

**The Economic Effects on Michigan of the
Brose North America Facility Expansion Decision**

**George A. Fulton
Peter Nicolas
Donald R. Grimes**

University of Michigan

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Abstract

Brose North America is considering constructing a new research and development center in Auburn Hills, Michigan to design and engineer window regulators and integrated door and seat systems for North American OEMs. The facility would employ an additional 260 people by 2010. We estimate that by 2015, this expansion will have generated a total of 562 jobs in the state. Total state government revenues through 2015, net of MEGA costs and adjusted for inflation, would increase by \$20,054,000 (2002 dollars) due to the expansion of Brose North America.

The purpose of this study is to estimate the potential economic and fiscal benefits to Michigan of Brose North America constructing a new research and development center in Auburn Hills, Michigan to design and engineer window regulators and integrated door and seat systems for North American OEMs (SIC 8711). Investment activity would take place between 2003 and 2009, with an investment of \$28.1 million. The facility would employ an additional 260 people by 2010.

The estimates of the benefits include the total number of jobs created in Michigan (by major industry, including spin-off jobs), and the associated personal income and state government revenue. Benefits net of the MEGA incentive package, from 2004 to 2015, are shown in the attached table. The MEGA incentive package includes relief from 100 percent of the single business tax for the period 2004 to 2011; it also includes a tax credit to the company for the period 2004 to 2015 equal to 100 percent of the state income tax rate on the payroll (gross wages) of employees hired at the facility as a result of the project.

The total employment effects, reported in the first line of the table, include the direct jobs created at the facility itself plus spin-off jobs. The spin-off jobs are generated from two sources, increased purchases from Michigan suppliers and spending by people who receive income due to the increased economic activity. The investment activity is expected to generate a total of 91 jobs in 2004 and 81 jobs in 2007; almost all of these jobs are temporary. In 2010, the first year of full operations, an additional 617 jobs are generated in the state. We estimate that by 2015, this expansion will have generated a total of 562 additional jobs in the state. The total number of jobs created (direct plus spin-off) for every direct job introduced constitutes the "employment multiplier." The employment multiplier for the expansion averages 2.2 over the period 2010 to 2015. Sectoral detail on the employment gains is also shown in the table.

Personal income is shown in the next section of the table. Personal income is defined as the income of Michigan residents from all sources, after deduction of contributions to social

insurance programs but before deduction of income tax and other personal taxes. As shown in the table, if Brose North America were to expand in Michigan under the incentive program, state personal income in 2010 would be higher by \$48.6 million (in current dollars) than it would be without the facility, and in 2015 it would be \$55.7 million higher. Adjusted for inflation, these numbers in 2002 dollars would be \$31.0 million in 2010 and \$32.8 million in 2015.

The gain in economic activity results in higher state government revenues. We estimate that in 2010, the first year of full operations, the facility would generate \$2,483,000 in additional gross state government revenue, and that the MEGA package would provide a \$685,000 incentive to Brose North America. Thus, the Brose North America facility expansion would increase state government revenues in 2015 by \$1,798,000, net of MEGA incentive costs.

Over the period 2004 to 2015, gross state government revenue is projected to increase by \$41,656,000 (in current dollars) due to the expansion of Brose North America. The MEGA incentive package for Brose North America is forecast to cost \$10,175,000 over the period, resulting in a net increase in state government revenue of \$31,481,000. Adjusted for inflation, the total net increase in state government revenue from 2004 to 2015 would be \$20,054,000 in 2002 dollars. These calculations do not include any revenue losses due to the Investment Tax Credit or the property tax abatement. If the costs of the tax credit and the tax abatement were included, the net revenue gain to state government would be slightly less.

None of these estimates include the nonmeasurable effects that would produce additional economic and fiscal benefits for Michigan, such as the intangible advantages of influencing other location and expansion decisions.

**Economic and Fiscal Effects on Michigan of the Brose North America Facility Expansion
Net Benefits with the Incentive Package**

Economic/Fiscal Indicator	2004	2005	2006	2007	2008	2009	2010	2015	Total 2004-2015
Total Employment	523	473	501	595	581	585	617	562	—
Manufacturing	1	9	0	0	0	0	0	0	—
Nonmanufacturing	522	464	501	595	581	585	617	562	—
Retail Trade	71	66	68	77	77	76	80	69	—
Services	324	337	365	392	435	444	472	439	—
Other	127	61	68	126	69	65	65	54	—
In current dollars (thousands):									
Personal income	25,300	27,000	31,300	38,800	41,400	44,300	48,600	55,700	520,700
Gross state revenue	2,024	2,160	2,504	3,104	3,312	3,544	3,888	4,456	41,656
MEGA cost	593	689	761	792	960	1,016	1,073	850	10,175
State revenue net of MEGA cost*	1,431	1,471	1,743	2,312	2,352	2,528	2,815	3,606	31,481
Adjusted for inflation (thousands of 2002 dollars):									
Personal income	19,491	19,317	21,650	26,209	27,202	28,361	31,038	32,775	332,878
Gross state revenue	1,560	1,545	1,732	2,097	2,176	2,269	2,483	2,622	26,630
MEGA cost	457	493	526	535	631	650	685	500	6,576
State revenue net of MEGA cost*	1,103	1,052	1,206	1,562	1,545	1,619	1,798	2,122	20,054

*These estimates do not include any state government revenue losses due to the Investment Tax Credit or the property tax abatement.