The Economic Effects on Michigan of the

ZF Technologies, LLC Expansion

Prepared by the Michigan Economic Development Corporation utilizing Regional Economic Models, Incorporated (REMI) software.

June 21, 2002

Abstract

ZF Technologies, LLC is considering consolidating and expanding its research and development facility in Northville Township, Michigan. This facility would expand the company's research and development activities in the automotive industry. The new facility would employ up to 50 people by the end of 2003. We estimate that by 2016, this location will have generated a total of 717 jobs in the state. Total state government revenues through 2016, net of MEGA costs and adjusted for inflation, would increase by 55.7 million (2002 dollars) due to the location of this facility.

The purpose of this study is to estimate the potential economic and fiscal benefits to Michigan of ZF Technologies, LLC locating a research and development facility in Northville Township. Investment activity would take place between 2003 and 2006 with an investment of $27.9 million. The facility would employ an additional 230 people and would be at full production by 2007.

The estimates of the benefits attributable to the project 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 2016, are shown in the attached table. The MEGA incentive package includes a tax credit to the company equal to 90 percent of the state income tax rate on the payroll (gross wages) of employees hired at the facility for the period 2003 to 2016.

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 created from two sources, increased purchases from Michigan suppliers and spending by people who receive income due to the increased economic activity. In 2007, the first year of full operations, an additional 867 jobs are generated in the state. The total number of jobs (direct plus spin-off) for every direct job introduced constitutes the "employment multiplier." The employment multiplier for the expansion averages 2.85 over the period 2003 to 2016. Sectoral detail on the employment 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 ZF Technologies, LLC were to locate in Michigan under the incentive program, state personal income in 2007 would be higher by $63.4 million (in current dollars) than it would be without the facility, and in 2016, it would be $83.3 million higher. Adjusted for inflation, these numbers in 2002 dollars would be $57.5 million in 2007 and $61.9 million in 2016.

The gain in economic activity results in higher government revenues. We estimate that in 2007, the first year of full operations without investment activity, the facility would

generate $5.3 million in additional gross state revenue, and that the MEGA package would provide a $686,000 incentive to ZF Technologies, LLC. Thus, the new ZF Technologies, LLC facility would increase state revenues in 2008 by $4.6 million, net of MEGA costs.

Over the period 2003 to 2016 state government revenue is projected to increase by $66.8 million (in current dollars) due to the new ZF Technologies, LLC facility. The MEGA incentive package for ZF Technologies, LLC is forecast to cost $8.7 million over the period, resulting in a net increase in state government revenue of $58 million. Adjusted for inflation, the total net increase in state government revenue from 2003 to 2016 would be $48.5 million in 2002 dollars. These calculations do not include any revenue losses due to the property tax abatement or the investment tax credit. If the costs of the abatement and the tax credit were included, the net revenue gain to state government would be slightly less.

None of the 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.

ZF Technologies, LLC

Economic and Fiscal Effects on Michigan - Net Benefits with the Incentive Package

Economic/Fiscal Indicator	2003	2004	2005	2006	2007	2008	2012	2016	Total
Total Employment	284	266	457	579	867	823	726	717	
Manufacturing	40	76	166	212	319	309	293	293	
Non-Manufacturing	244	190	291	367	548	514	433	424	
Retail Trade	36	38	68	87	129	123	107	104	
Services	60	63	115	146	222	208	181	189	
Other	148	89	108	134	197	183	145	131	
In Current Dollars (Thousands):									
Personal Income	$14,010	$16,630	$30,460	$40,950	$63,450	$66,160	$73,940	$83,340	$834,790
Gross State Revenue	1,121	1,330	2,437	3,276	5,076	5,293	5,915	6,667	66,783
Mega Cost	53	133	317	418	663	686	790	917	8,739
State Revenue Net of MEGA Cost*	$1,068	$1,197	$2,120	$2,858	$4,413	$4,607	$5,125	$5,750	$58,044
Adjusted for Inflation (Thousands of 2002 Dollars):									
Personal Income	$13,742	$15,992	$28,715	$37,849	$57,497	$58,785	$60,175	$61,942	$696,910
Gross State Revenue	1,100	1,279	2,297	3,028	4,600	4,703	4,814	4,955	55,753
Mega Cost	52	128	299	386	601	610	643	681	7,263
State Revenue Net of MEGA Cost*	$1,048	$1,151	$1,998	$2,642	$3,999	$4,093	$4,171	$4,274	$48,490

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