

**The Economic Effects on Michigan of the
Gentex Corporation Facility Location Decision**

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

University of Michigan

November 19, 2002

Abstract

Gentex Corporation is considering building a new manufacturing facility in Zeeland, Michigan to produce electra chromic mirror systems for the automobile industry. The facility would employ an additional 625 people by 2008. We estimate that by 2022, this location will have generated a total of 1,499 jobs in the state. Total state government revenues through 2022, net of MEGA costs and adjusted for inflation, would increase by \$86,620,000 (2002 dollars) due to the location of Gentex Corporation.

The purpose of this study is to estimate the potential economic and fiscal benefits to Michigan of Gentex Corporation building a new manufacturing facility in Zeeland, Michigan to produce electra chromic mirror systems for the automobile industry (SIC 3231). Investment activity would take place between 2003 and 2007, with an investment of \$97 million. The facility would employ an additional 625 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 2022, 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 2013; it also includes a tax credit to the company for the period 2004 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 188 jobs in 2003, 172 jobs in 2004, 57 jobs in 2005, 49 jobs in 2006, and 46 jobs in 2007; almost all of these jobs are temporary. In 2008, the first year of full operations, an additional 1,414 jobs are generated in the state. We estimate that by 2022, this location will have generated a total of 1,499 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 2.2 over the period 2008 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 Gentex Corporation were to locate in Michigan under the incentive program, state personal income in 2008 would be higher by \$87.3 million (in current dollars) than it would be without the facility, and in 2022 it would be \$152 million higher. Adjusted for inflation, these numbers in 2002 dollars would be \$60.8 million in 2008 and \$83.5 million in 2022.

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 \$6,984,000 in additional gross state government revenue, and that the MEGA package would provide a \$998,000 incentive to Gentex Corporation. Thus, the Gentex Corporation facility location would increase state government revenues in 2008 by \$5,986,000, net of MEGA incentive costs.

Over the period 2003 to 2022, gross state government revenue is projected to increase by \$152,920,000 (in current dollars) due to the location of Gentex Corporation. The MEGA incentive package for Gentex Corporation is forecast to cost \$14,383,000 over the period, resulting in a net increase in state government revenue of \$138,537,000. Adjusted for inflation, the total net increase in state government revenue from 2003 to 2022 would be \$86,620,000 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 Gentex Corporation Facility Location
Net Benefits with the Incentive Package**

Economic/Fiscal Indicator	2003	2004	2005	2006	2007	2008	2010	2015	2020	2022	Total 2003-2022
Total Employment	188	471	650	930	1,208	1,414	1,345	1,337	1,448	1,499	—
Manufacturing	5	155	288	422	554	675	656	651	667	673	—
Nonmanufacturing	183	316	362	508	654	739	689	686	781	826	—
Retail Trade	20	55	75	106	135	155	138	127	140	147	—
Services	34	95	127	174	219	237	204	200	250	274	—
Other	129	166	160	228	300	347	347	359	391	405	—
In current dollars (thousands):											
Personal income	8,400	23,300	34,800	52,100	70,900	87,300	93,900	110,900	138,900	152,000	1,911,500
Gross state revenue	672	1,864	2,784	4,168	5,672	6,984	7,512	8,872	11,112	12,160	152,920
MEGA cost	0	221	428	620	812	998	962	731	731	731	14,383
State revenue net of MEGA cost*	672	1,643	2,356	3,548	4,860	5,986	6,550	8,141	10,381	11,429	138,537
Adjusted for inflation (thousands of 2002 dollars):											
Personal income	6,494	17,829	25,834	38,076	50,505	60,829	62,803	69,302	79,469	83,487	1,198,258
Gross state revenue	520	1,426	2,067	3,046	4,041	4,866	5,024	5,544	6,357	6,679	95,860
MEGA cost	0	169	318	453	579	695	644	457	418	402	9,240
State revenue net of MEGA cost*	520	1,257	1,749	2,593	3,462	4,171	4,380	5,087	5,939	6,277	86,620

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