MEMORANDUM

September 30, 2004

TO: County Council

FROM: Craig Howard, Legislative Analyst CH
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Office of Legislative Oversight

SUBJECT: **Memorandum Report 2004-9: An Analysis of Montgomery County Public Schools' Special Education Spending, Part II**

The County Council released Part I of the Office of Legislative Oversight's (OLO) two-part study on Montgomery County Public Schools' (MCPS) special education spending on February 3, 2004.

On February 5, 2004, the Education Committee discussed Part I of the report and determined the scope for Part II of OLO's study. This memorandum report responds to the Education Committee's request that Part II of OLO's Special Education study address how much it would cost to provide inclusive services so that MCPS would meet the State's inclusion goal. Inclusion generally refers to students receiving special education services in a general education classroom, ideally at their neighborhood school.

The Committee also asked OLO to collect and summarize: comparative data about special education enrollment and demographics, any available data on the mobility of students among levels of service, and per pupil special education costs in other jurisdictions.

This memorandum is organized as follows:

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I. COMPARATIVE INFORMATION

This section provides comparative information for students with disabilities for Montgomery County Public Schools (MCPS) and other school districts in the region.

- **Part A** describes special education and general education enrollment trends;
- **Part B** presents demographic characteristics of students with disabilities;
- **Part C** describes the educational settings in which students with disabilities receive special education services;
- **Part D** describes changes in settings/mobility among students with disabilities; and
- **Part E** presents cost per pupil data for special education services.

A. Enrollment Trends

OLO collected general and special education enrollment data for MCPS and the following jurisdictions:

- Anne Arundel County Public Schools;
- Baltimore County Public Schools;
- Prince George's County Public Schools;
- Frederick County Public Schools;
- Howard County Public Schools; and
- Fairfax County Public Schools.

Table 1 on the next page shows general and special education enrollment data for each jurisdiction from FY 00 to FY 04. It also shows annual percent change, percent change over five years, and special education enrollment as a percent of total enrollment. In sum, among the seven jurisdictions:

- MCPS had the second highest general and special education enrollment in FY 04, behind Fairfax County Public Schools in both instances.

- MCPS had the third highest five year growth in general education enrollment (7%), behind the Howard (9%) and Frederick (8%) County school systems.

- MCPS' five year growth in special education enrollment (7%) was lower than four other school systems': Howard (15%), Prince George's (11%), Fairfax (10%), and Baltimore County (9%).

- In FY 04, special education enrollment as a percent of total enrollment ranged from 10.6% (Howard County) to 14.3% (Fairfax County). MCPS' special education enrollment represented 12.4% of total student enrollment.

- Special education enrollment as a percent of total enrollment between FY 00 and FY 04 stayed relatively constant within each school district.

TABLE 1: FY 00 TO FY 04 GENERAL EDUCATION AND SPECIAL EDUCATION ENROLLMENT TRENDS FOR SELECTED SCHOOL DISTRICTS

School District	Year	General Education Enrollment	Annual % Change	Special Education Enrollment	Annual % Change	Special Education % of Total Enrollment
MCPS	FY 00	114,463	--	16,226	--	12.4%
	FY 01	117,949	3%	16,359	1%	12.2%
	FY 02	120,361	2%	16,471	1%	12.0%
	FY 03	121,878	1%	17,013	3%	12.2%
	FY 04	122,420	0%	17,379	2%	12.4%
	Change	**7,957**	**7%**	**1,153**	**7%**	**0%**
Anne Arundel	FY 00	64,231	--	10,432	--	14.0%
	FY 01	64,419	0%	10,072	(3%)	13.5%
	FY 02	64,633	0%	10,448	4%	13.9%
	FY 03	64,092	(1%)	10,695	2%	14.3%
	FY 04	63,996	0%	10,512	(2%)	14.1%
	Change	**(235)**	**1%**	**80**	**1%**	**0.1%**
Baltimore County	FY 00	93,577	--	12,888	--	12.1%
	FY 01	93,638	0%	13,260	3%	12.4%
	FY 02	93,899	0%	13,313	0%	12.4%
	FY 03	94,738	1%	13,559	2%	12.5%
	FY 04	94,518	0%	14,005	3%	12.9%
	Change	**941**	**1%**	**1,117**	**9%**	**0.8%**
Prince George's	FY 00	117,455	--	13,604	--	10.4%
	FY 01	119,100	1%	14,623	7%	10.9%
	FY 02	120,186	1%	14,853	2%	11.0%
	FY 03	120,363	0%	15,076	2%	11.1%
	FY 04	122,187	2%	15,098	0%	11.0%
	Change	**5,632**	**4%**	**1,494**	**11%**	**0.6%**
Frederick	FY 00	31,596	--	4,463	--	12.4%
	FY 01	32,419	3%	4,466	0%	12.1%
	FY 02	33,485	3%	4,537	2%	11.9%
	FY 03	33,831	1%	4,728	4%	12.3%
	FY 04	34.188	1%	4,762	1%	12.2%
	Change	**2,592**	**8%**	**299**	**7%**	**(0.2%)**
Howard	FY 00	39,055	--	4,418	--	10.2%
	FY 01	40,293	3%	4,653	5%	10.4%
	FY 02	41,427	3%	4,830	4%	10.4%
	FY 03	42,192	2%	5,005	4%	10.6%
	FY 04	42,763	1%	5,070	1%	10.6%
	Change	**3,708**	**9%**	**652**	**15%**	**0.4%**
Fairfax	FY 00	133,221	--	21,302	--	13.8%
	FY 01	136,460	2%	21,871	3%	13.9%
	FY 02	139,223	2%	22,162	1%	13.7%
	FY 03	140,405	1%	23,314	5%	14.2%
	FY 04	141,195	1%	23,472	1%	14.3%
	Change	**7,974**	**6%**	**2,170**	**10%**	**0.5%**

Sources: Maryland State Department of Education, Gibson Consulting Group, Fairfax County Public Schools FY 2005 Proposed Budget

B. Demographic Characteristics

Table 2 (below) shows FY 04 race/ethnicity data for all students and for students with disabilities in six Maryland school districts. The data show MCPS had the second highest disproportionate representation of African-American students in special education compared to the total school population (4.8%), behind Howard County Public Schools (5.9%).

TABLE 2: FY 04 RACE/ETHNICITY BREAKDOWN BY LOCAL SCHOOL DISTRICT

School District	Race/Ethnicity	% All Students	% Students with Disabilities	Difference (%)
MCPS	African American	22.1	26.9	4.8
	White	44.6	46.8	2.2
	Hispanic	18.7	19.6	0.9
	Asian	14.3	6.3	(8.0)
Anne Arundel	African American	20.9	24.0	3.1
	White	72.2	71.7	(0.5)
	Hispanic	3.4	2.7	(0.7)
	Asian	3.1	1.3	(1.8)
Baltimore County	African American	36.7	36.4	(0.3)
	White	56.0	59.6	3.6
	Hispanic	2.5	1.8	(0.7)
	Asian	4.3	1.6	(2.7)
Prince George's	African American	77.6	78.4	0.8
	White	8.0	11.3	3.3
	Hispanic	10.8	8.2	(2.6)
	Asian	3.1	1.6	(1.5)
Frederick	African American	9.9	12.9	3.0
	White	82.8	81.7	(1.1)
	Hispanic	4.1	3.7	(0.4)
	Asian	2.9	1.5	(1.4)
Howard	African American	18.4	24.3	5.9
	White	65.9	67.2	1.3
	Hispanic	3.6	3.3	(0.3)
	Asian	11.8	5.0	(6.8)

Source: Maryland State Department of Education Special Education Census Data (October 2003)

C. Educational Settings

The Individuals with Disabilities Education Act (IDEA) requires local school districts to collect and report data on the educational settings of students with disabilities. This section presents information on educational settings for school-age students (ages 6-21) and preschool students (ages 3-5). OLO obtained FY 00 to FY 04 data for six Maryland school districts.

1. School-Age Students

For school-age students, data are collected and reported using the following categories and definitions of educational settings:

- **Least Restrictive Environment A (LRE A)** – Children who receive special education services outside of a regular classroom less than 21% of the day.
- **Least Restrictive Environment B (LRE B)** – Children who receive special education services outside of a regular classroom between 21% and 60% of the day.
- **Least Restrictive Environment C (LRE C)** – Children who receive special education services outside of a regular classroom for more than 60% of the day.
- **Home/Hospital (LRE D)** – Children receiving services at home or in a hospital setting.
- **Public Separate (LRE F)** – Children placed in a public day school for students with disabilities.
- **Private Separate (LRE G)** – Children placed in a non-public day school for students with disabilities.
- **Residential (LRE H/I)** – Children placed in and residing at a residential facility.

A State of Maryland goal for each school district, as reported in the Maryland State Department of Education's *Maryland State Improvement Grant Performance Report, School Year 2001-2002*, is for 80% of students with disabilities to receive special education services within a regular class at least 40% of the time. In other words, 80% of students with disabilities should receive special education services in an LRE A or LRE B educational setting.

Table 3 (page 6) shows that 68.1% of MCPS' students with disabilities were in an LRE A or LRE B educational setting in FY 04, 11.9% below the State's goal. Of the six Maryland jurisdictions analyzed, only Frederick and Howard County Public Schools achieved the State's goal.

TABLE 3: FY 04 PERCENT OF SCHOOL-AGE STUDENTS WITH DISABILITIES BY EDUCATIONAL SETTING

Educational Setting	MCPS	Anne Arundel	Baltimore County	Prince George's	Frederick	Howard
LRE A (out <21%)	48.1%	59.3%	57.1%	41.6%	77.5%	66.6%
LRE B (out 21-60%)	20.0%	16.4%	7.4%	24.2%	12.3%	21.7%
LRE A+B Subtotal (Goal = 80%)	**68.1%**	**75.7%**	**64.5%**	**65.8%**	**89.8%**	**88.3%**
LRE C (out >60%)	24.5%	16.0%	27.2%	22.9%	5.6%	7.1%
Public Separate	3.1%	4.0%	3.8%	3.3%	2.3%	2.2%
Private Separate	4.0%	3.6%	3.7%	7.4%	1.3%	2.1%
Residential	0.6%	0.2%	0.3%	0.5%	0.0%	0.3%
Home/Hospital	0.2%	0.5%	0.5%	0.1%	1.0%	0.1%

Sources: Maryland State Department of Education's Special Education Census Data (October 2003), United States Office of Special Education Programs

Table 4 (below) shows that over the past five years, MCPS has improved its percent of students in the LRE A or B settings by over nine percentage points. This is the largest improvement among the selected jurisdictions.

Since FY 00, MCPS has moved ahead of Baltimore County and Prince George's County (the two jurisdictions most similar to MCPS in terms of number of students) in total LRE A+B percent. Baltimore County saw a decline of nearly 7% and Prince George's County saw an increase of nearly 4% over the five-year period.

TABLE 4: PERCENT OF SCHOOL-AGE STUDENTS WITH DISABILITIES IN LRE A AND B

School District	LRE A+B Total %					FY 00 to 04 Change
	FY 00	FY 01	FY 02	FY 03	FY 04	
MCPS	58.7%	53.8%	54.3%	62.3%	68.1%	9.4%
Anne Arundel	69.3%	67.9%	67.8%	75.0%	75.7%	6.4%
Baltimore County	71.1%	59.2%	57.7%	63.5%	64.4%	(6.7%)
Prince George's	61.9%	63.1%	62.7%	65.6%	65.8%	3.9%
Frederick	85.5%	78.6%	81.5%	90.0%	89.8%	4.3%
Howard	82.8%	75.7%	74.8%	85.4%	88.3%	5.5%

Sources: OLO, Maryland State Department of Education's Special Education Census Data (1999-2003)

2. Preschool Students

For preschool students, data are collected and reported using the following categories and definitions of educational settings:

- **Least Restrictive Environment (LRE M)** – Children who receive all (100%) of their special education services in educational programs designed primarily for children without disabilities.

- **Least Restrictive Environment (LRE N)** – Children who receive all (100%) of their special education services in educational programs designed primarily for children with disabilities housed in regular school buildings or other community-based settings.

- **Least Restrictive Environment (LRE O)** – Children who receive special education services in multiple settings, both educational programs designed primarily for children without disabilities and programs designed primarily for children with disabilities.

- **Home** – Children who receive all of their special education services in the principal residence of the child's family or caregivers.

- **Itinerant** – Children who receive all of their special education services at a school, hospital facility on an outpatient bases, or other location for a short period of time for no longer than three hours per week.

- **Public Separate** – Children who receive all of their special education services in a public day school specifically for students with disabilities.

- **Private Separate** – Children who receive all of their special education services in a private day school specifically for students with disabilities.

A State of Maryland goal for each school district, as reported in the Maryland State Department of Education's *Maryland State Improvement Grant Performance Report, School Year 2001-2002*, is for 80% of preschool students with disabilities to receive all or part of their special education services in a school designed primarily for students without disabilities. In other words, 80% of preschool students with disabilities should receive special education services in an LRE M or LRE O educational setting.

Table 5 (page 8) shows that 4% of MCPS' preschool students with disabilities received services in an LRE M or LRE O setting in FY 04, 76% below the State's goal. Of the jurisdictions reviewed, only Baltimore County Public Schools achieved the State's goal of 80%.

Students receiving services in an Itinerant setting receive no more than three hours of services per week, similar to how school-age students receive pull-out resource services. If the State redefined its goal so that preferred educational settings for preschool students paralleled the settings for school-aged students (i.e. counting Itinerant services as a preferred setting), MCPS' FY 04 percent of students meeting the State's preschool inclusion goal would increase from 4% to 56%.

TABLE 5: FY 04 PERCENT OF PRESCHOOL STUDENTS WITH DISABILITIES BY EDUCATIONAL SETTING

Educational Setting	MCPS	Anne Arundel	Baltimore County	Prince George's	Frederick	Howard
LRE M	2.7%	14.5%	55.4%	9.1%	27.9%	7.7%
LRE O	1.3%	5.6%	28.2%	9.4%	2.3%	21.5%
LRE M+O Subtotal (Goal = 80%)	**4.0%**	**20.1%**	**83.6%**	**18.5%**	**30.2%**	**29.2%**
LRE N	39.1%	32.2%	3.6%	54.2%	20.9%	25.1%
Itinerant	51.5%	37.1%	9.7%	23.2%	48.1%	34.5%
Public Separate	0.9%	9.6%	2.8%	2.8%	0.7%	0.1%
Private Separate	4.3%	0.1%	0.4%	0.3%	0.0%	2.3%
Home	0.2%	0.7%	0.0%	1.0%	0.0%	0.3%

Source: Maryland State Department of Education's Special Education Census Data (October 2003)

Table 6 (below) shows the total percent of students in LRE M and LRE O over the past four years was below the State goal for all the jurisdictions surveyed except for Baltimore County. The combined LRE M and LRE O percents also exhibit variability from year to year for most jurisdictions. Interestingly, the percent of students in LRE M and O settings has decreased over the four-year period for all jurisdictions except Howard County.

TABLE 6: PERCENT OF PRESCHOOL STUDENTS WITH DISABILITIES IN LRE M AND O

School District	LRE M+O Total %				FY 01 to 04 Change
	FY 01	FY 02	FY 03	FY 04	
MCPS	8.4%	18.9%	7.1%	4.0%	(4.4%)
Anne Arundel	33.6%	31.3%	24.1%	20.1%	(13.5%)
Baltimore County	97.6%	65.2%	85.6%	83.6%	(14.0%)
Prince George's	56.8%	30.1%	24.8%	18.5%	(38.3%)
Frederick	57.9%	44.3%	37.1%	30.2%	(27.7%)
Howard	27.1%	23.9%	17.1%	29.2%	2.1%

Sources: OLO, Maryland State Department of Education's Special Education Census Data (1999-2003), Maryland State Improvement Grant Performance Report (School Year 2000-2001).

D. Change in Educational Settings/Mobility

No data are readily available to directly measure the mobility of students with disabilities among levels of special education services. To compare the mobility of MCPS school-age students with disabilities, OLO collected data for the number of school-aged students with disabilities in each educational setting and analyzed how these numbers changed over time. OLO collected the data for six Maryland jurisdictions from FY 00 to FY 04.

This analysis assumes that categories of educational settings represent a continuum from a less inclusive to a more inclusive educational setting.

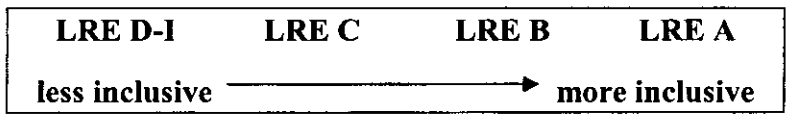

Table 7 (page 10) shows FY 00 to FY 04 enrollment of special education students within the various educational settings. The data indicate that there is mobility among educational settings for students with disabilities. In sum, during the past five years:

- The school district with the highest movement *into* the LRE A category is Howard County (37%), followed by MCPS and Baltimore County (13%).

- The school district with the highest movement *out of* the LRE D – LRE I category is Anne Arundel County (37%), followed by Howard County (36%). The movement *out of* the LRE D – LRE I category in MCPS is 4%.

- The school district with the highest movement *out of* the LRE C category is Frederick County (37%), followed by Howard County (31%) and MCPS (30%).

- On average, MCPS has seen an annual 4% *increase* in LRE A enrollment, a 2% *increase* in LRE B enrollment, an 8% *decrease* in LRE C enrollment, and a 1% *decrease* in LRE D – LRE I enrollment.

TABLE 7: CHANGES IN EDUCATIONAL SETTINGS FOR SELECTED SCHOOL DISTRICTS

Educational Setting	Enrollment					Avg. Annual % Change	FY 00 to FY 04 % Change
	FY 00	FY 01	FY 02	FY 03	FY 04		
MCPS							
LRE A	6,597	5,642	5,835	6,709	7,468	4%	13%
LRE B	2,930	3,155	3,101	2,847	3,098	2%	6%
LRE C	5,429	4,933	4,794	4,629	3,803	(8%)	(30%)
LRE D – LRE I	1,270	1,243	1,255	1,144	1,222	(1%)	(4%)
Anne Arundel							
LRE A	5,375	5,172	5,527	5,616	5,509	1%	2%
LRE B	1,856	1,670	1,561	1,589	1,521	(5%)	(18%)
LRE C	1,968	1,524	1,459	1,847	1,481	(5%)	(25%)
LRE D – LRE I	1,233	903	967	557	776	(6%)	(37%)
Baltimore County							
LRE A	6,209	5,477	5,600	6,065	7,007	4%	13%
LRE B	2,953	2,370	2,078	1,518	904	(25%)	(69%)
LRE C	2,723	2,981	3,250	3,348	3,343	5%	23%
LRE D – LRE I	1,003	998	935	1,019	1,026	1%	2%
Prince George's							
LRE A	5,459	5,709	5,857	5,597	5,652	1%	4%
LRE B	2,958	3,524	3,452	3,349	3,280	3%	11%
LRE C	3,444	2,745	2,813	3,155	3,111	(2%)	(10%)
LRE D – LRE I	1,743	1,430	1,497	1,545	1,536	(3%)	(12%)
Frederick							
LRE A	3,008	2,616	3,011	3,297	3,355	3%	12%
LRE B	809	894	685	593	534	(9%)	(34%)
LRE C	386	390	302	207	243	(9%)	(37%)
LRE D – LRE I	260	208	190	224	200	(5%)	(23%)
Howard							
LRE A	2,106	1,971	2,016	2,474	2,876	9%	37%
LRE B	1,552	1,553	1,596	1,156	937	(11%)	(40%)
LRE C	446	305	294	426	306	(5%)	(31%)
LRE D – LRE I	314	238	250	195	201	(10%)	(36%)

Sources: OLO, Maryland State Department of Education's Special Education Census Data (1999-2003)

E. Cost per Pupil

OLO developed estimated average costs per pupil for special education services for six jurisdictions in FY 04. OLO cautions, however, this data cannot be used to draw definitive conclusions about difference in per pupil costs among the jurisdictions for two reasons:

- The cost of providing special education services varies depending upon a student's individual needs. In MCPS, for example, this cost ranges from a low of $1,500 to a high of $37,000 per student. An average per pupil cost for all students with disabilities masks these variations.

- Each jurisdiction has a different method for reporting special education expenditures, so it is unclear whether comparisons are always "apples to apples". For example, in Part I of this study OLO identified $16 million in MCPS special education expenditures not previously identified as such. There is no way to verify whether the costs for special education consist of the same items for each jurisdiction.

Given these caveats, OLO calculated cost per pupil averages as similarly as possible. Aside from the one jurisdiction (Fairfax County) that reported its own average cost per pupil, OLO used Category 6 special education costs, special education transportation costs either provided by the school district or estimated by OLO[1], and special education staff benefit costs either provided by the school district or estimated by OLO[2] to develop a total cost estimate. OLO then used each jurisdiction's total number of students with disabilities in FY 04 to calculate an average cost per pupil.

The Fairfax County Public Schools value is published in the *FCPS FY 2005 Proposed Budget*. It includes operating fund costs directly associated with special education programs and transportation costs.

[1] The Special Education Expenditure Project reports that, on average, school districts around the country spend 28% of transportation costs to transport students with disabilities. OLO therefore took 28% of each district's transportation budget for the cost of special education transportation. This may underestimate costs, as MCPS spends 53% of its transportation budget on students with disabilities.

[2] OLO estimated special education staff benefit costs by multiplying the total benefit costs for all personnel by the percent of total positions identified as special education by the school system. For example, OLO took 12% of Prince George's County Public Schools' total staff benefit costs as special education expenditures because 12% of total positions were identified as special education staff.

TABLE 8: FY 04 SPECIAL EDUCATION AVERAGE COST PER PUPIL FOR SELECTED SCHOOL DISTRICTS

School District	Total FY 04 Special Education Costs ($ in millions)	Average Cost per Pupil
Fairfax	$265.4	$15,096
MCPS	$259.6	$14,938
Prince George's	$222.6	$14,743
Howard	$74.0	$14,595
Baltimore County	$138.3	$9,871
Anne Arundel	$100.4	$9,555

Sources: OLO, Howard County Fiscal 2005 Operating Budget: Board of Education Request, Prince George's County FY 2005 Budget Request, Anne Arundel County Public Schools FY 2005 Superintendent's Recommended Budget, Baltimore County Public Schools FY 05 Board Proposed Budget.

II. COSTS TO MEET INCLUSION GOAL

As described above (page 5), the State of Maryland's inclusion goal is for 80% of school-age students with disabilities to receive services in the LRE A or LRE B settings. In FY 04, Montgomery County had 68% of its students with disabilities in these settings. This section provides cost estimates for MCPS to increase inclusion opportunities to meet the State's goal. It is organized as follows:

- **Part A** summarizes available research on the costs of increasing inclusion opportunities;
- **Part B** describes data on MCPS' students with disabilities by LRE category and recent efforts by MCPS to provide increased inclusion opportunities; and
- **Part C** provides cost estimates for meeting the State's 80% goal for school-age students.

A. Inclusion Cost Research

A literature review found few studies that document the actual costs associated with increasing inclusion opportunities. Most research on inclusion focuses on the potential academic/social benefits that both students with disabilities and general education students can receive from inclusion. In general, the literature indicates that increasing inclusion opportunities will lead to higher upfront costs but possible savings over the long term. Two studies, one slightly dated and another more recent, provide some cost analysis based on real-world experience. These two studies are discussed in more detail below.

1. Resource Implications of Inclusion

In 1994, the Center for Special Education Finance (CSEF) published a policy paper titled *Resource Implications of Inclusion: Impressions of Special Education Administrators at Selected Sites*. As part of that study, researchers chose 12 school districts that were implementing some model of inclusion for students with disabilities. The size of the schools selected ranged from a small rural school system (990 enrolled students) to a very large urban school system (400,000 enrolled students).

The study reported that the introduction of an inclusion model affected four key resources: personnel; professional development; facilities; and materials and equipment. This section summarizes the key points identified by the study for each of these resources.

Personnel. Under the inclusion model, regular education teachers provide all or a large part of direct instruction to special education students in a regular classroom. Special education teachers typically perform other functions, such as leading the development of Individualized Education Program's (IEPs), providing case management services, supporting regular classroom teachers in the implementation of students' IEPs, and monitoring/supervising the progress of special education students.

The CSEF found that instructional personnel costs increased in almost every school district, primarily due to the increased number of paraprofessionals (aides and assistants) hired to support special education students in the regular classrooms.

The study reports that some of the special education directors believe that the number of paraprofessionals will decrease because teachers will request fewer aides over time as they adapt to the new model, however no specific timeframe is provided. The researchers also found virtually no decrease in professional staff and few professional staff added.

Professional development. The CSEF study indicates that professional development costs are an ongoing expenditure that school districts need to consider. The study concludes that in order for inclusion to work, teachers consistently need opportunities to talk with one another, solve problems, share strategies, and jointly plan instruction for individual students. School districts provided activities such as workshops, seminars, and site visits to other districts to create these opportunities. Most of the costs of professional development were associated with hiring substitutes to provide release time for teachers.

Facilities. The CSEF study found that when introducing the inclusion model, districts need to assess whether school buildings and facilities are accessible to students with disabilities. The study found that the older school districts incurred substantial costs in renovating buildings and amenities. The study reports that one school district invested $40K to $100K per school to make buildings "functionally accessible." Renovations may include increasing the size of bathrooms, providing drinking fountains low enough for children, installing washers and dryers, cutting curbs, and installing ramps and special lifts.

Materials and Equipment. The CSEF study indicates that the selected districts incurred some equipment and materials costs associated with the movement toward inclusion. Most of the costs were one-time, start-up costs required to equip school buildings. The study reports that one school district spent $1,000 to $1,500 per school on materials and equipment.

2. Cost of Inclusion versus Traditional Instruction Models

In 2002, John Pruslow published "What School Administrators Should Know About Inclusion and its Costs" in *Leadership and Policy in Schools*. This study examined a Long Island School District with 3,539 general education students and 396 special education students. It used cost models to compare special education spending in inclusion models versus a traditional model.

The Long Island School District instructs special education students in a traditional model, using a mix of resource rooms, self-contained classrooms, and outside placements with relatively small amounts of time in a general education setting. The study developed cost models to estimate the costs of instructing special education students under two inclusion scenarios: full inclusion and partial inclusion.

The full inclusion model assumed all special education students integrated into general education classrooms. Students in this model would receive instruction from a general educator, a special education teacher, and teacher assistant. Under the partial inclusion model, students would receive additional daily instruction in a resource room during the school day.

The study found that both inclusive models would be more expensive to implement than the current traditional model in terms of instructional costs. However, the analysis shows reduced per-student special education costs with both inclusion models. These reductions are offset by increases in the general education expenditures of approximately $1,000 per student, due mainly to hiring more teachers and assistants to support inclusion in the general education setting. Table 9 (below) summarizes the study's findings for the costs under each instructional model.

Table 9: Special Education/General Education Instructional Costs

Category	Instructional Model		
	Traditional	Full Inclusion	Partial Inclusion
Special Education (per student)	$7,700	$6,395	$6,287
General Education (per student)	$3,211	$4,442	$4,173
Total Estimated Costs	**$14,412,929**	**$18,252,658**	**$17,257,899**

Source: Pruslow, 2002

B. MCPS Students, Programs, and Initiatives

This section describes educational settings for MCPS students with disabilities by program. It also discusses one of MCPS' inclusion programs (the Home School Model) and recent MCPS initiatives.

Students. At the end of FY 04, MCPS reported 14,449 school-age students (ages 6-21) receiving special education services in LRE A, B or C settings. Of the total school-age special education population:

- 48% (7,464 students) received services in an LRE A setting;
- 20% (3,148 students) received services in an LRE B setting; and
- 24% (3,837 students) received services in an LRE C setting.

To reach the State's 80% goal for LRE A + B, an additional 1,944 MCPS students with disabilities would need to receive services in LRE A or B settings. Table 10 on the next page lists students by MCPS special education program and LRE category.

Other than the students receiving resource services only, the programs that have the most students in LRE A and B are those for students with Learning and Academic Disabilities. In addition, the Learning and Academic Disabilities programs have the most students in LRE C settings, the closest step below LRE A or B.

TABLE 10: FY 04 MCPS STUDENTS BY PROGRAM AND LRE CATEGORY

Program	LRE A	LRE B	LRE C	Total
RESOURCE PROGRAMS				
Resource Services	6,061	1,145	0	**7,206**
Elementary Resource Intensive Needs	20	12	1	**33**
Secondary Resource Intensive Needs	28	51	3	**82**
LEARNING AND ACADEMIC DISABILITIES				
Elementary Learning Center	1	5	313	**319**
Secondary Learning Center	6	95	451	**552**
Elementary Learning and Academic Disabilities	72	201	667	**940**
Home School Model	150	101	2	**253**
Secondary Learning and Academic Disabilities	1037	1347	872	**3256**
Gifted and Talented/Learning Disabled	26	34	67	**127**
MENTAL RETARDATION				
School/Community Based	4	16	314	**334**
Elementary Learning for Independence	8	0	92	**100**
Secondary Learning for Independence	2	29	360	**391**
EMOTIONAL DISABILITIES				
Bridge Program	2	7	101	**110**
Elementary Emotional Disabilities Cluster	2	6	85	**93**
Secondary Emotional Disabilities Cluster	16	62	250	**328**
AUTISM				
School-Age Autism	0	0	78	**78**
Asperger's Program	0	0	55	**55**
HEARING IMPAIRMENTS				
Deaf and Hard of Hearing Special Classes	5	14	61	**80**
VISION IMPAIRMENTS				
Vision Class	1	1	4	**6**
PHYSICAL DISABILITIES				
Physical Disabilities	23	19	7	**49**
SPEECH OR LANGUAGE IMPAIRMENT				
Augmentative and Alternative Communication	0	0	9	**9**
K-2 Language Class	0	3	45	**48**
Totals	**7,464**	**3,148**	**3,837**	**14,449**

Source: MCPS

Home School Model Program. A prominent MCPS initiative designed specifically around inclusion is the Home School Model (HSM) program for elementary students. The Bethesda-Chevy Chase, Northwest, and Sherwood school clusters have implemented the Home School Model in all of their elementary schools. This program services students who typically demonstrate learning and/or behavioral needs that affect performance in one or more academic areas. These students attend general education classrooms in their home schools, providing more opportunities for inclusion. Support for students in this model, including instructional, curricular, and behavioral interventions, is viewed as a school-wide responsibility. Collaboration among parents, general educators, special educators, and other school personnel occurs on an ongoing basis. As indicated in Table 10 (page 16), this program serves 253 students in FY 04, all but two of whom receive services in an LRE A or B setting.

Special Education Strategic Plan. The MCPS Special Education Strategic Planning Task Force completed a strategic plan for the Department of Special Education (DSE) on July 1, 2004. This plan identifies priority areas and strategies for improvement for DSE. With regard to Least Restrictive Environment, the plan recommends the goal of increasing the number of students in LRE categories A and B to more than 80%.

Generally, the plan recommends increasing the availability of Home School Model services and providing training to increase the provision of special education services within the general education environment. Specifically, the plan recommends strategies in the following areas:

- ***Training and Staff Development*** – Conduct training with general and special educators to promote collaboration, commitment, and communication among parents, general educators, and special educators. Additionally, conduct training to improve special education services in the general education environment. MCPS anticipates the resources to implement these strategies will include providing substitute coverage for participating teachers, stipends for participants, and funding for staff development.

- ***Facility Planning*** – Plan and collaborate with the Department of Planning and Capital Programming to determine the facility requirements for Home School Model services. MCPS anticipates the resources to implement this strategy will consist of funding for facilities modification as needed as part of the Capital Improvement Program.

- ***Home School Model Services*** – Continue Home School Model services in three clusters (Bethesda-Chevy Chase, Northwest and Sherwood clusters), and add Home School Model services to schools in the Downcounty Consortium (Blair, Einstein, Kennedy, Northwood and Wheaton clusters). MCPS' analysis indicates that adding Home School Model services in the Downcounty Consortium could potentially increase the students in LRE A and B by 10%.

- ***Student Performance*** – Identify schools and clusters where LRE data meet or exceed 80% of students in LRE categories A and B and determine their

effectiveness in improving student performance. This information can be used to design effective inclusive service delivery models at additional schools.

The report also states that the Department of Special Education will begin to address the LRE recommendations that do not require additional funding in FY 05. Specifically, the strategic plan states that the Department will:

- Benchmark LRE data with other school systems;
- Develop a multi-year plan that addresses staffing capacity to improve access to LRE;
- Develop recommendations that allocate special education teachers and paraeducators based on direct hours of special education service delivery;
- Review current service delivery models including inclusion, special class, and special school placements; and
- Collaborate with the Office of Staff Development (OSD) and the Office of Curriculum and Instructional Programs (OCIP) to address recommendations for continued joint curriculum training and effective instructional strategies to support students in the least restrictive environment.

C. Cost Estimates

OLO developed costs for two different components (personnel costs and other costs) to estimate the potential costs of increasing inclusion to meet the State's 80% LRE A and B goal.

- **Personnel costs** include the wages and benefits for special education staff.

- **Other costs** include training/staff development, supplies and materials, facilities costs, and any miscellaneous operating expenditures.

As shown in the table below, OLO estimates that the total costs, based on using three different scenarios, range from $10.6 million to $18.1 million. The scenarios are described on pages 19-26.

TABLE 11: TOTAL ESTIMATED COST FOR MCPS TO MEET THE STATE'S INCLUSION GOAL UNDER THREE COST ESTIMATION SCENARIOS

Estimated Cost	Home School Model		
	Cost per Student Method	Staffing Ratio Method	Cost per Service Hour Method
Net Personnel Cost	$9,413,617	$12,034,880	$16,025,882
Other Costs	$1,223,770	$1,564,534	$2,083,365
Total Cost	**$10,637,387**	**$13,599,414**	**$18,109,247**

Source: OLO

Methodology. Without definitive national, regional, or local data that provide actual costs for inclusion – and recognizing that each individual school district varies in terms of how it provides and pays for special education services – OLO used actual MCPS expenditure, staffing, and student data to create a range of cost estimates.

As discussed on page 15, OLO determined that an additional 1,944 MCPS students would need to receive services in LRE A or B settings to meet the State's inclusion goal. OLO then determined that the most practical short-term scenario would be to focus on programs that already have experience educating students with disabilities in LRE A or B settings. As a result, OLO focused on students receiving services in Learning and Academic Disabilities programs and analyzed the costs based on moving these students from an LRE C setting into an LRE A or B setting.

Table 12 (below) lists MCPS' Learning and Academic Disabilities programs at the elementary and secondary level, along with the number of students and type of educational settings for each program.

TABLE 12: MCPS LEARNING AND ACADEMIC DISABILITIES PROGRAMS AND NUMBER OF STUDENTS

Program	LRE A	LRE B	LRE C	Total
Elementary Learning Center	1	5	313	**319**
Secondary Learning Center	6	95	451	**552**
Elementary Learning and Academic Disabilities	72	201	667	**940**
Home School Model	150	101	2	**253**
Secondary Learning and Academic Disabilities	1037	1347	872	**3256**
Gifted and Talented/Learning Disabled	26	34	67	**127**
Total	**1292**	**1783**	**2372**	**5447**

Source: MCPS

Using students in Learning and Academic Disabilities programs to develop the cost estimates was the most practical scenario for three reasons:

- Learning and Academic Disabilities programs contain the greatest number of students already within the LRE A and B categories, indicating a pre-existing ability to structure services towards inclusion;
- As shown in Table 12, Learning and Academic Disabilities programs have over 2,300 students receiving services in an LRE C, enough students to meet the 80% goal if they were moved to an LRE A or B setting; and
- It has an existing inclusion program, the Home School Model (see page 17), that provides actual costs that can be extrapolated to other programs as a "best-guess" estimate for the cost of inclusion services in MCPS. Even if inclusive services were provided using a different model, at this point the Home School Model represents the best example of the level of resources needed to educate students with a variety of needs in an LRE A or B setting. This is also the model MCPS may propose expanding as part of its efforts to increase inclusion.

1. Personnel Costs

Personnel costs account for the majority of MCPS special education expenditures. Part I of OLO's study determined that approximately 87% of the $275.8 million FY 04 estimated aggregate cost of special education went towards salaries and benefits for special education staff.

Since there is no single "best practice" for estimating personnel costs of increased inclusion, OLO used MCPS' Learning and Academic Disabilities Home School Model program expenditure and staffing information to develop a range of cost estimates using three different methods. Each method estimates the cost to move 2,370 students currently in LRE C settings to LRE A or B settings.

Each of the three cost estimation methods is described briefly below, and each method nets out the personnel costs associated with the students in their current setting. A detailed methodology for each of these estimates is available in the Appendix beginning at ©1.

Method #1 – Home School Model Cost per Student. This method uses the Home School Model personnel cost per student to estimate how much it would cost to educate current LRE C students in Learning and Academic Disabilities programs in an LRE A or B setting.

OLO began by determining FY 04 personnel costs for each of the Learning and Academic Disabilities programs, using data from MCPS' budget reporting system, FY 05 Program Budget & Budget Staffing Guidelines, FY 05 Personnel Complement, and FY 05 Special Education Staffing Plan. Using MCPS' data on the number of students in these programs at the end of FY 04, OLO calculated the FY 04 personnel cost per student for each program as shown in the table below.

TABLE 13: FY 04 MCPS LEARNING AND ACADEMIC DISABILITIES PROGRAMS PERSONNEL COST PER STUDENT

Program	Personnel Cost	Students	Cost per Student
Home School Model	$3,429,393	253	**$13,555**
Elementary Learning and Academic Disabilities*	$9,403,162	1,067	**$8,813**
Secondary Learning and Academic Disabilities	$21,798,308	3,256	**$6,695**
Elementary Learning Center	$4,718,694	319	**$14,792**
Secondary Learning Center	$7,068,502	552	**$12,805**

*Includes Gifted and Talented/Learning Disabled
Sources: OLO, MCPS

Using the Home School Model personnel cost per student as the cost to provide services in an LRE A or B setting, OLO determined the net personnel cost to provide services in an LRE A or B setting to LRE C students in each other Learning and Academic Disabilities program. The table below shows an estimated net personnel cost of $9.4 million.

TABLE 14: ESTIMATED NET PERSONNEL COSTS USING HOME SCHOOL MODEL COST PER STUDENT METHOD

Program	LRE C Students	Net Personnel Cost
Elementary Learning and Academic Disabilities*	734	$3,480,628
Secondary Learning and Academic Disabilities	872	$5,981,920
Elementary Learning Center	313	($387,181)
Secondary Learning Center	451	$338,250
Totals	**2,370**	**$9,413,617**

*Includes Gifted and Talented/Learning Disabled
Source: OLO

Method #2 – Home School Model Cost per Service Hour. This method uses the Home School Model personnel cost per service hour to estimate what it would cost to educate current LRE C students in Learning and Academic Disabilities programs in an LRE A or B setting.

OLO began by determining FY 04 personnel costs for each of the Learning and Academic Disabilities programs, using data from MCPS' budget reporting system, FY 05 Program Budget & Budget Staffing Guidelines, FY 05 Personnel Complement, and FY 05 Special Education Staffing Plan. Using MCPS' FY 04 data on the number of service hours provided to students[3] in each program by educational setting, OLO calculated the FY 04 personnel cost per service hour for each program as shown in Table 15 (page 22).

[3] Number of service hours a student with disabilities receives is determined as part of a student's Individualized Education Plan (IEP). Since service hours are determined based on a student's needs, this analysis assumes that each student's service hours would not change if services are provided in a different educational setting.

TABLE 15: FY 04 MCPS LEARNING AND ACADEMIC DISABILITIES PROGRAMS PERSONNEL COST PER SERVICE HOUR

Program	Personnel Cost	Service Hours	Cost per Service Hour
Home School Model	$3,429,393	4,177	**$821**
Elementary Learning and Academic Disabilities*	$9,403,162	22,172	**$424**
Secondary Learning and Academic Disabilities	$21,798,308	57,905	**$376**
Elementary Learning Center	$4,718,694	7,722	**$611**
Secondary Learning Center	$7,068,502	10,211	**$692**

*Includes Gifted and Talented/Learning Disabled
Sources: OLO, MCPS

Using the Home School Model personnel cost per service hour as the cost to provide services in an LRE A or B setting, OLO determined the net personnel cost to provide services in an LRE A or B setting to LRE C students in each other Learning and Academic Disabilities program. The table below shows an estimated net personnel cost of $16 million.

TABLE 16: ESTIMATED NET PERSONNEL COSTS USING HOME SCHOOL MODEL COST PER SERVICE HOUR METHOD

Program	LRE C Service Hours	Net Personnel Cost
Elementary Learning and Academic Disabilities*	16,269	$6,457,450
Secondary Learning and Academic Disabilities	15,430	$6,859,695
Elementary Learning Center	7,578	$1,590,976
Secondary Learning Center	8,680	$1,117,761
Totals	**47,957**	**$16,025,882**

*Includes Gifted and Talented/Learning Disabled
Source: OLO

Method #3 – Home School Model Staffing Ratio. This method uses the Home School Model staffing ratios to estimate the staffing ratios that would be required to educate current LRE C students in Learning and Academic Disabilities Programs in an LRE A or B setting.

OLO used MCPS' FY 04 end-of-year student data and the FY 05 MCPS' Department of Special Education FY 05 Teaching Station allocations (see ©5 in the appendix) to develop

student to staff ratios for the different Learning and Academic Disabilities programs.[4] Table 17 below indicates the FY 05 student to staff ratio for both professional staff (i.e. special education teachers) and special education paraeducators.

TABLE 17: FY 05 STUDENT TO STAFF RATIO FOR MCPS' LEARNING AND ACADEMIC DISABILITIES PROGRAMS

Program	Student to Staff Ratio	
	Professional	Paraeducators
Home School Model	6.5 to 1	7.8 to 1
Elementary Learning and Academic Disabilities*	11.3 to 1	12.6 to 1
Secondary Learning and Academic Disabilities	15.6 to 1	17.9 to 1
Elementary Learning Center	7.7 to 1	8.9 to 1
Secondary Learning Center	9.3 to 1	11.0 to 1

*Includes Gifted and Talented/Learning Disabled
Sources: OLO, MCPS

Using the Home School Model staffing ratios as the appropriate ratios to provide services in an LRE A or B setting, OLO determined the amount of additional professional and paraeducator staff needed for each Learning and Academic Disabilities program to match the Home School Model staffing ratio. OLO used MCPS' FY 05 new hire rates to determine the cost of hiring the additional staff. The table below shows an estimated net personnel cost of $12 million.

TABLE 18: ESTIMATED NET PERSONNEL COSTS USING HOME SCHOOL MODEL STAFFING RATIO METHOD

Program	Additional Professional Staff	Additional Paraeducator Staff	Net Personnel Cost
Elementary Learning and Academic Disabilities*	48.7	35.7	$3,694,789
Secondary Learning and Academic Disabilities	79.0	62.9	$6,151,255
Elementary Learning Center	7.7	4.7	$554,334
Secondary Learning Center	21.0	16.7	$1,634,504
Totals	**156.4**	**120.0**	**$12,034,880**

*Includes Gifted and Talented/Learning Disabled
Source: OLO

[4] OLO recognizes that MCPS has moved away from staffing ratios and instead uses a teaching station model to allocate students with disabilities to various programs and/or classrooms. OLO's staffing ratio calculations are only intended to indicate the level of staffing typically associated with a specific program, and are not intended to indicate how MCPS distributes staff to a program or individual classroom.

Comparison of Methods. Table 19 below shows that the total net personnel cost estimates for these three methods range from $9.4 million to $16 million. The Home School Model cost per student method yields the lowest estimate, while the cost per service hour method yields the highest estimate.

TABLE 19: COMPARISON OF ESTIMATED NET PERSONNEL COSTS TO MOVE LEARNING AND ACADEMIC DISABILITIES STUDENTS FROM LRE C TO LRE A OR B

Program	Home School Model		
	Cost per Student Method	Staffing Ratio Method	Cost per Service Hour Method
Elementary Learning and Academic Disabilities*	$3,480,628	$3,694,789	$6,457,450
Secondary Learning and Academic Disabilities	$5,981,920	$6,151,255	$6,859,695
Elementary Learning Center	($387,181)	$554,334	$1,590,976
Secondary Learning Center	$338,250	$1,634,504	$1,117,761
Totals	**$9,413,617**	**$12,034,880**	**$16,025,882**

Sources: OLO, MCPS

2. Other Cost Factors

Increasing inclusion opportunities presents other potential cost impacts outside of personnel/staffing, as noted in the available research, discussions with MCPS staff, and Part I of OLO's study of special education spending. These costs are often difficult to quantify because they depend on an individual school facility and on individual student's needs; i.e. some schools may have a greater ability to absorb the impacts of inclusion with current resources than other schools.

To develop a comprehensive estimate that takes these other costs into account, and because these costs are difficult to quantify on a broad basis, OLO used a factor to represent these unknown costs. Since Part I of OLO's study determined that approximately 13% of special education expenditures were for non-personnel items, OLO added that amount to each of the totals from Table 19. Table 11 on page 18 shows the combined totals. Some of these other cost factors are discussed in more detail below.

Training. Within MCPS, the Office of Staff Development is responsible for training and staff development. According to a December 2003 update of special education services provided to the MCPS Board of Education,[5] training general education teachers to address the needs of diverse learners begins at new teacher induction and continues through ongoing special professional development opportunities. The Office of Staff Development has two special education content specialists who develop training programs for general education teachers or for school resource personnel.

[5] MCPS, *Update on the Special Education Classical Program Review*, December 9, 2003.

MCPS' FY 05 approved budget includes $565,000 for an "Elementary and Secondary Special Education Training and Development" initiative for general and special education teachers. The goal of the training initiative is to focus on skills, practices, and strategies to support the learning needs of special education students. This training will be for all first and second grade teachers as well as high school algebra, middle school mathematics, and ninth grade English teachers.

The FY 05 Special Education Staffing plan had recommended $1.1 million for this training, so it was funded at approximately 50% of the desired level. Both the Special Education Staffing Plan and the Task Force Report recommend extending this training to teachers in grades 3, 4, and 5, as well as middle school English and geometry teachers in future years.

Facilities. Facilities costs depend on each individual school and the availability of space. Using the facilities requirements of the Home School Model as an example, each school needs an additional Home School Model Pull-Out Classroom at 300 square feet and a Home School Model Office at 200 square feet.[6] If a school does not have existing space to use for this purpose, it needs to be added through construction, renovation, modernization, or use of portables.

The Special Education Task Force Report recommends dealing with these facility requirements during the planning and design phases for new schools, modernizations, and additions. In some cases, it may increase the overall project cost.

Current elementary school capital projects (excluding gymnasium projects) that may be affected by the Special Education Task Force proposal to add Home School Model services in the Downcounty Consortium are listed in the following table.

TABLE 20: MCPS ELEMENTARY SCHOOL CAPITAL PROJECTS IN THE DOWNCOUNTY CONSORTIUM

School	Project Type	Anticipated Completion Date
Bel Pre ES	Modernization	TBD
Downcounty Consortium ES #27	Reopening of Connecticut Park	9/06
Downcounty Consortium ES #28	Reopening of Arcola	9/06
Forest Knolls ES	Addition	9/05
Glenallan ES	Modernization	1/13
Oak View ES	Core Improvements	9/05
Sligo Creek ES	Addition	9/06
Weller Road ES	Addition	9/07
Weller Road ES	Modernization	9/13

Source: MCPS FY 2005 to FY 2010 Capital Improvements Program

[6] MCPS, *Educational Specification Guidelines for Special Education Programs*

Materials/Equipment. Efforts to increase the number of students served in an inclusive setting will create increased costs for materials, supplies, and equipment; although the overall cost for these items is minimal compared to personnel. In FY 04, MCPS' entire Supplies, Materials, Furniture, and Equipment budget for all learning and academic disabilities cluster-based model, home school model, and resource program students was approximately $1 million, or around $100 per student.

As noted in the literature review, other school districts that created more inclusive settings reported cost increases of up to $1,500 per school for additional materials and equipment.

III. RECOMMENDED ISSUES FOR COMMITTEE DISCUSSION

This section outlines two issues that the Office of Legislative Oversight recommends for Committee discussion.

Issue #1 – Potential fiscal impacts of increasing inclusion opportunities in MCPS.

Using FY 04 cost data, OLO estimates it could cost an additional $10.6 million to $13.6 million to increase inclusion opportunities to meet the State's 80% LRE A and B goal. MCPS' Special Education Task Force recommended that MPCS begin implementing practices that will lead to greater inclusion. The Task Force did not include specific costs associated with their recommendations.

Given the substantial costs and logistical details, it is likely that increasing inclusion is a task that will need to be accomplished as part of a multi-year strategy. For example, it may need to be undertaken similar to how MCPS has phased in the all-day kindergarten program.

Using this OLO report as an additional resource to assist in future budget analysis and decision-making, the Education Committee should closely track MCPS' efforts to improve inclusion in the special education system. Specifically, OLO recommends the Committee ask MCPS staff to discuss:

- The status of MCPS' efforts to implement the Special Education Task Force's least restrictive environment recommendations; and

- MCPS' anticipated FY 06 funding request, if any, associated with increasing inclusion opportunities.

Issue #2 – MCPS, similar to other local school districts, does not yet meet the State of Maryland's goal for providing preschool services in an inclusive setting.

A State of Maryland goal for each school district, as reported in the Maryland State Department of Education's *Maryland State Improvement Grant Performance Report, School Year 2001-2002*, is for 80% of preschool students with disabilities to receive all or part of their special education services in a school designed primarily for students without disabilities. In other words, 80% of preschool students with disabilities should receive special education services in an LRE M or LRE O educational setting.

In FY 04, four percent of MCPS' preschool students received services in LRE M or O settings. The comparative data (page 8) indicate that other school districts also struggle with providing preschool services in an inclusive setting. In addition to MCPS, Anne Arundel, Baltimore, Prince George's, and Frederick Counties have all seen decreases in the percent of preschool students with disabilities served in the LRE M and O settings since FY 01.

One contributing factor to this shortfall is the significant increase in the preschool special education population, as detailed in Part I on OLO's report on special education spending. Since FY 00, the MCPS population of pre-kindergarten students with disabilities has grown 47%, compared to 7% for the entire special education population over the same time period.

OLO recommends the Committee discuss the following specific issues with MCPS:

- The factors that impact the preschool LRE percentages;
- How preschool inclusion fits into MCPS long-range planning; and
- The relationship between preschool and school-age inclusive services if students are expected to stay in an inclusive setting when transitioning from preschool to elementary school.

IV. AGENCY COMMENTS

The Office of Legislative Oversight circulated a draft of this report to Montgomery County Public Schools. The final report incorporates technical corrections provided by MCPS.

Written comments from MCPS' Chief Operating Officer are included in their entirety beginning on the following page.

OLO greatly appreciates the time taken by everyone who reviewed the draft report and looks forward to discussing the issues raised in this study.

Montgomery County Public Schools

850 Hungerford Drive * Rockville, Maryland * 20850-1747

Telephone (301) 279-3626

September 10, 2004

Mr. Scott Brown
Mr. Craig Howard
Office of Legislative Oversight
Montgomery County Council
100 Maryland Avenue
Rockville, Maryland 20850

Dear Mr. Brown and Mr. Howard:

This is in response to your correspondence dated August 12, 2004, requesting comments on the draft of the Office of Legislative Oversight (OLO) Memorandum Report 2004-9. Staff in the Office of Special Education and Student Services and the Department of Management, Budget, and Planning reviewed the draft report. The following comments are noted by page:

- Page 6.
  It may be unwise to assume transportation costs at 28 percent for everyone. It might be better just to use Category 6 expenditures. Also, how did you handle Category 12 employee benefits?

- Page 8, Table 6.
  The FY 2001 LRE M & O percentages for all school districts could not be verified.

- Page 17, line 4, Home School Model Program. "This program services students with learning disabilities in general classrooms in their home schools, providing more opportunities for inclusion..."
  This should read: "This program services students who typically demonstrate learning and/or behavioral needs that affect performance in one or more academic areas. These students attend general education classrooms in their home schools, providing more opportunities for inclusion..."

- Page 18, Table 11.
  The calculation for *Cost per Service Hour Method* is incorrect and impacts further calculations on pages 22 and 24.

- Page 19, Table 12.
  This should show total for columns and rows.

- Pages 19, 20, and 21.
  All references made to *Learning Disabilities Programs* should read Learning and Academic Disabilities.

- Page 20, Table 13.
  This total mixes the three LRE categories and so it gives a false idea of cost per student in LRE C.

- Page 21, Method 2.
  Are you assuming that services hours in the home school model would be the same as current service hours? If so, is that justified?

- Page 22, Tables 15 and 16.
  The *Elementary Learning and Academic Disabilities* (LAD) cell does not include Gifted and Talented/Learning Disabled (GT/LD) hours as stated.

- Page 23, Tables 17 and 18.
  The calculations for *Student to Staff Ratio* in Table 17 could not be verified. These calculations impact the data reported in Table 18.

- Page 23, Table 18.
  There is a problem using home school models' staffing ratios to be the basis on the LRE model because the home school model serves different students with different disabilities than those assumed for conversion of LAD students in LRE C.

- Page 24, Table 19.
  The calculations for *Cost per Service Hour Method* are incorrect for the Elementary LAD cell. The totals in this table mask big differences in the components by disability. This needs to be explained. This is particularly the case for Elementary Learning Centers and Elementary LAD.

- Page C3, Cost Model #2.
  The service hours recorded for Elementary LAD do not include GT/LD hours, as stated.

- Page C4, Model 3.
  The additional staff identified here does not match earlier information that more paraeducators will be needed to support students in an LRE setting.

MCPS appreciates the in-depth analysis of special education spending and the opportunity to review the OLO report. Please contact Ms. Suzanne Flanery, management and budget specialist, Department of Management, Budget, and Planning, at 301-279-3547, or Ms. Karen Kosain, data systems specialist, Department of Special Education, at 301-279-3717, for further clarification.

Sincerely,

Larry A. Bowers
Chief Operating Officer

LAB:lo

Copy to:
Dr. Lacey
Dr. Wright
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AN ANALYSIS OF MONTGOMERY COUNTY PUBLIC SCHOOLS' SPECIAL EDUCATION SPENDING: PART II

OLO MEMORANDUM REPORT 2004-9

APPENDIX

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COST ESTIMATE METHODOLOGY

OLO developed three models to estimate the cost of transitioning 2,370 special education students in Learning and Academic Disabilities programs from LRE C to LRE A or B educational settings. The 2,370 students receive services from within the following MCPS Learning and Academic Disabilities programs: Elementary Learning Center, Secondary Learning Center, Elementary LAD, Secondary LAD, and Home School Model. This methodology details how OLO developed the personnel cost estimates for each cost model.

With few exceptions, MCPS' Home School Model (HSM) program provides education services to special education students in LRE A or B settings (see page 17 for details on the HSM program). OLO used the costs of the Home School Model program (for all three cost scenarios) as the basis for transitioning the 2,370 students into LRE A or B educational settings. The Home School Model provides actual costs that can be extrapolated to other programs as a "best-guess" estimate for the cost of providing services to students with a variety of needs in an LRE A or B setting.

Cost Model #1: Home School Model cost per student

OLO began by determining the approximate FY 04 personnel costs for the Home School Model (HSM), Elementary LAD, Secondary LAD, Elementary Learning Center, and Secondary Learning Center programs. OLO obtained FY 04 salary and wage costs for the programs from MCPS' budget reporting system by object code (or ODD). OLO then included benefits costs by applying a professional benefit factor of 20% to the salary cost for professional staff, and a paraprofessional benefit factor of 40% to the salary cost for the paraprofessional staff.

Determining the Personnel Costs of the Home School Model, Elementary LAD, and Secondary LAD Programs. While Elementary and Secondary Learning Centers have individual budget codes, HSM and LAD programs are included in a larger budget code, School-Based Services. The totals from the School-Based Services object code (with benefits added by OLO) are shown below.

School-Based Services (ODD 248) + Benefits – Includes HSM and LAD				
Staff	**Number**	**Salary/Wages**	**Benefits**	**Total**
Elem Prog S	6	$ 341,151	$ 68,230	$ 409,381
Tchr-Sp Ed	413	$ 21,803,144	$ 4,360,629	$ 26,163,773
Tchr-Sp Ed RR	242	$ 15,555,220	$ 3,111,044	$ 18,666,264
Resrce Tchr	47	$ 3,791,272	$ 758,254	$ 4,549,526
Sec Prog S	15	$ 1,391,160	$ 278,232	$ 1,669,392
SEIA	415.4141	$ 10,791,120	$ 4,316,448	$ 15,107,568
Total	1,138.4141	$ 53,673,067	$12,892,837	**$ 66,565,904**

Using the FY 05 Personnel Complement and the MCPS' FY 05 Teaching Station allocations (as of 6/14/2004), OLO determined how many and what types of staff were allocated to the Home School Model and Elementary/Secondary LAD programs in FY 04.

OLO then determined each program's portion of the total salary and benefits cost from the School-Based Services object code (ODD 248).

Home School Model – 37.5 Professional Staff (Tchr-Sp Ed) of 413 total
28.975 Paraprofessional Staff (SEIA) of 415.4141 total
$26,163,773*(37.5/413)+$15,107,568*(28.975/415.4141)

Elementary LAD – 6 Professional Staff (Elem Prog S) of 6 total
94.5 Professional Staff (Tchr-Sp Ed) of 413 total
82.688 Paraprofessional Staff (SEIA) of 415.4141 total
$409,381+[$26,163,773*(94.5/413)]+[$15,107,568*(82.688/415.4141)]

Secondary LAD – 15 Professional Staff (Sec Prog S) of 15 total
211.5 Professional Staff (Tchr-Sp Ed) of 413 total
185.063 Paraprofessional Staff (SEIA) of 415.4141
$1,669,392+[$26,163,773*(211.5/413)]+[$15,107,568*(185.063/415.4141)]

The estimated personnel costs associated with the Home School Model, Elementary LAD, and Secondary LAD programs are shown below:

Program	Prof Staff	Para Staff	Total
Home School Model	$ 2,375,645	$1,053,748	**$ 3,429,393**
Elementary LAD	$ 6,396,007	$3,007,155	**$ 9,403,162**
Secondary LAD	$15,068,031	$6,730,277	**$21,798,308**

Determining the Personnel Costs of the Elementary and Secondary Learning Centers. The Elementary and Secondary Learning Centers programs have their own budget object codes, and the totals for those programs are shown in the two tables below (with benefits added by OLO).

Elementary Learning Centers (ODD 246) + Benefits				
Staff	**Number**	**Salary/Wages**	**Benefits**	**Total**
Elem Prog S	8	$ 629,892	$ 125,978	$ 755,870
Tchr-Sp Ed	36	$ 2,082,376	$ 416,475	$ 2,498,851
Tchr- PE	1	$ 42,373	$ 8,475	$ 50,848
Tchr- Art	0.5	$ 23,067	$ 4,613	$ 27,680
Tchr- Music	0.5	$ 34,665	$ 6,933	$ 41,598
SEIA	35.125	$ 959,890	$ 383,956	$ 1,343,846
Total	81.125	$ 3,772,263	$ 946,431	**$ 4,718,694**

Secondary Learning Centers (ODD 244) + Benefits				
Staff	**Number**	**Salary/Wages**	**Benefits**	**Total**
Sec Prog S	7	$ 578,171	$ 115,634	$ 693,805
Tchr-Sp Ed	57	$ 3,557,227	$ 711,445	$ 4,268,672
Sch Secretary	5.25	$ 228,722	$ 91,489	$ 320,211
SEIA	48.125	$ 1,275,581	$ 510,232	$ 1,785,813
Total	117.375	$ 5,639,701	$1,428,801	**$ 7,068,502**

Using the calculated personnel costs for the Home School Model, Elementary LAD, Secondary LAD, Elementary Learning Center, and Secondary Learning Center programs, OLO divided each by the number of students in each program at the end of FY 04 to determine a personnel cost per student for each program.

Program	Personnel Cost	Students	Cost per Student
Home School Model	$ 3,429,393	253	$ 13,555
Elementary LAD	$ 9,403,162	1,067	$ 8,813
Secondary LAD	$21,798,308	3,256	$ 6,695
Elementary Learning Center	$ 4,718,694	319	$ 14,792
Secondary Learning Center	$ 7,068,502	552	$ 12,805

OLO then used the Home School Model personnel cost per student as the cost to provide services in an LRE A or B setting, and multiplied the number of students in each program to move from LRE C by the difference between the Home School Model cost per student and each other program's cost per student.

Program	LRE C Students	Cost Difference	Personnel Cost to Move to LRE A/B Setting
Elementary LAD	734	$ 4,742	$ 3,480,628
Secondary LAD	872	$ 6,860	$ 5,981,920
Elementary Learning Center	313	$ (1,237)	$ (387,181)
Secondary Learning Center	451	$ 750	$ 338,250
Total			**$ 9,413,617**

Cost Model #2: Home School Model personnel cost per service hour

OLO used the same methodology to determine personnel costs as described in the Home School Model personnel cost per student method above. Using the calculated personnel costs for the Home School Model, Elementary LAD, Secondary LAD, Elementary Learning Center, and Secondary Learning Center programs, OLO divided the personnel costs by the number of service hours received by the students in each program at the end of FY 04 to determine a personnel cost per service hour for each program.

Program	Personnel Cost	Service Hours	Cost per Service Hour
Home School Model	$ 3,429,393	4,177	$ 821
Elementary LAD	$ 9,403,162	22,172	$ 424
Secondary LAD	$21,798,308	57,905	$ 376
Elementary Learning Center	$ 4,718,694	7,722	$ 611
Secondary Learning Center	$ 7,068,502	10,211	$ 692

OLO then used the Home School Model personnel cost per service hour as the cost to provide services in an LRE A or B setting, and multiplied the number of students in each program to move from LRE C by the difference between the Home School Model cost per service hour and each other program's cost per service hour.

Program	LRE C Service Hours	Cost Difference	Personnel Cost to Move to LRE A/B Setting
Elementary LAD	16,269	$ 397	$ 6,457,450
Secondary LAD	15,430	$ 445	$ 6,859,695
Elementary Learning Center	7,578	$ 210	$ 1,590,976
Secondary Learning Center	8,680	$ 129	$ 1,117,761
Total			**$ 16,025,882**

Cost Model #3: Home School Model staffing ratios

OLO began by using MCPS' Department of Special Education FY 05 Teaching Station allocations (as of 6/14/04) to determine the total projected professional and paraprofessional staff for the Home School Model, Elementary LAD, Secondary LAD, Elementary Learning Center, and Secondary Learning Center programs in FY 05. OLO then divided those total staff numbers by the number of students in each program to determine estimated FY 05 staffing ratios.

Program	Professional Staff	Paraeducators	Students	Students per teacher	Students per Paraeducator
Home School Model	39.1	32.375	253	6.5	7.8
Elementary LAD	94.1	84.625	1067	11.3	12.6
Secondary LAD	208.3	181.757	3256	15.6	17.9
Elementary Learning Center	41.5	36.0	319	7.7	8.9
Secondary Learning Center	59.6	50.15	552	9.3	11.0

Given these ratios, OLO then determined how much additional professional and paraprofessional staff would be required for all of the programs to have the Home School Model staffing ratios for the LRE C students in FY 05. To determine the cost of the additional staff, OLO used MCPS' FY 05 new hire costs of $52,700 for a special education teacher and $31,605 for a special education paraeducator.

Program	LRE C Students	Additional Teachers	Additional Paraeducators	Additional Teachers Cost	Additional Paraeducators Cost	Total Personnel Cost
Elementary LAD	734	48.7	35.7	$2,566,490	$ 1,128,299	$ 3,694,789
Secondary LAD	872	79.0	62.9	$4,163,300	$ 1,987,955	$ 6,151,255
Elementary Learning Center	313	7.7	4.7	$ 405,790	$ 148,544	$ 554,334
Secondary Learning Center	451	21.0	16.7	$1,106,700	$ 527,804	$ 1,634,504
Total						**$12,034,880**

Appendix

Department of Special Education
FY 2005 Teaching Stations

	FY 2005 Staff Budgeted		FY 2005 Allocations Made by DSE		FY 2005 Available Staff	
	Professional Staff	Paraeducators	Professional Staff	Paraeducators	Professional Staff	Paraeducators
Programs for Students with Learning Disabilities (LD)						
Elementary Learning Centers	40.000	35.000	41.500	36.000	(1.500)	(1.000)
Secondary Learning Centers	59.000	51.625	59.600	50.150	(0.600)	1.475
Carl Sandburg Center	14.000	16.250	14.000	16.250	-	-
School-Based Programs (LAD)	343.500	296.725	341.500	298.757	2.000	(2.032)
Home School/Three Clusters	37.500	28.975	39.100	32.375	(1.600)	(3.400)
Elementary	94.500	82.688	94.100	84.626	0.400	(1.938)
Middle	106.000	92.750	105.300	91.875	0.700	0.875
High School	105.500	92.313	103.000	89.882	2.500	2.430
Total for Learning Disabilites	456.500	399.600	456.600	401.157	(0.100)	(1.557)
Programs for Students with Mental Retardation (MR)						
School/Community-Based Programs	67.000	100.500	66.000	100.625	1.000	(0.125)
Resource Intensive Needs (RIN)					-	-
Rock Terrace Center	15.000	13.200	15.000	13.200	-	-
Crossroads	2.500	2.500	3.000	3.000	(0.500)	(0.500)
Longview	10.000	17.500	10.000	17.500	-	-
Extensions Program	3.000	7.875	3.000	5.250	-	2.625
Stephen Knolls	11.000	19.250	11.000	19.250	-	-
Learning for Independence	54.500	47.688	55.500	49.188	(1.000)	(1.501)
Elementary	9.000	7.875	10.000	6.750	(1.000)	(0.875)
Middle	18.000	15.750	16.500	14.000	1.500	1.750
Secondary	27.500	24.063	29.000	26.438	(1.500)	(2.376)
Total for Mental Retardation	163.000	208.513	163.500	208.013	(0.500)	0.500

Department of Special Education
FY 2005 Teaching Stations

	FY 2005 Staff Budgeted		FY 2005 Allocations Made by DSE		FY 2005 Available Staff	
	Professional Staff	Paraeducators	Professional Staff	Paraeducators	Professional Staff	Paraeducators
Programs for Students with Emotional Disabilities (ED)						
RICA - Rockville	27.500	21.300	27.500	20.300	-	1.000
Mark Twain	21.000	18.000	21.500	18.000	(0.500)	-
Bridge	18.000	22.500	18.000	22.500	-	-
Emotional Disabilities Cluster Model	47.000	70.500	49.000	73.500	(2.000)	(3.000)
Elementary	10.000	15.000	12.000	18.000	(2.000)	(3.000)
Middle	17.000	25.500	15.000	22.500	2.000	3.000
Secondary	20.000	30.000	22.000	33.000	(2.000)	(3.000)
Total for Emotional Disabilities	113.500	132.300	116.000	134.300	(2.500)	(2.000)
Autism and Aspergers' (ASP) Programs						
Preschool Autism	5.000	17.200	5.000	18.300	-	(1.100)
Grades 1-12 Autism	19.000	33.250	18.000	30.625	1.000	2.625
Aspergers'	9.000	15.750	9.000	15.750	-	-
Total for Autism and Aspergers'	33.000	66.200	32.000	64.675	1.000	1.525
Deaf and Hard of Hearing (DHOH)						
Resource Services	16.000		15.000		1.000	-
Special Classes Based on Model	18.000	15.750	17.700	15.750	0.300	-
Total for DHOH	34.000	15.750	32.700	15.750	1.300	-
Visual Impairments						
Resource Services	10.500		13.000		(2.500)	-
Orientation and Mobility	2.000				2.000	-
Special Classes /K-12	2.000	1.750		1.750	2.000	-
Total for Visual Impairments	14.500	1.750	13.000	1.750	1.500	-

Appendix

Department of Special Education
FY 2005 Teaching Stations

	FY 2005 Staff Budgeted		FY 2005 Allocations Made by DSE		FY 2005 Available Staff	
	Professional Staff	Paraeducators	Professional Staff	Paraeducators	Professional Staff	Paraeducators
Physical Disabilities						
Resource Services					-	-
OT/PT	89.600		88.200	0.750	1.400	(0.750)
Special Classes - SET	10.000	16.500	10.000	16.000	-	0.500
Total for Physical Disabilities	99.600	16.500	98.200	16.750	1.400	(0.250)
Speech and Language Disabilities						
Resource Services					-	-
Preschool - SLP	22.500		19.100		3.400	-
Grades K-12 - SLP	145.500		147.700		(2.200)	-
Private and Parochial - SLP	4.400		4.400		-	-
SLP Support for Classes/K-1& LAD	2.500		2.500		-	-
Special Classes					-	-
Augmentative Communication -SET	2.000	3.500	2.000	3.500	-	-
K-1 Speech Classes - SET	7.000	6.125	7.000	6.125	-	-
Total for Speech/Language Disabilities	183.900	9.625	182.700	9.625	1.200	-
Transition Services						
School Based Sites	28.200	11.000	28.200	11.375	-	(0.375)
Non-School Based Sites	6.000	7.875	6.000	7.500	-	0.375
Total for Transition	34.200	18.875	34.200	18.875	-	-
School Resource Room Services						
School Based Sites	244.500		236.500	0.875	8.000	(0.875)
Total Resource Room	244.500	-	236.500	0.875	8.000	(0.875)

Appendix

Department of Special Education
FY 2005 Teaching Stations

	FY 2005 Staff Budgeted		FY 2005 Allocations Made by DSE		FY 2005 Available Staff	
	Professional Staff	Paraeducators	Professional Staff	Paraeducators	Professional Staff	Paraeducators
InterACT Program						
SET	3.000		3.000		-	-
SLP	6.000		5.900		0.100	-
PT	0.400		0.400		-	-
OT	1.400		1.400		-	-
SEIA		1.350		1.575	-	(0.225)
Total InterACT Program	10.800	1.350	10.700	1.575	0.100	(0.225)
Preschool and Early Childhood Programs						
PEP - Classic and Early Childhood						
SET	21.000	18.375	24.000	21.000	(3.000)	(2.625)
Parent Educators	6.300		7.000		(0.700)	-
Intensive Needs, PEP, INC					-	-
SET/Parent Educators	10.000	8.000	10.000	10.000	-	(2.000)
Speech Pathologists	2.400		3.000		(0.600)	-
OT	2.400		3.000		(0.600)	-
PT					-	-
Medically Fragile / Itinerant					-	-
SET	2.000		1.000		1.000	-
Speech Pathologists	1.200		1.100		0.100	-
OT	0.600		0.200		0.400	-
PT	0.600		0.500		0.100	-
Parent Educators	-				-	-
Beginnings					-	-
SET	6.000	10.500	6.000	10.500	-	-
Speech Pathologists	1.800		1.800		-	-
OT	1.800		1.200		0.600	-
PT	1.800		2.400		(0.600)	-
Parent Educators	1.800		1.000		0.800	-
PreSchool Language Disabilities (SLP)					-	-
Parent Educators	1.800		1.000		0.800	-
Speech Pathologists	6.000	6.000	6.000	5.250	-	0.750
Total Preschool and Childhood	67.500	42.875	69.200	48.750	(1.700)	(3.875)

Department of Special Education
FY 2005 Teaching Stations

	FY 2005 Staff Budgeted		FY 2005 Allocations Made by DSE		FY 2005 Available Staff	
	Professional Staff	Paraeducators	Professional Staff	Paraeducators	Professional Staff	Paraeducators
Infants and Toddlers Program						
Number of Children Served (ISFPs)						
Special Education Instruction	31.000		34.000		(3.000)	-
Paraeducators		18.740	-	19.700	-	(0.960)
Speech and Language	45.000		42.000		3.000	-
OT	15.000		14.000		1.000	-
PT	29.000		27.000		2.000	-
Deaf and Hard of Hearing (DHOH)	3.000		2.800		0.200	-
Visual Impairments	2.500		2.500		-	-
Total Infants and Toddlers Program	125.500	18.740	122.300	19.700	3.200	(0.960)
TOTAL	1,580.500	932.078	1,567.600	939.795	12.900	(7.718)
Additional IDEA Positions					6.200	9.675
Grand Total Positions					19.100	1.957