

**The Economic Effects on Michigan of the
Duncan Aviation, Inc., Service Center Expansion**

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

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Abstract

Duncan Aviation, Inc., is considering expanding their current facility in Battle Creek, Michigan in order to increase the service capacity of the facility. The new facility would employ up to 380 people by the end of 2011. We estimate that by 2012, this location will have generated a total of 726 jobs in the state. Total state government revenues through 2012, net of MEGA costs and adjusted for inflation, would increase by \$9.7 million (2005 dollars) due to the location of the Duncan Aviation, Inc., expansion.

The purpose of this study is to estimate the potential economic and fiscal benefits to Michigan of Duncan Aviation, Inc., locating expanded service capacity in Battle Creek. Investment activity would take place between 2006 and 2008 with an investment of \$19.7 million. The facility would employ an additional 380 people and would be at full production by 2011.

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 2006 to 2012, are shown in the attached table. The MEGA incentive package includes a tax credit to the company equal to 100 percent of the state income tax rate on the payroll (gross wages) of employees hired at the facility for the period 2007 to 2012.

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 2011, the first year of full operations, an additional 732 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 1.39 over the period 2006 to 2012. 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 Duncan Aviation, Inc., were to locate in Michigan under the incentive program, state personal income in 2011 would be higher by \$2.8 million (in current dollars) than it would be without the facility, and in 2012, it would be \$3.0 million higher. Adjusted for inflation, these numbers in 2005 dollars would be \$2.5 million in 2011 and \$2.6 million in 2012.

The gain in economic activity results in higher government revenues. We estimate that in 2009, the first year of full operations without investment activity, the facility would generate \$1.5 million in additional gross state revenue, and that the MEGA package

would provide a \$395,000 incentive to Duncan Aviation, Inc. Thus, the new Duncan Aviation, Inc., facility would increase state revenues in 2009 by \$1.1 million, net of MEGA costs.

Over the period 2006 to 2012 state government revenue is projected to increase by \$13.2 million (in current dollars) due to the new Duncan Aviation, Inc., facility. The MEGA incentive package for Duncan Aviation, Inc., is forecast to cost \$2.5 million over the period, resulting in a net increase in state government revenue of \$10.7 million. Adjusted for inflation, the total net increase in state government revenue from 2006 to 2012 would be \$9.7 million in 2005 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.

Duncan Aviation, Inc.
Economic and Fiscal Effects on Michigan - Net Benefits with the Incentive Package

Economic/Fiscal Indicator	2006	2007	2008	2009	2010	2011	2012	Total
Total Employment								
Manufacturing	79	311	457	678	706	732	726	
Non-Manufacturing	3	90	250	385	398	412	409	
Retail Trade	76	221	207	293	308	320	317	
Services	8	26	32	45	47	48	47	
Other	17	68	107	157	160	164	161	
	51	127	68	91	101	108	109	
In Current Dollars (Thousands):								
Personal Income	\$3,235	\$11,960	\$19,070	\$29,480	\$33,050	\$36,380	\$38,510	\$171,685
Gross State Revenue	249	921	1,468	2,270	2,545	2,801	2,965	13,219
Mega Cost	0	249	395	424	454	473	494	2,489
State Revenue Net of MEGA Cost*	\$249	\$672	\$1,073	\$1,846	\$2,091	\$2,328	\$2,471	\$10,730
Adjusted for Inflation (Thousands of 2005 Dollars):								
Personal Income	\$3,159	\$11,437	\$17,863	\$27,052	\$29,719	\$32,062	\$33,270	\$154,562
Gross State Revenue	243	881	1,375	2,083	2,289	2,469	2,562	11,902
Mega Cost	0	239	370	389	408	417	427	2,250
State Revenue Net of MEGA Cost*	\$243	\$642	\$1,005	\$1,694	\$1,881	\$2,052	\$2,135	\$9,652

* 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.