



NISSAN Canton: A Catalyst for Advanced Automotive Manufacturing in Mississippi

NISSAN

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MISSISSIPPI STATE UNIVERSITY™

SUMMARY

Nissan was the beginning of advanced automotive manufacturing prospects in Mississippi when it established its assembly plant in Canton in 2003. Mississippi has become a globally competitive advanced manufacturing location since Nissan's arrival. Over the last 13 years, Mississippi has attracted several major national and international advanced manufacturing companies, including Toyota, Airbus Helicopters, Steel Dynamics, PACCAR, Yokohama, and, most recently, Continental Tire.

Currently, the Nissan Canton plant has the capacity to produce 450,000 vehicles each year and employs 6,400 people. For every one job created by Nissan Canton, another 2.9 jobs are created throughout the state. Estimates also show that the presence of Nissan in Mississippi is associated with the generation of more than \$300 million in local and state tax revenue annually, \$2.6 billion in disposable income annually, and a contribution of \$2.9 billion to the annual state GDP.¹

Madison County, the home of Nissan in Mississippi, has the highest median family income (\$75,673) and one of the lowest unemployment rates (3.7 percent) and poverty rates (13.1 percent) in the state; these figures are also better than national averages (U.S. Census Bureau 2016a). Madison County has also become one of the fastest-growing areas in the state. Since 2003, almost 30,000 new

residents call Madison County home, and more than 13,000 new housing units have been constructed (U.S. Census Bureau 2016b). The area has experienced a significant increase in amenities, including new parks, green space, and recreational facilities.

ANALYTICAL STRATEGY

The economic contributions of the Nissan Canton plant were estimated using a well-established econometric model, Regional Economic Models Inc. (REMI), version 1.6.8. The

REMI model has been used in similar studies on the impact of automotive manufacturing on state economies (CAR 2013). REMI operates as an input/output model by incorporating current and historical labor force data from diverse local, state, and national governmental and private entities to estimate the impact of targeted changes on the economy of a state or local area. The model considers the economic conditions before the establishment of a new plant and uses this as a baseline to estimate the economic

impact after the plant is established.

For this study, an automotive manufacturing plant in Madison County with 6,400 new jobs was inputted into the REMI model to examine the estimated impact on the state and local economy over a 10-year period. The number of jobs at the plant was estimated using recent publically available information on employment at Nissan Canton (e.g., Office of

NISSAN CANTON ECONOMIC IMPACT¹

\$2.9 BILLION
generated annually in state GDP.

\$2.6 BILLION
contributed annually in
disposable income.

\$300 MILLION
generated annually in
local and state tax revenue.

25,000 JOBS
created statewide.

¹ Estimates were generated using Regional Economic Models Inc. (REMI), version 1.6.8 and local tax information where applicable.

the Mississippi State Auditor 2015) and verified using current and historical employment records from the Mississippi Department of Employment Security. Output from the REMI model was used to estimate the statewide impact of the Nissan Canton plant using three economic indicators: (1) gross domestic product (GDP), (2) new employment, and (3) disposable income.

A fourth economic indicator, tax revenue, was estimated using multiple sources. First, information generated from the REMI model was used to estimate state and local income tax from direct and indirect employment as the result of Nissan Canton. Next, data were generated on property taxes as the result of new housing construction within 30 miles of the Nissan Canton plant from 2000 to 2014. Data from the U.S. Census Bureau's American Community Survey were used to determine new housing construction and median home prices, and information on property taxes was obtained from local county sources (e.g., <http://madison-co.com/elected-offices/tax-assessor/real-property-tax-estimate.php>). These data were then combined into an overall measure of annual estimated direct and indirect state and local tax revenue.

Finally, the study also produced other economic and demographic indicators using data from the 2000 U.S. Decennial Census and 2014 data from the Census Bureau's American Community Survey.

INDICATORS

Gross Domestic Product (GDP) was measured as the estimated annual monetary value of all goods and services attributed to Nissan Canton in Mississippi using the REMI model.

New Employment was measured as the estimated 10-year direct and indirect impact of the establishment of Nissan Canton on employment in Mississippi using the REMI model.

Disposable Income was measured as the estimated average annual amount of income available for consumption and saving after income taxes have been accounted for using the REMI model.

Tax Revenue was measured as the estimated average annual amount of state and local income tax generated through direct and indirect employment combined with the estimated annual amount of yearly property taxes generated by new housing construction within 30 miles of the plant using the REMI model.

Population Change was measured as the change in county population from 2000 to 2015 using data from the U.S. Census Bureau.

Housing Units Change was measured as the change in number of county housing units from 2000 to 2015 using data from the U.S. Census Bureau.

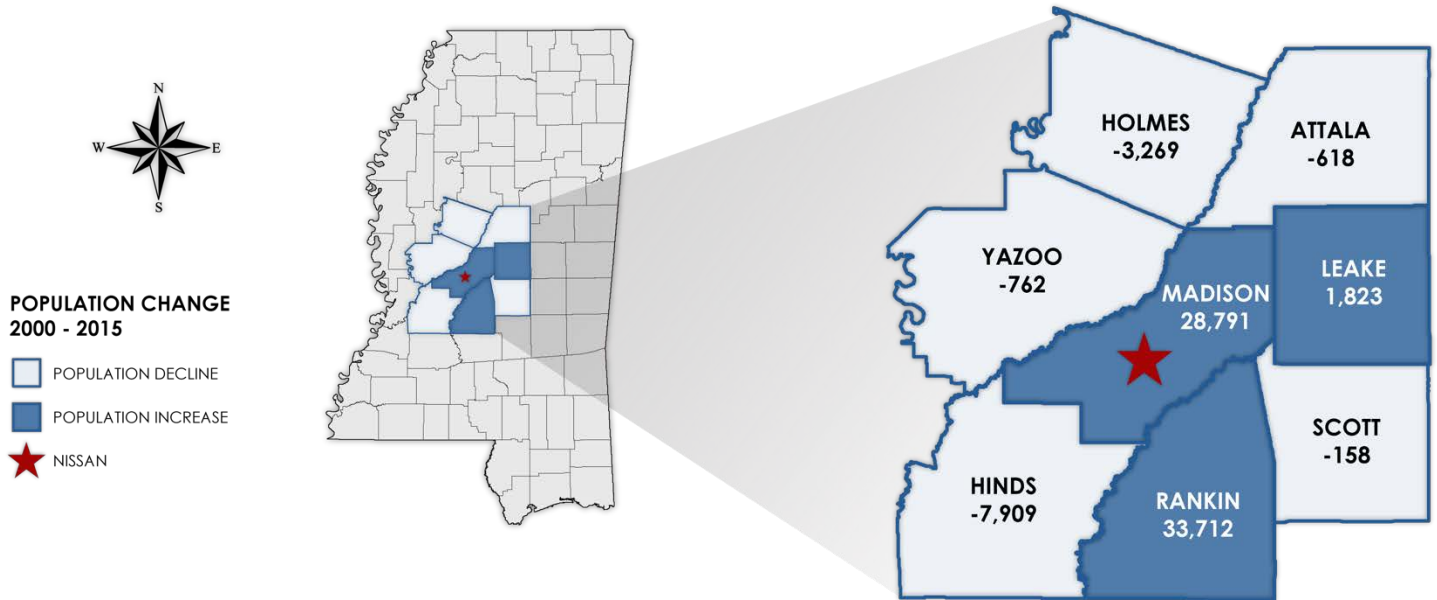
Median Family Income was measured using 2014 American Community Survey data.

Poverty was measured as the percentage of county residents below the poverty line using 2014 American Community Survey data.

Unemployment was measured as the percent of county labor force participants unemployed in April 2016 using data from the U.S. Bureau of Labor Statistics.

Population Change

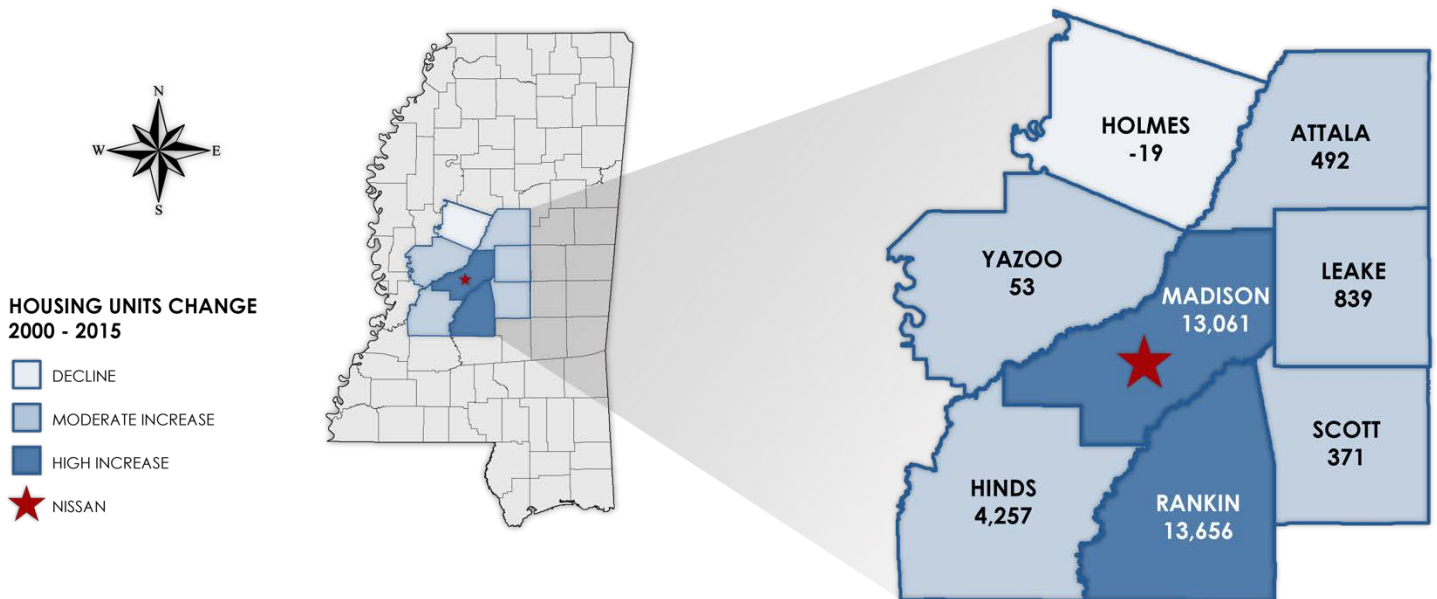
The area around Nissan Canton has become one of the most attractive small urbanized locations in the state; Madison County's population growth rate is ranked third in Mississippi (Madison County Economic Development Authority 2016). Madison County's population grew from approximately 75,000 in 2000 to more than 103,000 by 2015, while the surrounding region's population as a whole has increased by more than 51,000.



Data: U.S. Census Bureau, Intercensal Population Estimates, 2016.

Housing Units Change

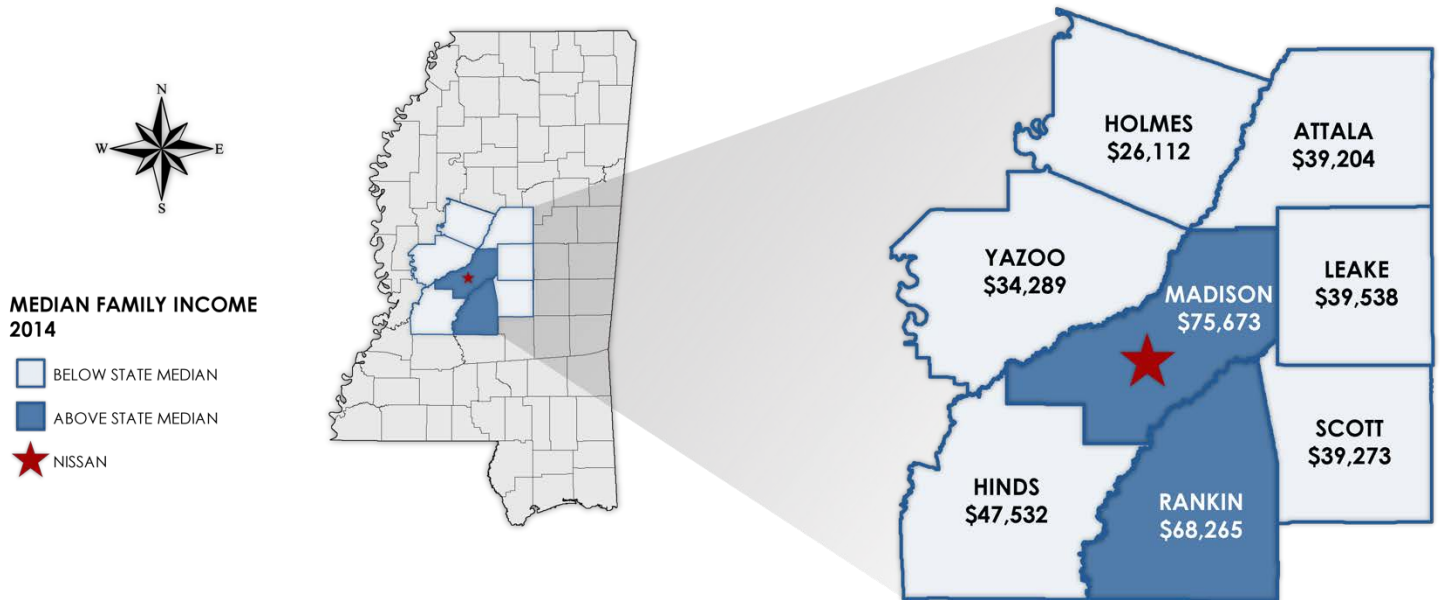
Approximately 33,000 new housing units have been built in Madison County and the surrounding region since 2000. Madison and Rankin Counties experienced the largest absolute growth in housing units, with more than 13,000 new housing units each.



Data: U.S. Census Bureau, Intercensal Population Estimates, 2016.

Median Family Income

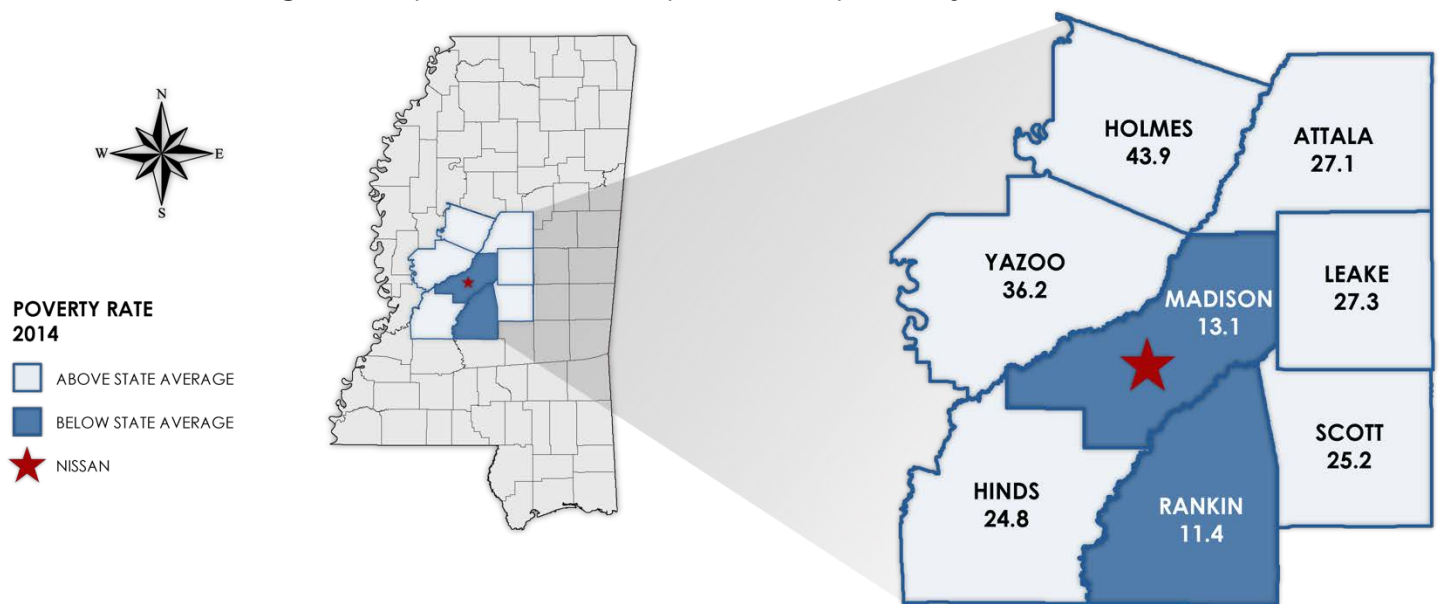
Median family income in Madison County increased to \$75,673 in 2014 (well above the national average of \$65,443), making Madison the highest-earning county in the state.



Data: U.S. Census Bureau, American Community Survey, 2016.

Poverty Rate

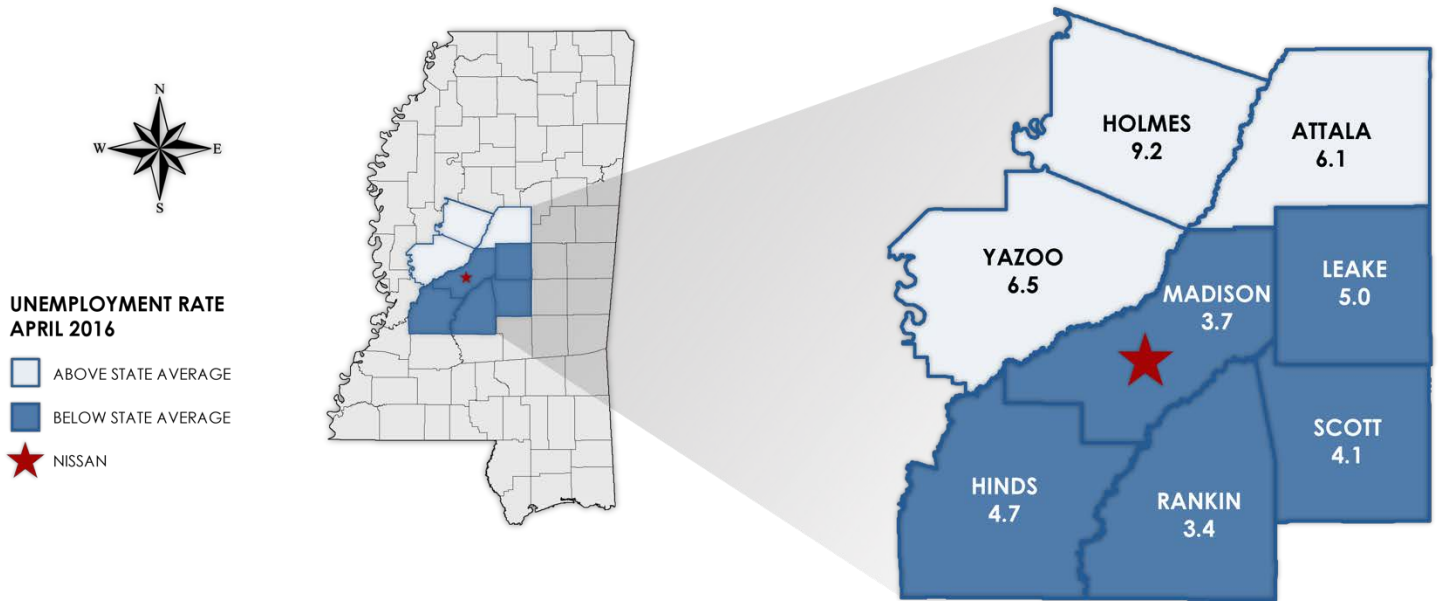
The percentage of people in poverty in Madison County was 13.1 percent in 2014, well below the state and national averages (22.6 percent and 15.1 percent, respectively).



Data: U.S. Census Bureau, American Community Survey, 2016.

Unemployment Rate

The unemployment rate in Madison County is among the lowest in the state at 3.7 percent (non-seasonally adjusted), while the region's unemployment rate (5.3 percent) is less than the state average (6.6 percent) and the national average (5.5 percent).



Data: Bureau of Labor Statistics Local Area Unemployment Statistics, 2016.

References:

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Office of the Mississippi State Auditor. 2015. Nissan Employment Verification. Available online at <http://www.osa.state.ms.us>.

U.S. Census Bureau. 2016a. American Community Survey. Available online at <http://www.census.gov/programs-surveys/acs/>.

U.S. Census Bureau. 2016b. Intercensal Population Estimates. Available online at <http://www.census.gov/popest/data/intercensal/index.html>.



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