

**The Economic Effects on Michigan
of the CMI-Polymers Facility Expansion Decision**

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Abstract

CMI-Polymers is considering installing purchased equipment and expanding activity in an existing facility in Petersburg, Michigan. The expanded facility would produce polymer intake manifolds for major automobile manufacturers. By the year 1999, the facility would employ 205 people. We estimate that by 2011, this expansion will have generated a total of 544 jobs in the state. Total state government revenues through 2011, net of MEGA costs and adjusted for inflation, would be increased by \$16,328,000 (1996 dollars) due to the expansion of CMI-Polymers.

The purpose of this study is to estimate the potential economic and fiscal benefits to Michigan of CMI-Polymers' installing purchased equipment and expanding activity in an existing facility in Petersburg, Michigan. The expanded facility would produce polymer intake manifolds for major automobile manufacturers (SIC 3089). Construction activity would take place between 1996 and 1998, with an investment of \$50.431 million, and operations would begin in July 1997. The facility would employ 205 workers by the year 1999.

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 1996 to 2011, are shown in the attached table. The MEGA incentive package includes relief from 100 percent of the single business tax for the period 1997-2011 and a tax credit to the company for the same period 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 114 jobs in 1996, 168 jobs in 1997, and 48 jobs in 1998; almost all of these jobs are temporary. In 2000, the year that full operations begin, an additional 505 jobs are generated in the state. We estimate that by 2011 this facility will have generated a total of 544 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 2.5 over the period 2000-2011. 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 CMI-Polymers were to expand in Michigan under the incentive program, state personal income in the year 2000 would be higher by \$25.3 million (in current dollars) than it would be without the facility, and in 2011 it would be \$40.9 million higher. Adjusted for inflation, these numbers in 1996 dollars would be \$18.6 million in 2000 and \$24.1 million in 2011.

The gain in economic activity results in higher state government revenues. We estimate that in 2000, the year that full operations begin, the facility would generate \$2,024,000 in additional gross state government revenue, and that the MEGA package would provide a \$313,000 incentive to CMI-Polymers. Thus, the CMI-Polymers facility would generate an additional \$1,711,000 in revenue to state government in the year 2000, net of MEGA incentive costs.

Over the period 1996-2011, gross state government revenue is projected to increase by \$36,104,000 (in current dollars) due to the expansion of CMI-Polymers. The MEGA incentive package for CMI-Polymers is forecast to cost \$10,128,000 over the period, resulting in a net increase in state government revenue of \$25,976,000. Adjusted for inflation, the total net increase in state government revenue from 1996 to 2011 would be \$16,328,000 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 CMI-Polymers Facility Expansion
Net Benefits with the Incentive Package**

Economic/Fiscal Indicator	1996	1997	1998	1999	2000	2005	2010	2011	Total 1996-2011
Total Employment	114	368	397	448	505	499	536	544	—
Manufacturing	25	154	195	219	224	213	217	217	—
Nonmanufacturing	89	214	202	229	281	286	319	327	—
Retail Trade	14	41	46	53	62	59	65	66	—
Services	33	71	82	95	117	117	135	140	—
Other	42	102	74	81	102	110	119	121	—
In current dollars (thousands):									
Personal income	4,500	15,000	18,000	21,500	25,300	31,700	39,200	40,900	451,300
Gross state revenue	360	1,200	1,440	1,720	2,024	2,536	3,136	3,272	36,104
MEGA cost	0	70	166	248	313	824	961	991	10,128
State revenue net of MEGA cost	360	1,130	1,274	1,472	1,711	1,712	2,175	2,281	25,976
Adjusted for inflation (thousands of 1996 dollars):									
Personal income	4,500	12,867	14,150	16,298	18,581	20,783	23,478	24,072	301,379
Gross state revenue	360	1,029	1,132	1,304	1,486	1,663	1,878	1,926	24,110
MEGA cost	0	68	157	228	280	644	653	655	7,782
State revenue net of MEGA cost	360	961	975	1,076	1,206	1,019	1,225	1,271	16,328

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