

**The Economic Effects on Michigan
of the Plannja HardTech AB Facility Location Decision**

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

**University of Michigan
November 19, 1996**

Abstract

Plannja HardTech AB is considering locating a highly automated steel stamping operation in Mason, Michigan. The facility would manufacture fabricated metal portions of car body frames and guard rails for car door frames. By the year 2002, the facility would employ 225 people. We estimate that by 2019, this location will have generated a total of 814 jobs in the state. Total state government revenues through 2019, net of MEGA costs and adjusted for inflation, would be increased by \$40,371,000 (1996 dollars) due to the location of Plannja HardTech AB.

The purpose of this study is to estimate the potential economic and fiscal benefits to Michigan of Plannja HardTech AB locating a highly automated steel stamping operation in Mason, Michigan. The facility would manufacture fabricated metal portions of car body frames and guard rails for car door frames (SIC 3462). Construction activity would take place between 1997 and 1998, with an investment of \$53.861 million (10 percent of which would be spent within Michigan), and operations would begin in July 1999. The facility would employ 225 workers by 2002.

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 1997 to 2019, are shown in the attached table. The MEGA incentive package includes relief from 50 percent of the single business tax for the period 2000-2014 and a tax credit to the company for the period 2000-2019 equal to 4.4 percent of the payroll (gross wages) of employees hired at the facility as a result of the project. The payroll tax credit represents 100 percent of the maximum employment credit available to a company.

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 of the facility is expected to generate a total of 49 jobs in 1997; almost all of these jobs are temporary. In 2002, the year that full operations begin, an additional 670 jobs are generated in the state. We estimate that by 2019 this facility will have generated a total of 814 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 3.2 over the period 2002-2019. 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 Plannja HardTech AB were to locate in Michigan under the incentive program, state personal income in the year 2002 would be higher by \$34.5 million (in current dollars) than it would be without the facility, and in 2019 it would be \$77.3 million higher. Adjusted for inflation, these numbers in 1996 dollars would be \$23.8 million in 2002 and \$37.2 million in 2019.

The gain in economic activity results in higher state government revenues. We estimate that in 2002, the year that full operations begin, the facility would generate \$2,760,000 in additional gross state government revenue, and that the MEGA package would provide a \$366,000 incentive to Plannja HardTech AB. Thus, the Plannja HardTech AB facility would generate an additional \$2,394,000 in revenue to state government in 2002, net of MEGA incentive costs.

Over the period 1997-2019, gross state government revenue is projected to increase by \$82,320,000 (in current dollars) due to the location of Plannja HardTech AB. The MEGA incentive package for Plannja HardTech AB is forecast to cost \$10,000,000 over the period, resulting in a net increase in state government revenue of \$72,320,000. Adjusted for inflation, the total net increase in state government revenue from 1997 to 2019 would be \$40,371,000 in 1996 dollars. These calculations do not include any revenue losses due to the property tax abatement. If the cost of the 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 Plannja HardTech AB Facility Location
Net Benefits with the Incentive Package**

Economic/Fiscal Indicator	1997	1998	1999	2000	2002	2005	2010	2015	2019	Total 1997-2019
Total Employment	49	0	230	441	670	667	692	764	814	—
Manufacturing	5	0	125	178	258	244	240	247	252	—
Nonmanufacturing	44	0	105	263	412	423	452	517	562	—
Retail Trade	5	0	26	54	81	79	82	93	100	—
Services	12	0	44	109	166	164	178	214	242	—
Other	27	0	35	100	165	180	192	210	220	—
In current dollars (thousands):										
Personal income	1,900	200	9,700	19,700	34,500	42,000	51,100	64,400	77,300	1,029,000
Gross state revenue	152	16	776	1,576	2,760	3,360	4,088	5,152	6,184	82,320
MEGA cost	0	0	0	214	366	471	555	541	562	10,000
State revenue net of MEGA cost	152	16	776	1,362	2,394	2,889	3,533	4,611	5,622	72,320
Adjusted for inflation (thousands of 1996 dollars):										
Personal income	1,674	19	7,915	14,829	23,823	26,417	29,682	34,037	37,211	589,236
Gross state revenue	134	2	633	1,186	1,906	2,113	2,375	2,723	2,977	47,139
MEGA cost	0	0	0	191	310	368	378	319	297	6,768
State revenue net of MEGA cost	134	2	633	995	1,596	1,745	1,997	2,404	2,680	40,371

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