

**The Economic Effects on Michigan of the
Nissan Technical Center North America, Inc. Facility Expansion
Decision**

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Abstract

Nissan Technical Center North America, Inc. is considering expanding its engineering, research, development and testing capabilities of vehicles destined for North American production and sale, and becoming the worldwide center for crash test simulation activities and other computer simulation test needs for all of Nissan. The facility would employ an additional 386 people by 2008. We estimate that by 2019, this expansion will have generated a total of 866 jobs in the state. Total state government revenues through 2019, net of MEGA costs and adjusted for inflation, would increase by \$52,420,000 (2002 dollars) due to the expansion of Nissan Technical Center North America, Inc.

The purpose of this study is to estimate the potential economic and fiscal benefits to Michigan of Nissan Technical Center North America, Inc. expanding its engineering, research, development and testing capabilities of vehicles destined for North American production and sale, and becoming the worldwide center for crash test simulation activities and other computer simulation test needs for all of Nissan (SIC 3711). Investment activity would take place between 2003 and 2005, with an investment of \$38.4 million. The facility would employ an additional 386 people by 2008.

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 2003 to 2019, are shown in the attached table. The MEGA incentive package includes a tax credit to the company for the period 2003 to 2019 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 construction activity is expected to generate a total of 489 jobs in 2003; almost all of these jobs are temporary. In 2008, the first year of full operations, an additional 853 jobs are generated in the state. We estimate that by 2019, this expansion will have generated a total of 866 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 2.1 over the period 2008 to 2019. 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 Nissan Technical Center North America, Inc. were to expand in Michigan under the incentive program, state personal income in 2008 would be higher by \$70.9 million (in current dollars) than it would be without the facility, and in 2019 it would be \$104.5 million higher. Adjusted for inflation, these numbers in 2002 dollars would be \$51.9 million in 2008 and \$63.1 million in 2019.

The gain in economic activity results in higher state government revenues. We estimate that in 2008, the first year of full operations, the facility would generate \$5,672,000 in additional gross state government revenue, and that the MEGA package would provide a \$1,239,000 incentive to Nissan Technical Center North America, Inc. Thus, the Nissan Technical Center North America, Inc. facility expansion would increase state government revenues in 2008 by \$4,433,000, net of MEGA incentive costs.

Over the period 2003 to 2019, gross state government revenue is projected to increase by \$99,696,000 (in current dollars) due to the expansion of Nissan Technical Center North America, Inc. The MEGA incentive package for Nissan Technical Center North America, Inc. is forecast to cost \$22,928,000 over the period, resulting in a net increase in state government revenue of \$76,768,000. Adjusted for inflation, the total net increase in state government revenue from 2003 to 2019 would be \$52,420,000 in 2002 dollars. These calculations do not include any revenue losses due to the Investment Tax Credit. If the costs of the tax credit 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 Nissan Technical Center North America, Inc. Facility Expansion
Net Benefits with the Incentive Package**

Economic/Fiscal Indicator	2003	2004	2005	2006	2007	2008	2010	2015	2019	Total 2003-2019
Total Employment	474	453	653	815	827	853	813	817	866	—
Manufacturing	21	199	297	379	390	405	396	397	404	—
Nonmanufacturing	453	254	356	436	437	448	417	420	462	—
Retail Trade	62	65	92	112	111	114	105	103	109	—
Services	67	88	119	140	135	135	119	125	151	—
Other	324	101	145	184	191	199	193	192	202	—
In current dollars (thousands):										
Personal income	20,900	29,900	45,300	59,900	65,300	70,900	75,000	88,500	104,500	1,246,200
Gross state revenue	1,672	2,392	3,624	4,792	5,224	5,672	6,000	7,080	8,360	99,690
MEGA cost	452	743	1,035	1,100	1,195	1,239	1,333	1,610	1,867	22,928
State revenue net of MEGA cost*	1,220	1,649	2,589	3,692	4,029	4,433	4,667	5,470	6,493	76,768
Adjusted for inflation (thousands of 2002 dollars):										
Personal income	16,016	23,384	35,093	45,598	48,623	51,855	53,297	58,141	63,115	851,703
Gross state revenue	1,281	1,871	2,808	3,648	3,890	4,148	4,264	4,651	5,049	68,136
MEGA cost	347	581	802	837	890	906	948	1,058	1,128	15,716
State revenue net of MEGA cost*	934	1,290	2,006	2,811	3,000	3,242	3,316	3,593	3,921	52,420

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