

**The Impacts of the Montgomery County Public Schools'
Proposed 2016 Budget on Montgomery County
and the State of Maryland Economies**

By

Stephen S. Fuller, Ph.D.
Dwight Schar Faculty Chair and University professor
Director, Center for Regional Analysis
George Mason University
Arlington, Virginia

Prepared for

Montgomery County Public Schools

January 2015

The Impacts of the Montgomery County Public Schools' Proposed 2016 Budget on Montgomery County and the State of Maryland Economies

Executive Summary

The Montgomery County Public Schools (MCPS) is a major source of economic activity within the County with these benefits extending across the State. These economic benefits result from MCPS's annual expenditures for new facilities, its outlays for repairs and maintenance, and its spending in support of program and facility operations. These expenditures generate employment and personal earnings—wages and salaries—and they support a broad base of local businesses that supply goods and services in support of MCPS's mission.

These direct expenditures for construction and operations generate secondary and induced economic benefits as a result of the flow of payroll and business revenues through the County's economy. When these monies are re-spent, they support sales and jobs spanning the breadth of the County's economy with local retail and consumer service businesses realizing a major share of these sequential benefits. As a result of these direct and indirect (and induced) economic benefits, MCPS is one of the County's largest "businesses" accounting for more than four percent of Montgomery County's employment base and its gross county product.

These economic impacts that would flow from MCPS's proposed FY 2016 capital and operating budget are identified and quantified in this research report. This budget proposal includes \$334.4 million for capital outlays and \$2.4 billion of annual operations for a total of \$2.738 billion in direct outlays during FY 2016. These outlays would contribute a total of \$3.264 billion to Montgomery County's gross county product (GCP), the total value of goods and services produced by the County's economy. This direct spending and its re-spending within the County's economy would generate an additional \$711 million in personal earnings—wages and salaries—that would accrue to workers residing within the County and support an estimated 9,282 local full-time, year-round equivalent local jobs and 20,635 full-time, year-round equivalent jobs across the State of Maryland as well as additional jobs beyond the State's economy.

These benefits captured within the Montgomery County economy extend to the economies of other Maryland jurisdictions and to the State's economy as a result of MCPS employees residing outside of Montgomery County and MCPS vendors and suppliers being located elsewhere in the State and in adjacent states. The State of Maryland's economic impacts are significant, reflecting a multiplier of 1.50 with MCPS's proposed FY 2016 budget shown to generate \$4.118 billion to the benefit of the State's economy, a gain of 26.2 percent additional benefits beyond those retained within the Montgomery County economy. These economic benefits are summarized in Table 1.

Table 1

Summary of Economic Impact of MCPS's 2016 Proposed Construction and Operating Budget on Montgomery County and the State of Maryland
(in millions of 2016 dollars)

Jurisdiction And Type	Direct Outlays ¹	Total Output ²	Personal Earnings ³	Jobs Supported ⁴
Montgomery				
Construction	\$334.4	\$519.2	\$118.3	2,405
Operations	\$2,403.6	\$2,744.3	\$592.6	14,983
Totals	\$2,738.0	\$3,263.5	\$710.9	17,388
Maryland				
Construction	\$334.4	\$660.3	\$220.6	4,680
Operations	\$2,403.6	\$3,457.7	\$1,052.8	25,977
Totals	\$2,738.0	\$4,118.0	\$1,273.4	30,657

Sources: MCPS; GMU Center for Regional Analysis

Notes: ¹direct outlays by MCPS as proposed in its FY 2016 budget;

²the total value of goods and services generated directly and indirectly as a result of the initial construction and annual operating outlays; ³the additional earnings generated from the new economic activities supported by the construction and operating outlays; ⁴the additional new local and non-local jobs supported by the spending and re-spending of the new construction and operating expenditures.

MCPS's proposed FY 2016 budget, besides supporting the essential educational services that contribute to Montgomery County's reputation as the best place to live and raise a family within the State and as having the best-educated workforce in the State, also constitutes a major source of economic activity. In addition to MCPS's direct employment and payroll, this annual spending for capital construction and facility and program operations has been shown to support more than 9,200 jobs across the County's local businesses accounting for more than six percent of Montgomery County's at-place employment with a combined payroll estimated to total \$1.9 billion being realized by workers residing within Montgomery County.

As a source of direct and indirect employment and a generator of personal earnings for workers residing in Montgomery County and business revenues for County-based businesses, the importance of these benefits is captured by their accounting for four percent of Montgomery County's projected 2016 gross county product. This magnitude of total economic impact and source of overall economy activity, jobs and personal income, would establish MCPS as the County's third largest sources of economic activity in 2016.

Introduction

The expenditures made by the Montgomery County Public Schools (MCPS) for its annual operations, including payroll, and construction outlays for new facilities constitute a major source of economic activity that contributes to the County's vitality at an order of magnitude exceeding the initial value of these expenditures. It is the objective of the research reported herein: (1) to identify the sources and magnitudes of MCPS's expenditures as proposed in its FY 2016 budget, (2) to calculate the value of the impacts of these expenditures on both the County's and State's economies in terms of their contribution to economic growth, the generation of personal earnings (labor income) and the direct and indirect jobs supported, and (3) to assess the significance of these impacts to these economies' performance.

While the value of these annual expenditures, as measured by the direct employment and business activity they support and the life-long societal benefits resulting from a high-quality education can be shown to be significant without considering the secondary and induced benefits that these direct expenditures generate, it is important to understand the full range and magnitude of these benefits as they spread out through the local and state economies as part of an informed budget discussion. The total economic impact of MCPS's direct annual spending for construction and operations is the sum of these outlays plus their subsequent effects on the County's and State's economies as these dollars are re-spent multiple times for the purchases of goods and services provided locally and across the state.

The aggregate value of this direct and indirect spending can be measured by applying appropriate economic multipliers calculated by the U.S. Bureau of Economic Analysis for Montgomery County and for the State of Maryland. Additionally, the resultant generation of new personal earnings—wages and salaries—accruing to workers residing within Montgomery County and elsewhere in Maryland, and the number of jobs supported locally and elsewhere within the economy can be calculated by applying these respective county- and state-level multipliers.

The magnitudes of these economic impacts are determined by the geographic size of the county (or state), its proximity and interdependency with other counties (or states), and the complexity of their respective economies. Larger counties with more complex economies, such as Montgomery County, retain a higher percentage of the initial outlays than smaller and less complex counties and, therefore, realize a greater overall impact or benefit from these local expenditures. The same is true for the Maryland economy.

The results of these economic impact analyses of MCPS's proposed FY 2016 budget on Montgomery County and on the State of Maryland will provide additional understanding of the returns-on-investment associated with these operating and construction expenditures. These economic benefits are additive to the general educational benefits and the longer-term and accumulating benefits that accrue from

building a strong and competitive workforce to support the County's economic vitality and future growth. Combined, these short- and long-term economic benefits that will accrue to Montgomery County residents from having a quality educational system that underpins the high quality-of-life in the County, constitutes one of the County's principal competitive advantages responsible for attracting the new residents and business investment necessary to support future economic growth.

Impacts on the Montgomery County Economy

The MCPS proposed FY 2016 budget consists of a construction and an operating budget. Together, these proposed outlays total \$2.738 billion. For purposes of this economic impact analysis, this budget proposal is disaggregated into its principal components as each category of outlay has its own unique multiplier that measures how these respective expenditures cycle through the County's economy.

The proposed construction budget for FY 2016 totals \$334.4 million. While this budget is not reported as "soft costs and "hard costs," it has been divided into these categories by applying an industry average: 15.2% of the total construction budget for soft costs and 74.8% for hard costs inclusive of site preparation, infrastructure requirements, building construction and tenant improvements (interior finish, furniture and fixtures). This basic distinction is important as the type of work being done and the trades and professions required vary in each of these categories. For each \$1.00 spent for building construction and related hard costs, the County's economy benefits by a total of \$1.51; that is, its gross county product is expanded by 1.51 times the value of the initial construction outlay. For engineering and design, legal services, and other related soft costs, for each \$1 of expenditure the Montgomery County economy realizes a total contribution of \$1.68. Applying these multipliers to the proposed construction budget for FY 2016 enables the total economic impact to be calculated. MCPS's \$334.4 million in proposed school and related construction in FY 2016 would contribute a total of \$519.2 million to the County's economy.

This direct construction spending—soft and hard costs—and its indirect and induced effects would also generate new personal earnings totaling \$118.3 million that would accrue to workers residing in Montgomery County. This new salary and wage income would result from the jobs supported in the local economy as a result of the construction spending associated with the proposed FY 2016 construction budget as this direct spending for payroll and construction material and supporting business activities is re-spent for goods and services provided by the County's local businesses. This direct and indirect spending related to MCPS's construction activities would support local employment as well as jobs elsewhere in the state, region and beyond. These economic impacts resulting from the construction outlays proposed in the FY 2016 budget are presented in Table 2.

Table 2

Summary of Economic Impact of MCPS's 2016 Proposed

Construction and Operating Budget on Montgomery County
(in millions of 2016 dollars)

Jurisdiction And Type	Direct Outlays ¹	Total Output ²	Personal Earnings ³	Jobs Supported ⁴
Construction				
Soft Costs	\$84.3	\$141.5	\$38.4	710
Hard Costs	250.1	377.7	79.9	1,695
Total Construction	\$334.4	\$519.2	\$118.3	2,405
Operations				
Payroll	1,612.4	1,451.8	287.0	8,333
Supplies	72.6	111.0	23.7	791
Equipment	18.0	27.3	5.3	96
Contract Services	27.3	44.8	12.7	378
Other*	673.3	1,109.4	263.9	5,385
Total Operations	\$2,403.6	\$2,744.3	\$592.6	14,983
Total Budget	\$2,738.0	\$3,263.5	\$710.9	17,388

Sources: MCPS; GMU Center for Regional Analysis

Notes: ¹direct outlays by MCPS as proposed in its FY 2016 budget;

²the total value of goods and services generated directly and indirectly as a result of the initial construction and annual operating outlays; ³the additional earnings generated from the new economic activities supported by the construction and operating outlays; ⁴the additional new local and non-local jobs supported by the spending and re-spending of the new construction and operating expenditures. *Other includes: transportation, insurance and benefits, utilities and miscellaneous.

The proposed FY 2016 operating budget for MCPS totals \$2.4 billion with \$1.6 billion consisting of direct MCPS payroll payments. Other categories of proposed expenditures account for the purchase of supplies and equipment and the procurement of services from suppliers and vendors, many of which are located in Montgomery County or elsewhere in the State. The second largest category of operating outlays is "Other" at \$673.3 million. While this category includes a range of expenditures, the largest is insurance and employee benefits that accounts for 85 percent of this category. Employee benefits include health insurance as well as contributions to retirement programs and are considered current outlays in the economy even though it may be previous years' contributions being paid out in 2016 while a portion of the budgeted benefits for 2016 will actually be expended in the economy in a future year.

MCPS's proposed operating expenditures for FY 2016 will generate a total contribution to Montgomery County's economy of \$2.7 billion, as shown in Table 2. This total contribution reflects an aggregate multiplier of 1.14. While this contribution exceeds the value of MCPS's direct expenditures, this local benefit is reduced by the large share of the operating budget (67%) consisting of payroll outlays and is also affected by the residential distribution of MCPS employees. Still, that 72.6 percent of MCPS's workforce resides in Montgomery County and 96 percent of all MCPS employees reside in the State is important to retaining these economic benefits. Additionally, these payroll impacts are adjusted to reflect the normal subtractions from payroll that employees experience—tax withholding, contributions to retirement programs, and savings—that would reduce their real-time spending potential in 2016.

This direct spending by MCPS for operations, as it is re-spent in the local economy, will support jobs spanning all sectors and generate additional spending (induced impacts) within the County's economy. This accumulated spending would support a total 14,983 jobs in Montgomery County, the region, state and elsewhere with those jobs being held by Montgomery County residents representing total personal earnings (wages and salaries) of \$592.6 million. This is new labor income beyond the payroll outlays that are included in the proposed FY 2016 MCPS budget and represents an estimated 7,738 local full-time, year-round equivalent jobs.

The full economic impact associated with the proposed MCPS construction and operating budget for FY 2016 is presented in Table 2 and can be summarized as follows. The total proposed MCPS outlays of \$2.738 billion would:

- contribute \$3.264 billion to the Montgomery County economy;
- generate \$710.9 million in new personal earnings to the benefit of workers residing in Montgomery County beyond the direct payroll payments to MCPS employees provided for in the budget; and,
- support a total of 17,388 full-time, year-round jobs locally and elsewhere with an estimated 9,282 or 53.4 percent of these jobs being held by workers residing in Montgomery County.

Impacts on the State of Maryland Economy

The magnitudes of the state-level economic impacts of MCPS's proposed FY 2016 budget reflect its larger and more expansive economy that enables it to retain a greater proportion of the benefits of local economic activities. This is particularly evident in the size of the State's resident workforce and its broad base of businesses that are located in another jurisdiction but work for and/or provide services to the MCPS. As a result, more of MCPS's annual spending is captured and recycled at the state level than at the Montgomery County level; this is reflected in the State having

larger multipliers than Montgomery County for each sector. These differences are seen in a comparison of the economic impacts that would result from the proposed FY 2016 MCPS budget that would be captured in Montgomery County (Table 2) and the economic benefits captured by the State of Maryland (Table 3). It should be noted that these state-level economic benefits include those captured in Montgomery County and are not in addition to these county-level benefits.

Table 3

Summary of Economic Impact of MCPS's 2016 Proposed Construction and Operating Budget on the State of Maryland (in millions of 2016 dollars)

Jurisdiction And Type	Direct Outlays ¹	Total Output ²	Personal Earnings ³	Jobs Supported ⁴
Construction				
Soft Costs	\$84.3	\$167.1	\$60.3	1,180
Hard Costs	250.1	493.2	160.3	3,500
Total Construction	\$344.4	\$660.3	\$220.6	4,680
Operations				
Payroll	1,612.4	1,945.7	541.3	15,054
Supplies	72.6	133.8	40.3	1,296
Equipment	18.0	32.7	9.5	185
Contract Services	27.3	54.6	19.8	576
Other*	673.3	1,290.8	441.9	8,866
Total Operations	\$2,403.6	\$3,457.7	\$1,052.8	25,977
Total Budget	\$2,738.0	\$4,118.0	\$1,273.4	30,657

Sources: MCPS; GMU Center for Regional Analysis

Notes: ¹direct outlays by MCPS as proposed in its FY 2016 budget; ²the total value of goods and services generated directly and indirectly as a result of the initial construction and annual operating outlays; ³the additional earnings generated from the new economic activities supported by the construction and operating outlays; ⁴the additional new local and non-local jobs supported by the spending and re-spending of the new construction and operating expenditures. *Other includes: transportation, insurance and benefits, utilities and miscellaneous.

The proposed capital budget for MCPS for FY 2016 of \$334.4 million, with its 1.98 state-level multiplier, would contribute a total of \$660.3 million to Maryland's gross state product (GSP), generate \$220.6 million in new personal earnings that would accrue to workers residing within the State and would support a total of 4,680 full-

time, year-round equivalent jobs within the State and beyond, with an estimated 3,575 or 76.4 percent of these jobs being based within Maryland.

The proposed FY 2016 MCPS operating budget of \$2.4 billion, with its aggregate 1.44 multiplier for the State of Maryland, would contribute a total of \$3.458 billion to the state's economy (GSP), generate \$1.053 billion in new personal earnings to the benefit of workers residing within the State, and support a total of 25,977 full-time, year-round equivalent jobs in the State or elsewhere with an estimated 17,060 or 65.7 percent of these jobs being held by Maryland residents.

The combined FY 2016 construction and operating budget for MCPS as proposed, totaling \$2.738 billion, would:

- contribute \$4.118 billion to the State's economy (GSP) reflecting a total multiplier of 1.50;
- generate \$1.274 billion in new personal earnings—wages and salaries—to the benefit of workers residing in the State; and,
- support a total of 30,657 jobs with an estimated 20,635 or 67.3 percent of these jobs being held by Maryland residents.

These statewide economic impacts, resulting from spending by the MCPS for its proposed FY 2016 budget for construction and operations as reported in Table 3, include those economic benefits captured within Montgomery County, as reported in Table 2. These extra economic benefits that are captured in the State's economy (and the economies of its local jurisdictions) result from leakages from Montgomery County. These leakages reflect job holders in Montgomery County who live in another Maryland county and the locations of MCPS's vendors and suppliers that are based external to Montgomery County but are within the State of Maryland.

Leakages to suppliers and vendors and in-commuting workers from other states and the District of Columbia explain an additional diversion of benefits, although these are relatively minor leakages due to the high percentage of MCPS employees who reside in Montgomery County (72.7%) and within the State of Maryland (96.0%) and the high percentage of MCPS's vendors and suppliers (based on the distribution of payments) that are based in Montgomery County (21.8%) and in Maryland (54.1%).

The Importance of MCPS as a Source of Economic Impacts

Montgomery County Public Schools (MCPS) is a major source of direct and indirect (and induced) employment within the County. Additionally, MCPS is a major source of economic activity that supports the County's local business base generating

additional employment and personal earnings—wages and salaries—to the benefit of workers residing within the County.

MCPS's proposed FY 2016 budget provides a total of \$2.738 billion in spending including \$1.612 billion in payroll outlays supporting an employment base consisting of 21,927.6 positions. MCPS data for FY 2014 (October 15) show it to have had a permanent workforce of 16,404 at that time.

The importance of MCPS as an employer and source of personal earnings in Montgomery County is demonstrated by comparing these numbers to the County's total employment base. MCPS's total positions reported in its FY 2016 budget proposal would account for 4.4 percent of all jobs forecast for the County in 2016 while the number of permanent jobs reported in FY 2014 account for 3.5 percent of all of the jobs in the County in 2014. No private sector business in Montgomery County represents as large a source of direct employment as does the MCPS.

MCPS's proposed payroll spending of \$1.612 billion in FY 2016 represents 1.9 percent of the County's total personal earnings projected for that year (total personal earnings of County residents includes wages and salaries earned by residents commuting out of the County to work). With 72.6 percent of MCPS permanent workforce residing within the County, this resident workforce constitutes a significant source of disposable income to the benefit of the local economy.

In addition to being a major employer and an important source of personal earnings in Montgomery County, MCPS's annual expenditures generate jobs and personal earnings in local businesses that provide direct services to MCPS and local businesses that are patronized by and benefit from the spending of MCPS employees. These transactions support Montgomery County's economy beyond the value of its direct line-item expenditures. As reported in Table 2, MCPS's total spending of \$2.738 billion proposed for FY 2016 would contribute a total of \$3.264 billion to the County's gross county product—its economy—reflecting an aggregate multiplier of 1.19. This total output value would constitute 4.0 percent of the County's projected \$81.874 billion GCP in 2016 (IHS Economics Inc., November 2014). Four percent of the County's GCP represents a important contribution, third in size behind the Federal Government's total County economic impact and the economic impact of the totality of County Government excluding the MCPS. No private business located in Montgomery County by itself would likely account for as much as one percent of GCP.

Additionally, MCPS's annual expenditures support a broad range of jobs and generate personal earnings within the County economy as this direct payroll and other operating and construction outlays are re-spent within the County's economy. The re-spending of these initial expenditures would generate new wage and salary income accruing to workers residing in Montgomery County totaling \$710.9 million and support a total of 17,388 jobs locally and elsewhere of which an estimated 9,282 or 53.4 percent would be held by County residents.

In summary, MCPS has been shown to be a major source of jobs in Montgomery County directly:

- accounting for 4.4 percent of all jobs in the County and indirectly accounting for additional 1.9 percent of the County's jobs base and, combined, the proposed MCPS FY 2016 budget would directly or indirectly support a total of 6.25 percent of the County's at-place employment; and
- generating personal earnings (payroll) totaling \$1.6 billion directly, of which an estimated 72.6 percent or \$1.2 billion would be earned by workers residing in Montgomery County, and indirectly generate \$710.9 million in personal earnings that would accrue to non-MCPS job-holders residing in the County; combined, these personal earnings retained within the Montgomery County economy would represent 2.2 percent of its projected total personal income from all sources in 2016.

In conclusion, MCPS's proposed FY 2016 budget has been shown to represent a significant contribution to Montgomery County's gross county product and to constitute a major source of jobs and personal earnings accruing to workers residing in the County. These levels of benefit make MCPS the County's third most important source of economic activity following the Federal Government and the totality of the Montgomery County Government excluding the MCPS.

