The Economic Effects on Michigan of the General Motors Corporation, Willow Run Plant Facility Retention Decision

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Abstract

General Motors Corporation is considering placing a new product line — a 6-speed rear wheel drive transmission — at the Willow Run Plant in Ypsilanti Township, Michigan. The facility would employ 842 existing Michigan-based GM employees by 2007. We estimate that by 2024, this retention will have maintained a total of 3,510 jobs in the state. Total state government revenues through 2024, net of MEGA costs and adjusted for inflation, would be greater by \$299,223,000 (2002 dollars) due to the retention of the General Motors Corporation employees.

The purpose of this study is to estimate the potential economic and fiscal benefits to Michigan of General Motors Corporation placing a new product line – a 6-speed rear wheel drive transmission – at the Willow Run Plant in Ypsilanti Township, Michigan (SIC 3711). Investment activity would take place between 2005 and 2006, with an investment of \$308.9 million. The facility would employ 842 existing Michigan-based GM employees by 2007.

The estimates of the benefits include the total number of jobs retained in Michigan (by major industry, including spin-off jobs), and the associated personal income and state government revenue retained as a result. Benefits net of the MEGA incentive package, from 2005 to 2024, are shown in the attached table. The MEGA incentive package includes relief from 50 percent of the single business tax for the period 2005 to 2024; it also includes a tax credit to the company for the same period equal to 50 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 retained at the facility itself plus spin-off jobs retained. 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 1,331 jobs in 2005 and 234 jobs in 2006; almost all of these jobs are temporary. In 2008, the first year of full operations, 3,578 jobs are maintained in the state. We estimate that by 2024, this retention will have maintained a total of 3,510 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 retention averages 3.9 over the period 2008 to 2024. Sectoral detail on the employment retention 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 General Motors Corporation were to locate the proposed project in Michigan under the incentive program, state personal income in 2008 would be higher by \$262.7 million (in current dollars) than it would be without the facility, and in 2024 it would be \$453.8 million higher. Adjusted for inflation, these numbers in 2002 dollars would be \$188.5 million in 2008 and \$243 million in 2024.

The retention of economic activity results in higher state government revenues. We estimate that in 2008, the first year of full operations, the retention of the facility would maintain \$21,016,000 in gross state government revenue, and that the MEGA package would provide a \$1,117,000 incentive to General Motors Corporation. Thus, the General Motors Corporation facility retention would maintain \$19,899,000 in state government revenues in 2008, net of MEGA incentive costs.

Over the period 2005 to 2024, gross state government revenue is projected to be higher by \$504,408,000 (in current dollars) due to the retention of the employees at the General Motors Corporation facility. The MEGA incentive package for General Motors Corporation is forecast to cost \$27,240,000 over the period, resulting in a net retention of state government revenue of \$477,168,000. Adjusted for inflation, the total net retention of state government revenue from 2005 to 2024 would be \$299,223,000 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 retention by 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 General Motors Corporation, Willow Run Plant Facility Retention Net Benefits with the Incentive Package

EconomicFiscal Indicator 2005 2006 2007 2008 2010 2015 2020 2020 Total Employment 2,497 2,343 3,021 3,578 3,313 3,145 3,332 3,145 3,332 3,145 3,332 3,145 3,345 3,313 3,145 3,345 3,312 3,145 3,312 3,145 3,313 3,145 3,313 3,145 3,313 3,145 3,312 3,145 3,312 3,145 3,313 3,313 3,31										
2,497 2,343 3,021 3,578 3,313 3,145 3,332 2,048 3,229 2,006 1,383 2,048 3,25 3,313 3,145 3,332 2,048 3,25 3,18 412 488 436 393 417 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,0	Economic/Fiscal Indicator	2005	2006	2007	2008	2010	2015	0000		Total
5): 1,768 1,470 1,800 2,200 2,006 1,883 2,048 417 2,244 1,307 1,262 1,284 417 2,200 2,006 1,883 2,048 417 2,200 2,200 2,006 1,883 2,048 417 2,200 2,200 2,200 2,006 1,883 2,048 417 2,200 2,2	Total Employment	2 402				2127	2013	7070	2024	2005-2024
1,768	Manifochining	7,47		3,021	3,578	3,313	3.145	3 332	2 510	
1,768 1,470 1,800 2,200 2,006 1,883 2,048 417 513 510 412 488 436 393 417 513 510 517 613 749 643 596 700 81 518 517 613 749 643 596 700 81 518 510 12,384 17,008 21,016 22,256 25,376 30,848 3 11,080 12,384 17,008 21,016 22,256 25,376 30,848 3 11,080 12,384 17,008 21,016 22,256 25,376 30,848 3 11,080 12,384 15,913 19,899 21,092 24,005 29,207 3 8,653 9,276 15,593 11,702 14,282 14,482 15,330 16,994 18	Iviainiactuinig	729		1.221	1 378	1 307	1 262	1000	3,210	
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5): 138,500	Services	040		412	488	436	393	417	443	
913 635 775 963 927 894 931 138,500 154,800 212,600 262,700 278,200 317,200 385,600 453, 11,080 12,384 17,008 21,016 22,256 25,376 30,848 36, 1,095 11,604 15,913 19,899 21,092 24,005 29,207 34, 1,08,161 115,946 156,348 188,513 191,020 202,573 224,362 242,6 584 806 802 802 799 876 955 1,005 11,702 11,702 14,482 15,330 16,994 18,281	CO11 CO	230	517	613	749	643	206	7007	0 0	
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A cost* 10,800 12,384 17,008 21,016 22,256 25,376 30,848 1,11,080 12,384 17,008 21,016 22,256 25,376 30,848 1,117 1,164 1,371 1,604 15,913 19,899 21,092 24,005 29,207 29,207 108,161 115,946 156,348 188,513 191,020 202,573 224,362 28,653 9,276 12,508 15,081 15,281 16,206 17,949 876 8,682 11,702 14,279 14,482 15,330 16,994	Personal income	138 500	154 800	212 600	0					
A cost* 10,355 11,604 15,913 19,899 21,092 24,005 29,207 1,0848 1,371 1,164 1,371 1,641 1,641 1,641 1,371 1,164 1,371 1,641 1,641 1,371 1,641 1,641 1,371 1,641 1,641 1,371 1,641 1,641 1,371 1,641 1,371 1,641 1,371 1,641 1,371 1,641 1,371 1,641 1,371 1,641 1,371 1,641 1,371 1,641 1,371 1,641 1,371 1,641 1,371 1,541 1,541 1,341 1,	Gross state revenue	11.080	10,200	17,000	700/,707	278,200	317,200	385,600	453,800	6,305,100
A cost* 10,355 11,604 15,913 19,899 21,092 24,005 29,207 108,161 115,946 156,348 188,513 191,020 202,573 224,362 28,653 9,276 12,508 15,081 15,281 16,206 17,949 876 8,087 8,692 11,702 14,279 14,482 15,330 16,994	MEGA cost	705	14,304	1,008	21,016	22,256	25,376	30,848	36,304	504,408
108,161 115,946 156,348 188,513 191,020 202,573 224,362 2 8,653 9,276 12,508 15,081 15,281 16,206 17,949 876 955 8,087 8,692 11,702 14,279 14,482 15,330 16,994	State revenue net of MEGA cost*	10,355	11,604	15,093	10,117	1,164	1,371	1,641	1,891	27,240
108,161 115,946 156,348 188,513 191,020 202,573 224,362 2 8,653 9,276 12,508 15,081 15,281 16,206 17,949 876 802 802 799 876 955 955 8,087 8,692 11,702 14,279 14,482 15,330 16,994	Adjusted for inflation			25.5	770674	760,17	24,005	29,207	34,413	477,168
108,161 115,946 156,348 188,513 191,020 202,573 224,362 2 8,653 9,276 12,508 15,081 15,281 16,206 17,949 566 584 806 802 799 876 955 955 8,087 8,692 11,702 14,279 14,482 15,330 16,994	(thousands of 2002 dollars):					_				
8,653 9,276 12,508 15,081 15,281 202,573 224,362 2 566 584 806 802 799 876 955 8,087 8,692 11,702 14,279 14,482 15,330 16,994	Personal income	108.161	115 946	156 348	100 510	101			_	
566 584 806 802 799 876 955 8,087 8,692 11,702 14,279 14,482 15,330 16,994	Gross state revenue	8.653	9776	12 508	15 001	191,020	202,573	224,362	242,995	3,954,612
8,087 8,692 11,702 14,279 14,482 15,330 16,994	MEGA cost	566	784	4,000	15,061	13,281	16,206	17,949	19,440	316,369
3,231 6,024 11,702 14,279 14,482 15,330 16,994	State revenue net of MEGA cost*	8 087	100 X	11 300	208	1997	876	955	1,013	17,146
		7,226	1250,0	11,/02	14,7/9	14,482	15,330	16,994	18,427	299,223

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