

**The Economic Effects on Michigan
of the AAR Corporation Facility Expansion Decision**

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May 28, 1998**

Abstract

AAR Corporation is considering expanding its capacity to produce pallets, loading floors, and freight handling systems for commercial air freight transport companies. The new facility would employ 300 people by 2002. We estimate that by 2018, this expansion will have generated a total of 447 jobs in the state. Total state government revenues through 2018, net of MEGA costs and adjusted for inflation, would increase by \$24,156,000 (1998 dollars) due to the expansion of AAR Corporation.

The purpose of this study is to estimate the potential economic and fiscal benefits to Michigan of AAR Corporation's expanding its capacity to produce pallets, loading floors, and freight handling systems for commercial air freight transport companies (SIC 3577). Investment activity would take place between 1998 and 1999, with an investment of \$12.3 million, and production would begin in 2000. The new facility would employ 300 people 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 1998 to 2018, are shown in the attached table. The MEGA incentive package includes a tax credit to the company for the period 1999 to 2018 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 the 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 26 jobs in 1998 and 128 jobs in 1999; almost all of these jobs are temporary. In 2002, the first year of full operations, an additional 451 jobs are generated in the state. We estimate that by 2018 this facility will have generated a total of 447 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 1.4 over the period 2002-2018. 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 AAR Corporation were to expand in Michigan under the incentive program, state personal income in 2002 would be higher by \$24.1 million (in current dollars) than it would be without the facility, and in 2018 it would be \$47.1 million higher. Adjusted for inflation, these numbers in 1998 dollars would be \$18.45 million in 2002 and \$24.111 million in 2018.

The gain in economic activity results in higher state government revenues. We estimate that in 2002, the first year of full operations, the facility would generate \$1,928,000 in additional gross state government revenue, and that the MEGA package would provide a \$383,000 incentive to AAR Corporation. Thus, the AAR Corporation facility expansion would increase state government revenues in 2002 by \$1,545,000, net of MEGA incentive costs.

Over the period 1998-2018, gross state government revenue is projected to increase by \$48,816,000 (in current dollars) due to the expansion of AAR Corporation. The MEGA incentive package for AAR Corporation is forecast to cost \$9,683,000 over the period, resulting in a net increase in state government revenue of \$39,133,000. Adjusted for inflation, the total net increase in state government revenue from 1998 to 2018 would be \$24,156,000 in 1998 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 expansion and location decisions.

Economic and Fiscal Effects on Michigan of the AAR Corporation Facility Expansion
Net Benefits with the Incentive Package

Economic/Fiscal Indicator	1998	2000	2001	2002	2005	2010	2015	2018	Total 1998-2018
Total Employment	26	144	301	451	420	406	430	447	—
Manufacturing	1	101	200	300	300	300	300	300	—
Nonmanufacturing	25	43	101	151	120	106	130	147	—
Retail Trade	3	16	33	49	41	36	37	40	—
Services	4	16	33	47	35	29	41	51	—
Other	18	11	35	55	44	41	52	56	—
In current dollars (thousands):									
Personal income	1,000	7,300	15,200	24,100	27,900	33,000	41,100	47,100	610,200
Gross state revenue	80	584	1,216	1,928	2,232	2,640	3,288	3,768	48,816
MEGA cost	0	238	370	383	428	517	626	705	9,683
State revenue net of MEGA cost*	80	346	846	1,545	1,804	2,123	2,662	3,063	39,133
Adjusted for inflation (thousands of 1998 dollars):									
Personal income	1,000	5,850	11,891	18,450	19,146	20,548	22,739	24,111	377,480
Gross state revenue	80	468	951	1,476	1,532	1,644	1,819	1,929	30,199
MEGA cost	0	191	289	293	294	322	346	361	6,043
State revenue net of MEGA cost*	80	277	662	1,183	1,238	1,322	1,473	1,568	24,156

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