

**Estimating the Economic Impact  
of the Mobile County Public Schools  
Construction Expenditures**

**CBER Research Report # 68**

Prepared by  
Semoon Chang, Director  
Center for Business & Economic Research  
University of South Alabama  
Mobile, Alabama 36688

February 24

## Executive Summary

This update covers construction projects of the Mobile County Public School System for the period of 2000 to 2007. Projects included in this study are known as Phase II Year Two, Bond 2001 and Bond 2003. Also included in this study are annual building maintenance expenditures and recovery dollars from Hurricane Katrina. Major findings are the following.

1. The total amount of construction expenditures from 2000 to 2007 is \$410,458,257. These expenditures created and supported 975 jobs directly and 1,877 jobs including the multiplier effect during the eight year period.
2. Each year, these construction expenditures have created earnings of \$52,696,927.47, generating sales revenues in all segments of the Mobile County retail industry.
3. Total tax revenues generated by the Mobile County Public School System's construction expenditures for each of the eight years are \$512,275 for the City of Mobile, \$409,769 for Mobile County, \$2,659,951 for the state of Alabama, and \$334,740.12 for the Mobile County Public School System.
4. Total tax revenues that are generated by the Mobile County Public School System's construction expenditures for the entire eight years of the study period are \$4,098,203 for the City of Mobile, \$3,278,150 for Mobile County, \$21,279,610 for the state of Alabama, and \$2,677,921 for the Mobile County Public School System.







## Table of Contents

Executive Summary i

Section:

An Overview of Construction Projects	1
Average Annual Construction Expenditures	2
The Impact Model	2
Estimating the Jobs and Earnings Impact	3
Estimating the Tax Impact	5
Summary	6

### List of Tables

1.	Summary of MCPSS Construction Projects	1
2.	Estimating Jobs and Earnings Impact	3
3.	Estimating the Impact on Local Retail Industry by Sector	4
4.	Estimating the Tax Impact	5

### List of Figures

1.	Jobs Created by the Construction Expenditures	ii
2.	Annual Tax Revenues from Construction Expenditures	iii
3.	Total Tax Revenues from Construction Expenditures for the Entire 8 Years	iv

### Appendices

1.	Construction Expenditures by the Mobile County Public School System	7
----	---	---

Estimating the Economic Impact  
of the Mobile County Public Schools  
Construction Expenditures

The Mobile County Public School System, referred to in this report as the MCPSS has been spending a large amount of money on the System's construction projects since 1998. This study measures economic impact of these construction expenditures as a follow-up to the report, prepared in 1998 and released on October 15, 1998.

An Overview of Construction Projects

Major construction projects began in 1996 and are scheduled to continue through the year 2007. These projects and their amounts are summarized in table 1-1.

Table 1-1. Summary of MCPSS Construction Projects

Project Name	Amount	Year Began	Year of Completion
Part A:			
Phase I	\$ 62,904,375	1996	1999
Phase II Year One	\$ 41,405,775	1998	2001
Sub-total	\$104,310,150		
Part B:			
Phase II Year Two	\$ 32,034,212	2000	2002
Bond 2001	\$119,424,045	2001	2005
Bond 2003	\$124,000,000	2003	2007
Sub-total	\$275,458,257		
Facilities Improvement			
2000 to 2007	\$120,000,000	\$15,000,000 per year	
Hurricane Katrina	\$ 15,000,000	2005	2006
Sub-total	\$135,000,000		

Source: Mobile County Public School System.

Two groups of projects in Part A (Phase I and Phase II Year One) were included in the impact study, published in 1998. This update will cover projects included in Part B for the period of 2000 to 2007. The total amount of construction expenditures from 2000 to 2007 is \$410,458,257, obtained by adding \$275,458,257 and \$135,000,000.

#### Average Annual Construction Expenditures

On an annual basis, the amount of MCPSS construction expenditures for the study period is obtained by dividing the total amount by 8 years, i.s.:

$$\$410,458,257 \div 8 = \$51,307,282$$

Annual economic impact, estimated in this study, is based on \$51,307,282. Detailed construction expenditures by project group and by school district are summarized in Appendix 1.

#### The Impact Model

The Regional Industrial Multiplier System (RIMS) was first developed in the 1970s by the U.S. Bureau of Economic Analysis (BEA) and modified to RIMS II in the 1980s. The latest RIMS II multipliers are derived from BEA's 1997 national benchmark input-output accounts and BEA's 2001 regional economic accounts. RIMS II multipliers based on these sources were first released in May 2004. RIMS II multipliers have a wide range of applications in measuring the impact of a new industry and an old industry that is about to close. One of more important applications of RIMS II multipliers relates to assessing the economic impact of a new industry or an additional expenditure of construction dollars.

It is important to point out the followings regarding the use of RIMS II multipliers. First, it is important to make sure that there are no big-ticket items that will be purchased from outside the study area in the announced investment figure. If there were, their values should not be counted as local expenditures in impact estimation. Second, it is important to know how long it takes to construct the facility when impact from construction is estimated. Since RIMS II multipliers are based on annual data, estimated impacts usually relate to a year. For a large construction project, RIMS II multipliers tend to show job and earnings impact from construction that is too large for an annual impact. If construction is expected to last three years, for instance, the estimated job and earnings impact from construction should be divided by three to show their annual impact. Third, all sales, called final demand, in RIMS II multipliers are assumed exported. If some sales are locally competitive in such cases as a new shopping mall or large discount stores like Wal-Mart, Target and Pro Bass Shop that may lower sales of existing stores in the area, RIMS II multipliers will overestimate the impact. Fourth, RIMS II multipliers have no clear explanation over the impact of non-wage expenditures on the local economy, which may require careful attention. Finally, if an estimated dollar impact is referenced for future years, its values may be increased according to the projected rate of inflation.

The study area is defined as Mobile County partly because Mobile County is the Mobile MSA and partly because estimation of the tax impact should be confined to the jurisdiction that considers granting investment incentives through tax rebates and exemptions. This study is based on the latest version of RIMS II multipliers for Mobile County.

Estimating the Jobs and Earnings Impact

The number of construction jobs that the construction expenditures of the MCPSS have created or supported during each of the eight years of the study period is 975. When the multiplier effect is added, the total number of jobs that the construction expenditures of the MCPSS have created or supported during each of the eight years of study period is 1,877, with an amount of annual earnings of \$52,696,927.47. This impact is summarized in table 2. All segments of Mobile County retail industry have been impacted by these annual earnings as summarized in table 3. In table 3, for instance, the first figure \$4,081,183.39 means that expenditures for “food at home”, i.e., grocery stores have increased by \$4,081,183.39 because of the MCPSS’s construction expenditures during each of the eight years. For another example, the second figure \$2,968,879.64 in table 3 means that the expenditures for “food away from home”, i.e., restaurants of all kinds have increased by \$2,968,879.62 because of the MCPSS’s construction expenditures during each of the eight years.

Table 2. Estimating Jobs and Earnings Impact

	Expenditures	Multiplier	Impact
Output	\$51,307,282.00	1.9105	\$98,022,562.26
Earnings		0.5376	\$52,696,929.47
Employment. total		19.1487	1,877
Direct employment only			975
Annual wage			\$28,075.01
Output/employee			\$99,771.79

To make sure that the estimated number of jobs is reasonable, we contacted one general contractor who just completed \$7,980,000 work on school renovation and asked the contractor to calculate the number of workers who worked directly on the project. The number was 90 to 100, including office staff. Note that:

$$\$51,307,282 / 7,980,000 \times = 6.429 \times 95 = 611$$

These figures include subcontractors hired by the general contractor, but do not include architects who in turn hired services from surveyor, and various engineering firms on civil, structural, mechanical and electrical. Including all workers, the total direct employment is expected to be close to 975, which the RIMS II model indicates. The total, 1,877, includes the multiplier effect.

Table 3. Estimating the Impact on Local Retail Industry by Sector

Retail Sector	% of Total	Expenditures
Food		
Food at home	7.74%	\$4,081,183.39
Food away from home	5.63%	2,968,879.64
Alcoholic Beverages	0.77%	407,707.89
Housing		
Shelter	15.84%	8,347,066.66
Utilities, fuels, and public services	7.38%	3,889,642.77
Household operations	1.61%	846,883.18
Housekeeping supplies	1.28%	675,864.77
Household furnishings and equipment	3.42%	1,803,218.14
Apparel and services		
Men and boys	0.98%	517,159.68
Women and girls	1.63%	859,196.50
Children under 2 years old	0.19%	98,506.61
Footwear	0.76%	398,130.86
Other apparel products and services	0.60%	318,778.32
Transportation		
Vehicle purchases (net outlay)	9.90%	5,216,745.65
Gasoline and motor oil	3.23%	1,703,343.39
Other vehicle expenses	5.48%	2,886,790.80
Public transportation	0.73%	384,449.39
Health care	5.70%	3,001,715.17
Entertainment	4.29%	2,260,179.34
Personal care products and services	1.21%	638,924.79
Reading	0.26%	138,182.88
Education	1.25%	660,815.14
Tobacco products and smoking supplies	0.82%	432,334.55
Miscellaneous	1.57%	827,729.12
Cash contributions	3.13%	1,649,985.64
Personal insurance and pensions		
Life and other personal insurance	1.09%	571,885.57
Pensions and Social Security	7.70%	4,059,293.03
(personal taxes)	5.79%	3,053,704.77
total	100.00%	\$52,698,297.64

## Estimating the Tax Impact

Table 4 summarizes the annual tax impact of the MCPSS's construction expenditures during each of the eight years of the study period. Note that this tax impact is due solely to expenditures made by workers who work on MCPSS's construction projects as well as the multiplier effect. Note that sales tax on building materials is not included since MCPSS's construction projects are exempt from sales taxation.

Table 4. Estimating the Tax Impact

Jurisdiction & Tax	Amount
Mobile, City	
sales tax, gen.	\$294,997.41
sales tax, rest.	83,442.29
auto tax	58,691.21
gasoline tax	19,148.75
property tax	55,995.76
city total	<u>\$512,275.42</u>
Mobile County	
sales tax	\$160,778.33
auto tax	26,084.98
gasoline tax	4,255.28
property tax	218,650.10
county total	<u>\$409,768.69</u>
State	
income tax	\$1,738,998.67
sales tax	643,113.33
auto tax	104,339.92
gasoline tax	136,168.87
property tax	37,330.50
state total	<u>\$2,659,951.29</u>
School tax	
county property tax	\$186,652.52
Mobile/Prichard only	95,992.73
sales tax outside M/P	20,097.29
state property tax	31,997.58
school tax total	<u>\$334,740.12</u>

## Summary

This update covers MCPSS's construction projects for the period of 2000 to 2007. Projects included in this study are known as Phase II Year Two, Bond 2001 and Bond 2003. Also included in this study are annual building maintenance expenditures and expenditures of recovery dollars from Hurricane Katrina. The total amount of construction expenditures from 2000 to 2007 is \$410,458,257. These expenditures created and supported 975 jobs directly and 1,877 jobs including the multiplier effect.

Total tax revenues generated by MCPSS's construction expenditures for each of the eight years of the study period are \$512,275 for the City of Mobile, \$409,769 for Mobile County, \$2,659,951 for the state of Alabama, and \$334,740.12 for the Mobile County Public School System. Total tax revenues that are created by MCPSS's construction expenditures for the entire eight years of the study period are \$4,098,203 for the City of Mobile, \$3,278,150 for Mobile County, \$21,279,610 for the state of Alabama, and \$2,677,921 for the Mobile County Public School System.

Appendix 1. Construction Projects by the Mobile County Public School System

**Phase I**

<u>Project Name</u>	<u>District</u>	<u>Architect</u>	<u>Contractor</u>
Allentown Elem.	1	DPF Architects	Saad and Cooke
Orchard Elem.	1	Joe Cleveland	Saad and Cooke
Semmes Elem.	1	DPF Architects	Stuart Constr.
Burns Middle	2	John Dendy	Lee Saad
Dodge Elem.	2	Major Holland	Saad and Cooke
Griggs Elem.	2	Major Holland	Saad and Cooke
Hollinger's Island Elem.	2	Hall Baumhauer	J.C. Duke
Calcedeaver Elem.	3	Hall Baumhauer	CLS
Grant Elem.	3	Holmes & Holmes	Stuart Constr.
Lee Elem.	3	Hall Baumhauer	J.C. Duke
Spencer Elem.	3	TAG	Lee Saad
Calloway-Smith Middle	4	John Dendy	Lee Saad
Howard Elem.	4	Clark, Greer & Latham	Lee Saad
Bryant High	5	TAG	Saad and Cooke
Bryant High Stadium	5	TAG	Saad and Cooke
Bryant Vocational Bldg.	5	TAG	Saad and Cooke

**Phase II Year One**

<u>Project Name</u>	<u>District</u>	<u>Architect</u>	<u>Contractor</u>
McDavid Jones Elem.	1	Holmes & Holmes	Saad and Cooke
Davidson High	2	Hall Baumhauer	Saad and Cooke
Forest Hill Elem.	3	Major Holland	W.E. Davis
Westlawn Elem.	3	Joe Cleveland	J.C. Duke
Craighead Elem.	4	Clark, Greer & Latham	Saad and Cooke
Hutchens Elem.	5	DPF Architects	TradeMark

**Phase II Year Two**

<u>Project Name</u>	<u>District</u>	<u>Architect</u>	<u>Contractor</u>
Collier Elem.	1	Clark, Greer & Latham	J.C. Duke
Montgomery High	1	Joe Cleveland	J.C. Duke
Semmes Middle	1	DPF Architects	Lee Saad
Dodge Elem.	2	Hall Baumhauer	W.E. Davis
Eichold-Mertz Elem.	4	DPF Architects	J.F. Pate
Dauphin Island Elem.	5	Joe Cleveland	H & S Contr.
Dixon Elem.	5	Major Holland	Lee Saad

**Phase II Bond 2001**

<u>Project Name</u>	<u>District</u>	<u>Architect</u>	<u>Contractor</u>
Montgomery Renov.	1	Joe Cleveland	Rod Cooke Construction
Montgomery Track	1	Joe Cleveland	Rod Cooke Construction
Turner Elem.	1	TAG	Rod Cooke Construction
Denton Middle	2	Joe Cleveland	Ben M. Radcliff

Dickson Elem.	2	Hall Baumauher	Rod Cooke Construction
Fonde Elem.	2	Major Holland	Lee Saad
Hollinger's Island Elem.	2	Watermark Design	J.C. Duke
Austin Elem.	3	TAG	Coastal Builders
Austin Admin.	3	TAG	Sergeant Major
Blount High	3	Holmes & Holmes	Rod Cooke Construction
Holloway Elem.	3	Major Holland	Rod Cooke Construction
Lee Elem.	3	Holmes & Holmes	Lee Saad
Hall Elem.	4	Clark, Greer & Latham	Ben M. Radcliff
Howard Elem.	4	Joe Cleveland	Lee Saad
Maryvale Elem.	4	Joe Cleveland	Lee Saad
Williamson High	4	Bruce Knodel	Rod Cooke Construction
Baker High Renov.	5	DPF Architects	J.C. Duke
Baker High Stadium	5	Clark, Greer & Latham	TradeMark
Breitling Elem.	5	Clark, Greer & Latham	TradeMark
Causey Middle	5	DPF Architects	J.C. Duke
Hankins Middle Add.	5	John Dendy	Sergeant Major
O'Rourke Elem.	5	Major Holland	Rod Cooke Construction

**Bond 2003**

Project Name	District	Scope of Work	Architect
Allentown Elem.	1	Mutli-purpose Building	DPF Architects/Hall
Citronelle High	1	Stadium & Ball Field	Clark Greer Latham
Montgomery High	1	14 Classroom Addition	DPF Architects/Hall
Semmes Elem.	1	Multi-purpose Building	DPF Architects/Hall
Shaw High School	1	Gymnasium HVAC	Gulf State Eng.
Will Elem.	1	Ren./14 Rm Add/MPB	Partridge/TMS
Wilmer Elem.	1	New Elementary	TAG
Davidson High	2	Auditorium	DPF Architects
Dodge Elem.	2	New Kitchen/Renovation	Hall-Baumhauer
Dodge Elem.	2	Multi-purpose Building	Harvey Gandler
Griggs Elem.	2	Renovation	Partridge/TMS
Shepard Elem.	2	New Elementary	Goodwyn/Mills/ Caywood
Eight Mile/ Collins Rhodes Elem.	3	New Elementary	Major L. Holland
Vigor High	3	New Wing	Watermark Design
Brookley/Gilliard Elem.	4	New Elementary	Watermark Design
Council Traditional	4	New Elementary	TAG
Leflore High	4	Athletic Complex	Bruce Knodel
Murphy High	4	Renovation	Holmes & Holmes
Performing Arts	4	Renovation	Not Yet Awarded
Rain High	4	Athletic Complex	Bruce Knodel
Alba/Booth Elem.	5	New Elementary	Clark Greer Latham
Burroughs Elem.	5	10 Room Addition	Bruce Knodel
Davis Elem.	5	Multi-purpose Building	Joseph G. Cleveland
Dixon Elem.	5	Multi-purpose Building	Joseph G. Cleveland

Grand Bay Middle	5	20 Classroom Addition	Major Holland
Meadowlake Elem.	5	Multi-purpose Building	Joseph G. Cleveland
North I-10/Haskew Elem	5	New Elementary	Clark Greer Latham
St. Elmo Elem.	5	10 Classroom Addition	Forrest Daniel
Tanner Williams Elem.	5	Multi-purpose Building	Harvey Gandler
Montgomery High	1	Site Drainage	Clark Greer Latham
Hamilton Elem.	1	Multi-purpose Building	Harvey Gandler
Phillips Prep.	3	10 Room Addition	Forest Daniel

---

Source: Mobile County Public School System, 2006.