

**The Economic Effects on Michigan of
the Detroit Diesel Corporation Facility
Retention and Expansion Decision**

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Abstract

Detroit Diesel Corporation, a subsidiary of DaimlerChrysler AG, is considering major investments that will transform its three-million-square-foot Redford Township manufacturing facility into a "Manufacturing Mall" for DaimlerChrysler Commercial Vehicle Division business units in NAFTA. The facility would retain 632 workers and employ an additional 600 workers by 2012, for a total of 1,232 jobs. We estimate that by 2017, these projects will have retained or generated a total of 2,928 jobs in the state. Total state government revenues through 2017, net of MEGA costs and adjusted for inflation, would increase by \$104,181,000 (2005 dollars) due to the retention and expansion of Detroit Diesel Corporation.

The purpose of this study is to estimate the potential economic and fiscal benefits to Michigan if Detroit Diesel Corporation, a subsidiary of DaimlerChrysler AG, makes major investments that will transform its three-million-square-foot Redford Township manufacturing facility into a "Manufacturing Mall" for DaimlerChrysler Commercial Vehicle Division business units in NAFTA (SIC 3714). Investment activity would take place between 2006 and 2012, and includes four projects with a total investment of \$255 million. The facility would retain 632 workers and employ an additional 600 workers by 2012, for a total of 1,232 jobs.

The estimates of the benefits include the total number of jobs retained and 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 2017, are shown in the attached table. The MEGA incentive package includes tax credits to the company calculated as a percentage of the state income tax rate on the payroll (gross wages) of employees retained or hired at the facility as a result of the projects. For the Detroit Diesel Corporation retention and expansion, this percentage would be allocated as follows: for activities related to the retention, 50 percent for the period 2008 to 2017; and for activities related to the expansion, 100 percent for the period 2008 to 2017.

The total employment effects, reported in the first line of the table, include the direct jobs retained or 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 71 jobs in 2006, 259 jobs in 2007, 146 jobs in 2008, 102 jobs in 2009, 35 jobs in 2010, and 30 jobs in 2011; almost all of these jobs are temporary. In 2017, we estimate that 2,928 jobs will be retained or generated in the state. The total number of jobs retained or created (direct plus spin-off) for every direct job retained or introduced constitutes the "employment multiplier."

The employment multiplier for the retention and expansion is 2.4 in 2017. Sectoral detail on the employment retention and expansion 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 Detroit Diesel Corporation were to retain and expand its operations in Michigan under the incentive program, state personal income in 2017 would be higher by \$272.4 million (in current dollars) than it would be without the retention and expansion. Adjusted for inflation, state personal income in 2005 dollars would be \$174.8 million in 2017.

The gain in economic activity results in higher state government revenues. We estimate that in 2017, the facility retention and expansion would generate \$20,948,000 in additional gross state government revenue, and that the MEGA package would provide a \$1,808,000 incentive to Detroit Diesel Corporation. Thus, the Detroit Diesel Corporation retention and expansion would increase state government revenues in 2017 by \$19,140,000, net of MEGA incentive costs.

Over the period 2006 to 2017, gross state government revenue is projected to increase by \$165,927,000 (in current dollars) due to the retention and expansion of Detroit Diesel Corporation. The MEGA incentive package for Detroit Diesel Corporation is forecast to cost \$13,449,000 over the period, resulting in a net increase in state government revenue of \$152,478,000. Adjusted for inflation, the total net increase in state government revenue from 2006 to 2017 would be \$104,181,000 in 2005 dollars.

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 Detroit Diesel Corporation Facility Retention and Expansion
Net Benefits with the Incentive Package**

Economic/Fiscal Indicator	2006	2007	2008	2009	2010	2015	2017	Total 2006-2017
Total employment	71	259	1,543	2,120	2,606	2,957	2,928	—
Manufacturing	10	36	628	898	1,112	1,342	1,332	—
Nonmanufacturing	61	223	915	1,222	1,494	1,615	1,596	—
Retail trade	8	31	196	266	321	326	314	—
Services	25	92	349	452	514	485	479	—
Other	28	100	370	504	659	804	803	—
In current dollars (thousands):								
Personal income	3,800	14,700	87,600	132,500	174,000	257,800	272,400	2,157,700
Gross state revenue	292	1,130	6,736	10,189	13,381	19,825	20,948	165,927
MEGA cost	0	0	565	848	1,073	1,641	1,808	13,449
State revenue net of MEGA cost*	292	1,130	6,171	9,341	12,308	18,184	19,140	152,478
Adjusted for inflation (thousands of 2005 dollars):								
Personal income	3,192	11,439	67,892	98,862	126,261	169,523	174,759	1,473,983
Gross state revenue	246	880	5,221	7,602	9,710	13,036	13,439	113,349
MEGA cost	0	0	438	633	779	1,079	1,160	9,168
State revenue net of MEGA cost*	246	880	4,784	6,969	8,931	11,957	12,279	104,181

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