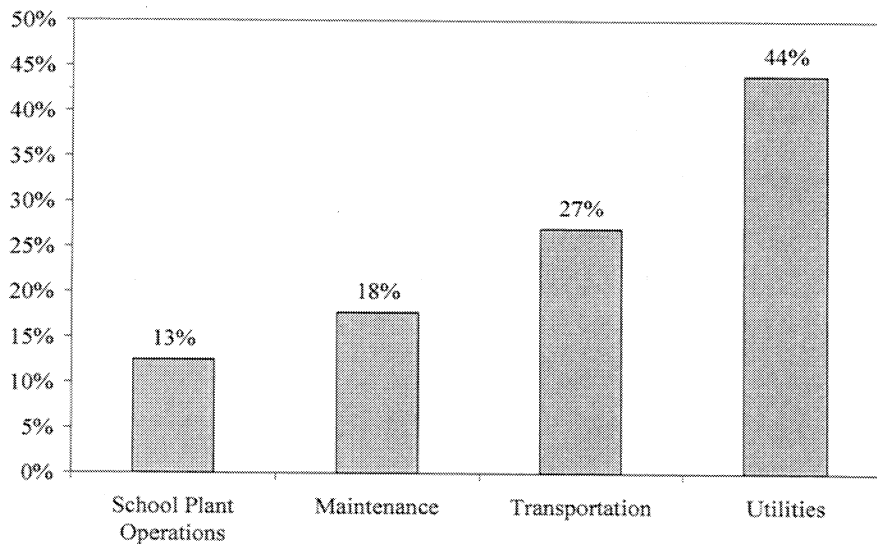
## Category B – Major Budget Components and Cost Drivers

### INDICATOR 9: COST OF SCHOOL PLANT OPERATIONS, MAINTENANCE, TRANSPORTATION, AND UTILITIES

This indicator tracks the major non-instructional costs of the school system. FY03-FY06 data reflect actual costs; FY07 data reflect budgeted costs. The five-year trend data track changes in expenditures for:

- School Plant Operations, which includes the routine cleaning of MCPS facilities and the support of community use activities;
- Maintenance, which includes maintenance and repair services, environmental services, capital asset replacements, and automated energy management operations;
- Transportation, which includes maintaining and operating MCPS' bus fleet; and
- Utilities which includes the costs of electricity, heating oil, natural gas, propane, and water and sewer for all MCPS facilities.

**Exhibit 13: Percent Cost Increases, FY03-FY06:  
School Plant Operations, Maintenance, Transportation, and Utilities**



**Table 20: School Plant Operations, Maintenance, Transportation, and Utilities Costs, FY03-FY07**

Activity	Expenditures (\$ in millions)					Expenditures as Percent of Total MCPS Operating Budget				
	FY03	FY04	FY05	FY06	FY07	FY03	FY04	FY05	FY06	FY07
School Plant Operations	41.8	42.4	44.7	47.0	51.4	3	3	3	3	3
Maintenance	23.4	22.9	24.7	27.6	27.9	2	2	2	2	2
Transportation	59.0	63.5	68.6	75.0	79.0	4	4	4	4	4
Utilities	24.5	26.8	32.4	35.3	41.4	2	2	2	2	2
<b>TOTAL</b>	<b>\$149.8</b>	<b>\$155.6</b>	<b>\$170.4</b>	<b>\$184.9</b>	<b>\$199.7</b>	<b>11%</b>	<b>10%</b>	<b>11%</b>	<b>11%</b>	<b>11%</b>

## Category B – Major Budget Components and Cost Drivers

### Key Findings:

- In FY07, the approved budgets for school plant operations, maintenance, transportation, and utilities combined total almost \$200 million, which is 11 percent of the total MCPS budget.
- Between FY03 and FY06, while the amount spent on these non-instructional costs increased by \$35 million, these costs continued to account for a steady 10-11% of the MCPS budget.
- A comparison of percent cost increases across these four categories of non-instructional costs between FY03 and FY06 show substantial differences. The costs of school plant operations increased 12 percent, maintenance increased 18 percent, transportation increased 27 percent, and utilities for plant operations and equipment increased 44 percent.

### Recommended Issues/Questions for Council Discussion

Non-instructional activities, such as the four captured in Indicator 9, are important functions of the school system that account for a sizeable percent of the total MCPS budget. OLO recommends that the Council seek additional analysis on what portion of the increasing costs for these non-instructional activities are attributable to factors outside of MCPS' "control," such as changes in the cost of electricity or fuel. This could be compared to increases in more "controllable costs," such as the opening of new schools and school choice offerings that impact transportation expenses. OLO recommends that another issue of Council interest should be the balance between short-term savings and long-term costs of infrastructure maintenance.

### Suggested Questions

1. What are the major factors that account for the increasing costs in each of these four categories of expenses? For example, how much is attributed to higher compensation costs for existing staff vs. hiring new staff vs. higher costs for supplies and equipment?
2. What cost efficiencies have been implemented to control increasing costs? How are factors that explain recent increases in non-instructional costs expected to trend going forward?
3. How does MCPS track and ensure the quality of service delivery in school plant operations, maintenance, and transportation?

### Caveats on Indicator 9 Data

The expense categories selected for Indicator 9 capture only a portion of MCPS' non-instructional costs; other activities to consider would include food service, construction, and materials management. To understand MCPS' non-instructional costs as a whole, additional data is required. Further, this indicator does not provide information on the quality or efficiency of service delivery. For this information, the Council should consider MCPS' Chief Operating Officer's "dashboard of measures" that describes the performance of MCPS' core business units.

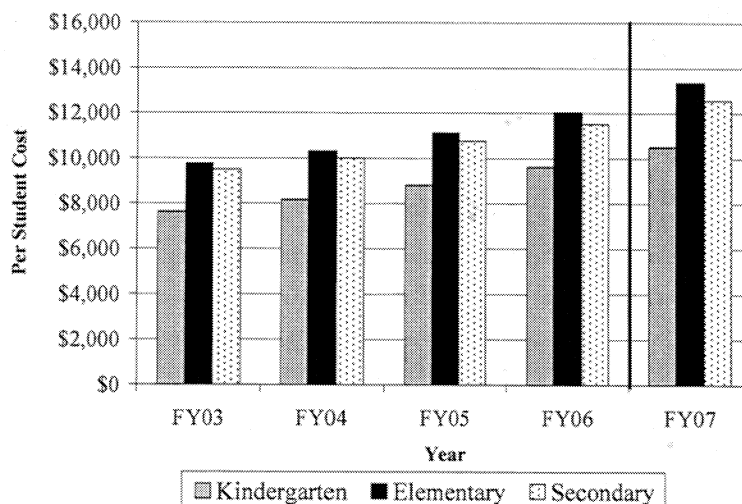
## Category C – Per Student Expenditures

### INDICATOR 10: PER STUDENT COST BY GRADE SPAN

This indicator tracks five years (FY03–FY07) of data on per student costs for four groups: kindergarteners, elementary students, secondary students, and all students in grades K-12. MCPS calculates per student costs based on the State formula that the agency must use to request reimbursements (e.g. Non-Public Placements). These calculations exclude the cost of pre-K, summer school, community services, non-public placements, and enterprise funds because these expenditures do not match to students enrolled in grades K-12. The dollar amounts included and excluded in MCPS' student cost calculations are listed in Table 18 (below).

Using Washington Area Boards of Education (WABE) data, this indicator also compares four years (FY04–FY07) of average per student costs across nine area school districts. Rather than rely on self-reported data, the WABE committee uses a common formula for calculating per student costs by school districts to ensure comparability. This explains why WABE's estimates of MCPS per student costs differ slightly from MCPS' calculations.

**Exhibit 14: MCPS Average Costs per Student by Grade Span, FY03-FY07**

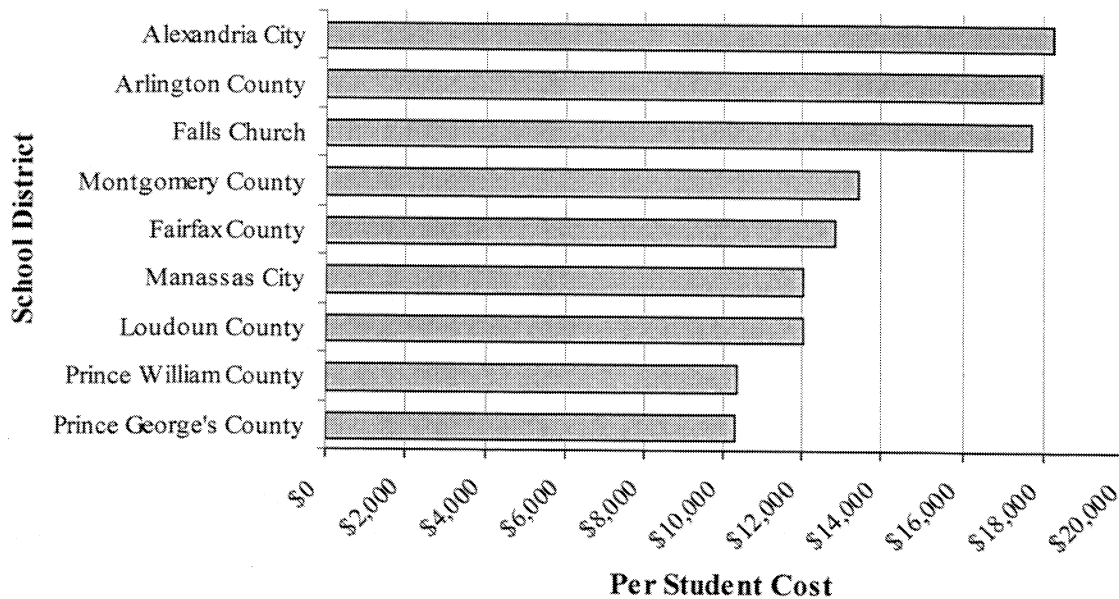


**Table 21: MCPS Average Costs per Student by Grade Span, FY03-FY07**

MCPS Data by Grade Span	FY03	FY04	FY05	FY06	FY07	Change FY03-06	
						\$	%
Kindergarten	\$7,617	\$8,155	\$8,801	\$9,624	\$10,509	\$2,007	26%
Elementary	\$9,762	\$10,306	\$11,117	\$12,042	\$13,349	\$2,280	23%
Secondary	\$9,497	\$10,005	\$10,765	\$11,527	\$12,566	\$2,030	21%
<b>K-12</b>	<b>\$9,475</b>	<b>\$9,999</b>	<b>\$10,769</b>	<b>\$11,592</b>	<b>\$12,718</b>	<b>\$2,117</b>	<b>22%</b>
<b>MCPS Operating Budget (\$ in millions)</b>							
Operating Budget	\$1,413.9	\$1,490.2	\$1,602.4	\$1,714.7	\$1,851.5	\$300.8	21%
<b>Used in Calculation</b>	<b>\$1,296.9</b>	<b>\$1,369.0</b>	<b>\$1,473.8</b>	<b>\$1,586.4</b>	<b>\$1,721.5</b>	<b>\$289.5</b>	<b>22%</b>
Amount Excluded	\$117.0	\$121.2	\$128.7	\$128.2	\$129.9	\$11.2	10%
Percent Excluded	8.3%	8.1%	8.0%	7.5%	7.0%	--	--

**Category C – Per Student Expenditures**

**Exhibit 15: Washington Area Boards of Education (WABE) Average Costs per Student, FY07**



**Table 22: WABE Data on Average Costs per Student by Rank, FY04-FY07**

School District	FY04	FY05	FY06	FY07	Change FY04-07	
					\$	%
Alexandria City	\$12,198	\$13,670	\$15,871	\$18,232	\$6,034	50%
Arlington County	\$13,950	\$15,298	\$16,464	\$17,958	\$4,008	29%
Falls Church	\$13,377	\$14,106	\$16,020	\$17,700	\$4,323	32%
<b>Montgomery County</b>	<b>\$10,644</b>	<b>\$12,108</b>	<b>\$12,549</b>	<b>\$13,446</b>	<b>\$2,802</b>	<b>26%</b>
<b>Fairfax County</b>	<b>\$10,113</b>	<b>\$11,022</b>	<b>\$11,915</b>	<b>\$12,853</b>	<b>\$2,740</b>	<b>27%</b>
Manassas City	\$9,038	\$10,137	\$10,775	\$12,036	\$2,998	33%
Loudoun County	\$9,604	\$10,266	\$12,271	\$12,023	\$2,419	25%
Prince William County	\$8,205	\$8,939	\$9,374	\$10,378	\$2,173	27%
Prince George's County	\$8,014	\$8,612	\$9,368	\$10,332	\$2,318	29%

## Category C – Per Student Expenditures

### Key Findings:

- According to MCPS' calculations for the past four years, the average cost per student increased by \$2,117 (22%) from \$9,475 in FY03 to \$11,592 in FY06.
- Between FY03 and FY06, the difference between per student costs at the elementary compared to the secondary grades grew. In FY03, the per student costs at the elementary level was only \$265 more than the per student costs at the secondary level; by FY06, this difference had increased to \$515.
- Among the nine school districts that participate in the WABE data collection, MCPS' per student cost ranked 4<sup>th</sup> in FY07. MCPS' average per student cost is \$13,466 per student compared to \$18,232 for Alexandria City, \$12,858 for Arlington County, and \$17,700 for Falls Church.
- Among the five large school systems participating in the WABE whose student enrollment exceed 50,000, MCPS' per student cost is highest for FY07 followed by Fairfax County's average per student cost of \$12,853.

### Recommended Issues/Questions for Discussion

Average per student costs serves as a good example of a fiscal indicator that raises as many questions as it answers. Much of the increase in MCPS' per student cost at the elementary level likely results from implementation of MCPS' Early Success Initiative. This initiative focuses on closing the achievement gap in the early grades by expanding pre-K and full day K programs, and providing additional resources to high poverty elementary schools, i.e., Focus Schools. As MCPS seeks to target additional resources at the secondary level to close the achievement gap, per student costs at the secondary level are likely to increase as well.

OLO recommends the Council consider using average per student costs as a way to begin comparing MCPS' costs to those of other school systems. Fairfax County Public Schools are often considered MCPS' peer in delivering a high quality education to its student body. Both systems serve large suburban populations marked by increasing student diversity. Per student costs in Fairfax County consistently track lower than in MCPS. Understanding why this difference occurs is an issue that OLO recommends the Council pursue further.

### Suggested Questions

1. What are the major factors that contribute to MCPS having consistently higher per student costs compared to the other large suburban school systems in the area?
2. How does MCPS explain the variable growth in per student costs for the different grade spans for which these data are reported?

## Category C – Per Student Expenditures

3. How do changes in MCPS per student costs by grade span correlate with changes in student outcomes by grade span? What increases in per student expenditures have had the greatest impact on performance outcomes?
4. How does MCPS interpret the changes in per student costs from year to year? Is there a goal to hold increases to a specified dollar amount? Is it appropriate to expect that MCPS can increase its efficiency relative to delivering instructional services?

### **Caveats on Indicator 10 Data**

MCPS' calculations of K-12 per student costs exclude a number of cost categories that do not directly match its K-12 enrollment. As noted above, these costs include pre-kindergarten, non-public placements, summer school and Enterprise funds. As a result, MCPS' calculations of per student costs exclude 7-8% of the MCPS operating budget. In FY07, the approximately \$130 million excluded amounts to nearly \$1,000 per student.

Another caveat of this indicator is that WABE's and MCPS' estimates of MCPS per student costs differ. This occurs for a variety of reasons, including that MCPS, unlike WABE, updates its numbers to capture actual expenditure and enrollment data to calculate per student costs in prior years. Comparing data from different sources requires an understanding that estimated costs of the same thing may differ slightly.

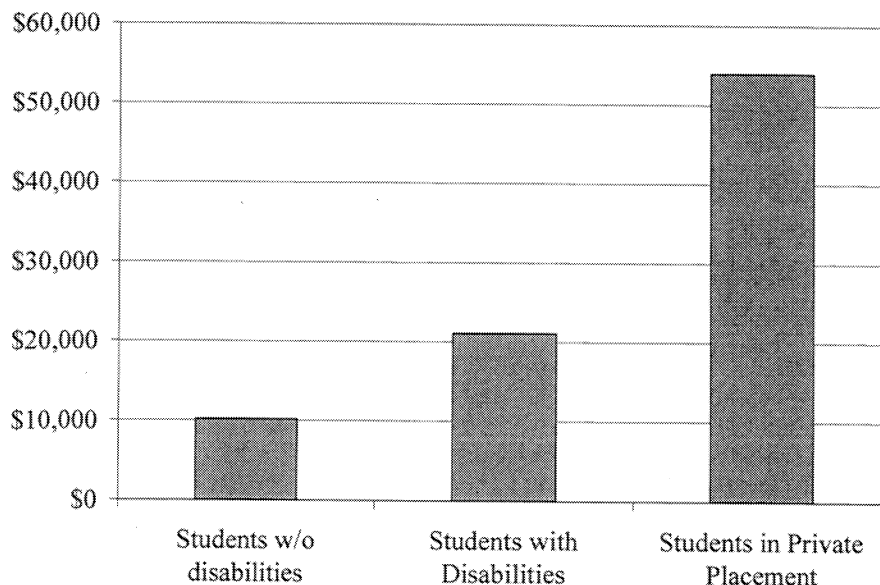
## Category C – Per Student Expenditures

### INDICATOR 11: PER STUDENT COST BY DISABILITY STATUS

This indicator presents average per student costs for the most recent fiscal year with actual budget data (FY06). It includes:

- MCPS' average per student costs by grade span that are published annually in MCPS' budget. These calculations exclude data on MCPS students in private placements and selected other costs (see Indicator 10, page 54 for details).
- OLO's calculations of average per student costs (K-12) for different cohorts of students: students without disabilities; students with disabilities in MCPS schools; and students with disabilities in private placements. OLO also calculated a K-12 per student cost, which adds back in the data on students in private placements.
- OLO's calculations of the K-12 per student cost for students without disabilities based on the cost of general education for students enrolled at MCPS. General education costs are equal to MCPS' total K-12 expenditure minus the cost of special education services, transportation and estimated benefits.
- OLO's calculation of average per student cost for students with disabilities enrolled at MCPS includes the cost of general education plus the cost of special education programs for these students. The cost of private placements equals the average cost of tuition. Details of OLO's cost calculations appear in the Technical Notes section of the Appendix (See Appendix E, ©12).

**Exhibit 16: Average per Student Cost by Subgroup, FY06<sup>1</sup>**



<sup>1</sup> All per student cost calculations exclude amounts allocated in the FY06 budget for summer school, community services, and Enterprise Fund accounts.



## Category C – Per Student Expenditures

**Table 23: Per Student Costs by Grade Span and Disability Status, FY06**

<b>A. Cost Per Student Data Published in MCPS Budget.</b>		
These calculations exclude students with disabilities in private placements and the associated costs of tuition. In FY06, this exclusion totals 621 students and \$33.5 million.		
<b>MCPS Data by Grade Span</b>	<b>Number of Students</b>	<b>Cost Per Student</b>
Kindergarten	9,101	\$9,624
Elementary	50,692	\$12,042
Secondary	77,069	\$11,527
<b>Total K-12</b>	<b>136,862</b>	<b>\$11,592</b>
<b>B. Additional Cost Per Student Data Calculated by OLO</b>		
The Total K-12 calculation adds back in the students with disabilities in private placements and associated tuition costs.		
<b>OLO Data by Student Group</b>	<b>Number of Students</b>	<b>Cost Per Student</b>
K-12 students without disabilities	119,162	\$10,043
K-12 students with disabilities	17,700	\$22,018
K-12 students in private placements	621	\$53,958
<b>Total K-12</b>	<b>137,483</b>	<b>\$11,783</b>

### Key Findings:

- The MCPS budget reports the average cost per elementary student in FY06 as \$12,042. This is \$515 more than the average cost per secondary student (\$11,527), and \$2,418 more than the average cost per Kindergartener (\$9,624).
- MCPS' budget reports the average cost per K-12 student in FY06 as \$11,592. This calculation excludes the 621 students with disabilities in private placements and the associated \$33.5 million in tuition costs. When these are added back in, the average per K-12 student funded by MCPS is \$11,783, an increase of about \$200 per student.
- MCPS' average cost of educating a student without disabilities (\$10,043) is about half the average cost of educating a student with disabilities enrolled in an MCPS school (\$22,018), and about one-fifth of the cost of educating a student with disabilities in a private placement (\$53,958).

### Recommended Issues/Questions for Council Discussion

OLO recommends that, despite its limitations, the Council use average cost data for different cohorts of students to discuss the varying costs of serving a large and diverse student population. The Council should review the assumptions and rationale behind MCPS' calculations of average per student costs and compare estimated per student costs by disability status or other student/program characteristics. OLO also recommends that the Council routinely inquire how implementation of specific MCPS initiatives will effect average per student costs for different cohorts of students.



## Category C – Per Student Expenditures

### Suggested Questions

1. Will the new financial management system enable a more accurate way to calculate per student costs for different cohorts of students by characteristics of interest such as participation in special education, compensatory education, English as a second language programs, gifted education, or magnet programs?
2. If no new initiatives are funded for FY08, what are the projected average student costs overall and by student group for next year? What are the anticipated costs of proposed initiatives on average student costs overall and by student group for next year?
3. What strategies is MCPS undertaking to minimize increases in average student costs overall and by student groups?
4. Has MCPS considered using a weighted per student school funding formula that allocates resources to schools based on the average cost of educating student subgroups? What are the benefits and limitations to this approach compared to how schools are currently funded?
5. How might the average costs of serving nondisabled students and students with disabilities in MCPS schools change as general and special education classes increase their capacity to educate students currently served in more restrictive settings? What are the consequences for average student costs of increasing inclusion?
6. What are MCPS' plans related to moving more students with disabilities from costly private school placements into public schools when appropriate?

### **Caveats on Indicator 11 Data**

Indicator 11 does not disaggregate the additional costs of serving students in specialized programs that include gifted education, compensatory education, English language acquisition, magnet programs, extra curricular activities, summer school, and other initiatives. Moreover, this indicator's assumption of students with disabilities having the same general education costs as students without disabilities may not be entirely accurate, and as a result, the estimated per K-12 student with disability cost may be inflated.

Except for students with disabilities in private placements, the average cost per student does not well measure the marginal costs of serving additional students. For example, the marginal cost of 200 – 500 additional children across MCPS' 199 schools is relatively low if these students are dispersed across a large number of campuses. If these students are concentrated in a few schools, then the marginal cost of serving these students could be high and exceed average per student costs. Median cost per student data would be useful information to augment the average cost calculations and better understand student marginal costs. However, median cost data are not available.

## Category C – Per Student Expenditures

### INDICATOR 12: PER STUDENT COST BY SCHOOL TYPE AND SERVICE CATEGORY

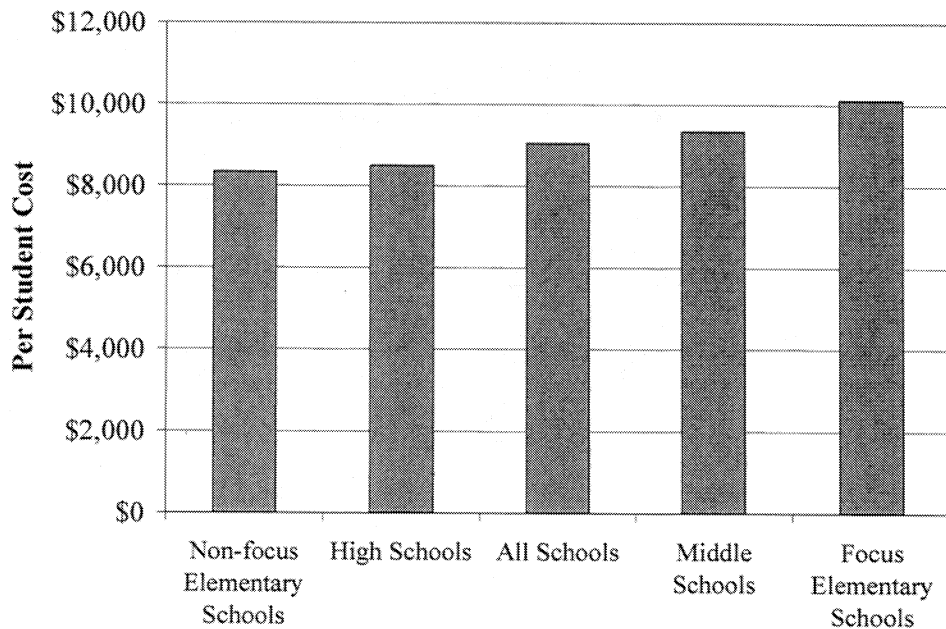
This indicator reports per student costs in several different ways that demonstrate how MCPS targets its fiscal resources to schools. Specifically, Indicator 12 tracks FY06 per student costs for school-based service costs by the following “types” of schools:

- Focus elementary schools (i.e., high poverty schools);
- Non-focus elementary schools;
- Middle schools;
- High schools; and
- Special schools for students with disabilities.

Indicator 12 presents four years (FY03-FY06) of per student costs for school-based services vs. central/field office-based services. MCPS’ *Schools at a Glance*, which describes operating costs by school, was used for this indicator.

Table 27 (page 66-69) lists all MCPS elementary schools in descending order of FY06 per student school-based costs. In general, this table demonstrates that MCPS spends more per student in focus elementary schools than in non-focus schools. Most exceptions to this rule involve schools with small enrollments and thus higher per student costs for administrative, other professional and some support staff (e.g. counselors and school secretaries).

**Exhibit 17: Per Student Costs by School Type<sup>1</sup>, FY06**



<sup>1</sup> Exhibit 17 excludes school-based service per student costs for Special Schools which averaged \$29,588 in FY06.

**Category C – Per Student Expenditures**

**Table 24: School Based Services: Per Student Costs by School Type, FY06**

School Type	Number of Schools	Enrollment	Percent FARMS	Average Per Student Costs
Elementary Schools	125	62,283	32%	\$9,200
- Focus (high poverty) Schools	60	30,202	49%	\$10,117
- Non-focus Schools	65	32,081	15%	\$8,336
Middle Schools	38	31,374	27%	\$9,343
High Schools	25	44,677	17%	\$8,493
Special Schools	7	977	41%	\$29,588
<b>All Schools</b>	<b>195</b>	<b>139,311</b>	<b>26%</b>	<b>\$9,049</b>

The table below shows MCPS' allocation of costs for four years (FY03 –FY07) in two service categories: school-based and central/field office-based services. The next table lists which services MCPS allocates to each of these two categories. MCPS notes that in FY04, transportation costs were shifted from a school-based to a central/field office-based expenditure because they could not accurately allocate such expenditures to specific schools. As such, OLO's analysis of changes in school-based services compared to central/field office-based services focuses on FY04 – FY07 data.

**Table 25: School-Based and Central/Field Office-Based Services:  
Per Student Costs, FY03-FY06**

	FY03*	FY04	FY05	FY06	Change FY04-06	
<b>Service Type</b>					<b>#</b>	<b>%</b>
School-Based Services	\$7,971	\$7,989	\$8,536	\$9,048	\$1,059	13.3%
Central/Field Office-Based Services	\$2,211	\$2,725	\$2,967	\$3,260	\$535	19.6%
<b>Service Type as Percent of Total Operating Costs</b>					<b>#</b>	<b>%</b>
School-Based Services	78.3%	74.6%	74.2%	73.5%	-1.1	-1.5%
Central/Field Office-Based Services	21.7%	25.4%	25.8%	26.5%	+1.1	+4.3%

\*FY03 School-Based Services include Transportation Costs that we re-allocated to Central/Field Office-Based Services in the FY04 *Schools at a Glance* publication.

**Category C – Per Student Expenditures**

**Table 26: Definitions of School-Based and Central/Field Office-Based Services**

<b>School-Based Services</b>	<b>Central/Field Office-Based Services</b>
<p>Salaries and benefits of staff allocated to schools for:</p> <ul style="list-style-type: none"> <li>• School administrators,</li> <li>• Teachers,</li> <li>• Other professionals: counselors, media specialists, and special education related service providers,</li> <li>• Instructional support: paraeducators, teacher assistants, media assistants and instructional data assistants,</li> <li>• Other support: secretaries, parent/community coordinators, lunch aides,</li> <li>• Building service workers, and</li> <li>• Food service workers,</li> </ul> <p>Allocations for textbooks, instructional materials and media centers; and</p> <p>Facility costs.</p>	<p>Salaries and benefits for non-school based personnel;</p> <p>System-wide staff development, instructional support, program development, technology support, and student support activities; pupil personnel workers, school psychologists, and other support personnel resources not allocated to specific schools;</p> <p>Centrally administered special education resources, special education specialists based in central/field offices, legal fees associated with special education cases, and tuition for Non-Public Placements;</p> <p>Utility/telecommunication, plant operation, and maintenance costs for all non-school facilities and all costs for the operations of the central supply warehouse;</p> <p>Transportation costs; and</p> <p>Centrally administered grants, resources including instructional and other supplies, and funds appropriated for future grants.</p>

## Category C – Per Student Expenditures

### Key Findings:

- Data for FY06 show significant variations in per student costs for school-based services by school type. Per student costs were highest in special schools at \$29,588 per student, followed by Focus elementary schools at \$10,117 per student, middle schools at \$9,343 per student, high schools at \$8,493 per student, and Non-focus elementary schools at \$8,336 per student.
- In FY06, about half (49%) of all students who attended the 60 Focus elementary schools were eligible for free and reduced-priced meals (FARMS); this compared to 15 percent of the students who attended Non-focus elementary schools. The percent of FARMS-eligible students enrolled in special schools was also high at 41 percent in FY06 compared to 26 percent across all MCPS schools.
- The difference in per student allocations between Focus and Non-focus schools amounted to \$1,781 per student in FY06. With an average elementary enrollment of approximately 500 students, each Focus school on average received an additional \$890,000 compared to Non-focus schools.
- Between FY04 and FY06, per student costs for school based services increased by \$1,059 (13.3%) from \$7,989 to \$9,048. During this time, per student costs for central/field office-based services increased by half of this dollar amount (\$535) but at a higher rate (19.6%).
- The school-based services share of per student costs also decreased from 75 percent of overall average student costs in FY04 to 74 percent in FY06. Conversely, the central/field office-based services share of per student costs increased from 25 percent of per student costs to 27 percent in FY06.

### Recommended Issues/Questions for Council Discussion:

Examining different calculations of per student costs can be useful in terms of enhancing the Council's understanding of what is going on behind system-wide averages. OLO recommends the Council use data on per student costs by type of school (e.g., Focus vs. Non-focus elementary schools) to learn about how MCPS targets fiscal resources and as the basis for asking questions related to measuring the return on the additional investments. OLO recommends the Council use data on MCPS' costs by service category to learn more about the type of staff and services that are allocated directly to individual schools vs. those allocated to central and field offices.

## Category C – Per Student Expenditures

### Suggested Questions

1. What are MCPS' criteria for classifying Focus vs. Non-focus elementary schools? Is there a comparable measure used for classifying middle and high schools?
2. How is the additional funding to Focus schools calculated and how do the Focus schools spend it? How is MCPS going about measuring the impact of these additional dollar allocations?
3. Has MCPS considered using a weighted per student funding formula to allocate resources to all schools? What are the benefits and drawbacks to this approach?
4. In reviewing the rank-order list of elementary schools, there are some Focus schools and Non-focus schools that do not appear where it is expected they would be, given the MCPS policy of providing additional funds to focus schools. Some of this may be attributed to variations in school enrollment (i.e. small and large school enrollments). What are some other explanations for this pattern?
5. What explains the comparatively larger increase in central/field office-based services since FY04? What services have been purchased with the additional \$535 per student and with what impact? What trends are anticipated in the future?

### **Caveats on Indicator 12 Data**

This indicator's categorization of per student costs as school-based vs. central/field office-based services is not the same as the distinction between instructional and non-instructional services. There are instructional services that are central office-based, such as staff training and curriculum development. Similarly, there are non-instructional services that are school-based, such as building and food services.

Because so many factors influence the calculations of per student costs by school, the data presented in Indicator 12 should be used to begin a discussion about the allocation of resources among schools, not to draw conclusions about the quality or effectiveness of programs available at any individual school.

**Category C – Per Student Expenditures**

**Table 27: Per Student Costs for Elementary School-Based Services in Rank Order, FY06**

Elementary School	Enrollment	% FARMS	Operating Costs	Cost Per Student	Rank	Focus School
East Silver Spring	251	61.0%	\$3,485,824	\$13,888	1	Y
New Hampshire Estates	409	78.7%	\$5,434,349	\$13,287	2	Y
Oak View	267	76.4%	\$3,496,777	\$13,097	3	Y
Monocacy	231	15.6%	\$2,963,764	\$12,830	4	
Montgomery Knolls	376	56.1%	\$4,731,623	\$12,584	5	Y
Bel Pre	488	52.7%	\$6,080,854	\$12,461	6	Y
Rock Creek Valley	359	28.4%	\$4,466,632	\$12,442	7	Y
Brookhaven	393	53.7%	\$4,817,235	\$12,258	8	Y
Highland View	335	54.3%	\$4,031,973	\$12,036	9	Y
Broad Acres	496	89.1%	\$5,891,411	\$11,878	10	Y
Cannon Road	367	39.2%	\$4,342,011	\$11,831	11	Y
Rosemont	470	58.9%	\$5,496,575	\$11,695	12	Y
Gaithersburg	462	64.3%	\$5,365,814	\$11,614	13	Y
Lake Seneca	360	30.3%	\$4,135,249	\$11,487	14	
Meadow Hall	354	42.9%	\$4,054,388	\$11,453	15	Y
Forest Knolls	513	35.5%	\$5,651,039	\$11,016	16	Y
Westover	282	14.2%	\$3,090,691	\$10,960	17	
Daly	519	48.2%	\$5,684,951	\$10,954	18	Y
Takoma Park	402	27.1%	\$4,358,534	\$10,842	19	Y
Washington Grove	381	55.1%	\$4,114,523	\$10,799	20	Y
Strawberry Knoll	547	36.6%	\$5,858,242	\$10,710	21	Y
Damascus	333	20.1%	\$3,540,811	\$10,633	22	
Diamond	405	17.5%	\$4,287,415	\$10,586	23	
Sequoyah	449	41.4%	\$4,725,588	\$10,525	24	Y
Glenallan	413	54.5%	\$4,339,453	\$10,507	25	Y
Jackson Road	544	54.6%	\$5,657,458	\$10,400	26	Y
Summit Hall	521	66.6%	\$5,397,480	\$10,360	27	Y
Brooke Grove	471	21.7%	\$4,865,183	\$10,329	28	
Cashell	338	19.2%	\$3,482,817	\$10,304	29	
Ride	545	34.5%	\$5,583,526	\$10,245	30	Y
Clopper Mill	469	45.2%	\$4,795,078	\$10,224	31	Y
Viers Mill	641	67.6%	\$6,544,872	\$10,210	32	Y
Glen Haven	564	48.9%	\$5,742,128	\$10,181	33	Y
Rock View	470	41.9%	\$4,743,692	\$10,093	34	Y
Rolling Terrace	691	54.4%	\$6,960,412	\$10,073	35	Y
Page	386	33.7%	\$3,841,192	\$9,951	36	Y
North Chevy Chase	315	13.0%	\$3,122,592	\$9,913	37	
Georgian Forest	431	53.6%	\$4,268,472	\$9,904	38	Y

## Category C – Per Student Expenditures

**Table 27: Per Student Costs for Elementary School-Based Services in Rank Order, FY06  
(continued)**

Elementary School	Enrollment	% FARMS	Operating Costs	Cost Per Student	Rank	Focus School
Highland	643	72.5%	\$6,310,861	\$9,815	39	Y
Piney Branch	496	40.5%	\$4,847,108	\$9,772	40	Y
Brown Station	414	45.9%	\$3,988,746	\$9,635	41	Y
Flower Hill	499	42.7%	\$4,777,565	\$9,574	42	Y
Sherwood	479	17.5%	\$4,578,446	\$9,558	43	
Drew	491	36.3%	\$4,691,010	\$9,554	44	Y
Cloverly	489	12.1%	\$4,649,035	\$9,507	45	
South Lake	558	57.7%	\$5,304,402	\$9,506	46	Y
Twinbrook	531	59.3%	\$5,041,972	\$9,495	47	Y
Seven Locks	251	6.4%	\$2,379,136	\$9,479	48	
Kemp Mill	610	67.4%	\$5,781,918	\$9,479	49	Y
Mill Creek Towne	481	36.2%	\$4,535,080	\$9,428	50	Y
Burnt Mills	529	56.1%	\$4,971,953	\$9,399	51	Y
Whetstone	578	44.1%	\$5,420,636	\$9,378	52	Y
Resnik	566	34.3%	\$5,281,049	\$9,330	53	Y
Candlewood	339	13.6%	\$3,157,341	\$9,314	54	
Rock Creek Forest	494	27.9%	\$4,594,777	\$9,301	55	Y
Rockwell	455	20.9%	\$4,205,289	\$9,242	56	
Beall	599	33.7%	\$5,520,097	\$9,216	57	Y
Woodlin	470	26.6%	\$4,312,159	\$9,175	58	Y
Flower Valley	471	17.4%	\$4,312,590	\$9,156	59	
Westbrook	308	9.7%	\$2,812,736	\$9,132	60	
Harmony Hills	512	77.1%	\$4,643,600	\$9,070	61	Y
Chevy Chase	432	19.7%	\$3,902,848	\$9,034	62	
Rosemary Hills	572	14.0%	\$5,132,181	\$8,972	63	
Fairland	525	40.8%	\$4,662,388	\$8,881	64	Y
Bells Mills	464	15.5%	\$4,120,010	\$8,879	65	
Maryvale	645	37.8%	\$5,723,415	\$8,874	66	Y
Luxmanor	333	13.2%	\$2,953,376	\$8,869	67	
Weller Road	563	60.9%	\$4,975,825	\$8,838	68	Y
Stedwick	592	44.9%	\$5,204,331	\$8,791	69	Y
Cresthaven	570	46.7%	\$5,010,773	\$8,791	70	Y
Pine Crest	398	49.2%	\$3,485,488	\$8,758	71	Y
Fox Chapel	563	37.8%	\$4,910,402	\$8,722	72	Y
Somerset	389	8.0%	\$3,377,742	\$8,683	73	
Strathmore	432	46.8%	\$3,746,506	\$8,672	74	Y
Ritchie Park	367	18.8%	\$3,182,119	\$8,671	75	
Dufief	475	7.2%	\$4,112,842	\$8,659	76	
Germantown	471	32.3%	\$4,076,539	\$8,655	77	
Laytonsville	501	15.2%	\$4,318,795	\$8,620	78	



## Category C – Per Student Expenditures

**Table 27: Per Student Costs for Elementary School-Based Services in Rank Order, FY06  
(continued)**

Elementary School	Enrollment	% FARMS	Operating Costs	Cost Per Student	Rank	Focus School?
Thurgood Marshall	572	22.0%	\$4,916,053	\$8,594	79	
Rachel Carson	726	2.0%	\$6,184,292	\$8,518	80	
Burning Tree	525	6.9%	\$4,381,595	\$8,346	81	
Bannockburn	353	4.5%	\$2,919,871	\$8,272	82	
Sligo Creek	633	23.5%	\$5,232,015	\$8,265	83	Y
Wheaton Woods	670	64.5%	\$5,523,186	\$8,244	84	Y
Watkins Mill	593	47.2%	\$4,874,440	\$8,220	85	Y
Cold Spring	429	5.4%	\$3,495,368	\$8,148	86	
Poolesville	441	15.0%	\$3,582,735	\$8,124	87	
Galway	702	38.5%	\$5,693,400	\$8,110	88	Y
Ashburton	559	14.8%	\$4,524,860	\$8,095	89	
Cedar Grove	540	15.0%	\$4,344,888	\$8,046	90	
Clearspring	630	24.4%	\$5,058,280	\$8,029	91	
Belmont	409	11.2%	\$3,280,795	\$8,022	92	
Bethesda	424	13.9%	\$3,395,643	\$8,009	93	
Carderock Springs	319	0.6%	\$2,548,298	\$7,988	94	
Greencastle	608	47.0%	\$4,853,490	\$7,983	95	Y
Lucy V. Barnsley	577	24.6%	\$4,545,995	\$7,879	96	
Goshen	646	23.4%	\$5,063,099	\$7,838	97	
Garret Park	451	19.3%	\$3,533,277	\$7,834	98	
Jones Lane	510	24.1%	\$3,957,615	\$7,760	99	
Kensington	468	13.9%	\$3,623,427	\$7,742	100	
Christa McAuliffe	625	31.0%	\$4,793,553	\$7,670	101	
Stone Mill	683	8.5%	\$5,204,658	\$7,620	102	
Fallsmead	538	11.5%	\$4,091,191	\$7,604	103	
Greenwood	580	10.9%	\$4,401,260	\$7,588	104	
Beverly Farms	563	8.7%	\$4,252,949	\$7,554	105	
Woodfield	429	12.1%	\$3,236,798	\$7,545	106	
Travilah	459	9.8%	\$3,454,064	\$7,525	107	
Stonegate	448	15.6%	\$3,356,629	\$7,492	108	
Wyngate	526	6.8%	\$3,924,529	\$7,461	109	
Farmland	577	6.4%	\$4,299,036	\$7,451	110	
Lakewood	587	5.3%	\$4,339,917	\$7,393	111	
Fields Road	492	26.8%	\$3,616,639	\$7,351	112	
Darnestown	418	7.9%	\$3,065,760	\$7,334	113	
Bradley Hills	388	3.4%	\$2,807,645	\$7,236	114	
Oakland Terrace	724	36.0%	\$5,225,819	\$7,218	115	Y
Burtonsville	599	26.0%	\$4,284,132	\$7,152	116	
Waters Landing	636	25.9%	\$4,511,883	\$7,094	117	
Potomac	527	6.1%	\$3,721,593	\$7,062	118	
Wayside	628	5.4%	\$4,396,075	\$7,000	119	

**Category C – Per Student Expenditures****Table 27: Per Student Costs for Elementary School-Based Services in Rank Order, FY06  
(continued)**

<b>Elementary School</b>	<b>Enrollment</b>	<b>% FARMS</b>	<b>Operating Costs</b>	<b>Cost Per Student</b>	<b>Rank</b>	<b>Focus School?</b>
Olney	612	12.3%	\$4,266,808	\$6,972	120	
College Gardens	490	17.1%	\$3,373,840	\$6,885	121	
Wood Acres	607	6.1%	\$4,129,320	\$6,803	122	
McNair	744	21.0%	\$4,985,113	\$6,700	123	
Clarksburg	663	14.6%	\$4,269,760	\$6,440	124	
Spark Matsunaga	1152	14.9%	\$7,147,407	\$6,204	125	

## **Chapter V: Pilot Indicators for Linking MCPS Spending to Educational Outcomes**

This chapter introduces two pilot indicators to begin a discussion about ways to measure the efficiency and effectiveness of the County's substantial spending on education. While remaining cognizant of how difficult it is to measure the link between spending and educational outcomes, OLO suggests tracking two specific changes in unit costs, by calculating a ratio between inputs (per student costs) and desired outcomes (proficiency rates on the Maryland High School Assessment and participation in AP/Honors classes).

Unit costs, defined as the cost per unit of output, provide one measure of the "efficiency" of an organization. For an automaker, unit cost may have previously referred to the company's cost to produce each car. For an automaker in today's market where competition is stiff and new cars can remain unsold, a more useful unit cost measure for both managers and stockholders is the cost per car sold. This subtle distinction is important; unit costs are most meaningful when they capture the cost of a desired outcome (e.g. cars sold) rather than simple outputs (e.g. cars built).

For MCPS, most people would agree that a critical outcome is the "production" of young people who are prepared to go to college or enter the workforce upon graduation. While MCPS has other important goals, improving student performance is certainly one of its most fundamental goals. As reviewed in Chapter III (see page 12), MCPS regularly provides information to the public describing its progress on meeting targets for student achievement.

OLO recognizes that how MCPS achieves efficiency differs from how a factory produces cars. Rather than converting raw materials into products for market within a controlled environment, MCPS is challenged with educating an increasingly diverse student body, with varying backgrounds and needs, that in part shape MCPS' production of student achievement. Understanding how efficient MCPS is at reaching common outcomes for its diverse student body is of critical interest to the Council, especially because education must compete with other essential functions for the appropriation of County funds.

While MCPS' cost per student enrolled is useful information, it is arguably more important to understand MCPS' cost per college/workforce ready student. The unit costs offered as pilot indicators in this chapter are an attempt to afford this opportunity by approximating the cost of generating high school graduates and college/workforce ready students.

- **Pilot Indicator A, Algebra High School Assessment Proficiency**, tracks the unit cost of MCPS' production of students who demonstrate proficiency on the Algebra HSA. This State assessment test is one of four that members of the Class of 2009 and beyond must pass to graduate from high school. This pilot indicator proxies MCPS' efficiency at reaching its goal of having 100% of all seniors pass the HSA.
- **Pilot Indicator B, Advanced Placement/Honors Class Participation**, describes the unit cost of students participating in one or more AP/Honors classes. It approximates MCPS' unit cost of producing candidates who are college and workforce ready. This indicator also describes MCPS' efficiency in achieving its goal of increasing the rate of AP/Honors enrollment to 75 percent of all student groups by 2010.

The balance of this chapter outlines these pilot indicators in more detail as follows:

**Section A, Assumptions and Caveats**, describes the assumptions OLO adopted to calculate the pilot indicators and explains the caveats that should accompany interpretation of the results.

**Section B, Trends in High School Cost and Student Achievement**, tracks the per student cost of high school and student performance on the two selected benchmarks: Algebra High School Assessment proficiency rate and Advanced Placement/Honors class participation rate. Data are reported for all students and for selected student groups: Whites, African-Americans, Hispanics, Asian-Americans, students who receive free and reduced-priced meals, English language learners, and students with disabilities.

**Section C, Trends in High School Unit Costs**, tracks changes in the unit costs of attaining proficiency on the Algebra HSA and participating in an AP/Honors class. These pilot indicators are calculated for all students and by the same student groups listed in Section B.

**Section D, Recommended Issues/Suggested Questions for Council**, identifies issues and questions that OLO recommends the Council discuss in reviewing the pilot indicators.

#### **A. Assumptions and Caveats**

To calculate unit costs for MCPS, OLO adopted a series of assumptions that are summarized below. The advantage of considering data on unit costs across multiple years is that the errors and imperfections generated in calculating unit costs cancel each other out when the same assumptions are consistently applied each year. Because changes in unit costs are “real,” the direction and magnitude of differences among unit costs for subgroups of students should guide the discussion on the pilot indicators, as opposed to the value of the unit costs themselves.

**Assumption #1: Producing college/workforce ready graduates is the primary purpose of high school expenditures and the selected benchmarks are effective measures of this goal.**

OLO assumed that student performance related to the two selected benchmarks are strong proxies of MCPS student performance overall. In other words, OLO assumed that proficiency rates on the Algebra HSA and participation in AP/Honors classes correlate closely with other high school benchmarks, such as college and workforce readiness, scores on the other HSA exams, and SAT scores. OLO chose benchmarks that capture both minimal and rigorous levels of performance to reflect the multiple goals that MCPS is trying to achieve among its high school students.

OLO recognizes the limitations of this assumption. It would be more accurate, for example, to determine the unit cost for AP/Honors class participation by using the amount of funds allocated to promote AP/Honors enrollment. However, MCPS' current data systems do not afford this type of analysis. As such, OLO chose benchmarks that have import for all students, based on the assumption that these benchmarks align closely with the other goals that MCPS is trying to achieve.

**Assumption #2: Common achievement goals across student groups.**

OLO assumed that the benchmarks selected apply to all students and all student subgroups. OLO recognizes the limitation of this assumption is that the benchmark of 75 percent of students enrolled in one or more AP/Honors classes may not be appropriate across all student subgroups, i.e., for students with disabilities, English language learners, and student groups who excel beyond this level.

**Assumption #3: Common per student cost across student groups.**

Unlike Indicator 11, OLO did not calculate the pilot indicators using different per student costs based on disability status. Further, the pilot calculations do not consider variations in per student costs associated with gifted education, English for speakers of other languages, compensatory education, or other specific programs/services.

Instead, in order to simplify the unit cost calculations, OLO assumed a uniform per student cost of high school. These calculations are based on MCPS' reported per student cost at the secondary level by fiscal year. For example, the four-year cost of high school cited for FY03 equals the sum of per secondary student costs from FY00 to FY03 noted in the MCPS operating budgets.

OLO applied the three assumptions above to calculate unit cost for each pilot indicator. In addition, to reflect the different expectations that MCPS has for students relative to HSA achievement and AP/Honors course participation, OLO calculated the unit cost for each slightly differently based on the logic and equations described below.

**The Equation for Pilot Indicator A, Algebra HSA Proficiency:**

$$\text{Algebra HSA Unit Cost} = \frac{\text{Per Student Cost of High School Career (4 years)}}{\text{Algebra HSA Proficiency Rate}}$$

Logic for this equation: Because MCPS expects that 100% of its students will pass the Algebra HSA, OLO assumed 100% of MCPS' cost per student in high school should be aligned toward this goal. Related to assumption #1 above, this logic assumes that achievement of HSA proficiency proxies the attainment of other student outcomes that MCPS is trying to achieve among all students.

**The Equation for Pilot Indicator B, AP/Honors Class Participation:**

$$AP/Honors\ Class\ Unit\ Cost = \frac{0.75 * Per\ Student\ Cost\ of\ High\ School\ Career\ (4\ years)}{AP/Honors\ Class\ Participation\ Rate}$$

Logic for this equation: Because MCPS expects that 75 percent of its students will participate in AP/Honors classes, OLO assumed that at best, 75 percent of its cost per student should be aligned toward this goal. This logic assumes that AP/Honors class participation proxies the attainment of other student outcomes that MCPS anticipates 75 percent of all students will achieve. This model also assumes that 25 percent of MCPS high school expenditures should be targeted to other goals that MCPS is trying to achieve among students who are not expected to enroll in an AP/Honors course.

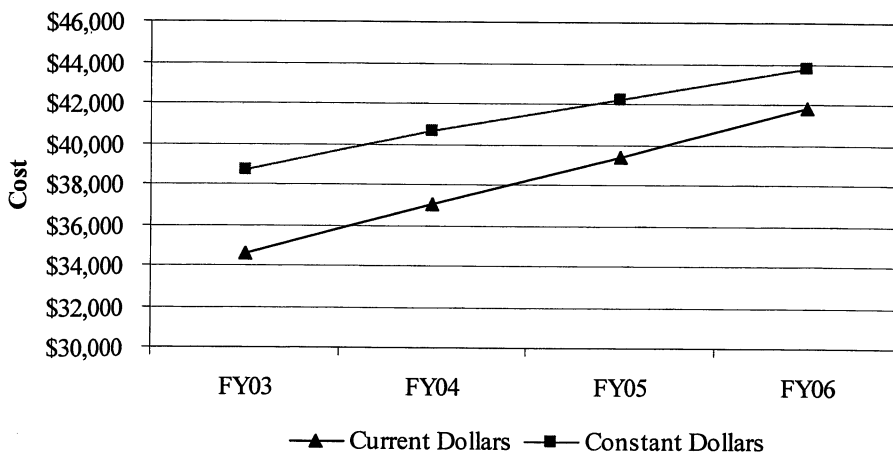
**Additional Caveat on Use of Unit Costs as Measure of Efficiency.** Relying too heavily on unit costs as a measure of organizational efficiency can create the “wrong” incentive, particularly if improving efficiency in a particular area measured does not correlate well with best practices and desired outcomes. For example, to improve the unit cost of achieving student proficiency on the Algebra HSA, MCPS could spend all of its resources on test preparation and in turn ignore other goals. This parallels one of the major criticisms of No Child Left Behind and high stakes testing in general, that is, it can encourage teaching to the test rather than improving the overall development of young persons to be college and workforce ready.

**B: Trends in High School Cost and Student Achievement**

This section presents data on the four-year cost of high school per student and student performance on the two selected benchmarks for all students and by subgroup.

Data on the four-year costs of high school are presented in *current* and *constant* dollars. Costs in current dollars reflect spending in actual dollars. Costs in constant dollars use the Consumer Price index to calibrate current costs into 2006 values to control for the cost of inflation.

**Exhibit 18: Four-Year Cost of High School per Student, FY03-FY06**



**Table 28: Four-Year Cost of High School Per Student, All Students, FY03-FY06**

Four-Year Cost of High School*	FY03	FY04	FY05	FY06	FY03-FY06 Change	
					\$	%
Current Dollars	\$34,538	\$37,044	\$39,318	\$41,794	\$7,256	21.0
Constant Dollars (2006 Values)	\$38,646	\$40,647	\$42,240	\$43,720	\$5,074	13.1

\* Four-year cost of high school is the sum of the secondary per student cost for seniors for four fiscal years. For example, the FY03 four-year cost of high school (\$34,538) is the sum of the FY00, FY01, FY02 and FY03 per secondary student costs described in the MCPS operating budgets.

**Table 29: Achievement of Selected High School Benchmarks, All Students, FY03-FY06**

Benchmark	FY03	FY04	FY05	FY06	FY03-FY06 Percent Change
Algebra High School Assessment Proficiency*	67.1%	72.4%	67.7%	78.8%	17.4%
Advanced Placement/Honors Class Participation**	64.1%	65.7%	66.8%	69.7%	8.7%

\*Percent passing with proficient or advanced score – MCPS Goal is 100%

\*\*Percent participating in one or more classes – MCPS Goal is 75%

**Key Findings on High School Cost (Input) and Student Achievement (Outcomes), All Students:**

- In current dollars, the four-year cost of high school increased by \$7,256 (21%) from \$34,538 for the Class of 2003 to \$41,794 for the Class of 2006. When using the Consumer Price Index to control for the cost of inflation between FY00 and FY06, the four-year cost of high school increased by only \$5,074 (13%).
- The percent of all students passing the Algebra HSA increased by 17% (12 percentage points) from 67% in FY03 to 79% in FY06. During this time frame, the percent of students taking one or more AP/Honors classes in high school increased by 9% (6 percentage points) from 64% in FY03 to 70% in FY06.
- The increase in Algebra HSA proficiency rates of 17% between FY03 and FY06 exceeds the 13% increase in the four-year cost of high school by 4 percentage points. As such, these data suggest that MCPS increased its “efficiency” in producing Algebra-proficient students during this time frame.
- The increase in AP/Honors participation of 9% between FY03 and FY06 is less than the 13% increase in the four-year cost of high school by 4 percentage points. These data suggest that MCPS decreased its “efficiency” in producing students that participated in one or more AP/Honors classes during this time frame

**Table 30: Achievement of Selected Benchmarks by Student Subgroup, FY03-FY06**

Student Subgroup	FY03	FY04	FY05	FY06	FY03-FY06 Change	
					Points	Percent
<b>Algebra HSA – Percent passing with proficient or advanced score – MCPS goal is 100%</b>						
Whites	83.7	86.3	83.5	90.9	7.2	8.6
African-Americans	41.0	49.9	43.0	60.4	19.4	47.3
Hispanics	41.9	54.1	46.6	62.7	20.8	49.6
Asian-Americans	81.9	86.1	85.9	91.4	9.5	11.6
Students receiving FARMS	41.1	52.5	44.8	62.4	21.3	51.8
Students with disabilities	31.4	31.4	28.7	45.9	14.5	46.2
English language learners	26.3	40.2	34.8	47.5	21.2	80.6
<b>AP/Honors Class Participation – Percent participating in one or more classes – MCPS goal is 75%</b>						
Whites	75.7	78.4	79.5	82.3	6.6	8.7
African-Americans	43.3	44.5	46.8	50.7	7.4	17.1
Hispanics	39.6	42.3	45.3	49.2	9.6	24.2
Asian-Americans	80.1	81.3	82.1	84.4	4.3	5.4
Students receiving FARMS	34.4	37.4	39.3	41.6	7.2	20.9
Students with disabilities	19.0	20.6	21.2	23.3	4.3	22.6
English language learners	23.0	24.7	32.3	28.1	5.1	22.2

**Key Findings on Student Achievement (Outcomes) by Student Subgroup:**

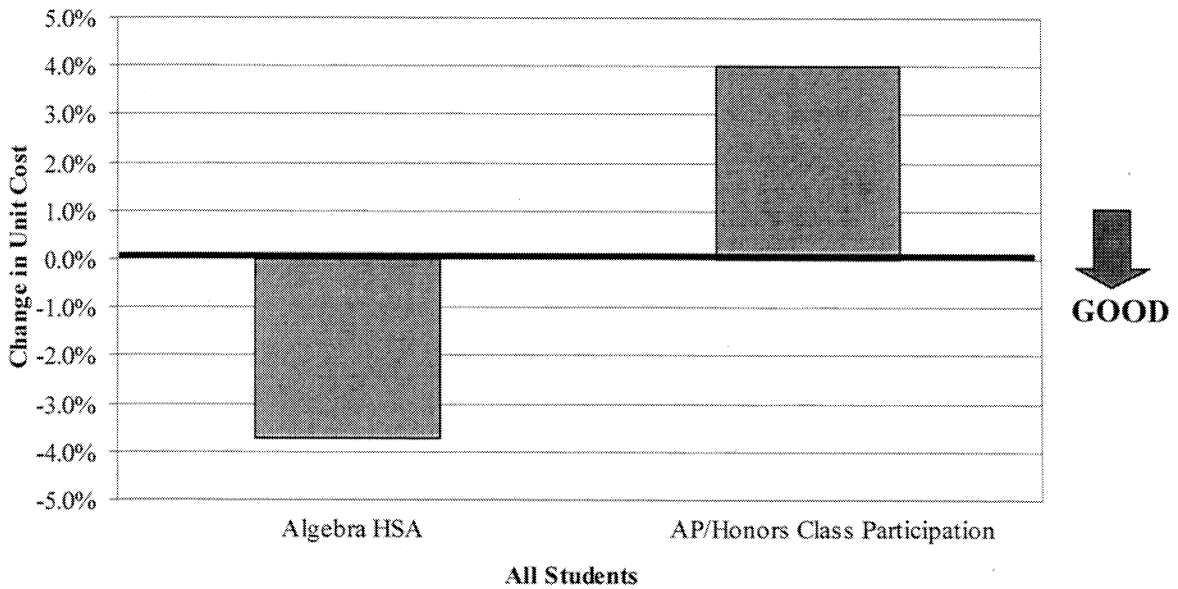
- MCPS made significant progress in closing the achievement gap in Algebra proficiency as the lowest performers in FY03 made the greatest gains by FY06. Low-income students, English language learners, Hispanics, African-Americans, and students with disabilities increased their Algebra proficiency rate by 15 – 21 percentage points compared to Whites and Asian-Americans, whose proficiency rates increased by 7 and 10 percentage points, respectively. These data trends suggest that MCPS has increased its productivity among students of color, low-income students, and students with special needs relative to the HSA.
- The largest gains in AP/Honors class participation occurred among Hispanics, low-income students, and African-American students whose AP/Honors class enrollment increased between 7 - 10 percentage points compared to Whites and Asian-Americans whose AP/Honors class enrollment increased by 7 and 4 percentage points respectively. Enrollment rates also increased among English language learners and students with disabilities, but at a slower rate than other groups (5 and 4 percentage points).
- In FY06, a sizable achievement gap persisted among subgroups. White and Asian-American students achieved proficiency rates about 30 percentage points higher on the Algebra HSA than other ethnic groups and students receiving FARMS and about 45 percentage points higher than students with disabilities and English language learners. The gap in AP/Honors class enrollment was even larger, ranging from 30-60 percentage points



**C: Trends in High School Unit Costs**

This section tracks data on MCPS' unit costs for Algebra HSA proficiency and AP/Honors class participation between FY03 and FY06. It begins with presenting data for all students, followed by data looked at by student subgroup.

**Exhibit 19: Change in Unit Costs on Selected Benchmarks, All Students, FY03-FY06**



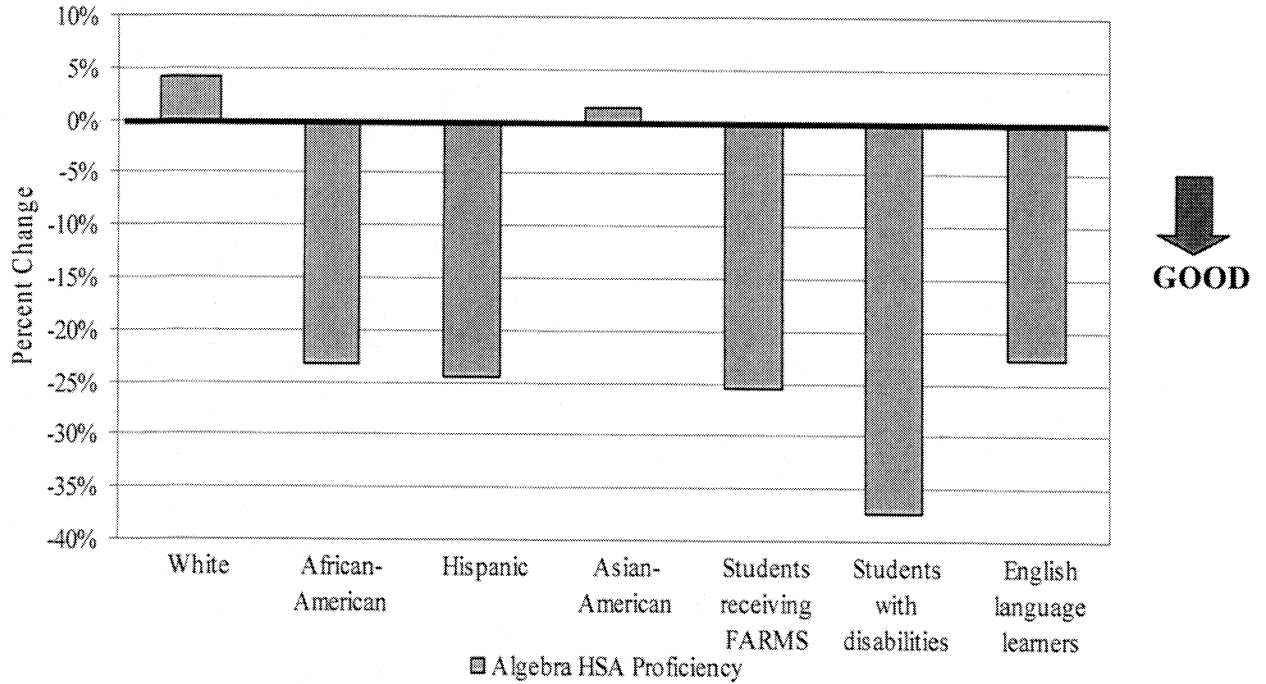
**Table 31: Unit Costs (in Constant 2006 Dollars), All Students**

	FY03	FY06	FY03-FY06 Change	
			\$	%
Four-year Cost of High School	\$38,646	\$43,720	\$5,074	13.1%
Pilot Indicator A: Algebra HSA Proficiency	\$57,595	\$55,482	-\$2,112	-3.7%
Pilot Indicator B: AP/Honors Class Participation	\$45,215	\$47,044	\$1,829	4.0%

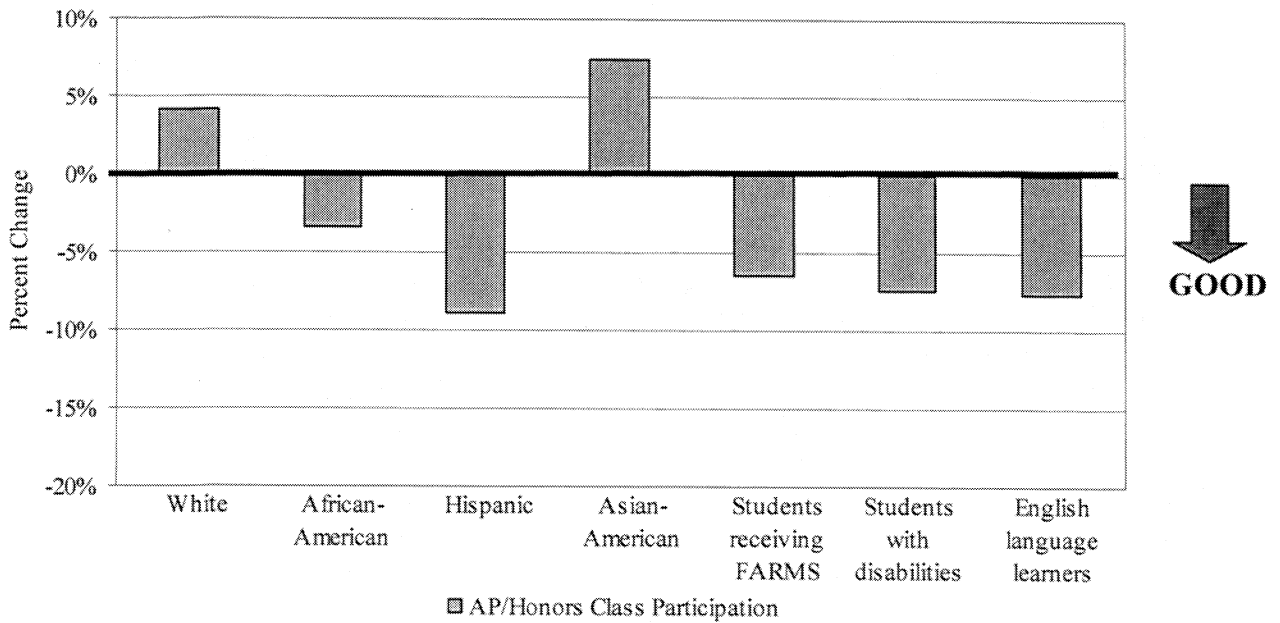
**Key Findings on Unit Costs for All Students:**

- The unit cost of achieving proficiency on the Algebra HSA was \$55,482 in FY06. The unit cost of students enrolled in at least one AP/Honors class was \$47,044. In comparison, MCPS' high school career cost per student was \$43,720.
- The unit cost of achieving proficiency on the Algebra HSA decreased by \$2,112 (4%) from \$57,595 in FY03 to \$55,482 in FY06. Comparatively, the unit cost of increasing student enrollment in AP/Honors classes increased by \$1,829 (4%) from \$45,215 in FY03 to \$47,044 in FY06.

**Exhibit 20: Change in Unit Costs for Algebra HSA Proficiency Rate by Subgroup, FY03-FY06**



**Exhibit 21: Change in Unit Costs for AP/Honors Class Participation by Subgroup, FY03-FY06**



**Table 32: Unit Costs of Select Benchmarks by Student Subgroup, FY03 and FY06**

	Student Subgroup	FY03	FY06	FY03-06 Change	
				\$	%
<b>High School Career Cost</b>	All Students	\$38,646	\$43,720	\$5,074	13.1%
<b>Pilot Indicator A: Algebra HSA Proficiency</b> <u>Per student cost of HS</u> Proficiency rate	Whites	\$46,172	\$48,097	\$1,925	4.2%
	African-Americans	\$94,259	\$72,384	-\$21,874	-23.2%
	Hispanics	\$92,234	\$69,729	-\$22,505	-24.4%
	Asian-Americans	\$47,187	\$47,834	\$647	1.4%
	Students receiving FARMS	\$94,029	\$70,064	-\$23,965	-25.5%
	Students with disabilities	\$123,076	\$95,251	-\$27,826	-22.6%
	English language learners	\$146,943	\$92,042	-\$54,901	-37.4%
<b>Pilot Indicator B: AP/Honors Class Participation</b> <u>75% of per student cost of HS</u> Participation rate	Whites	\$38,287	\$39,842	\$1,555	4.1%
	African-Americans	\$66,935	\$64,675	-\$2,261	-3.4%
	Hispanics	\$73,189	\$66,646	-\$6,543	-8.9%
	Asian-Americans	\$36,184	\$38,851	\$2,667	7.4%
	Students receiving FARMS	\$84,252	\$78,822	-\$5,431	-6.5%
	Students with disabilities	\$152,542	\$140,730	\$11,823	-7.7%
	English language learners	\$126,013	\$116,690	-\$9,323	-7.4%

**Key Findings on Unit Costs for Student Subgroups:**

- The unit costs of achieving proficiency on the Algebra HSA varied by student group. In FY06, unit costs were about \$48,000 for White and Asian-American students compared to about \$70,000 for Hispanics, African-Americans, and students receiving FARMS and to more than \$90,000 for English language learners and students with disabilities.
- The unit costs of AP/Honors class participation in FY06 were even more varied. At the high end, the unit costs for English language learners and students with disabilities exceeded \$100,000 compared to students receiving FARMS having unit costs of about \$79,000 and Hispanics and African-Americans having unit costs of approximately \$66,000. With their high rates of AP/Honors class participation, White and Asian-American students had the lowest unit costs of about \$39,500.
- Between FY03 and FY06, the unit costs of Algebra HSA proficiency and AP/Honors class participation for White and Asian-American students increased. Assuming common high school career costs for all student groups, these findings suggest that MCPS became less efficient at serving these student subgroups.

- Between FY03 and FY06, the unit costs of Algebra HSA proficiency declined significantly for African-Americans, Hispanics, and students receiving FARMS, English language acquisition, and special education services; the rates of decline for these subgroups ranged from 23% to 37%. This finding suggests that MCPS increased its efficiency in raising the performance of these students. The unit costs for AP/Honors class participation also declined among these student subgroups, but at slower rates ranging from 3% to 9%.

**D. Recommended Issues/Suggested Questions for Council:**

As reviewed earlier, the purpose of presenting these pilot indicators is to begin a discussion between Council and MCPS representatives about ways to measure the efficiency and effectiveness of the County's substantial spending on education. Further, the direction of unit cost changes and differences in unit costs across student subgroups should guide the Council's discussions on the two pilot indicators more than the dollar amounts themselves. Because methods for measuring progress vary significantly across school systems, OLO also cautions the Council about making comparisons of MCPS pilot indicators with other school systems.

The differences in unit costs across subgroups and particularly the high unit costs among students with disabilities and English language learners suggests that different resource reallocations and programming will be required to significantly boost student achievement and ultimately reduce unit costs. Further, as new programs are implemented, unit costs are likely to increase before the achievement levels of student subgroups increase enough to reduce per student costs. As such, annual changes in unit costs may be less meaningful than longer term changes in unit costs.

Suggested Questions

1. Is the methodology proposed, in general, something that the Council is interested in pursuing? If yes, are there specific suggestions for how to improve either the calculations themselves or the explanation/presentation of results?
2. What is MCPS' vision for improving its instructional efficiency? What strategies and performance measures does MCPS already employ toward this end? How do these pilot indicators compare to these strategies and measures?
3. What explanations can MCPS offer on the differences in unit costs by student group? If achievement rates are compared to actual student costs by student group, how might the unit cost estimates differ?
4. To what factors does MCPS attribute its increasing efficiency in serving Hispanics, African-Americans and students receiving FARMS, special education, and English language acquisition services between FY03 and FY06?
5. In the future, what other benchmarks and measurements of the relationship between spending and educational results does MCPS recommend that the Council consider? Will the new financial management system enable a more rigorous linking of resources expended to student outcomes?

## **Chapter VI: Recommendations for Next Steps**

This Office of Legislative Oversight project is part of a County Council initiative to increase the Council's oversight of funds appropriated to the Montgomery County Public Schools. The Council's assignment to OLO was to recommend a group of approximately one dozen fiscal indicators of the MCPS operating budget. In requesting this project, Councilmembers indicated their intent to use this information to:

- Become more familiar with MCPS' base budget;
- Provide context for MCPS' annual budget requests for new funding; and
- Engage in discussion with representatives of MCPS and members of the community about trends in MCPS' funding and expenditures.

Combined with data on student performance, the review of fiscal indicators can also facilitate understanding of the efficiency and effectiveness of MCPS' operations and activities. While recognizing that no single fiscal indicator alone, such as per student costs or average teacher salary, can be used to determine what should or should not be funded, such indicators can serve as barometers of the fiscal performance of the school system.

OLO recommends the Council take the following next steps regarding their review and use of the dozen fiscal indicators and two pilot indicators outlined in the previous chapters.

### **Step 1: Adopt a package of fiscal indicators for the MCPS operating budget. Decide the format and frequency for providing future updates to the Council.**

The Council should adopt a package of fiscal indicators for the MCPS budget, either as proposed by OLO in the earlier chapters of this report, or in some amended form that best reflects the Council's priority interests. When deciding whether to add fiscal indicators, OLO encourages the Council to limit the total number, keeping in mind that a manageable number is more likely to be used on a regular basis over time.

In reviewing the dozen fiscal indicators (outlined in Chapter IV) and the two pilot indicators (outlined in Chapter V), the Council should decide whether the proposed format (i.e., length of write-up, detail provided in data tables, use of graphics) meets the Council's information needs, or whether an alternative format would better serve the Council going forward.

Councilmembers should also decide how often the Council wants future updates on the indicators adopted. In making this decision, the Council may want to consider dividing the final set of indicators into those that should be updated annually and those that should be updated more often, e.g., biannually or quarterly.

**Step 2: Direct staff to produce an updated version of the adopted indicators that reflects the Board of Education's FY08 recommended operating budget, with guidance that the task be completed before the Council begins budget worksessions in April.**

If the Council is interested, then Legislative Branch staff (OLO or central Council) could be directed to produce a version of the adopted package of indicators, to include data contained in the Board of Education's FY08 recommended operating budget. This addition should enhance the Council's FY08 operating budget worksessions. Specifically, it will provide the Council with one additional year of data on budget trends; this will include the fiscal implications of the major MCPS cost drivers, such as the increased costs of salaries and benefits associated with the proposed contract agreements with MCPS' bargaining units.

**Step 3: Go back through the adopted indicators and determine whether the Council wants any additional comparative data from other school districts. Decide the scope of comparative information desired.**

OLO selected some comparative data to include in the write-ups of three proposed indicators: the percent of local funding for all school districts in Maryland (Indicator 1); starting and average salaries for teachers (Indicator 5); and average per student costs by grade span (Indicator 10).

OLO recommends that the Council decide whether additional comparative data are desired for these or other indicators, and at what level of comparison. Options for the Council to consider include comparing MCPS data in more detail with:

- A single peer school district in the region, such as Fairfax County;
- Other school districts in Maryland, such as Howard County, Anne Arundel County, and/or Baltimore County;
- Other school districts across the country that MCPS considers its peers.

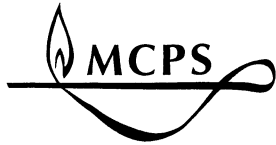
**Step 4: Consider assigning OLO an FY08 project to develop a parallel package of key fiscal indicators for MCPS Capital Budget and Capital Improvement Program (CIP).**

If the Council finds that the approach of identifying a manageable number of fiscal indicators to track over time a useful exercise for the MCPS operating budget, then OLO recommends that Council consider assigning a parallel project for MCPS' capital budget and CIP. Examples of fiscal topics addressed in the capital budget and CIP as compared to the operating budget include: the annual and six-year cost and sources of funding for MCPS' capital program; the cost of debt; the cost and schedule for new school construction, additions, and modernizations; and the backlog of major infrastructure repair, replacement, and preventive maintenance projects.

**Chapter VII. Agency Comments**

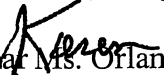
The written comments received from the Superintendent of Schools on a final draft of this Office of Legislative Oversight report are attached (page 83).

OLO's final report incorporates technical corrections and comments provided by MCPS staff. As always, OLO greatly appreciates the time taken by staff to review our draft report and provide feedback.



February 20, 2007

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

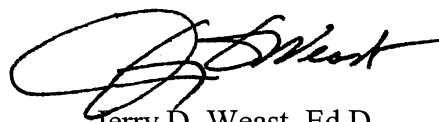
  
Dear Ms. Orlansky:

Thank you for providing the draft report from the Office of Legislative Oversight for the Montgomery County Public Schools (MCPS) Fiscal Indicators project. This project has provided a comprehensive review of fiscal indicators relevant to the MCPS operating budget. MCPS staff has reviewed the draft report and found it to be thoughtfully written and helpful to our common goal of making the MCPS budget more understandable to the public and a more useful tool to elected officials.

I appreciate the collaborative relationship that Ms. Elaine Bonner-Tompkins developed with the many MCPS staff with whom she worked during the project. She provided them with ongoing opportunities for input into the development of fiscal indicators and accepted many of their suggestions. MCPS staff has carefully reviewed drafts of the report and provided specific suggestions and comments regarding the MCPS data used. Staff agrees that the findings and recommendations are appropriate.

The members of the Board of Education and I look forward to working with the County Council as this report is reviewed and discussed. I believe the development of useful fiscal indicators for MCPS and other county agencies will be an ongoing process that will prove most valuable. The goal will be to ensure that MCPS remains the high performing school district that our constituents expect and deserve.

Respectfully,



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

JDW:vnb  
Copy to:  
Members of the Board of Education  
Executive Staff  
Mr. Ikheloa

Office of the Superintendent of Schools

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



**APPENDIX**

<b>Appendix</b>	<b>Title</b>	<b>Begins on Circle Number</b>
<b>A</b>	Summary of MCPS Strategic Plan, <i>Our Call to Action: Pursuit of Excellence</i> , and Selected Student Performance Targets	2
<b>B</b>	Number of MCPS School Facilities, FY03-FY07	9
<b>C</b>	Financial and Demographic Data from State and Metropolitan Area School Districts Used for Comparisons	10
<b>D</b>	Census Data from State and Metropolitan Area Cities and Counties for School Districts Used for Comparisons	11
<b>E</b>	Technical Notes: Calculations Used by OLO for Per Student Costs Shown in Indicator 11	12
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**Appendix A:**  
**Summary of MCPS Strategic Plan, *Our Call to Action: Pursuit of Excellence*,  
and Selected Student Performance Targets**

In 1999, MCPS developed the first edition of *Our Call to Action: Pursuit of Excellence (Our Call to Action)*, which serves as the MCPS strategic plan. The current edition presents five System Goals for 2006-2011:

- Ensure success for every student,
- Provide an effective instructional program,
- Strengthen productive partnerships for education,
- Create a positive work environment in a self-renewing organization; and
- Provide high-quality business services that are essential to the educational success of students.

For each goal, *Our Call to Action* provides a list of several milestones to be met. The first two goals relate directly to student performance, and milestones include test scores, advanced course enrollment, and suspension and graduation rates (see table below).

**Student Performance Milestones**

Goals	Milestones
Ensure success for every student.	<ul style="list-style-type: none"> <li>• All students will achieve or exceed proficiency standards in mathematics, reading, and writing on local and state assessments.</li> <li>• All students will successfully complete algebra by the end of Grade 9 and geometry by the end of Grade 10.</li> <li>• All schools will increase participation and performance of all students taking the SAT.</li> <li>• All schools will eliminate the disproportionate suspension rate of African-American and Hispanic students.</li> <li>• All students will be educated in learning environments that are safe, drug-free, and conducive to learning.</li> <li>• All schools will meet or exceed the State's graduation requirements.</li> <li>• All students will graduate prepared for postsecondary education or employment.</li> </ul>
Provide an effective instructional program.	<ul style="list-style-type: none"> <li>• All students will acquire the essential skills and knowledge to meet or exceed standards in reading and math by the end of Grade 2.</li> <li>• All schools will increase enrollment and performance of all students in gifted, Honors, Advanced Placement, and other advanced programs.</li> <li>• MCPS will eliminate the disproportionate representation of minority students in special education.</li> <li>• All schools will provide students with disabilities access to the general education environment to the maximum extent appropriate.</li> <li>• All schools will achieve or exceed local and State standards for attendance, promotion, and dropout.</li> </ul>

Source: *Our Call to Action: Pursuit of Excellence— The Strategic Plan for MCPS 2006-2011*

MCPS' student performance targets relate to these milestones, and the school system reports its progress in the *Annual Report on Our Call to Action*. The tables below show selected indicators for elementary, middle, and high school students with actual 2005-2006 school year results and targets for future years. The sample indicators include both minimum standards set by the Maryland State Department of Education (MSDE) and No Child Left Behind (NCLB) and additional standards set by MCPS.

### Elementary School Student Performance Targets

Indicator	2006 (target)	2006 (actual)	2007	2008	2009	2010	2014
Percent of students proficient or higher in Maryland State Assessment (MSA) reading	62.5	83.5	67.2	71.8	76.5	81.2	100*
White		93.0					
African-American		71.3					
Hispanic		72.2					
Asian-American		90.6					
Students receiving free and reduced-price meals (FARMS)		67.7					
Students with disabilities		62.5					
English language learners		55.1					
Percent of students proficient or higher in MSA mathematics	58.8	83.8	63.9	69.1	74.2	79.4	100*
White		93.8					
African-American		68.1					
Hispanic		73.5					
Asian-American		93.7					
Students receiving FARMS		67.2					
Students with disabilities		56.4					
English language learners		59.8					
Percent of Grade 5 students completing Mathematics A (Grade 6 math)	29.4	29.4	33.3	37.2	41.1	45.0	-
White		40.2					
African-American		13.0					
Hispanic		12.2					
Asian-American		48.3					
Students receiving FARMS		10.3					
Students with disabilities		7.5					
English language learners		4.4					

\*Required by NCLB

Source: 2006 Annual Report on Our Call to Action

### Middle School Student Performance Targets

Indicator	2006 (target)	2006 (actual)	2007	2008	2009	2010	2014
Percent of students proficient or higher in MSA reading	61.5	76.5	66.3	71.1	75.9	80.8	100*
White		90.5					
African-American		61.3					
Hispanic		56.9					
Asian-American		86.7					
Students receiving FARMS		51.8					
Students with disabilities		39.5					
English language learners		31.2					
Percent of students proficient or higher in MSA mathematics	42.9	71.0	50.0	57.1	64.3	71.4	100*
White		86.3					
African-American		47.9					
Hispanic		51.7					
Asian-American		87.7					
Students receiving FARMS		44.3					
Students with disabilities		32.3					
English language learners		36.0					
Percent of middle school students completing Grade 8 Algebra	54.6	49.4	61.0	67.3	73.7	80.0	-
White		64.3					
African-American		25.5					
Hispanic		26.2					
Asian-American		72.3					
Students receiving FARMS		21.7					
Students with disabilities		11.7					
English language learners		15.1					
Percent of middle school test takers passing Algebra 1 High School Assessment (HSA)	100	97.0	100	100	100	100	-
White		98.6					
African-American		91.8					
Hispanic		92.5					
Asian-American		98.7					
Students receiving FARMS		91.8					
Students with disabilities		71.9					
English language learners		86.5					

**Middle School Student Performance Targets, continued**

<b>Indicator</b>	<b>2006 (target)</b>	<b>2006 (actual)</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2014</b>
Suspension rate (All Students)	7.4	7.8	7.4	7.4	7.4	7.4	-
White		3.4					
African-American		17.3					
Hispanic		10.0					
Asian-American		2.8					
Students receiving FARMS		16.3					
Students with disabilities		16.8					
English language learners		8.3					

\*Required by NCLB

Source: 2006 Annual Report on Our Call to Action

### High School Student Performance Targets

Indicator	2006 (target)	2006 (actual)	2007	2008	2009	2010	2014
English HSA Pass Rate	100	69	100	100	100	100	100*
White		88					
African-American		53					
Hispanic		55					
Asian-American		82					
Students receiving FARMS		42					
Students with disabilities		25					
English language learners		26					
Algebra HSA Pass Rate	100	79	100	100	100	100	100*
White		91					
African-American		60					
Hispanic		63					
Asian-American		91					
Students receiving FARMS		62					
Students with disabilities		46					
English language learners		48					
Biology HSA Pass Rate	100	78	100	100	100	100	100*
White		89					
African-American		60					
Hispanic		61					
Asian-American		89					
Students receiving FARMS		57					
Students with disabilities		41					
English language learners		46					
Government HSA Pass Rate	100	81	100	100	100	100	100*
White		91					
African-American		68					
Hispanic		67					
Asian-American		90					
Students receiving FARMS		63					
Students with disabilities		45					
English language learners		54					

### High School Student Performance Targets, continued

Indicator	2006 (target)	2006 (actual)	2007	2008	2009	2010	2014
Percent of students enrolled in Honors/AP courses	68.4	69.7	70.1	71.1	73.4	75.0	-
White		82.3					
African-American		50.7					
Hispanic		49.2					
Asian-American		84.4					
Students receiving FARMS		41.6					
Students with disabilities		23.3					
English language learners		28.1					
Percent of AP/IB test takers receiving a 3 or better	42.2	45.2	52.4	56.6	60.8	65.0	-
White		55.2					
African-American		16.2					
Hispanic		33.1					
Asian-American		60.1					
Students receiving FARMS		22.8					
Students with disabilities		13.1					
English language learners		20.2					
Percent of students taking the SAT	77.2	75.8	77.9	78.6	79.3	80.0	-
White		82.1					
African-American		65.9					
Hispanic		53.0					
Asian-American		87.8					
Students receiving FARMS		54.0					
Students with disabilities		45.9					
English language learners		35.7					
Suspension Rate	6.5	6.8	6.5	6.5	6.5	6.5	-
White		3.3					
African-American		14.7					
Hispanic		9.5					
Asian-American		2.4					
Students receiving FARMS		14.4					
Students with disabilities		16.0					
English language learners		7.9					

### High School Student Performance Targets, continued

Indicator	2006 (target)	2006 (actual)	2007	2008	2009	2010	2014
Graduation Rate	92.4	91.6	93.3	94.2	95.1	96.0	90.0**
White		95.2					
African-American		87.6					
Hispanic		81.3					
Asian-American		96.5					
Students receiving FARMS		89.4					
Students with disabilities		88.4					
English language learners		97.3					

\*Required by NCLB

\*\*Required by MSDE

*Source: 2006 Annual Report on Our Call to Action*



**Appendix B:  
Number of MCPS School Facilities\*, FY03-FY07**

<b>Number of Schools</b>	<b>FY03</b>	<b>FY04</b>	<b>FY05</b>	<b>FY06</b>	<b>FY07</b>
Elementary	125	125	125	125	129
Middle	36	36	36	38	38
High	23	23	24	24	25
Career Centers	1	1	1	1	1
Special Centers	6	6	6	6	6
<b>Total Number of Schools</b>	<b>191</b>	<b>191</b>	<b>192</b>	<b>194</b>	<b>199</b>
New Schools Opened	1	0	1	2	5

\*Does not include six transportation facilities or 22 other centers and offices operated by MCPS.

Source: FY07 Citizens Budget, FY07 and FY08 CIP

**Appendix C:  
Financial and Demographic Data from State and Metropolitan Area School Districts Used for Comparisons**

School District	Student Enrollment	FY06 Adopted Operating Budget*	FY07 Adopted Operating Budget*	Number of Schools	Number of Employees	Number of Teachers	% FARMS	% ESOL	% Special Education	% White	% African-American	% Hispanic	% Asian-American
<b>Maryland State Department of Education</b>													
Anne Arundel County	73,565	\$724	\$789	118	14,310	5,112	21	2	13	69	22	5	3
Baltimore County	107,043	\$1,089	\$1,367	164	17,000	8,850	33	2	13	52	39	3	5
Charles County	26,406	\$225	\$253	41	2,935	1,677	24	1	8	47	46	3	3
Frederick County	39,672	\$361	\$412	63	4,807	2,555	14	3	12	79	11	6	4
Howard County	48,596	\$504	\$552	71	7,319	4,240	11	3	9	62	20	4	14
Montgomery County	139,398	\$1,714	\$1,851	194	20,132	11,995	22	10	12	42	23	20	15
Prince George's County	133,325	\$1,377	\$1,493	205	16,367	8,683	44	8	11	6	76	14	3
<b>Washington Area Boards of Education</b>													
Alexandria City	10,150	\$175	\$191	18	2,121	1,155	52	22	19	24	44	27	6
Arlington County	18,411	\$299	\$325	34	4,031	1,861	37	19	16	47	14	27	11
Fairfax County	164,284	\$1,960	\$2,115	187	21,980	13,935	20	13	14	50	11	16	17
Falls Church City	1,882	\$31	\$34	5	347	185	8	10	15	74	5	8	11
Loudoun County	47,361	\$527	\$603	68	7,448	3,981	10	7	13	66	7	12	12
Manassas City	6,377	\$85	\$91	9	885	527	24	25	12	51	17	27	4
Montgomery County	139,387	\$1,759	\$1,902	193	N/A	11,253	24	10	12	N/A	N/A	N/A	N/A
Prince George's County	137,014	\$1,377	\$1,493	191	N/A	9,492	48	6	11	N/A	N/A	N/A	N/A
Prince William County	68,519	\$655	\$740	81	9,466	4,950	23	10	11	42	22	24	7

Source: Washington Area Boards of Education (FY06-07), Maryland State Department of Education (2006), Individual school districts

\*Operating budget data in millions of \$

Appendix D:

Census Data from State and Metropolitan Area Cities/Countries for School Districts Used for Comparisons

City/County	2005							2000				
	Estimated Total Population	Median Household Income	Families Below Poverty Level (%)	Population Below Age of 18 (%)	White (%)	African-American (%)	Hispanic (%)	Asian-American (%)				
<b>State of Maryland</b>												
Anne Arundel County	494,676	\$61,768	4	25	81	14	3	2				
Baltimore County	786,000	\$50,667	5	24	74	20	2	3				
Charles County	137,341	\$62,199	4	29	69	26	2	2				
Frederick County	215,877	\$60,276	3	28	89	6	2	2				
Howard County	265,755	\$74,167	3	28	74	14	3	8				
<b>Montgomery County</b>	<b>928,000</b>	<b>\$71,551</b>	<b>4</b>	<b>25</b>	<b>65</b>	<b>15</b>	<b>12</b>	<b>11</b>				
Prince George's County	828,834	\$55,256	5	27	27	63	7	4				
<b>Washington Metropolitan Area</b>												
Alexandria City	133,479	\$56,054	7	17	60	23	15	6				
Arlington County	191,852	\$63,001	5	16	69	9	19	9				
Fairfax County	1,007,000	\$81,050	3	25	70	9	11	13				
Falls Church	10,377*	\$74,924	3	23	85	3	8	7				
Loudoun County	254,612	\$80,648	2	30	83	7	6	5				
Manassas City	35,135*	\$60,409	4	30	72	13	15	3				
Prince William County	346,790	\$65,960	3	30	69	19	10	4				

Source: United States Census Bureau, "American Factfinder." 2000. [www.factfinder.census.gov](http://www.factfinder.census.gov)

\*Population data from 2000 Census because there was no 2005 Census Bureau estimate available for these districts

**Appendix E:  
Technical Notes  
Calculations Used by OLO to Determine Per Student Costs in Indicator 11**

**MCPS Cost per K-12 Student Published in MCPS Budget**

MCPS Included Expenditures	\$1,586,439,888
/ Number of MCPS Students	136,862
<hr/>	
= <i>Cost per K-12 Student</i>	<i>\$11,592</i>

**General Education Cost per K-12 MCPS Student**

MCPS Included Expenditures	\$1,586,439,888
- K-12 Special Education Expenditures including Transportation and Estimated Benefits	\$211,953,711
<hr/>	
= K-12 General Education Expenditures	\$1,374,486,177
 K-12 General Education Expenditures	 \$1,374,486,177
/ Number of MCPS Students	136,862
<hr/>	
= <i>General Education Cost per K-12 MCPS Student</i>	<i>\$10,043</i>

**Cost per K-12 Student with Disabilities**

K-12 Special Education Expenditures including Transportation and Estimated Benefits	\$211,953,711
/ Number of Students with Disabilities	17,700
<hr/>	
= K-12 Special Education Cost per Student with Disabilities	\$11,975
 K-12 Special Education Cost per Student with Disabilities	 \$11,975
+ K-12 General Education Cost per MCPS Student	\$10,043
<hr/>	
= <i>Total Cost per K-12 Student with Disabilities</i>	<i>\$22,018</i>

**Cost per K-12 Student in Private Placement**

Private Placement Expenditures	\$33,507,657
/ Number of Students in Private Placement	621
<hr/>	
= <i>Cost per K-12 Student in Private Placement</i>	<i>\$53,958</i>

**Cost per K-12 Student**

K-12 General Education Expenditures	\$1,374,486,177
+ K-12 Special Education Expenditures including Transportation and Estimated Benefits	\$211,953,711
+ Private Placement Expenditures	\$33,507,657
<hr/>	
= Total Expenditures for K-12	\$1,619,947,545
 Total Expenditures for K-12	 \$1,619,947,545
/ MCPS Students and Students in Private Placement	137,483
<hr/>	
= <i>Cost per K-12 Student</i>	<i>\$11,783</i>

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

**MCPS Publications**

Strategic Plan Documents

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

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

Operating and Program Budget Documents

*The Citizens Budget.* FY2003-FY2008.

*Superintendent's Recommended Operating Budget and Personnel Complement.* FY07 & FY08.

*Operating Budget: Adopted by the Board of Education.* FY07.

*Operating Budget Summary and Personnel Complement: Appropriated by the County Council, Adopted by the Board of Education.* FY02-FY07.

*Program Budget and Budget Staffing Guidelines.* Superintendent's Recommended Operating Budget. FY04-08.

Capital Improvements Program Documents

*Superintendent's Recommended Capital Budget & FY 2007-2012 Capital Improvement Program.* FY07.

*Educational Facilities Master Plan and Capital Improvements Plan.* FY06 & FY07.

*Superintendent's Recommended Capital Budget & Amendments to the FY2007-FY2012 Capital Improvements Program.* FY08.

*Board of Education Requested Capital Budget and Amendments to the FY2007-FY2012 Capital Improvements Program.* 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.*

*Application for the 2006 Malcolm Baldrige National Quality Award.* May 2006.

*Comprehensive Annual Financial Report.* Office of the Chief Operating Officer. FY06.

*Contract Agreement between the Montgomery County Educational Association and the Board of Education of Montgomery County for the 2005-2007 school years.*

*High School Course Bulletin 2007-2008.* 2007-2008 school year.

*Report on Middle School Reform.* January 9, 2007.

*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.*

*Special Education at a Glance.* Department of Reporting and Regulatory Accountability. 2005-2006 school year.

*Staff Statistical Profile.* FY05.

Steinberg, Laura. M. and Missy Gumula. *Honors or Advanced Course Enrollment.* Department of Reporting and Regulatory Accountability. September 2005 & September 2006.

### **Comparative School District Publications**

Alexandria City Public Schools. *Final Operating Budget: Fiscal Year 2006-07.* FY07.

Anne Arundel County Public Schools. "Facts about AACPS."  
<http://www.aacps.org/>

Anne Arundel County Public Schools. *FY07 Operating and Capital Budget Request: Board of Education Approved.* FY07.

Arlington County Public Schools. *Adopted Budget FY 2007.* FY07.

Baltimore County Public Schools. *Adopted Operating Budget: Fiscal Year 2007.* FY07.

Baltimore County Public Schools. *Blueprint for Progress Report on Results for School Year 2004-2005.* October 2005.

Charles County Public Schools. "About Us: Fast Facts." 2006.  
[www2.ccboe.com/aboutus/fastfacts.cfm](http://www2.ccboe.com/aboutus/fastfacts.cfm)

Charles County Public Schools. *Charles County Public Schools: Annual Report.* 7 February 2007.

Charles County Public Schools. *FY2007 Approved Operating Budget.* FY07.

Charlotte-Mecklenburg Schools Board of Education. *2006-2007 Adopted Budget.* Charlotte, NC. 22 August 2006.

Falls Church City Public Schools. *FCCPS Budget for Fiscal Year 2007.* FY07.

Falls Church City Public Schools. *Proposed Budget for FY08.* FY08.

Falls Church City Public Schools. "Quick Facts." 2006. [www.fccps.k12.va.us/quickfacts.htm](http://www.fccps.k12.va.us/quickfacts.htm)

Fairfax County Public Schools. *FY 2007 Approved Budget*. FY07.

Fairfax County Public Schools. *WABE Guide: FY 2007*. Washington Area Boards of Education. FY07.

Frederick County Public Schools. *2006 Annual Update to the Bridge to Excellence Master Plan*. 10 November 2006.

Frederick County Public Schools. *Fiscal 2007 Approved Budget: General Operating Budget*. FY07.

Howard County Public Schools. *Howard County Public School System Fiscal 2007 Approved Operating Budget*. FY07.

Howard County Public Schools. *Howard County Public School System: Profile*. 2006-07.

Loudoun County Public Schools. "Loudoun County Public Schools: Profile." 2006. [www.cmsweb1.loudoun.k12.va.us/50975427144147/site/default.asp](http://www.cmsweb1.loudoun.k12.va.us/50975427144147/site/default.asp)

Loudoun County Public Schools. *Proposed FY08 Budget*. FY08.

Manassas City Public Schools. "Manassas City Public Schools: Profile." 2006. [www.manassas.k12.va.us/hresources/working.htm](http://www.manassas.k12.va.us/hresources/working.htm)

Maryland State Department of Education. *2006 Maryland Report Card*. 2007. [www.marylandreportcard.org](http://www.marylandreportcard.org).

Prince George's County Public Schools. *Annual Report*. 2006.

Prince George's County Public Schools. *Approved Annual Operating Budget: Fiscal Year 2007*. FY07.

Prince William County Public Schools. *Approved School Board Budget Fiscal Year 2007*. FY07.

Prince William County Public Schools. *Profile of Excellence*. January 2007.

United States Census Bureau. "American FactFinder." 2000. [www.factfinder.census.gov](http://www.factfinder.census.gov)

### **Other Resources**

Arveson, Paul. <http://balancedscorecard.org/basics/bsc1.html>. The Balanced Scorecard Institute. 1998.

Borja, Rhea. "Researchers Weigh Benefits of One Computer per Lap." *Education Week*. 10 May 2006.

Brimley, Vern Jr. and Rulon R. Garfield. *Financing Education in a Climate of Change*. 8<sup>th</sup> edition. Boston, MA: Allyn and Bacon, 2002.

Card, David and A. Abigail Payne. "School Finance Reform, and the Distribution of SAT Scores." *National Bureau of Economic Research*. October 1998.

Chubb, John E. and Tom Loveless. ed. *Bridging the Achievement Gap*. Washington, DC: Brookings Institution Press, 2002.

- Darling-Hammond, Linda, Michael Milliken and Peter Ross. *High School Size, Structure and Content: What Matters for Student Success?* Stanford University. 2005.
- Education Research Service (ERS). *Budgeted Revenues and Expenditures in Public School Systems: Current Status and Trends, Update 2006.* Research Snapshot. ERS National Survey of School District Budgets, 30th Ed. 2006.
- Education Research Service (ERS). *Salaries and Wages Paid Professional and Support Personnel in Public Schools, 2005-2006.* Research Snapshot. ERS National Survey of Salaries and Wages in Public Schools, 33rd Ed. 2006.
- Education Research Service (ERS). *Staffing Patterns in Public School Systems: Current Status and Trends, Update 2006.* Research Snapshot. ERS National Survey of Salaries and Wages in Public Schools, 33rd Ed. 2006.
- Farber, Steve. *Compensation and Benefits for All Agencies.* Management and Fiscal Policy Committee, County Council. 17 April, 2006.
- Filardo, Mary, Jeffrey Vincent, Ping Sung and Travis Stein. "Growth and Disparity: A Decade of U.S. Public School Construction." Building Educational Success Together. October 2006.
- Friedman, Mark. *A Guide to Developing and Using Performance Measures in Results-based Budgeting.* Finance Project, Washington, DC. May 1997.
- Friedman, Mark. *Trying Hard is Not Good Enough: How to Produce Measurable Improvement for Customers and Communities.* Victoria, British Columbia: Trafford Publishing. 2005.
- Friedman, Mark. *A Strategy Map for Results-based Budgeting: Moving from Theory to Practice.* Finance Project, Washington, DC. September, 1996.
- Fowler, William, Jr. ed. *Developments in School Finance. 1999-2000.* National Center for Education Statistics. July 2002.
- Governmental Accounting Standards Board (GASB). *Concept Statements No 1: Objectives of Financial Reporting.* [http://www.seagov.org/sea\\_gasb\\_project/con\\_stmt\\_one.shtml](http://www.seagov.org/sea_gasb_project/con_stmt_one.shtml)
- Grubb, Norton and Laura Goe. *The Unending Search for Equity: California Policy, New School Finance, and the Williams Case.* University of California, Berkeley. 2003.
- Hanushek, Erick A. "Publicly Provided Education." *National Bureau of Economic Research.* February 2002.
- Harry Hantry, Marita Alexander and James Fountain, Jr. "Chapter 4: Elementary and Secondary Education" in Harry Hantry, James Fountain, Jr., Jonathan Sullivan and Lorraine Kremer (eds.) *Service Efforts and Accomplishments Reporting: It's Time Has Come, An Overview.* Norwalk, Connecticut: Governmental Accounting Standards Board, 1990
- Hochschild, Jennifer and Bridget Scott. "Trends: Governance and Reform of Public Education in the United States." *Public Opinion Quarterly.* vol. 62, no.1, Spring, 1998, p. 79-120.



- Hochschild, Jennifer and Nathan Scovronick. *The American Dream and the Public Schools*. Oxford University Press: New York. 2003.
- Jencks, Christopher and Meredith Phillips ed. *The Black-White Test Score Gap*. Washington, D.C: Brookings Institution Press. 1998.
- Konstantopoulos, Spyros. *Trends of School Effects on Student Achievement*. IZA Research Institute. September 2005.
- Krueger, Alan. "Experimental Estimates of Education Production Functions." *The Quarterly Journal of Economics*. May 1999.
- Levchenko, Keith. *Briefing: Montgomery County Public Schools (MCPS) Presentation on Enrollment and Demographic Trends*. Education Committee, County Council. 29 January 2007.
- Maryland State Department of Education (MSDE). *2006 Annual Update to Bridge to Excellence Master Plans, Approved FY07 Budgets*.
- Maryland State Department of Education. *Analysis of Professional Salaries, Maryland Public Schools*. October, 2005.
- Maryland State Department of Education. *Maryland Professional Salary Schedules, Maryland Public Schools*. 2005-2006 school year.
- Maryland State Department of Education. *The 2005 Master Plan Annual Update*. February 2006.
- National Center for Education Statistics. "Table 160: Revenues for public elementary and secondary schools, by source and state or jurisdiction: 2002-2003." *Digest of Education Statistics*. 2005.
- Office of the County Auditor. *Fiscal Briefing: Overview of the FY 2007 Proposed Operating and Capital Budgets*. Fiscal and Policy Analysis, Baltimore County, MD. 9 May 2006.
- Office of Management and Budget. *Volume 2: Montgomery Measures Up! County Executive's FY07 Recommended Operating Budget and Public Services Program*. Montgomery County, MD. March 2006.
- O'Sullivan, Arthur. *Urban Economics*. 5<sup>th</sup> ed. McGraw-Hill: Boston. 2003.
- Redd, Zakia, Jennifer Brooks and Ayelish McGarvey. "Educating America's Youth: What Makes a Difference." *Child Trends Research Brief*. August 2002.
- Richards, Sue, Craig Howard and Ben Stutz. *An Analysis of Montgomery County Public Schools' Special Education Spending: Part 1*. Office of Legislative Oversight Report 2004-4. 3 February 2005.
- Standard and Poor's School Evaluation Services. *Analytical Framework and Methodology*, March 2005. [http://www.schoolmatters.com/pdf/Analytical\\_Paper\\_3-11-05.pdf](http://www.schoolmatters.com/pdf/Analytical_Paper_3-11-05.pdf)
- Trombka, Aron and Karen Yoskowitz. *Legislative Uses of Performance Measures in Budget Decision-Making*. Office of Legislative Oversight Report 2006-2. 15 November 2005.
- Viadero, Debra. "How Much is Enough?" *Education Week*. (Online). 29 September 1999.