

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

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Abstract

Dana Corporation's Heavy Axle and Brake Division is considering building a new facility to house existing and new research and development staff in Michigan. This operation would support the manufacture of products for the heavy transportation equipment market. The new facility would employ 203 people by 2000. We estimate that by 2017, this expansion will have generated a total of 340 jobs in the state. Total state government revenues through 2017, net of MEGA costs and adjusted for inflation, would increase by \$26,073,000 (1998 dollars) due to the expansion of Dana Corporation.

The purpose of this study is to estimate the potential economic and fiscal benefits to Michigan of Dana Corporation's Heavy Axle and Brake Division's building a new facility to house existing and new research and development staff in Michigan (SIC 3710). This operation would support the manufacture of products for the heavy transportation equipment market. Investment activity would take place between 1998 and 1999, with an investment of \$18.8 million, and operations would begin in July 1999. The new facility would employ 203 people by 2000.

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 2017, are shown in the attached table. The MEGA incentive package includes relief from 100 percent of the single business tax for the period 1999 to 2003, and a tax credit to the company for the period 1998 to 2017 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 1998 and 167 jobs in 1999; almost all of these jobs are temporary. In 2000, the first year of full operations, an additional 374 jobs are generated in the state. We estimate that by 2017 this facility will have generated a total of 340 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 1.6 over the period 2000 to 2017. 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 Dana Corporation were to expand in Michigan under the incentive program, state personal income in 2000 would be higher by \$24.3 million (in current dollars) than it would be without the facility, and in 2017 it would be \$46.8 million higher. Adjusted for inflation, these numbers in 1998 dollars would be \$20.5 million in 2000 and \$26.2 million in 2017.

The gain in economic activity results in higher state government revenues. We estimate that in 2000, the first year of full operations, the facility would generate \$1,944,000 in additional gross state government revenue, and that the MEGA package would provide a \$511,000 incentive to Dana Corporation. Thus, the Dana Corporation facility expansion would increase state government revenues in 2000 by \$1,433,000, net of MEGA incentive costs.

Over the period 1998 to 2017, gross state government revenue is projected to increase by \$51,496,000 (in current dollars) due to the expansion of Dana Corporation. The MEGA incentive package for Dana Corporation is forecast to cost \$13,492,000 over the period, resulting in a net increase in state government revenue of \$38,004,000. Adjusted for inflation, the total net increase in state government revenue from 1998 to 2017 would be \$26,073,000 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 location and expansion decisions.

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

Economic/Fiscal Indicator	1998	1999	2000	2005	2010	2015	2017	Total 1998-2017
Total Employment	275	452	374	312	309	331	340	—
Manufacturing	87	157	203	203	203	203	203	—
Nonmanufacturing	188	295	171	109	106	128	137	—
Retail Trade	40	68	59	47	47	50	51	—
Services	54	88	69	43	42	52	55	—
Other	94	139	43	19	17	26	31	—
In current dollars (thousands):								
Personal income	12,700	23,300	24,300	28,700	34,500	42,800	46,800	643,700
Gross state revenue	1,016	1,864	1,944	2,296	2,760	3,424	3,744	51,496
MEGA cost	189	356	511	607	722	867	934	13,492
State revenue net of MEGA cost*	827	1,508	1,433	1,689	2,038	2,557	2,810	38,004
Adjusted for inflation (thousands of 1998 dollars):								
Personal income	12,700	20,585	20,547	21,142	22,922	25,251	26,214	441,724
Gross state revenue	1,016	1,647	1,644	1,691	1,834	2,020	2,097	35,338
MEGA cost	189	314	432	447	480	511	523	9,265
State revenue net of MEGA cost*	827	1,333	1,212	1,244	1,354	1,509	1,574	26,073

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