

**The Economic Effects on Michigan of  
the General Dynamics Land Systems, Inc., Facility Expansion Decision**

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### Abstract

*General Dynamics Land Systems, Inc., needs to increase its engineering design and development workforce to accommodate a new U.S. Army contract for the Future Combat System Program. To do this, the company is considering the lease of an existing facility in Sterling Heights, Michigan. The facility would employ an additional 325 people by 2005. We estimate that by 2015, this expansion will have generated a total of 505 jobs in the state. Total state government revenues through 2015, net of MEGA costs and adjusted for inflation, would increase by \$24,049,000 (2004 dollars) due to the expansion of General Dynamics Land Systems, Inc.*

The purpose of this study is to estimate the potential economic and fiscal benefits to Michigan if General Dynamics Land Systems, Inc., increases its engineering design and development workforce to accommodate a new U.S. Army contract for the Future Combat System Program, to be accomplished by the lease of an existing facility in Sterling Heights, Michigan (SIC 3795). Investment activity would take place in 2004, with an investment of \$3.1 million. The facility would employ an additional 325 people by 2005.

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 2004 to 2015, are shown in the attached table. The MEGA incentive package includes relief from 100 percent of the single business tax for the period 2004 through 2015; it also includes a tax credit to the company for the period 2004 to 2015 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 21 jobs in 2004; almost all of these jobs are temporary. In 2005, the first year of full operations, an additional 708 jobs are generated in the state. We estimate that by 2015, this expansion will have generated a total of 505 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 expansion averages 1.8 over the period 2005 to 2015. 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 General Dynamics Land Systems, Inc., were to expand its operations in Michigan under the incentive program, state personal income in 2005 would be higher by \$46.6 million (in current dollars) than it would be without the expansion, and in 2015 it would be \$63.6 million higher. Adjusted for inflation, these numbers in 2004 dollars would be \$41 million in 2005 and \$45 million in 2015.

The gain in economic activity results in higher state government revenues. We estimate that in 2005, the first year of full operations, the expansion would generate \$3,584,000 in additional gross state government revenue, and that the MEGA package would provide a \$1,202,000 incentive to General Dynamics Land Systems, Inc. Thus, the General Dynamics Land Systems, Inc., expansion would increase state government revenues in 2005 by \$2,382,000, net of MEGA incentive costs.

Over the period 2004 to 2015, gross state government revenue is projected to increase by \$48,732,000 (in current dollars) due to the expansion of General Dynamics Land Systems, Inc. The MEGA incentive package for General Dynamics Land Systems, Inc., is forecast to cost \$17,770,000 over the period, resulting in a net increase in state government revenue of \$30,962,000. Adjusted for inflation, the total net increase in state government revenue from 2004 to 2015 would be \$24,049,000 in 2004 dollars.

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 Dynamics Land Systems, Inc., Facility Expansion  
Net Benefits with the Incentive Package**

Economic/Fiscal Indicator	2004	2005	2010	2015	Total 2004-2015
Total Employment	334	708	542	505	—
Manufacturing	145	329	325	325	—
Nonmanufacturing	169	379	217	180	—
Retail Trade	49	104	77	71	—
Services	84	177	102	83	—
Other	56	98	38	26	—
In current dollars (thousands):					
Personal income	19,900	46,600	55,800	63,600	633,700
Gross state revenue	1,530	3,584	4,291	4,891	48,732
MEGA cost	452	1,202	1,558	1,980	17,770
State revenue net of MEGA cost*	1,078	2,382	2,733	2,911	30,962
Adjusted for inflation (thousands of 2004 dollars):					
Personal income	19,900	41,013	42,464	45,044	490,637
Gross state revenue	1,530	3,154	3,266	3,464	37,730
MEGA cost	452	1,058	1,186	1,402	13,681
State revenue net of MEGA cost*	1,078	2,096	2,080	2,062	24,049

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