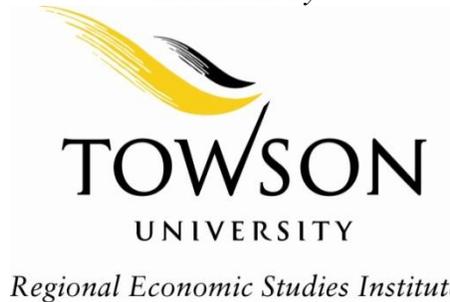


**Economic and Fiscal Impact Analysis of MSBDF's Portfolio of Firms on
Maryland's Economy, 2000-2009**

Prepared for
Meridian Management Group

Submitted by



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**Economic and Fiscal Impact Analysis of MSBDFA's Portfolio of Firms on
Maryland's Economy, 2000-2009**
RESI of Towson University

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1.0 Executive Summary

The Meridian Management Group (MMG), fund manager of the Maryland Small Business Development Financing Authority (MSBDFA), requested that the Regional Economic Studies Institute of Towson University (RESI) conduct an impact analysis. The purpose of the analysis was to assess the economic and fiscal impacts of the state of Maryland's MSBDFA program on Maryland's economy between 2000 and 2009. The MSBDFA program provides financing for small businesses which are not able to qualify for financing from private lending institutions or are owned by socially and/or economically disadvantaged persons.

The projections are based on data provided by MMG and include the cumulative operations and change in operating performance over the ten-year period. The economic and fiscal impacts of the MSBDFA portfolio are based on sales, income, and employment data for annual operations in Maryland.

This report does not consider other revenue or expenses which MSBDFA has incurred as a result of its own operations. In addition, this report does not present any information on the performance of the loans which MSBDFA has provided to companies. As a result, the economic and fiscal impacts focus solely on the contribution of MSBDFA's client firms to Maryland's economy.

1.1 Gross Cumulative Economic and Fiscal Impacts

This report includes estimates of the economic and fiscal impacts—based on the sum of sales and income for the period 2000 to 2009—resulting from the cumulative annual operations of the MSBDFA firms. These estimates capture the overall contribution to Maryland's economy over the ten-year study period.

- The direct impact of the cumulative operations includes \$1.9 billion in sales, \$660.9 million in income, and 1,853 full-time equivalent jobs.
- The secondary impact shows \$1.5 billion in sales, \$380.0 million in income, and 1,154 full-time equivalent jobs.
- Together, the total cumulative impact of the client companies is an estimated \$3.4 billion in sales, \$1.0 billion in income, and 3,007 full-time equivalent jobs.¹
- The direct tax revenues resulting from the employees of the client companies consist of selected state tax receipts of \$32.5 million, which includes \$1.1 million in state retail sales tax and \$31.4 million in state personal income tax, and \$19.7 million in local personal income surtax receipts.
- The sum of the direct and secondary tax revenues generated by the employees of the client companies and their suppliers are estimated to be \$52.5 million in selected state tax receipts, consisting of \$3.1 million in state retail sales tax and \$49.5 million in state personal income tax, and \$31.0 million in local personal income surtax receipts.

¹ Numbers throughout the report may not add up exactly to totals due to rounding.

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1.2 Net Economic and Fiscal Impacts

The MSBDFA portfolio of businesses has changed over the 2000-2009 period.

- Total sales have increased by \$44.0 million between 2000 and 2009. Meanwhile, income and employment decreased by \$11.5 million and 300 jobs, respectively. This change in the economic activity of MSBDFA firms translates into the net direct impact on the Maryland economy in additional sales, income, and employment.
- The secondary impact which arises from this expansion includes \$35.2 million in additional sales, and a decline of \$6.6 million in income and 187 full-time equivalent jobs.
- Taken together, the total net impact from the MSBDFA portfolio of businesses amounts to \$79.1 million in additional sales, and a decline of \$18.0 million in income and 486 full-time equivalent jobs.

The fiscal impacts associated with the net income and employment accounts for direct and indirect tax receipts have also changed over the 2000-2009 period.

- The net direct tax revenue consists of selected state tax receipts of \$0.6 million, which includes an additional \$1.2 million in state retail sales tax and a decline of \$0.5 million in state personal income tax and \$0.3 million in local personal income surtax receipts.
- The secondary tax revenue shows \$1.7 million in selected state tax receipts, with \$2.0 million in additional state retail sales tax, and a decline of \$0.3 million in state personal income tax and \$0.2 million in local personal income surtax receipts.
- The combined direct and secondary fiscal estimates yield \$2.3 million in selected state tax receipts, consisting of \$3.2 million in additional state retail sales tax, and a decline of \$0.9 million in state personal income tax and \$0.5 million in local personal income surtax receipts, respectively.

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2.0 Findings

This study estimates the economic and fiscal impacts of the Maryland Small Business Development Financing Authority's (MSBDFA) portfolio of companies on Maryland's economy. These impacts were derived from the IMPLAN input/output model, which accounts for the inter-industry flow of goods and services within Maryland and with the external economy. For more information regarding IMPLAN and economic impacts, please refer to Appendix B.

The fiscal impacts account for selected tax revenues generated from the employees of the client companies and the employees of their suppliers. These tax revenues include state retail sales and personal income tax receipts at the state and local levels. Estimates of business tax liabilities were not included in this analysis because these transactions occur across a variety of industries and can vary significantly among industries, as well as among firms within an industry. As a result, it is difficult to estimate an average tax rate for business enterprises.

2.1 Characteristics of the MSBDFA Companies

The MSBDFA portfolio can be summarized in terms of the cumulative operating measures of the various businesses. Figure 1 describes the portfolio in terms of the cumulative annual sales, cumulative annual income, and average employment for the ten-year period from 2000 to 2009 using the North American Industry Classification System (NAICS) at the two-digit level.

The MSBDFA companies generated \$1.9 billion in sales, \$660.9 million in income, and 1,853 jobs cumulatively.² The cumulative measure captures the gross impact of the client businesses, but it is also useful to consider how MSBDFA's portfolio has changed over time. The significance of MSBDFA's client companies can also be characterized in terms of the difference in sales, income, and employment between 2000 and 2009, as shown in Figure 2. Total sales, income, and employment increased by \$44.0 million, decreased by \$11.4 million in income, and decreased by 300 jobs, respectively, for the net period of 2000 and 2009. These changes take into account the entry and exit of companies in the MSBDFA portfolio. The expansion in sales, income, and employment since 2000 has also been accompanied by changes in the allocation of the MSBDFA portfolio, as measured by sales, income, and employment.

Figures 3 through 5 illustrate the share of sales, income, and employment by two-digit NAICS codes. In 2000, the MSBDFA portfolio was relatively concentrated, with 36.7 percent of sales, 26.0 percent of income and 11.4 percent of employment being generated by the *Construction* sector. *Professional, scientific, and technical services* also held a large part of the portfolio in 2000, with 21.4 percent of sales, 33.5 percent of income, and 22.2 percent of employment generated by this sector. By 2009, the portfolio exhibited slightly less concentration, with the *Construction* sector accounting for 34.7 percent of sales, 15.0 percent of income, and 21.7 percent of employment generated in this sector. The *Health care and social assistance* and *Other services* sectors increased between 2000 and 2009, as did *Information*.

² The employment figure is based on the average number of jobs which a company maintained during its period of operation. The average number of employees per company is then summed up to yield the industry average period of operation. The average number of employees per company is then summed to yield the industry average.

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2.2 Economic and Fiscal Impacts

Gross Cumulative Sales and Income, and Average Employment

RESI provides estimates of the economic and fiscal impacts resulting from the cumulative annual operations of the MSBDFA firms based on sales, income, and average employment over the ten-year period between 2000 and 2009.

Figure 6 depicts the direct impact of the portfolio of MSBDFA firms, which includes \$1.9 billion in sales, \$660.1 million in income, and 1,853 full-time equivalent jobs. The secondary impact shows \$1.5 billion in sales, \$380.0 million in income, and 1,154 full-time equivalent jobs. Together, the total impact from the portfolio of companies produces \$3.4 billion in sales, \$1.0 billion in income and 3,007 full-time equivalent jobs.

The fiscal impact associated with the operations of the MSBDFA companies is also shown in Figure 6. The direct tax revenue consists of selected state tax receipts of \$32.5 million, including \$1.1 million in state retail sales tax and \$31.4 million in state personal income tax, with local personal income surtax receipts of \$19.7 million.^{3 4} The indirect tax revenue yields \$20.0 million in selected state tax receipts, with \$1.9 million in state retail sales tax and \$18.1 million in state personal income tax, and \$11.3 million in local personal income surtax receipts. The sum of the direct and secondary fiscal estimates generates \$52.5 million in selected state tax receipts, consisting of \$3.1 million in state retail sales tax and \$49.5 million in state personal income tax, with \$31.0 million in local personal income surtax receipts.

Net Additional Sales, Income, and Employment

An estimate of the net economic and fiscal impacts resulting from the additional sales, income, and employment generated by the MSBDFA portfolio of companies for the 2000-2009 period was also made. The contribution of the businesses was assessed by examining the change in each component. This change in the economic activity of MSBDFA client businesses translates into the net direct impact on Maryland's economy over the ten-year period.

The fiscal impacts associated with the additional income and employment accounts for the direct and indirect tax receipts reported in Figure 6. The net direct tax revenue consists of selected state tax receipts of \$0.6 million, which includes \$1.2 million in state retail sales tax and -\$0.5 million in state personal income tax, and local personal income surtax receipts of -\$0.3 million. The indirect tax revenue shows \$1.7 million in selected state tax receipts, with \$2.0 million in state retail sales tax and -\$0.3 million in state personal income tax, and -\$0.2 million in local personal income surtax receipts. The combined direct and secondary fiscal estimates yield \$2.3 million in selected state tax receipts, consisting of \$3.2 million in state retail sales tax and -\$0.9 million in state personal income tax, and -\$0.5 million in local personal income surtax receipts.

³ State of Maryland personal income tax revenues were calculated using the Maryland personal income tax rate of 4.75 percent. RESI applied this tax rate to the labor income generated in Maryland to estimate the total Maryland personal income tax revenues which the state would receive.

⁴ The local personal income tax revenues were calculated by first calculating the weighted average of all 24 jurisdictional income tax rates in order to achieve one weighted local income tax rate. This weighted local income tax rate of 2.98 percent was then applied to the labor income generated throughout Maryland to estimate the total personal income tax revenues which would be collected on the local level.

**Economic and Fiscal Impact Analysis of MSBDFA's Portfolio of Firms on Maryland's
Economy, 2000-2009**

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Appendix A—Detailed Impacts⁵

Figure 1: Gross Cumulative Sales, Cumulative Income, and Average Jobs—2000 to 2009

Industry	Sales	Income	Jobs⁶
Agriculture, forestry, fishing and hunting	\$0	\$0	0
Mining	\$0	\$0	0
Utilities	\$0	\$0	0
Construction	\$497,061,448	\$117,138,177	241
Manufacturing	\$65,605,051	\$16,753,503	70
Wholesale trade	\$64,413,163	\$47,296,149	80
Retail trade	\$58,765,438	\$4,361,554	27
Transportation and warehousing	\$32,472,259	\$4,680,052	37
Information	\$256,047,920	\$108,107,723	218
Finance and insurance	\$9,657,091	\$11,655,722	25
Real estate and rental and leasing	\$0	\$0	0
Professional, scientific, and technical services	\$423,024,979	\$173,983,254	404
Management of companies and enterprises	\$0	\$0	0
Administrative and support and waste management and remediation services	\$406,520,965	\$150,177,650	646
Educational services	\$3,858,555	\$1,597,019	6
Health care and social assistance	\$14,083,089	\$4,408,915	28
Arts, entertainment, and recreation	\$0	\$0	0
Accommodation and food services	\$12,157,192	\$3,170,028	13
Other services (except public administration)	\$49,176,702	\$17,609,579	59
Public administration	\$0	\$0	0
Total	\$1,892,843,852	\$660,939,324	1,853

Sources: MMG, RESI

⁵ Numbers throughout the report may not add up exactly to totals due to rounding.

⁶ The employment figures are averaged over the years a company was in operation during the 2000-2009 period. The average number of employees per company is then summed to yield the industry average.

**Economic and Fiscal Impact Analysis of MSBDFA's Portfolio of Firms on Maryland's
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Figure 2: Change in Sales, Income, and Jobs—2000 to 2009

Industry	Sales	Income	Jobs⁷
Agriculture, forestry, fishing and hunting	\$0	\$0	0
Mining	\$0	\$0	0
Utilities	\$0	\$0	0
Construction	\$12,624,490	-\$8,184,585	107
Manufacturing	\$3,840,692	-\$84,479	7
Wholesale trade	\$3,805,078	-\$258,824	17
Retail trade	\$7,001,135	\$706,690	47
Transportation and warehousing	\$0	\$0	0
Information	\$8,179,216	\$3,653,146	61
Finance and insurance	\$219,847	\$5,900	0
Real estate and rental and leasing	\$0	\$0	0
Professional, scientific, and technical services	-\$2,609,907	-\$8,998,723	-36
Management of companies and enterprises	\$0	\$0	0
Administrative and support and waste management and remediation services	\$6,238,328	\$523,229	-543
Educational services	\$1,895,039	\$608,602	22
Health care and social assistance	\$3,310,393	\$659,931	46
Arts, entertainment, and recreation	\$0	\$0	0
Accommodation and food services	\$2,924,518	\$495,770	0
Other services (except public administration)	-\$3,439,740	-\$544,749	-28
Public administration	\$0	\$0	0
Total	\$43,989,089	-\$11,418,093	-300

Sources: MMG, RESI

⁷ The employment figures are averaged over the years a company was in operation during the 2000-2009 period. The average number of employees per company is then summed to yield the industry average.

**Economic and Fiscal Impact Analysis of MSBDFA's Portfolio of Firms on Maryland's
Economy, 2000-2009**

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Figure 3: Distribution of Sales by Industry (Percent)—2000-2009

Industry	2000	2009
Agriculture, forestry, fishing and hunting	0.0%	0.0%
Mining	0.0%	0.0%
Utilities	0.0%	0.0%
Construction	36.7%	34.7%
Manufacturing	3.8%	5.0%
Wholesale trade	0.0%	2.1%
Retail trade	1.0%	4.7%
Transportation and warehousing	0.0%	0.0%
Information	14.1%	15.2%
Finance and insurance	0.0%	0.1%
Real estate and rental and leasing	0.0%	0.0%
Professional, scientific, and technical services	21.4%	14.7%
Management of companies and enterprises	0.0%	0.0%
Administrative and support and waste management and remediation services	17.0%	16.3%
Educational services	0.0%	1.1%
Health care and social assistance	0.3%	2.1%
Arts, entertainment, and recreation	0.0%	0.0%
Accommodation and food services	0.0%	1.6%
Other services (except public administration)	5.5%	2.3%
Public administration	0.0%	0.0%
Total	100.0%	100.0%

Sources: MMG, RESI

Figure 4: Distribution of Income by Industry (Percent)—2000-2009

Industry	2000	2009
Agriculture, forestry, fishing and hunting	0.0%	0.0%
Mining	0.0%	0.0%
Utilities	0.0%	0.0%
Construction	26.0%	15.0%
Manufacturing	3.0%	3.5%
Wholesale trade	0.8%	0.4%
Retail trade	0.2%	1.7%
Transportation and warehousing	0.0%	0.0%
Information	13.5%	24.3%
Finance and insurance	0.0%	0.0%
Real estate and rental and leasing	0.0%	0.0%
Professional, scientific, and technical services	33.5%	22.6%
Management of companies and enterprises	0.0%	0.0%
Administrative and support and waste management and remediation services	19.2%	24.8%
Educational services	0.0%	1.3%
Health care and social assistance	0.4%	1.9%
Arts, entertainment, and recreation	0.0%	0.0%
Accommodation and food services	0.0%	1.0%
Other services (except public administration)	3.6%	3.3%
Public administration	0.0%	0.0%
Total	100.0%	100.0%

Sources: MMG, RESI

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Figure 5: Distribution of Employment by Industry (Percent)—2000-2009

Industry	2000	2009
Agriculture, forestry, fishing and hunting	0.0%	0.0%
Mining	0.0%	0.0%
Utilities	0.0%	0.0%
Construction	11.4%	21.7%
Manufacturing	4.6%	6.1%
Wholesale trade	0.0%	1.2%
Retail trade	0.0%	3.4%
Transportation and warehousing	0.0%	0.0%
Information	10.3%	16.9%
Finance and insurance	0.0%	0.0%
Real estate and rental and leasing	0.0%	0.0%
Professional, scientific, and technical services	22.2%	24.4%
Management of companies and enterprises	0.0%	0.0%
Administrative and support and waste management and remediation services	46.9%	17.8%
Educational services	0.0%	1.6%
Health care and social assistance	0.4%	3.8%
Arts, entertainment, and recreation	0.0%	0.0%
Accommodation and food services	0.0%	0.0%
Other services (except public administration)	4.2%	3.0%
Public administration	0.0%	0.0%
Total	100.0%	100.0%

Sources: MMG, RESI

Figure 6: Economic and Fiscal Impact—Gross Cumulative Sales, Cumulative Income, and Average Employment

Category	Direct Impact	Secondary Impact	Total Impact
Gross Sales	\$1,892,843,852	\$1,512,423,715	\$3,405,267,567
Income	\$660,939,324	\$380,011,809	\$1,040,951,134
Employment (Full-time Equivalent Jobs)	1,853	1,154	3,007
State Tax Receipts	\$32,534,453	\$19,996,796	\$52,531,249
State Retail Sales Tax	\$1,139,835	\$1,946,235	\$3,086,070
State Personal Income Tax	\$31,394,618	\$18,050,561	\$49,445,179
Local Personal Income Surtax Receipts	\$19,676,539	\$11,313,167	\$30,989,707

Sources: MMG, RESI

Appendix B—Methodology

B.1 IMPLAN Model Overview

In order to quantify the economic impacts of the MSBDFAs portfolio of firms for Maryland, RESI used the IMPLAN input/output model. This model enumerates the impacts of each dollar earned and spent by the following: employees associated with the change in the economy (the event), other supporting vendors (business services, retail, etc.), each dollar spent by these vendors on other firms, and each dollar spent by the households of the event's employees, other vendors' employees, and other businesses' employees.

To quantify the economic impact of an event, economists measure three types of economic impacts: direct, indirect, and induced impacts. The direct economic effects are generated as the event create jobs and hire workers to support the event's activities. The indirect economic impacts occur as the vendors purchase goods and services from other firms. In either case the increases in employment generate an increase in household income, as new job opportunities are created and income levels rise. This drives the induced economic impacts that result from households increasing their purchases at local businesses. The sum of the indirect and induced impacts is considered the secondary impact.

Consider the following example. A new firm opens in a region and directly employs 100 workers. The firm purchases supplies, both from outside the region as well as from local suppliers, which leads to increased business for local firms, thereby hypothetically creating jobs for another 100 workers. This is called the indirect effect. The workers at the firm and at suppliers spend their income mostly in the local area, hypothetically creating jobs for another 50 workers. This is the induced effect. The direct, indirect and induced effects add up to 250 jobs created from the original 100 jobs. Thus, in terms of employment, the total economic impact of the firm in our example is 250.⁸

B.2 Assumptions

RESI used employment, income, and sales data provided by MMG for the MSBDFAs portfolio. The following are RESI's IMPLAN modeling assumptions:

- Economic impact multipliers are developed from IMPLAN input/output software.
- IMPLAN data are for 2009, the latest year for which IMPLAN data are available.
- IMPLAN 2009 data are based on the North American Industrial Classification System (NAICS).
- IMPLAN employment multipliers are adjusted for inflation using the Bureau of Labor Statistic's CPI-U.
- The economic impact estimates are for the entire state of Maryland.

⁸ Total economic impact is defined as the sum of direct, indirect, and induced effects.