The Economic Effects on Michigan of the AutoAlliance International, Inc. Facility Expansion Decision

George A. Fulton Peter Nicolas Donald R. Grimes

University of Michigan August 13, 2002

Abstract

AutoAlliance International, Inc. is considering retooling its facility to produce two all-new vehicles for Mazda Motors and Ford to maintain current production levels initially and to expand production in the future. The facility would employ an additional 3,350 people by 2005. We estimate that by 2023, this expansion will have generated a total of 9,673 jobs in the state. Total state government revenues through 2023, net of MEGA costs and adjusted for inflation, would increase by \$758,834,000 (2002 dollars) due to the expansion of AutoAlliance International, Inc.

The purpose of this study is to estimate the potential economic and fiscal benefits to Michigan of AutoAlliance International, Inc. retooling its facility to produce two all-new vehicles for Mazda Motors and Ford to maintain current production levels initially and to expand production in the future (SIC 3714). Investment activity would take place between 2003 and 2004, with an investment of \$644 million. The facility would employ an additional 3,350 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 2003 to 2023, are shown in the attached table. The MEGA incentive package includes a tax credit to the company for the period 2004 to 2023 equal to 69 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 construction activity is expected to generate a total of 513 jobs in 2003 and 1,989 jobs in 2004; almost all of these jobs are temporary. In 2005, the first year of full operations, an additional 9,580 jobs are generated in the state. We estimate that by 2023, this expansion will have generated a total of 9,673 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 2.66 over the period 2005 to 2023. 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 AutoAlliance International, Inc. were to expand in Michigan under the incentive program, state personal income in 2005 would be higher by \$587 million (in current dollars) than it would be without the facility, and in 2023 it would be \$1,146.7 million higher. Adjusted for inflation, these numbers in 2002 dollars would be \$451.5 million in 2005 and \$632.6 million in 2023.

The gain in economic activity results in higher state government revenues. We estimate that in 2005, the first year of full operations, the facility would generate \$46,960,000 in additional gross state government revenue, and that the MEGA package would provide a \$5,369,000 incentive to AutoAlliance International, Inc. Thus, the AutoAlliance International, Inc. facility expansion would increase state government revenues in 2005 by \$41,591,000, net of MEGA incentive costs.

Over the period 2003 to 2023, gross state government revenue is projected to increase by \$1,309,160,000 (in current dollars) due to the expansion of AutoAlliance International, Inc. The MEGA incentive package for AutoAlliance International, Inc. is forecast to cost \$146,618,000 over the period, resulting in a net increase in state government revenue of \$1,162,542,000. Adjusted for inflation, the total net increase in state government revenue from 2003 to 2023 would be \$758,834,000 in 2002 dollars. These calculations do not include any revenue losses due to the Investment Tax Credit or the property tax abatement. If the costs of the tax credit and the tax 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 AutoAlliance International, Inc. Facility Expansion Net Benefits with the Incentive Package

| Economic/Fiscal Indicator | 2003 | 2004 | 2005 | 2010 | 2015 | 2020 | 2003 | Total |
|-----------------------------------|---|-----------------|---------|---------|---------|-----------|-----------|------------|
| Total Employment | 6,382 | 7.614 | 9 580 | 8 256 | 2070 | 0000 | 2027 | C707-C007 |
| Manufacturino | 003.0 | | 000,0 | الالدون | 0,00,0 | 7,280 | 9,6/3 | |
| Simponiari | 2,309 | 7,003 | 3,973 | 3,625 | 3,646 | 3,732 | 3,775 | 1 |
| Inoninanutacturing | 3,873 | 4,951 | 5,607 | 4,731 | 4.961 | 5,548 | \$ 808 | |
| Retail Trade | 893 | 1.022 | 1,314 | 1 036 | 1 050 | 1 1 4 6 | 0,00 | |
| Services | 1 411 | 1 020 | 100 | 1,000 | 000,1 | 1,140 | 1,77 | |
| 7,17 | 7.T + .T | 1,040 | 1,92/ | 1,448 | 1,594 | 1,943 | 2,164 | - |
| Office | 1,569 | 2,109 | 2,366 | 2,247 | 2,317 | 2,459 | 2,527 | |
| In current dollars (thousands): | , | | | | | | ` | |
| Personal income | 326 700 | 326 700 432 600 | 207 000 | 000 707 | 0 | | | |
| | 201507 | 1000,701 | 200,100 | 000,000 | 818,/00 | 1,010,300 | 1.146,700 | 16 364 500 |
| Gross state revenue | 26,136 | 34,608 | 46.960 | 54,904 | 65 49K | 80.824 | 01 726 | 1 200 400 |
| MEGA cost | | 3 014 | 5 360 | 9869 | 7,600 | 1,000 | 21,730 | 1,505,100 |
| State revenue not of NEC A 22.1* | 7 | 1 0 | 70.60 | 000,0 | 000, | 4,7,7 | 10,310 | 146,618 |
| State 10vellue liet of MEGA cost* | 70,130 | 31,594 | 41,591 | 48,518 | 57,830 | 71,590 | 81,426 | 1,162,542 |
| Adjusted for inflation | | | | - | | | | · |
| (thousands of 2002 dollars): | | · | | | | | | |
| Personal income | 271,255 342,303 | 342,303 | 451.472 | 480 822 | 531 615 | 501 171 | 637 557 | 10,000 |
| Gross state revenue | 21,700 | 100,00 | 11,00 | 7000 | 710,10 | +/+(+/- | 266,260 | 10,0/2,800 |
| | 77,700 | 400,17 | 30,118 | 38,400 | 42,529 | 47,558 | 50,604 | 853,824 |
| MEGA COST | 0 | 2,385 | 4,129 | 4,474 | 4.978 | 5.434 | 5 687 | 04 000 |
| State revenue net of MEGA cost* | 21,700 | 24,999 | 31,989 | 33,992 | 37,551 | 42,124 | 44.917 | 758 834 |
| | | | | | | | 1,7,1 | 100,007 |

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