

**The Economic Effects on Michigan of the
Robert Bosch Corporation Headquarters Location Decision**

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Abstract

Robert Bosch Corporation is considering relocating its U.S. Automotive Headquarters operations to Plymouth Township, Michigan and expanding its research, prototype, and testing operations at that facility. The facility would employ an additional 700 people by 2010. We estimate that by 2022, this relocation will have generated a total of 1,125 jobs in the state. Total state government revenues through 2022, net of MEGA costs and adjusted for inflation, would increase by \$87,993,000 (2002 dollars) due to the relocation of Robert Bosch Corporation's headquarters operations.

The purpose of this study is to estimate the potential economic and fiscal benefits to Michigan of Robert Bosch Corporation relocating its U.S. Automotive Headquarters operations to Plymouth Township, Michigan and expanding its research, prototype, and testing operations at that facility (SIC 3714). Investment activity would take place in 2006, with an investment of \$65.1 million. The facility would employ an additional 700 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 2006 to 2022, are shown in the attached table. The MEGA incentive package includes relief from 100 percent of the single business tax for the period 2006 to 2009; it also includes a tax credit to the company for the period 2006 to 2022 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 670 jobs in 2006; almost all of these jobs are temporary. In 2010, the first year of full operations, an additional 1,256 jobs are generated in the state. We estimate that by 2022, this location will have generated a total of 1,125 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 location averages 1.6 over the period 2010 to 2022. 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 Robert Bosch Corporation were to relocate its headquarters operations to Michigan under the incentive program, state personal income in 2010 would be higher by \$119.5 million (in current dollars) than it would be without the headquarters operations, and in 2022 it would be \$172.7 million higher. Adjusted for inflation, these numbers in 2002 dollars would be \$78.7 million in 2010 and \$91.4 million in 2022.

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 \$9,560,000 in additional gross state government revenue, and that the MEGA package would provide a \$1,081,000 incentive to Robert Bosch Corporation. Thus, the Robert Bosch Corporation headquarters relocation would increase state government revenues in 2010 by \$8,479,000, net of MEGA incentive costs.

Over the period 2006 to 2022, gross state government revenue is projected to increase by \$179,072,000 (in current dollars) due to the relocation of Robert Bosch Corporation's headquarters operations. The MEGA incentive package for Robert Bosch Corporation is forecast to cost \$35,192,000 over the period, resulting in a net increase in state government revenue of \$143,880,000. Adjusted for inflation, the total net increase in state government revenue from 2006 to 2022 would be \$87,993,000 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 Robert Bosch Corporation Headquarters Location
Net Benefits with the Incentive Package**

Economic/Fiscal Indicator	2006	2007	2008	2009	2010	2015	2020	2022	Total 2006-2022
Total Employment	1,762	1,118	1,158	1,202	1,256	1,079	1,101	1,125	—
Manufacturing	533	550	600	650	700	700	700	700	—
Nonmanufacturing	1,229	568	558	552	556	379	401	425	—
Retail Trade	238	169	175	181	189	161	165	169	—
Services	364	229	224	221	218	142	146	157	—
Other	627	170	159	150	149	76	90	99	—
In current dollars (thousands):									
Personal income	103,400	87,200	97,400	108,100	119,500	134,000	159,700	172,700	2,238,400
Gross state revenue	8,272	6,976	7,792	8,648	9,560	10,720	12,776	13,816	179,072
MEGA cost	803	965	1,103	1,255	1,081	2,616	3,156	3,401	35,192
State revenue net of MEGA cost*	7,469	6,011	6,689	7,393	8,479	8,104	9,620	10,415	143,880
Adjusted for inflation (thousands of 2002 dollars):									
Personal income	77,322	61,112	66,716	72,369	78,698	80,751	87,984	91,407	1,360,841
Gross state revenue	6,186	4,889	5,337	5,789	6,296	6,460	7,039	7,313	108,868
MEGA cost	600	676	756	840	712	1,576	1,739	1,800	20,875
State revenue net of MEGA cost*	5,586	4,213	4,581	4,949	5,584	4,884	5,300	5,513	87,993

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